The CRESSI project explores the economic underpinnings of social innovation with a particular focus on how policy and practice can enhance the lives of the most marginalized and disempowered citizens in society.

Evidence base of three comprehensive case studies following a common template

By Scheuerle, T., Schimpf, G.-C., Mildenberger, G. & Glänzel, G. (eds.)

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Comprehensive Case Studies 1 and 3 of:
Deliverable 2.1: Evidence base of three comprehensive case studies following a common template

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Acknowledgements

This working paper contains material collected for two comprehensive case studies of the CrESSI project. They deal with the trajectories of social housing and fresh water supply in EU countries. Another comprehensive case study dealing with “Financial and monetary innovations for overcoming social exclusion” is published separately as a deliverable on the CrESSI website by request of its authors.

The material was collected between fall 2014 and summer 2015 following a common template. The latter can be found at the end of this working paper. The collection was not intended to be published at the beginning but was thought as database for analysis in the later stages of the project. Therefore, it is a structured but unpolished collection of material much of which was seminal and exploratory. It may guide future researchers to literature and sources but is not a final product in the usual scholarly sense.

The material was used extensively in writing the CrESSI deliverables 5.1, 5.2, 5.3, and partly 5.4 which have been published as working papers no. 29, 30, 35, and 37. It also informed several chapters of the CrESSI project book ‘Creating Economic Space for Social Innovation’ which will be published by Oxford University Press in fall 2018. Any modifications or elaborations here are the responsibility of the current author(s), whose debt to the CrESSI project, its collaborators and funders is hereby acknowledged.

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CrESSI WP 2, Deliverable

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“Housing is a ‘key element in understanding the overall social situation in the EU’, and […] well balanced housing policies can contribute to mitigating the impact of the crisis on EU citizens and support labour market mobility.”

Radek Maly from DG Employment

“There are several dangers in looking back at the origins of social policies and the reform from the vantage point of the late twentieth century. Perhaps the most obvious is a tendency to see the past through a frame of reference which is set by the contemporary vocabulary of concepts, theories and concerns – ignoring the way in which time and circumstance have altered all of these. A related danger is to misinterpret history by turning it all into a teleology, selecting out the evidence to demonstrate an almost inevitable progression of social policy development from its earliest origins to its modern forms. A further problem is to assume too simple and direct a connection between the objective needs to which social reform was purportedly a response, the campaigns of those elites who argued for reforms and the actual development of social policies. Often each of these were related only in limited ways to each of the others.

[...] Just to illustrate the points made above briefly, first, there are problems of vocabulary. [...] For example, ‘public health’ now refers to the control and elimination of physical disease. But in the nineteenth century it carried a far wider burden of meaning encompassing moral and social ‘health’. More precisely still, the concern was with the ‘health of the new working class and this concern was motivated by the actual or presumed consequences of this class’s condition for the dominant social and economic order.”

Introduction
Adequate housing as an important aspect of social cohesion is long included among the universal rights in more than one hundred national constitutions. With the Treaty of Lisbon, the Charter of fundamental rights including the right to housing assistance has become part of the legal basis for EU policies. Despite this general acknowledgement, available statistics indicate that around 3 million people in Europe lack access to decent housing (World Health Organization, 2012, 22ff; Pittini and Laino, 2011). This makes it an ongoing social problem affecting the most marginalized, but also other members of society.

Examining the phenomenon of social housing and its different developments over time and various contexts in a long-term perspective for CrESSI is a new approach towards understanding social innovation. No single initiatives, organizations and entrepreneurs are at the centre of interest, but their interrelations, complementary or rival roles, and contextual factors. This allows different perspectives and insights for social innovation research. Yet, this means it is even harder to capture the borders of the phenomenon.

Definition of social housing
Social housing definitions vary across different countries and over time. A recent report developed for the European Parliament's Committee on Employment and Social Affairs compares different definitions of social housing in the EU member states (IZA - Institute for the Study of Labor, 2013). Results show that there is no common definition of the term “social housing” across Europe. According to the 2012 edition of the “Encyclopedia of Housing”, there are two dominant connotations:

1. The first comprises all types of housing that receive some form of public subsidy or social assistance, either directly or indirectly\(^1\), so whenever the private housing stock receives some public subsidies, it should be included in the social housing sector.
2. The second largely refers to traditional public housing, namely housing subsidised by the state and social rented housing, but also includes new forms of publicly supported and non-market housing\(^2\). These new forms are collectively managed on a not-for-profit basis, with their rents set (at least partially) according to the ability to pay. Public subsidies are used to reduce initial capital costs or operating costs, with a wider target than traditional policy.

The report also indicates (IZA - Institute for the Study of Labor, 2013, p. 9) that – besides the absence of a common official definition for the term ‘social housing’ – EU member states even use different official terms for the phenomenon in question, e.g. Austria (‘Limited-Profit Housing’ or ‘People’s Housing’), Denmark (‘Common Housing’ or ‘Not-for-Profit Housing’), France (‘Housing at Moderate Rent’), Germany (‘Housing Promotion’); Spain (‘Protected Housing’) and Sweden (‘Public Utility Housing’).

Nevertheless, the report proceeds, there are three common elements across EU Member States in defining social housing (IZA - Institute for the Study of Labor, 2013, p. 9). These are:

1. A mission of general interest;

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\(^1\) This can include tax relief on mortgage interest, tax shelters for homeownership, subsidies to builders, depreciation allowances for investments in residential properties, or below-cost provision of collective public services (roads, electricity, water or sewers) for housing.

\(^2\) Such forms are cooperatives, rent-gear-ed-to-income, limited-dividend and non-profit housing provided by social agencies, community groups, non-profit private firms and political organisations other than governments.
2. The objective to increase supply of affordable housing by constructing, managing or purchasing social housing;

3. Target groups defined in terms of socio-economic status and/or the presence of vulnerabilities.

Besides this common ground, data shows that semantic differences also reflect a considerable diversity of approaches and therefore also huge differences in the levels of social housing present in each country (cf. 2.4 Status quo of SI)

**Purpose of the comprehensive case study data collection**

Research on social housing needs to be viewed against this background. The perspective on social housing as a social innovation covers a wide range of aspects, including (welfare) policy, economic development, civil society and self-help approaches, philanthropy, urban planning and social mix, architecture, or technological innovation, just to mention a view. The following data collection attempts to cover the most important aspects in the development of social housing as a social innovation.

Illustrative examples – partly along the text, partly in the appendix and provided by different partners of the consortium – shall cover the most important manifestations and influential factors along the social innovation lifecycle. This endeavour is by no means comprehensive, given the breadth and complexity of the object of investigation. Yet at least this approach provides more insights than individual observations at single points in time, and thus we are trustful to give a preliminary picture with rich insights for further analysis.

Such further analysis for instance can also become more explicit about the relation between social innovation, the most marginalized members of society, and other stakeholders. During the data collection, it appeared that to understand the role of the marginalized in the development of the social innovation, a broader picture holds more explanatory power to understand relevant actors’ incentives for adapting and promoting the social innovation.

**A short manual to use the comprehensive case study data collection**

**Orientation:**

The template was designed in coordination with all partners who can now use the material for the analysis in their respective work packages. Besides the titles, for a quicker orientation we also kept the questions that guided the data collection, as well as the questions for analysis that were formulated beforehand, in the different chapters of the template.

**Further readings:**

At various points of the template, a cut was necessary due to limited space, although a further and more detailed elaboration on the issue would have been interesting. At such points we included suggestions for further readings that are mostly available in the attached reference and database collection.

**References and database collection:**

The references and databases quoted in the template have been collected and prepared to be shared for the different partners.
PART 1) Social problem addressed

1.1 Field(s) of problem

Questions
In which field(s) of activity did the targeted social problem originally arise (e.g., health, care, economic development, work integration)? Are there also any interrelated effects in other fields?

Summary of key points
- The social problem addressed with social housing (SH) comprises inhumane living conditions, physical and mental health problems, lack of privacy, risk of abuse, etc.
- It was caused by a shortage of adequate small scale accommodation supply in face of an increasing demand due to rural peasants and workers moving towards cities during industrialization causing urbanization by a growing working class.
- “Non-social”, market-based dealing with the problem through the private sector worsened the problem in the early phases of late 18th and early 19th century).
- Housing was not a field of social welfare at the beginning, res. the welfare state was only emerging.
- The social problem addressed with SH cannot be located in one single sector or field of activity. It rather emerged from an interplay of different developments and shortcomings (multi causality), including working conditions on the labour market, the education system, weak infrastructure and a limited understanding of public health factors.

Content

I. The rising working class and urban housing

Rapidly increasing populations
The housing crisis was one core issue in a range of social problems that emerged on a large scale between the mid of the 19th century and the turn of the century in most European countries. The 19th century industrialization had attracted masses of job-seeking people to the urban areas, and migration waves swapped towards the cities which were not equipped for these large flows of migrants (e.g. Lévy-Vroelant et al., 2008; Kastroff-Viehmann, 1979). Contemporary population data from European metropolitan areas illustrate this development:

- In Vienna, for instance, the population quintupled from 400,000 to 2 million over the second half of the 19th century (Lévy-Vroelant et al., 2008, p. 33).
- In Germany, the share of people living in cities raised from one third in 1971 to two thirds by the beginning of WW1. Particularly rapidly industrializing regions such as the

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3 Rural areas were also affected by housing problems (see further readings), however, this will not be under the scope of this data collection.
Ruhr area saw vastly rising numbers of inhabitants. The city of Essen, home of steel industry company Krupp, grew from 10,000 inhabitants in 1851 to 230,000 inhabitants in 1905 (Fuhrmann et al., 2008).

- In Amsterdam, the population increased from about 245,000 in 1859 to 516,000 in 1900 due to industrialization, economic development and agricultural crises (Acker et al., 2008).
- In Paris, the population reached one million in the middle of the 19th century, and grew to more than 2.9 million by the eve of the First World War (Lévy-Vroelant et al., 2008, p. 33).

Separation of living and working space
In the previous (feudal) organization of society that was dominated by small (craft) businesses or agricultural farmyards, houses were a place of living and working for several generations including domestic workers and servants (Kastroff-Viehmann, 1979). Through industrialization, living and working place were separated, and there was a strong demand particularly for small-size affordable accommodation. All this led to turbulences on the existing housing market.

Slums, homeless camps and poor quality accommodation
Slums, homeless camps and dwellings with extremely poor conditions were the severe consequences. Within city walls, people often could not afford accommodation. In Berlin, the share of free dwellings fell under 3 per cent, and various homeless camps emerged that had to be cleared by the police. An oversupply of middle and large size dwellings was opposed by a scarcity of small flats, and people separated rooms through chalk lines (Fuhrmann et al., 2008). In Vienna, during the Wilhelminian era about 300,000 people were homeless; others shared rooms that were extremely overcrowded. According to the 1869 census, 10 to 20 per cent of the population had access to a bed only during a couple of hours (Lévy-Vroelant et al., 2008, p. 33; cf. also 1.2 Targeted beneficiary groups). In Britain, common lodging-houses (also “flophouses”) became a common phenomenon and provided cheap accommodation and opportunities for eating for individual workers in one or more rooms, but were often highly frequented by criminals and prostitutes (Chadwick, 1842).

Also outside the city walls informal settlements and squatter camps emerged. In Paris, expelled workers lived in self-built shacks in suburban shanty towns without any urban infrastructure and high commuting efforts (lotissements; Harloe, 1995, p. 45). Those settlements were not only perceived as breeding spots for diseases due to poor sanitary conditions, but since they were often inhabited by specific groups of migrants, such as the Jewish in Lemberg or the Slovenes in Triest, the inhabitants also faced ethnical or religious resentments by local populations (Saldern, 2006). Similar developments occurred across Europe (Harloe, 1995; Juntto, 1990b; Kemeny, 2006; Lévy-Vroelant et al., 2008).

II. Early “non-social” solution approaches
When the problems on the housing markets arose during the 19th century, the necessity to intervene for improving the situation of the affected population was ignored, not really

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4 Yet, also in small businesses the living and working conditions changed and the patriarchic, but mutually beneficial constellation of apprentices living with their masters’ eroded Ehmer (1979) (→ see also 1.2 Targeted beneficiary group(s)).
acknowledged, or subject to controversial discussion. This was for different reasons. On the one hand, the problem in itself was not entirely understood. Due to strong seasonal and cyclical changes, periods of undersupply alternated with oversupply and extreme changes in renting prices (Fuhrmann et al., 2008).

Also, there were strong ideological discussions, and the welfare state as such was only emerging. The “Wohnungsfrage” only slowly came up on the public agenda, and housing was perceived as an individual responsibility. There was a strong belief in liberal and free markets across Europe, as this was one of the most important achievements in the abolishment of feudalism (cf. also 3.4 Narratives and discourses). So speculators, factory owners, and private investors responded to the situation by building high-density estates with if at all poor heating and sanitary provision to house the newcomers (Lévy-Vroelant et al., 2008).

**Basement dwellings and ‘Mietkasernen’**

In Amsterdam, for instance, until 1874 all new buildings had to be established within the city walls. But there was little (or no) attention for sewerage, paving and lighting. According to a report of the Health Commission of Amsterdam there were 4,984 basement dwellings (kelderwoningen), of which 3,650 should have been declared uninhabitable immediately. In 1,000 basements it was even impossible for an adult to stand (Acker et al., 2008). In Germany, barrack-style Mietkasernen (tenements) were built on a large scale for 20 and more worker families in industrial conurbation. Berlin had the most widespread system of Mietskasernen, about 2/3 of the houses had more than 11 flats, about 1/6 more than 30 flats at the end of the 19th century (Kastroff-Viehmann, 1979). Others modified sheds and barns into small flats, but with extremely low living standards.

This was often rather profitable, even though high land prices in cities forced construction companies to focus on multi-storey buildings with very small living cells. Rents were high and accounted for up to 20-30 per cent of the family income for instance in Berlin (Kastroff-Viehmann, 1979). In some cases, investors refused to build new dwellings, because the scarcity of small apartments guaranteed high rental prices. Spurious arguments were the high risk for a loss of rent or difficulties in property management, but the primary goal was to generate profits (Kastroff-Viehmann, 1979). Also, speculation with land prices was rather common (Harloe, 1995, p. 48). Another consequence of the situation was a partial vacancy of old buildings with larger flats from early industrialization and before, which were affected by decline (Lévy-Vroelant et al., 2008).

**III. Interrelations with other fields and multi causality of social problem**

The social problem addressed by social housing cannot be entirely understood by solely looking on the housing market. Rather it was reinforced by and interwoven with problems in other fields. Together they made up the reasons for and symptoms of a mass impoverishment of low-skilled industrial workers (“social question” cf. 1.3 Problem background).

**Sanitary and hygienic conditions and public health:** First, the problem of social housing was closely interrelated with catastrophic hygienic and sanitary conditions and their effects on public health. The circumstance lead to the spread of diseases like typhus, tuberculosis and cholera in various European countries (Lévy-Vroelant et al., 2008; Curtis, 2007). Sanitary reports from 1838 mention the factors responsible for the poor conditions in most dwellings: overcrowding of the houses, little space between the houses, houses near the manufactories, missing or defect sewerage systems, or only open crowded drains, animals in the houses, or a lack of ventilation (Chadwick, 1842, pp. 7–25). Also, science had not yet understood the
importance of hygiene. For instance, the Miasma theory was still present at the time and impeded the development of larger drainage systems to cart away polluted water (Curtis, 2007). Also, there was little problem awareness among most tenants, and public authorities had no legal lever to force occupants of the houses to remove nuisances, and to have the drains covered.

**Infrastructure:** The lack of sufficient drainage of sewers in houses and streets limited the capacity of cleansing and removing solid refuse and impurities. As Chadwick (1842, p. 31) describes: “From the absence of drains and sewers, there are of course few cellars entirely free from damp; many of those in low situations are literally inundated after the fall of rain.” What is more, the hardly existing public transport system created a dependency on spatial proximity to the fabric sites in many cities (Fuhrmann et al., 2008).

**Education system:** Already in the first half of the 19th century, education enabled some upward social mobility, i.e., to move from unskilled to skilled work, which made a considerable difference as we will see below. However, a public, compulsory schooling system was not fully established yet. For instance in the UK, in 1869 the National Education League began campaigning for free, compulsory and non-religious education for all children. In fact, it was mainly industrialists who saw that mass education was crucial to ensure Britain’s leading position in manufacture. Their voice carried considerable weight in parliament and thus a bill was drafted and also passed quite quickly. However, education was yet not made compulsory for children until 1880 when a further education act was passed making school attendance compulsory between the age of five and ten. But still by the early 1890s, attendance within this target age group was only at 82%, and also many children still worked outside school hours. Further legislation in 1893 extended the age of compulsory attendance to 11, and in 1899 to 12 (UK Parliament).

**Worker protection law:** What is more, employee protection in labour law was hardly in place. Short termed contracts were usual both for working as well as for renting. Moreover, there were long working hours (12 up to 18 hours) at relatively low wages, of which a large share went into accommodation. One example is given by Engels (1845, p. 128) who reports of a case where 50 worker families earning 11 shillings and 4 pence a week, of which 4 sh. 4 p. went into rent, heating and lighting; this left these families with 1½ pence daily for food and nothing left for clothes. These circumstances caused a high fluctuation in both factories and dwellings, which also made political mobilization for improving the housing situation difficult (Fuhrmann et al., 2008).

**1.2 Targeted beneficiary group(s)**

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who were/are the targeted beneficiaries? What specific characteristics did/do they have that might be relevant for or a symptom of their marginalisation (e.g., economic vulnerability, physical handicaps, migration status, lack of access to the education system, etc.)?</td>
</tr>
</tbody>
</table>

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5 Miasma theory stated that most, if not all, diseases were caused by inhaling malodourous vapours infected through exposure to corrupting matter, such as rotting corpses and vegetation, sewage or exhalations of other people already infected. It for instance was one of the most prominent explanation approaches for the cholera epidemics in Britain and particularly Victorian London between 1831 and 1866 Curtis (2007).
**Summary of key points**

- Most affected by the problem situation were members of the lower working class, e.g., unregular workers without contracts, day laborers, etc.
- Risk factors such as being extremely young (and without education) or old (i.e., losing physical strength), having a family to take care of, or being a migrant reinforced the affection with the problem.
- Affected persons suffered from a range of consequences that affected their opportunities in live (e.g., privacy, having a family, access to education for moving upwards, time for political participation, ability to shape personal environment).
- However, targeted beneficiaries of first social housing approaches were not necessarily those most suffering from the social problem (the most marginalized), who often rather faced repressive measures.
- Rather more skilled workers were selected because they were employees of the SH provider, or because they were members of certain political parties and unions.
- Strong ideas on how the life of social housing beneficiaries should look like deprived further capabilities (e.g., autonomy, political participation etc.)
- Indirectly (or secondarily), SH solutions also aimed to create benefits for the economically better off by increasing sanitary conditions to prevent diseases, maintaining workforce, or avoid social uprises.

**Content**

I. Lower working class most affected by social problem

Most directly affected by the situation were people form the lower working classes, such as (male and female) day labourers, but for instance also apprentices in small (craft) businesses, peasants, workers and office staff of lower societal levels. They were deprived in various dimensions, which was partly a reason for and partly a consequence of their suffering. Specific personal characteristics often reinforced the problem situation.

**Consequences (deprivations) of the situation**

The situation affected the poor working classes in different ways that were interrelated:

*No private accommodation:* The most obvious consequence of the situation was a lack of access to accommodation and shelter that provided decent living standards, such as a certain level of privacy and hygienic standards. Many workers could not even afford an own room or had to accept one or several subtenants. The most extreme manifestation of this was the phenomenon of “Bettgeher” ([see Extra box “Bettgeher” – Lodging without a home](#)). This practice was quite common in the second half of the 19th century in many cities across Europe. “Bettgeher” usually were not even allowed to use other facilities in flats than the bed (Ehmer, 1979). Often, there was only one room for families (and “Bettgeher”) that was used for cooking, eating, sleeping, or having sex (Fuhrmann et al., 2008).
Health-endangering environment: Sanitary conditions and accordingly public health standards were extremely bad in most of the dwellings in which the most marginalized people lived. This unhealthy environment was another negative consequence in itself, as diseases such as typhus or cholera often caused numerous deaths. E.g. the mortality rate of children and newborns was extremely high (Verein für Socialpolitik, 1886). Moreover, the poor hygienic conditions also endangered people’s workforce, which was the essential asset and hardly to compensate in the daily struggle for subsistence. Hospital stays were quite usual at that time (Ehmer, 1979).

Constrained freedom of settlement and family planning: Founding a household and a family was far from being a matter of course for workers (Ehmer, 1979). The situation demanded very high mobility, and low wages made the foundation of a family a financial risk, since the income was usually not even sufficient to cover individual living and food expenses. Also, the number of marriages decreased among workers, or people waited longer to get married. Settlement often was only – if at all – achieved over several generations (Fuhrmann et al., 2008).

No social recognition: Living in such dwellings also witnessed a very low social status and recognition that people had to deal with. Workers tried to cover up their misery through furniture and equipment even in the smallest flats. Through sofas, armchairs, mirrors and portraits, they tried to hold up a “living room illusion”. Paradoxically, this sometimes lead to the accusation of a luxury lifestyle to the working classes (Schomerus, 1979).

Subject to fraud and exploitation: What is more, the situation made the marginalized an easy target for fraud and exploitation. Particularly female workers often found themselves in situations were landlords demanded sexual complaisances for accommodation (Fuhrmann et al., 2008). Those problems were not limited to industrial workers. In many craft professions, the traditional constellation of workers living with their masters had persisted in a patriarchal, but mutually beneficial constellation only from a superficial perspective. But during industrialization, the two-channel relationship of working and education vanished, and the scarce situation on the housing market favoured exploitation of the workers (Ehmer, 1979). In this respect, living as a “Bettgeher” was not necessarily the worst option.

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6 As already said, at the time there was a common notion of public health that also included social hygiene (cf. also 3.4 Narratives and discourses). Topalov (1985, p. 261) writes: ‘[a] key word characterized one of the main ways to reform: cleansing – that is transforming the physical environment of working-class life in order to change its social reality.’
Table 1 shows the living situation of different professions in Vienna around 1880. Further consequential grievances of the situation included brutalisation, prostitution (including child prostitution), or gang formation.
Table 1: Housing situation of different occupational groups in Vienna around 1880 (in % of the occupational group) (Ehmer, 1979, p. 140).

<table>
<thead>
<tr>
<th>Occupational group</th>
<th>Participation on own lodging</th>
<th>Resident by employer</th>
<th>“Bettgeher” and “Aftermieter”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel and restaurant industry</td>
<td>12</td>
<td>76</td>
<td>10</td>
</tr>
<tr>
<td>Manual worker</td>
<td>48</td>
<td>–</td>
<td>50</td>
</tr>
<tr>
<td>Locksmith</td>
<td>51</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>Tailor</td>
<td>34</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Shoemaker</td>
<td>26</td>
<td>48</td>
<td>21</td>
</tr>
<tr>
<td>Joiner</td>
<td>43</td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td>Day laborer</td>
<td>43</td>
<td>7</td>
<td>47</td>
</tr>
</tbody>
</table>

*The deviation to 100% because of others

No creative freedom for community development: Through the massive population growth, people got deprived of their capability to influence or even form their environment. Although such emancipatory ideas were still rather new or even revolutionary, the problems with urbanisation made them much more evident to some contemporary observers: There was no such thing possible as democratic or communal planning, i.e. people were not able to participate in any sort of planned development (Howard, 1944; Kampffmeyer, 1908).

Constraint political participation: Both a consequence and a reason for the persistence of the situation was the difficulty to participate in political processes for most of the affected marginalized people. On the one hand, long working hours and short termed contracts for living and working caused high fluctuation that made political organization difficult. Also, bourgeoisie and authorities had no interest in such political participation and tried to inhibit opportunities for assembly and community organization. For instance in Germany, community rooms and kitchens in larger dwellings were scorned, as they seemed to be a chance for communistic ideas to breed (Kastroff-Viehmann, 1979). Also Alfred Krupp, an industrial tycoon who provided housing facilities for his workers, prompted his employees to focus on work and family life instead of political discussion “(Krupp, 1877). Often, only non-union organized workers were accepted in such facilities (Fuhrmann et al., 2008).

Risk factors
A range of context factors on the side of the working classe increased the likelihood to be affected:

No education: Most of those who suffered most from the situation barely had any education. They often came to the cities from rural regions at a very young age\(^7\) and needed to earn their living or contribute to the family income\(^8\). This made it difficult to climb up the social latter, and precarious living situations were relatively persistent. In fact, some initiatives (such as

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\(^7\) The population in most countries was in general very young at that time Fuhrmann et al. (2008).

\(^8\) People trained in small craft businesses often were more or less exploited and had no real qualification for the labour market when they left their master's company. After an apprenticeship period, in which they received a one-sided education, they were forced to have a “second start” as more or less unskilled workers on the labour market Ehmer (1979, p. 141).
from the early philanthropist Octavia Hill) tried to educate the beneficiaries in the advantages of decent living conditions (Adam, 2004).

No financial resources: The fact that workers usually did not have any financial resources at their disposal made them even more vulnerable. As such they were totally dependent on employment and income to afford accommodation and not capable to bridge financial bottlenecks (Ehmer, 1979).

Table 2: Living situation according to age in Vienna/Gumpendorf in 1857 (in % of the age group) (Ehmer, 1979, p. 140)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Participation on own lodging</th>
<th>Resident by employer</th>
<th>“Bettgeher” and “Aftermieter”</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9</td>
<td>91</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>10-14</td>
<td>76</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>15-19</td>
<td>40</td>
<td>45</td>
<td>15</td>
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<tr>
<td>20-24</td>
<td>34</td>
<td>35</td>
<td>31</td>
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<td>25-29</td>
<td>39</td>
<td>27</td>
<td>34</td>
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<tr>
<td>30-34</td>
<td>58</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>35-39</td>
<td>74</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>40-44</td>
<td>76</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>45-50</td>
<td>80</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Together</td>
<td>64</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

Increasing age: One of the most important predictors for the living situation was the age, as Table 2 shows, which is closely related to the education status. Most young people started as “Bettgeher” and subtenants when they left home, or by living with their employee when they chose to work in small businesses such as locksmiths or tailors. What is more, in their mid-thirties many workers were beyond their zenith regarding physical performance capacity. So afterwards they often had to face social decline and even homelessness (Fuhrmann et al., 2008).

Migration status: A further problem was the immigrant status of many of the workers, since the migration streams were international (Saldern, 2006). This also interfered with religious backgrounds in some cases, so that workers also were subject to resentments in this respect.

“BETTGEHER” – LODGING WITHOUT A HOME

The “Bettgeher” (also “Schlafgänger”) phenomenon is a practice that arose in various European cities such as Vienna, Berlin or Prague in the 19th century. Many workers could not afford an own dwelling at that time. Instead, they rented access to a bed only for a few hours per day against a small fee, while the regular owners did not use it. The bed was often rented to several “Bettgeher”, and the fee did normally not include use of the kitchen or other habitable rooms (Dimitz, 2012).

Share of “Bettgeher” in different cities:
- Vienna workers: up to 20 per cent in 1869; 30 per cent in 1880 (Ehmer, 1979).
- Ruhr Area miners: 21 per cent in 1893 (Brüggemeier and Niethammer, 1978)
- Berlin: 15% per cent in 1880 (Rühle 1930)

The practice was as a result of the industrial revolution, when living space in big cities was an extremely expensive good in short supply. Especially young workers without a family searched for a place to sleep between their work shifts and so they rented a bed in the
tenement of strangers (Ehmer, 1979). For the tenant, on the other hand, it was often the only way to pay the rent. As a result of this situation, up to ten or more persons shared one room. Because of the extremely overcrowded rooms, hygienic conditions were miserable. The rooms were dirty and badly ventilated and diseases like typhus spread easily (Fuhrmann et al., 2008). Also, the phenomenon was perceived as a part of the social and moral impoverishment of the working class, especially because the rooms were often unsexed (Brüggemeier and Niethammer, 1978). Recent research, however, argues that it might also have contributed to communication and solidarity among working class members (Ehmer, 1979).

The answer of the legislation on these circumstances were prohibitions and prescriptions. It should only be allowed to accommodate a “Bettgeher” if a separate room exists. But such delicts were not controlled very dutiful (Brüggemeier and Niethammer, 1978).

II. Strategic motives and target group selection in early approaches

From the beginning, solution approaches for the housing were not necessarily directed towards those that most suffered from the problem. This holds for industrialists that provided employer housing, philanthropists, and also municipal provision of social housing misery (cf. 2.1 Antecedents and invention of the SI solution approach). Even self-help approaches usually rather were conducted by better-off, skilled working class members, since some financial resources were necessary to get involved.

In a critical analysis of the social housing efforts of the time, Harloe argues that there was an analytical schema to classify workers according to their “potential for salvation” (1995, p. 20), i.e. for social integration. As Topalov (1985, p. 260) describes, workers were classified in three sections:

“skilled, deskilld, or unskilled; permanent or casual; factory, work-shop or home working; native or immigrant; poor to be relieved or outcasts to be locked up. The problem at hand is to give some intelligibility to these various classifications. This can be done by identifying which moral tendencies, or cultural system… accompany the material conditions, so as to discriminate between three populations. Standing between adapted workers and undeserving poor are those who may be saved or civilised. Repressive policies deal with outcasts who are to be if possible eliminated, driven into work houses or ousted through immigration. Reform policies … are chiefly targeted towards those who might be reshaped so as to comply with the norms of a swiftly changing industrial capitalism.

Accordingly, social housing mostly targeted the skilled and ‘responsible’ workers, since it was seen as essential to integrate this group securely in the existing social and economic order. There even was a motive in social housing to impede that members of the respectable working class would find a common cause with the ‘residuum’ working class in some purpose of destabilizing ‘dangerous classes’ (Gareth, 1984).

The second group, the deserving poor, usually could not afford social housing solutions or did not fulfil other selection criteria. Solutions that address this group are often associated

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9 The distinction between the ‘deserving’ and the ‘undeveloping’ poor goes back to the Victorian age and contemporary thinking in the UK and elsewhere. Within this mindset, there are two kinds of poor people: Those who deserve to get out of poverty, and those who do not because they are poor because of their own fault. The first group is poor through no fault of their own, probably because of illness, accident or age, or perhaps even because there was no work available for them. The undeserving poor, in contrast, were considered to be where they were because of laziness or personal problems like drunkenness. In the Victorian age, engaged individuals were very concerned with helping the deserving poor out of poverty, yet without supporting the undeserving poor continue their sluggishness. Nowadays, the debate about the deserving poor has regained relevance and
with Octavia Hill’s approach of paternal control, but still also concerned with social integration (Harloe, 1995, p. 64).

The third group however, the ‘undeserving poor’, were generally seen as a dangerous and unstable residuum that was addressed with repressive and punitive solutions. The celebrated economist Alfred Marshall wrote in 1884:

“[d]oubtless many of the poor thing that crouch for hire at the doors of London workshops are descended from vigorous ancestors… [b]ut a great many more of them have a taint of vice in their history … [o]f these immigrants a great part do no good to themselves or others by coming to London; and there would be no hardship in deterring the worst of them from coming by insisting on strict regulations as to their manner of living here.”

For these more marginalized, at best filtering – the approach that building comfortable dwellings for the better off will decrease demand and therefore also rents in the lower sector—was accepted as a solution approach (Gareth, 1984; Harloe, 1995).

**Bourgeoisie / society in general as indirect target group**

These selection criteria also show that right from the start early social reformers, industrialists etc. had indirect target groups and did not only bear in mind the interests of the affected working class members:

[...]the propertied classes must be shaken from their slumber; they must finally be made to realise that even if they make the greatest sacrifices, that these, as Chamberlain recently said in London, are but a limited and very modest premium with which to buy protection against epidemics and the social revolution which must surely come, unless we can prevent the lower classes of our great cities being reduced to animal and barbaric existence by the awfulness of their housing conditions (Gustav Schmoller, cited in Bullock and Read, 1985, p. 52).

It became rapidly clear that a solution is necessary in the interest of bourgeoisie itself and the society in general. Improving the living situation was not only important to prevent diseases that spread across district borders, but also to prevent social uprising and to guarantee a stable public order (Kastroff-Viehmann, 1979; Lévy-Vroelant et al., 2008). Also economic interests, i.e. maintaining the workforce and ensuring the productivity of workers, were highly relevant (Harloe, 1995, p. 18). (cf. also 4.3 Narratives and discourses).

### 1.3 Problem background

<table>
<thead>
<tr>
<th><strong>Questions</strong></th>
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<tbody>
<tr>
<td>Please describe the context conditions that were/are relevant for the emergence of the social problem or the marginalisation of the target group. This could be the general economic situation, political situation, welfare policy, a poor education system, religious constellations, demographical or technological development, etc. and/or more specific problems such as market power abuse, discrimination, corruption, etc.</td>
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<table>
<thead>
<tr>
<th><strong>Summary of key points</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Industrialization, along with different major technological developments and the broad emergence of a capitalistic system, caused the social question in many urban centres.</td>
</tr>
</tbody>
</table>

urgency in many countries under the heading of the working poor. Handler (1971); Shipler (2005); Evason (1989)
- Large parts of the working classes were affected or threatened by mass impoverishment and existential insecurities.

- Social and political reformers and organizations noticed that action was necessary and started to address the problem.

- Whilst the feudal system was vanishing, a growing “bourgeoisie” emerged and formed a new class in the societal order.

- The bourgeoisie was characterized by strong status thinking and conservative social norms that was diametral to the situation of the working classes.

- Further, scientific progress and new conceptions and ideologies of mass education (‘biopolitics’) gained currency.

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**Content**

Harloe, one of the most renowned researchers in the field, argued that to understand social housing, it is necessary to understand general politics and economic changes in advanced capitalist societies (1995, 4ff.). In the beginnings of social housing, society underwent several crucial transformations that had effect on social housing. Two of the most relevant – in supplementation to what has already been said – are described here:

**I. The “social question”**

The term “social question” emerged around 1830 (first in its French version as *question social*, later as *soziale Frage* in German). It refers to the social problems and grievances in the wake of and as a result of the industrial revolution. This means first and foremost the side-effects and consequential problems of the transition from agricultural and rural societies to urban and industrialised ones in leading occidental countries. In England as the most advanced country at the time, this development became first evident around 1760, in other European countries such as France or Germany around the turn to the 19th century. However, already well in advance dramatic misery was clearly visible among large parts of the population.

The reasons for the phenomenon were manifold (Hobsbawm, 1977, 1989, 1996): First, political changes in some European regions, primarily in (what was to become) Germany, led to the liberalisation of peasants who had been bonded to feudal serfdom before. They could now move freely and seek work wherever they wanted. But second and more importantly, there was also a massive growth of population starting in the late 17th century due to several developments which were clearly positive in the first place (better nourishments, social and political advancements, medical and hygienic improvements, etc.). For instance in Germany the population grew from 16-18 million in 1750 to 22-24 million in 1800. Growth peaked in the first half of the 18th and then remained at a constantly high level for several decades, thus leading to what is referred to as a population explosion. Agricultural communities in rural areas could no longer serve the needs of these masses. These two factors combined led to vast

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10 Industrialization in Europe occurred at different speeds and also with different effects e.g. on the degree of urbanization. In the UK, where industrialization was quite early, 80 per cent of the population was urbanized by 1900. In Denmark (less than 25 per cent), France (about 30 per cent) or the NL (about 33 per cent) this share was lower at the turn of the century Harloe (1995), yet there was often a strong concentration of people in major cities in these countries.
masses moving to the cities to seek a living. That was of course dependent on finding paid
work which became increasingly difficult as the supply of labour increased. As a result, the
prices for labour fell. With it wages dropped and consequently the standards of living of

Mass impoverishment and existential insecurity
Core problems of the social question were pauperism and general existential insecurity
among both rural and urban population, peasants, craftsmen, workers and office staff of lower
societal levels. That meant that a rather new form of impoverishment had appeared. No
longer were single individuals poor due to personal reasons or because of extraordinary
circumstances, such as catastrophic events, but more and more a form of mass poverty
became evident. It appeared to be structurally linked to the rise of industrialisation and also
the accumulation of wealth of a very few. As such, it became a mass phenomenon of
dimensions unprecedented in European history. Most visible consequences were
malnourishment and infirmity, the demise of small businesses, housing shortages in the
rapidly growing cities, internal migration and new forms of criminality (Brakelmann, 1962;
Tocqueville, 2007).

In course of their development, pauperism and the social question slightly changed in the way
they affected European and increasingly also North-American societies. In the first phases it
affected mainly rural parts of the population. Later on they would move to the cities where
then conditions would start to worsen. As a result of lowering wages, all members of families
were forced to seek work. The consequence of women and children flooding labour markets
was all the more a decrease of wage levels. At the same time, working conditions worsened
as well: Work days of 12 or even up to 18 hours, no Sunday rest, no work safety measures, no
provision for accidents or pension, and no protection against capriciousness of supervisors.
Further consequential grievances included brutalisation, prostitution (including child
prostitution), gang formation, an overall increase in the number and severity of illnesses, and
an overall fall of live expectancy levels (Brakelmann, 1962).

As reactions to these catastrophic developments, different social and political organisations
formed, among them the union and labour movements, secular and clerical welfare
organisations, as well as political parties such as the social democrats movement (ibid.). In
addition, new legislations were introduced and executive bodies to enforce them installed by
governments. In addition to that, the pressing social problems led to a multitude of societal
developments as well as forms of mobilisation, among them early communist and socialist
movements which would later on affect the way in which world history developed

II. The emergence of the bourgeoisie
Towards the end of the medieval and feudal era in Europe, new forms of societal, ideological
and political thinking began to take hold in cities; those provided an important background
for the development of social housing as well. Although its roots and ideals can be traced
back to ancient societies (in Europe mainly ancient Greece and Rome, described mainly be
Aristotle and Cicero respectively; see Gosewinkel, 2010; Gabor, 2010), what was to become
the bourgeoisie manifested in Central Europe only with the demise of feudal arrangements.
The emerging bourgeoisie was in sharp contrast to the emergence of the working class.
Somewhat oversimplified, the values adapted by the first reinforced the social problem
constellation of the latter.
The main differentiating factors from earlier forms of civic life where ideological and political ones: As an economic class distinct from the aristocracy and clergy as well as from peasants and lower workers, there had been precursors of the bourgeoisie active mainly in trade and craftsmanship. They were distinct from peasants and workers, because they owned assets and took part in civic city life, also with limited political powers within their community. However, these actors did not yet have the core values of what would become the bourgeoisie: the free pursuit of business, private ownership of assets, freedom of personal lifestyle and privacy, political participation (later: democratic participation). Taken together, these values differentiate the bourgeoisie from earlier forms of upper and middle class urban life. They would later become civic rights and still a bit later human rights (Hattenhauer and Bernert, 1996; Ishay, 2008).

The bourgeois thinking and lifestyle – emphasis on status and privacy

In the course of the 19th century, larger shares of society became part of the bourgeoisie or at least developed or acquired bourgeois thinking and lifestyle. This happened irrespective of them formally being member of the bourgeoisie and was instead mainly a result of urbanisation: Substantial parts of society moved to the cities where the bourgeois lifestyle and the corresponding values were becoming increasingly dominant.

These comprised mainly two interdependent sets of dispositions: First, those living in and also those moving to the cities increasingly oriented their thinking, interacting and conduct towards a certain work ethic (Weber, 2005). This included mainly striving for economic success through hard work. Visible signs of such success resulted in a high societal status and substantial prestige, particularly if it builds on one’s own work and did not involve any squandering. Success through work became the dominant economic disposition of the newly emerging bourgeoisie. On the more socio-cultural side, the second disposition developed and increasingly took effect in the form of civic ideals emphasising private values: Private ownership and use of assets, freedom of thought, freedom of profession, and privacy of living and lifestyle. And the latter also comprised the right to marry freely, start a family and live privately within one's nuclear family (Gestrich, 2013).

This form of life became the dominant one and to strive for it became a normative guideline within the bourgeoisie and surrounding societal milieus. So the lifestyle that growing parts of European urban populations followed or attempted to follow consisted in (Kocka, 1987; Reulecke, 1997):

- a married couple, frequently with the decision for marriage made on the basis of love (rather than tradition or economic considerations);
- having own (natural) children;
- a household consisting of only one married couple and its underage children;
- lifelong, monogamous, heterosexual marriage
- traditional separation of roles: the father generates the majority of family income, while the mother would probably have a side-line job but mainly take care of the household;
- living and working sites being separate.

Combined with the first major element outlined above, this form of private life increasingly became the dominant normative orientation and formed the bourgeois ethic based on a certain ideal: The ideal of earning one’s own fortune or at least living to nourish a family in its own private realm. Both however became increasingly difficult as a result of the lack of living space and also because of increasing competition within the urban workforce (Marx, 1979; Engels, 1845.).
Further readings Part 1

Contemporary living conditions of the urban poor / “social question”

(Chadwick, 1842)
(Engels, 1845)
(Hobsbawm, 1964)
(Rule, 2008)

http://www.workhouses.org.uk/lodging/ (detailed information Common Lodging Houses, UK)

Contemporary living conditions of the rural poor (not part of this work)

(Weber, 1982)

<table>
<thead>
<tr>
<th>Possible questions of analysis Part 1</th>
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<tbody>
<tr>
<td>WP 1</td>
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<td>WP 12</td>
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11 All questions in the boxes do not have to be explicitly addressed within the case study, but the collected data should allow the analysis of these questions within the work packages.
PART 2) Social innovation solution, development and impact

2.1 Antecedents and invention of the SI solution approach

<table>
<thead>
<tr>
<th>Questions</th>
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<tbody>
<tr>
<td>When can the first activities of the social innovation be detected? How did they address the social problem, and how did these activities relate to previous solution approaches (if any) for the problems constellation?</td>
</tr>
<tr>
<td>How did they provide novelty in terms of goods, services or processes (including new forms of organisations, resources, or communication)?</td>
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<tr>
<th>Summary of key points</th>
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</thead>
<tbody>
<tr>
<td>- First social housing initiatives were initiated privately, usually by entrepreneurial bourgeoisie personalities who either provided employer housing or founded private housing organizations.</td>
</tr>
<tr>
<td>- Such endeavors were organized as trusts/foundations, member-based charities, or limited-dividend companies (‘philanthropy plus five per cent’).</td>
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<tr>
<td>- Philanthropic engagement was not only a means to solve the social problem (policies were widely absent in these days), but also followed economic considerations of company owners or were an opportunity for the emerging capitalist class to raise their societal profile.</td>
</tr>
<tr>
<td>- The first self-help approaches comprised building societies, housing associations and cooperatives. They faced different challenges, such as being suspected of being part of a communist conspiracy, lack of financial resources of workers to participate, and a refusal of the ownership idea.</td>
</tr>
<tr>
<td>- Municipal housing provision was seldom, since liberalism dominated in many countries (‘municipal socialism’). However, first approaches e.g. in the UK proved rather successful and therefore were objected by many private landlords.</td>
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<tr>
<td>- Independent of the background, early social housing organizations often aimed at control of the entire life of the beneficiaries (‘from cradle to grave’).</td>
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<tr>
<td>- In general, first approaches of social housing only provided access for a limited group of generally better off working class members (‘happy few’).</td>
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<th>Content</th>
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<tr>
<td>The earliest attempts (invention phase of the social innovation) to address the social problem at hand were conducted by different actors roughly from the middle of the 19th century onwards. Besides different motives, they also had different views on how the solutions should look like. The main discourse here was between between multi-storey, large-scale tenements on the one side and small houses or cottages on the other side (Kastroff-Viehmann, 1979; Harloe, 1995) → cf. also 3.2 Solution approaches).</td>
</tr>
<tr>
<td>Some antecedents, can be traced back to the middle ages, and for instance Mullins et al. (2003) date the beginning of the nonprofit housing sector in Ireland in the late eighteenth century, largely in the form of ‘alms’ or ‘poor’ houses that provided usually temporary</td>
</tr>
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shelter and were connected in one way or another with religious organisations or the Crown. However, social housing really started off when industrialization rapidly accelerated the problem in the second half of the 19th century.

I. Philanthropic initiatives and employer housing

First ‘social’ housing initiatives were taken by private actors, mainly “proactive bourgeois personalities” (Lévy-Vroelant et al., 2008, p. 33) such as factory owners, philanthropists and/or social reformers who were part of the bourgeois or aristocratic layer of society.

Motives. Their motives were manifold. Industrialists who provided employer housing were often equivocally driven by economic and social considerations. Many of them realised quite early the interrelation between worker productivity, worker fluctuation and poor living conditions. So the idea usually at least partly was to maintain workforce to the benefit of the providing capitalist. What is more, charities and philanthropic engagement provided opportunities for industrialists, as a new social group, to establish themselves in the High Society of their respective cities. As Adam (2002, p. 349) writes:

“For the established urban bourgeoisie, philanthropic activities carried on a tradition established by the medieval urban patriciate. For the newly capitalistic and entrepreneurial middle class, philanthropy was a behaviour aimed at securing social status and prestige. Philanthropic behaviour became central to the legitimization of a new urban upper class.”

Other social reformers were driven by a more societal commitment, although this usually did not address the lowest working classes either (cf. 1.2 Targeted beneficiary groups). This motive was often linked to religion, which holds especially for countries with a strong tradition of religious social commitment, such as Great Britain and the Netherlands (Lévy-Vroelant et al., 2008).

Influences. Frequently the political views of the providers became visible in their solution approaches (Kiess, 1990; Krämer 2013). Whilst some had a rather conservative and paternalistic understanding of “care” for the own workers (e.g. Krupp), others were more progressive and had strong sympathies for liberal and social democratic or even (utopian) socialist ideas of the time (e.g. Godin, Dollfus). Amongst the most prominent contemporary ideas of decent living conditions and societal development was the Garden City Movement (cf. 3.3 Narratives and discourses).

Also, there were different positions regarding the role of the capitalist system in the solution of the social question. For some philanthropists and social reformers the aim was to demonstrate that specific solution approaches worked that were able to generate at least a small economic rent below market level (“philanthropy plus 5 per cent”) (Adam, 2002; Morris, 2001; Tarn, 1973).

Organisational form. Particularly depending on the convictions in this second respect, different legal forms were used for these philanthropic approaches. E.g. in the UK, these were endowed trusts, subscription charities, and limited-dividend companies (Morris, 2002, p. 191; the given examples are from London, see below):

- **Endowed trusts** (or foundations) such as the ‘Peabody trust’ did not have to raise capital at all and were established as the result of the benefaction or bequest of one individual.
- **Charities** such as the ‘Society for Improving the Condition of the Labouring Classes (SICLC)” had to raise capital through the subscriptions of their members, but did not provide any dividend to them.
Limited-dividend companies such as the ‘Model dwellings companies (MDCs)’ adopted a joint stock form in which patrons were invited to invest in return for a dividend. Due to their structure, the latter two were also referred to as housing associations.

Some of the most prominent examples of “proactive bourgeoise personalities” as well as some other early progressive initiatives (not based on a single actor) are briefly introduced in this section:

**Fuggerei, Augsburg GER (Jacob Fugger, 1459-1525):** Already in the middle Ages, some forward-looking and wealthy people provided good housing for workers in need and their families. The Fuggerei, built between 1516 and 1523 on the initiative of Jacob Fugger and financed by his foundation, often is regarded as the first ‘social housing’ initiative. The 52 dwellings were standardized, two-storied and rather spacious. Targeted beneficiaries were craftsmen and daily labourers who had problems on the free labour market, for instance due to sickness. Their stay in the Fuggerei was limited to the time of their (economic) recovering. Highly marginalized people such as beggars were not accepted. Until today, the Fuggerei is strongly influenced by Christian values and lifestyle to which inhabitants had to commit (Kluger, 2009).

**Société Mulhousienne des Cités Ouvrières, Mulhouse, FR (Jean Dollfus 1800-1887).** In the era of industrialisation, one of the earliest and most prominent examples that addressed the living conditions of workers is the Société Mulhousienne des Cités Ouvrières. It was founded in 1853 and built about 1200 flats for workers for the fabrics of Mulhouse. This settlement grew to almost 1000 houses in the 1870s. Initiator was Jean Dollfus, who had led the textile company Dollfus-Mieg (DMC) since 1826. He was also mayor of Mulhouse between 1863 and 1869 and member of the German Reichstag. Particularly important here was the fact that the workers had the chance to purchase the houses as own property by a rent-payment model over 15-20 years. This allowed settlement and contributed considerably to the integration of working classes into civil society (Jonas et al., 1981).

**Kruppian Social Housing, Essen, GER (Alfred Krupp 1812-1887):** Another prominent example is Alfred Krupp (see Embedded Case: Kruppian Social Housing), who had become the largest employer in the Ruhr area (Essen headquarters) with his Steel Mill and the largest industrial enterprise in Europe in the mid of the 19th century. Krupp had rented existing properties especially for his skilled workers in the beginning. But he quickly realized that this would not satisfy demand in the long run, particularly because the existing housing stock in the area was very limited (Kieß, 1991; Harloe, 1995, p. 48). In 1863 he had the first Arbeitersiedlungen built, which later would be called the ‘Arbeiterkolonie [workers’ colony] Westend’. These consisted of two-storey houses with 15 m² units comprising a combined kitchen/living room, a bedroom and a toilet. Standard for foremen was a little higher. Krupp also provided other goods and services to raise workers’ living standards quite early on, such as social security services in the case of illness and death or affordable food provision. His hope was to enhance their bonds with the company and increase their loyalty. Politically, Krupp was at the conservative end of the spectrum and did not want his workers to organize politically, so no community facilities were included (Kieß, 1991; Kastoff-Viehmann, 1979). Also, workers living in his facilities were not allowed to be organized in unions (Kieß, 1991). His ambition was to integrate working families in the lower middle-class to guarantee social stability (Fuhrmann et al., 2008), which also meant a high level of control.
**Familistère, Guise, FR (Jean-Baptiste André Godin 1817-1888):** One step further went Jean-Baptiste André Godin (1817 – 1888), a French industrialist (manufacturing of cast-iron stoves), writer and political theorist influenced by Charles Fourier and (utopian) Socialism ideas (Newman, 2005; cf. 3.3 Actors and networks; 3.4 Narratives and discourses). He developed and built an industrial and residential community in Guise, called the Familistère (Social Palace) that included facilities for recreation and education. It was a self-contained community within the town. Three large buildings, each four stories high, were constructed to house the 900 workers and their families, with each family having apartments of two or three rooms. The Familistère was ultimately converted to cooperative ownership and management by workers in 1880. It was called l’Association coopérative du Capital et du Travail (Fischer, 1911).

**Society for Improving the Condition of the Labouring Classes (SICLC).** The society was refounded in 1844 by Lord Shaftesbury and Robert Benton Seeley under royal patronage as a successor of the Housing Society (founded in 1830). Its aim was to provide sanitary accommodation for working class members. It became the first Model Dwellings Company (MDCs), a group of private companies in Britain that sought to provide housing and at the same time generate a financial return. The society was one of the few societies that concerned itself “not only to erect model buildings, but to renovate old and ill-arranged houses in the worst localities, and to clean and ventilate courts and alleys” in the 1850s (Scratchley, 2013 (repr. 1862), p. 362). In Amsterdam, the first Association for the benefit of the Working Class in Amsterdam (Vereeniging ten behoeve der Arbeidersklasse te Amsterdam) was founded in 1852 and took a similar approach. Until 1901 fourteen other housing associations were established in the Netherlands (Acker et al., 2008, p. 7), building 4,000 houses in total.

**Peabody Trust, London, UK (George Peabody 1795-1869):** Another philanthropic approach was taken by wealthy American banker George Peabody in London around 1862. Peabody provided housing facilities, built and ran by his Peabody Trust, founded in 1864. To set up the trust, he had appointed a group of business colleagues and friends as trustees, who had to determine how his total endowment of £150,000 was used to the benefit of the London poor. The trustees decided that the trust should be self-perpetuating, so that future generations might gain some benefit, and aimed at an annual net return of 3 per cent to expand the trust. Peabody approved their decision and increased his donation to £500,000. Neither he nor the trustees were interested in making profit for themselves. The first housing facility was four stories high and contained floors with sets of mostly two-room units, which shared a common corridor, washing facilities, and sculleries. In 1882, the Peabody Trust already owned 3,500 dwellings, which housed more than 14,600 people (Adam, 2002, p. 330).

**Improved Industrial Dwellings Company, London, UK (Sydney Waterlow 1822-1906):** Somewhat in opposition to Peabody’s approach and reasoning was Sir Sydney Waterlow. In 1863, he started a commercial company (Improved Industrial Dwellings Company) in London to demonstrate that the housing problem could be solved by combining capitalist and philanthropic methods. This was another example for a Model dwellings company (MDC). Waterlow, a successful business-man, wanted to demonstrate together with his colleague and friend, Mathew Allen, that it was possible to provide housing units at suitable rents and earn a moderate return of 5 per cent. The idea of “philanthropy and 5 per cent” was born (cf. 3.6 Resources), and the model of limited-dividend companies was implemented in the housing sector. Normally, investors in housing projects expected a profit up to 25 per cent, so this low profit margin was rather revolutionary. Nevertheless Waterlow succeeded in initially raising £25,000 from fourteen friends (Adam, 2002, p. 332). His approach can be considered as an

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12 It build on the Labourer’s Friend Society, founded in 1830.
early example of social impact investing, a phenomenon that has gained more prominence only recently.

**Housing management system, London, UK (Octavia Hill 1838-1912):** A further model that became a blueprint for social housing beyond the UK was the *housing management system* established by Octavia Hill in 1864. She persuaded her friend John Ruskin to purchase three rundown buildings on Paradise Place in London, which she would then renovate and manage. A crucial feature of her approach was to convince the tenants of the worth of living in decent housing conditions. Also, to increase commitment and identification, she developed a system of “friendly rent collecting” where the rent was to be paid weekly. The crucial idea was that the rent was to be collected by upper-class women who were expected to establish friendly relations with the tenants and like this ensuring for instance standards of cleanliness. Hill also insisted on a return of 5 per cent interest on capital invested, and when the number of dwellings grew up to 6,000 houses, she divided them into smaller groups that were managed by women who had been trained in her philanthropic system (Adam, 2002, p. 332; Harloe, 1995, 27ff.).

This list of examples could be extended considerably with names and institutions such as George and Richard Cadbury (Bournville, UK), the Jewish Rothschild foundation (London, UK), the Quaker Joseph Rowntree (Rowntree Foundation; New Earswick, York, UK), Gustav de Liagre and Herrmann Julius Meyer in Leipzig, the Schneider family (Le Creusot, France), Arthur Krupp (Berndorf, Austria) etc.

**Philanthropists as conservative reformers**

The ideas and approaches of the most prominent philanthropists spread and were adapted across Europe. In London, a range of MDCs emerged following the philanthropy plus 5 per cent model (Dennis, 1989). In France, experiments were also made as a byproduct of Louis-Phillippe’s efforts to build a political and social base by supporting large scale industry, but quickly vanished (Harloe, 1995, p. 44). Some of the solutions were also promoted through loans and land at reduced costs by public authorities (cf. also 3.5 Rules, norms, and policies). Often this support was made conditional upon slum clearance by the municipality. In general, however, the coverage was rather small and private capital hardly available (Harloe, 1995, 35ff.).

What is more, philanthropists usually addressed skilled workers and usually not the most marginalized. In general, philanthropists were “conservative reformers”, in that they were ready to make reforms within the framework of the existing system to prevent revolutionary change (Adam, 2002, p. 349).

**II. Early approaches of self-help: building societies and cooperatives**

There were also some approaches of self-help rather early on, although those were usually supported both ideologically and financially by social reformers and persons from higher social levels.

**Difficult starting conditions**

Self-help approaches are usually linked to the cooperative movement that also dates back to the 18th and 19th century with pioneers such as Robert Owen, Charles Fornier, Hermann-Schultze Delitsch and Friedrich-Wilhelm Raiffeisen. This type of organization was also transferred to the housing context in different forms. However, in comparison to philanthropic solutions, cooperatives had a difficult start (Fuhrmann et al., 2008). The legal base was weak, and in many countries, cooperatives as accumulations of people were
generally suspected to spread communist or socialist ideas and therefore more hampered by the elites and authorities (Kastroff-Viehmann, 1979; Harloe, 1995). Also, particularly the most marginalized workers could not really afford to engage in cooperative solutions, and the idea of ownership was not really accepted (Fuhrmann et al., 2008).

The concrete activities to put the idea of collective self-help via ownership into practice therefore differed and not entirely based on (housing) cooperatives. Some developments shall be illustrated in this section:

**England**: In England, already in the 18th century cooperative building societies had started to develop, which actually were a collective saving mechanism providing loans for home ownership to their members (→ cf. Extra Box Building societies). In the 1850s, more and more workers joined these building societies which became shareholders of limited-housing companies themselves to enable access for their members (Mansbridge, 1934). By the end of the 19th century and with the growing number of workers with reasonably secure and high wages, these building societies had become large-scale organizations. However, these mostly collected working and lower-middle-class savings and provided loans for home ownership. (Harloe, 1995, 35f.)

**Germany**: In Germany, one of the earliest and more or less isolated endeavours of self-help was the Berliner Gemeinnützige Baugesellschaft (“Berlin charitable building society”), founded by C.W. Hoffmann in 1848 under influence and participation of the social reformer Victor Aimé Huber. Its ambition was to turn “unpropertied workers” into “working owners”. Therefore, however, it also started as a limited-dividend company in the beginning, defining public benefit criteria that were adopted later in the non-profit housing legislation. However, access to capital was difficult, and the organization went bankrupt in 1856 (Thienel, 1973). The first laws regarding cooperatives of 1867 and the reform of the building cooperative law (Baugenossenschaftgesetz) of 1889 that reduced liability for accommodating investments brought some improvements. From the 1880s onwards, cooperative models that built more on the resources of working class members were established, yet often still with additional financial support. Building cooperatives usually pooled small weekly dues of a large number of working-class members and invested these funds in the construction of cooperative tenements. Members were rewarded with the chance to an apartment then, whereas over time there was an increasing acceptance of renting again due to the failure of the ownership idea. In the late 1890s first model tenements with large courtyards, playgrounds, meeting halls, kindergartens, and libraries became visible (Rodgers, 2001, p. 190). By 1914, 1402 building cooperatives were established in Germany (Fuhrmann et al., 2008) and about 21,000 housing units were built by them (Rodgers, 2001, p. 192). Adam (2002) argues that this success might be a reason for the general absence of the “philanthropy and 5 per cent” model in Germany.

**Denmark**: In Denmark, by the 1880s self-built associations eclipsed small scale philanthropic engagements, yet usually the ‘respectable’ working class was involved in these ownership-based solutions, and not so much the most marginalized. Often worker’s construction associations were founded and created cooperatives. In the 1890s after a building strike, these took on more and more the form of cooperative building organizations, but still at a very low level. In 1887 the first state loans were given for these dwellings (also by local authorities, who did not use it all). Only after some pressure and a risk participation within a more systemized loan system of the state in the early 20th century, activities slowly increased (Harloe, 1995, p. 33).

**Netherlands**: In the Netherlands, with the Housing Act (Woningwet) of 1901 that stated amongst other things that corporations could not operate in direct interest of employers, unions or other organizations (Harloe, 1995, p. 29). However, this led to the foundation of
private, non-profit corporations by different political and social groups and parties such as socialists, communists, unions and other worker collectives, or religious groups, such as Eigen Haard that still operates today (cf. Embedded case (Financing) Social Housing during the Amsterdam School Period).

**Finland:** Workers’ housing companies in Finland were initially founded by local fabric owners, but starting from the end of the 1880s quickly also by better-off, entrepreneurial members of the working class movement. The parliament started to grant low-interest state housing loans to workers’ housing companies between 1897 and 1904. Although these early forms did not succeed in helping the housing problem because public funding by municipalities and the state was not sufficient, an organizational form was established that became more dominant after WW1 (Ruonavaara, 2005).

**III. First public provision: municipal housing**

Besides philanthropic, limited-dividend and non-profit self-help approaches, there also emerged some cases of direct housing provision by municipalities at the turn of the century, although at a very small scale. In most countries, liberal forces strongly objected this approach (cf. 3.4 Narratives and discourses).

The showplace of municipal housing was the UK and there particularly London, but also cities like Glasgow or Liverpool were very active in this respect. Between 1889 and 1907, the progressive London County Council (LCC) started with five- and six story apartment blocks in central areas. Despite the utopian spin, they did not depart radically from London’s philanthropic housing companies’ patterns, although they were equipped with more generous inner space and sometimes grouped around infrastructural elements such as schools. These endeavours were supported by conservatives, liberals and the labour party, although there was an obligation to give no subsidies (Harloe, 1995, p. 39). When the LLC understood how expensive slum rebuilding was, the focus shifted on dwellings in London’s suburban rim (Tooting and Tottenham at that time) along the municipal tram system line. Within small and narrow row houses, standards further improved, and architects tried to foster neighbourhood solidarity (Rodgers, 2001, p. 190). However, these first suburban projects turned out “too well” and cut too close to the potential market share and profits of private builders, so that the Conservatives put an end to them when they won the election in 1907. Nevertheless, by the eve of WW1 public authorities had added about 15,000 low-cost housing units in the Greater London area and another 20,000+ in the rest of Britain (Rodgers, 2001, p. 192). However, this was generally still a minor share, and less than 5 per cent of the housing built in England between 1890 and 1914 was local government housing.

Municipalities also developed dwellings at least for their own employees elsewhere, e.g. in Krakau, Budapest, Vienna or German cities (Saldern, 2006). In Germany, there was a peculiar closeness of state and society, so that sometimes the boundaries between private limited-dividend companies and municipal housing blurred. The Frankfurter Aktienbaugesellschaft für kleine Wohnungen (“Frankfurt small dwellings construction corporation”, founded by Johannes Miquel, the mayor and member of Verein für Socialpolitik) was one of the most prominent examples that had constructed 7.2 per cent of the city’s total housing stock by the eve of WWI, based on extensive city credits and leases on cheap city land (Rodgers, 2001, p. 191).

**“Happy few” in the beginning**

However, the numbers of dwellings in these different new forms of ‘social housing’ were negligible; most working-class people continued to live in extremely poor housing.
conditions. Although the dwellings were only for a “happy few” (Lévy-Vroelant et al., 2008, p. 33) and usually did not address the most marginalized, the ideas behind them pointed the way towards the concept of social innovation.

Further readings
(Adam, 2002)

2.2 Phases of development of the SI

Questions
How did the social innovation develop over time and across different contexts? Can different phases or crucial incidents be identified in the development of the social innovation towards a broadly adapted standard? What were the relevant societal levels of action?

Summary of key points
- The developments in social housing have been manifold, regionally diversified, and non-linear. Breaks from historical patterns occurred particularly around profound societal incidents. This implies that subsequent solutions were not necessarily better than previous ones.
- Different authors suggest different phases of development, which are however very similar. Lévy-Vroleant et al. (2008) distinguish between:
  - 1) The origins: housing reshaped by utopia, philanthropy and industry (Mid of 19th century to beginning of WW 1)
  - 2) The period of municipal commitment to social housing (End of WW1 to world economic crisis in 1929)
  - 3) The great depression and its effects on social housing (World economic crisis of 1929 until WW 2)
  - 4) Towards housing for all? The mainstreaming of social housing after World War II (post WW 2 until 1970s)
  - 5) Individualisation and fragmentation: Social housing at the turn of the 21st century (from the mid-1970s onwards)
- The early 21st century and particularly the financial debt and subsequent economic crisis since 2008 can pose a new turning point for social housing.
- Other reasons for a deviation from this pattern are different political systems (such as in the Eastern bloc until 1989/1990) and the following transformation of these countries, or a delayed industrialization.

Content
Non-linear development influenced by a variety of factors
The development course of social housing was not a straight story, but influenced by a variety of factors and incidents. Particularly the 20th century with two world wars (WW), political turbulences and several world economic crises was an age of extremes (Hobsbawm, 1996) that had strong influences on social housing and particularly social housing policies (cf. also 3.1 Problem situation). While for sure a certain path dependency can be stated,
the most important developments often represent a complete break from historical tradition (Lévy-Vroelant et al., 2008). This also implies that not necessarily each development was superior to the previous but the changes often were caused by political decisions (Adam, 2004).

When looking for patterns in the European development phases of social housing, different models have been suggested which distinguish certain development phases (Harloe, 1995; Malpass, 2008; Lévy-Vroelant et al., 2008). From these models, the general picture emerges that certain historical incidents caused fundamental social, cultural, political and economic changes in all countries, and that these also caused changes in the course of social housing developments. While for sure there have been general tendencies across most countries, it is also obvious that countries or sometimes regions and cities differed in their activities, circumstances, and responses to this historic events. Furthermore, specificities such as a communistic political regime, dictatorship or delayed industrialization caused deviating developments.

Main periods of social housing in capitalistic societies

Five phases of social housing can be distinguished according to the literature on social housing. Authors such as Harloe (1995), as they do not view the beginnings as a distinct phase. Authors describe and discuss the respective activities in countries with capitalistic societies such as Austria, Britain, Denmark, France, (the former West) Germany, and the Netherlands. The historical incidents that mark the transition from one stage to the next also structure the data within the Part 3 of this template.

The main characteristics of the phases are as follows, described by Lévy-Vroleant et al (2008) if not quoted otherwise. Descriptions that are more detailed can be found in the other parts of the template:

1 The origins: housing reshaped by utopia, philanthropy and industry
→ Mid of 19th century to beginning of WW I

This phase was dominated by pressure from industrialization, urbanization and the related social question (→ cf. Parts I and 2.1 of the template). First solutions were provided by bourgeois philanthropists, often from the emerging class of industrialists, but also from established members of bourgeoisie and aristocracy. They imposed strong control mechanism according to their ideological convictions. Self-help initiatives by marginalized workers were hardly existent, and municipal housing provision was marginal as well (→ cf. 2.1 Antecedents and invention of the SI). Often the UK with its early industrialization served as a showcase (Harloe, 1995). First social housing policies were established around the turn of the century, but with a limited scope. Social housing was not built in significant quantities until the end of WW 1.

2 The period of municipal commitment to social housing
→ End of WWI to world economic crisis in 1929

The legislative framework set up around the turn of the century in almost all European countries did not immediately stimulate the provision of social housing. This only occurred after WWI due to the fundamental socio-political changes of the time. After WW 1, the old European empires partly vanished and new nations were created that put a stronger focus in welfare policies, also in response to the damage and shortages war had caused. This was
accompanied by new conceptions and ideologies of mass education and bio-politics, such as the promotion of birth control etc.

Public authorities, mainly on a municipal level, and other political and societal actors such as political parties, trade unions, associations and cooperatives entered the social housing system. Some of them were created far earlier but had so far not yet played a very important role. However, there was also a broad ambition to return to the pre-war state as soon as possible, and that state intervention should only be temporarily (Harloe, 1995).

With the increasing municipal commitment, often a local welfare state was established, and social housing more broadly became a central tool for stimulating mass educational and moral reform. The newly-established system of social housing was strongly selective and systematically linked to a system of control even more than in the previous period. As philanthropists before, municipal authorities and also private housing associations selected social-housing residents on the basis of membership of unions, socialist or communist parties or religious affiliation.

3 The great depression and its effects on social housing

World economic crisis of 1929 until WWII

The huge economic and political disruption caused by the world economic crisis in 1929 had differing effects on social housing, but generally there was a cutback of resources and construction activities that hit on high rates of unemployment. Government subsidies for housing were frozen from the mid-1920s onwards, and the private sector gained importance again in housing construction where possible, resulting in evictions and vacancies. In France, employers still played the major role at that time, and just before World War II public involvement still was very modest, with the number of houses provided by employers double of those built with the help of public funding (900,000 units versus 1.8 million).

The Nazi regime took power in Germany, Austria, or Italy and their (few) housing activities were strongly coloured by fascist and racist ideologies. The meant that there was a preferences for small and middle size houses settlements, and a tendency to agrarian lifestyles. The system of social housing remained selective and systematically maintained to a system of control.

4 Towards housing for all? The mainstreaming of social housing after World War II

Post WWII until 1970s

The three decades following World War II are often considered to be the golden age (or “les trentes glorieuses”) of social housing. It is the period where the largest numbers of social dwellings were built, being part of a boom in construction of housing of all types, given the housing shortage after the destructions of WW II. By the 1950s, the baby boom had created an even bigger demand. After a few years of consolidation and formation, social housing started to provide millions of households with a generally very much appreciated improvement of the housing situation. During the 1950s and the 1960s, the provision of sufficient housing had become a top political priority. Also, big cooperatives and non-profit housing associations were founded and became important actors in the housing system.

Towards the end, however, slum clearances caused some social tensions.

Most dwellings built in this time were well designed and equipped, although not always ideally located. In this time, social housing also started to expand beyond working-class people to employees belonging to the middle-class, key workers and civil servants. The period was highly influenced by the functionalist notions of modern society with principles such as accessibility, functionality and uniformity and affordable prices, as well as the
implementation of post-war welfare regimes. Social housing in this period fostered upward mobility for the working class on the one hand (‘elevator effect’), and consolidation of the position of the middle class on the other.

5 Individualisation and fragmentation: Social housing at the turn of the 21st century

→ From the mid-1970s onwards

After the economic crisis of the 1870s, the following period was characterised by a gradual withdrawal of state-related actors from housing, accompanied by a parallel rise of neoliberalism in nearly all European welfare states in the late 20th century. Like in other pillars of the welfare state, social housing became more and more individualized, i.e. oriented towards the needs of the different milieus of working and middle-class people. This went along with socio-demographic changes, such as a greater pluralism of household forms and family patterns, the ageing of the population, new immigration etc.

A decentralisation of responsibilities (the withdrawal of national actors and the increasing influence of local and private ones) as well as an ideological individualism (the notion that each person should look out for him or herself) could be observed as the two sides of a coin. Policies encouraged owner occupation and in almost all European countries (except Austria and the Scandinavian welfare regimes), object related bricks-and-mortar subsidies were reduced in favour of personal subsidies like housing allowances and tax deductions (→ cf. 3.5 Rules, norms and policies). The disengagement of central government agencies strengthened the position of the non-profit sector (associations and corporations) and private actors.

Forms of ‘very social’ housing on the other side (targeted at the most deprived) emerged. At the end of the 1990s, very run-down neighbourhoods (‘sensitive urban areas’) led to urban renewal programs in some countries that featured demolition of big social housing estates.

Crisis as a new phase?

Recent research indicates that the economic and financial crisis in 2008 and afterwards marks a new turning point in social housing policies (Pittini and Laino, 2011; IZA - Institute for the Study of Labor, 2013; Parlasca, 2013). On the demand side, there is an increased need of social housing across different countries in Europe, including target groups that had previously not been seriously affected by the housing shortage: This comprises middle class and key workers with temporary contracts or facing unemployment, single parent families, young couples, or the elderly. Waiting lists for social housing quickly filled up. On the supply side, despite the decreasing trend in financial resources of the sector, many states (yet not all) responded with public expenditure in social housing as parts of governments’ recovery programmes in the immediate aftermath of the crisis. Although it is difficult to judge the developments already, there are some hints that public intervention is increasing again (IZA - Institute for the Study of Labor, 2013, 14ff.; → cf. also 3.6 Resources).

Delayed industrialization and socialism as reasons for deviations in historic development

In some cases, there were deviating historic developments that had an influence on the housing problem and on the provision of social housing respectively. Dictatorship during the period of the Nazi regime has already been named in the previous section, but there are also other reasons. In the case of Finland, there was a delayed migration and urbanization that did not begin until the 1960s, and therefore until the 1950s social housing concerned both rural
and urban population (\(\Rightarrow\) cf. Country contribution \textit{Social Housing in Finland})\textsuperscript{14}. The so-called \textit{agrarian question} – a conflict between tenant framers and land owners who wanted to increase productivity and therefore tried to change rent agreements – therefore became a major political issue in Finland at the turn of the 20\textsuperscript{th} century (Peltonen, 1992). The way it was solved (a ‘right to buy’ for tenant holders financed with state loans and bonds) had important consequences to the Finnish social housing policy later. However, workers’ housing companies were established in Helsinki, Tampere and Turku as well, starting from the 1850s, first by initiative of local industrialists (Ruonavaara, 2005).

In Hungary, the socialist housing system, defined by Hegedüs and Tosics (1996) as the \textit{Eastern European Housing Model} (EEHM), did not correspond at all to Western social housing models (\(\Rightarrow\) cf. Country contribution \textit{Social Housing in Hungary})\textsuperscript{15}. It focused on society as a whole, and state subsidized housing did not depend on the income position. Main characteristics were single-party control over the housing sector, bureaucratic coordination of housing agencies, subordination of market mechanisms, and broad state control of housing services via huge, non-transparent subsidies, spent both on the maintenance of the public housing stock and on new construction. After the defeat of the socialist system in 1990 and Hungary becoming a transition country, however, a strong wave of privatization occurred. Municipalities were left with the dwellings that were in worst conditions and rented only by the poorest members of society. Accordingly, the model changed towards a residual approach, and even up to then more or less unknown problems such as homelessness emerged.

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<th>\textbf{Further readings:}</th>
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<tbody>
<tr>
<td>(Harloe, 1995)</td>
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<td>(Lévy-Vroelant \textit{et al.}, 2008)</td>
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<td>(Malpass, 2008)</td>
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\textbf{2.3 Streams of development of the SI}

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<th>\textbf{Questions}</th>
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<td>Were there also different “streams” of the social innovation, i.e., different forms and adaptations in the implementation of the basic idea? Did these streams converge or diverge over time?</td>
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<th>\textbf{Summary of key points}</th>
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<td>- Social housing models can be distinguished by four core dimensions: \textit{tenure} (e.g. rental vs. ownership), \textit{provider} (e.g. private company, municipality, non profit housing association)</td>
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\textsuperscript{14} Also countries such as the Netherlands or Denmark remained heavily dependent on agrarian production throughout the 19th century and experienced a slower urbanization. Nevertheless a parallel industrialization brought up the “social question” in these countries as well Harloe (1995).

\textsuperscript{15} In addition to this, the collapse of the Eastern bloc also had consequences for the social housing situation in Western countries through strong migration. Also, the collapse of the Soviet Union destroyed a key Finnish export market overnight.
etc.), beneficiaries (e.g. lower vs. middle working classes) and funding arrangements (e.g. tax deduction, earned-income etc.)

- Social housing models can be distinguished into universalist and targeted models. Universalist models provide the whole population with decent quality housing at an affordable price, whilst targeted models focus on people below a certain income threshold or other eligibility criteria.

- Targeted models can be further distinguished into generalist and residual models, the latter being oriented more towards the most marginalized.

- Social housing models often are strongly influenced by local authorities, although there also is a national and, increasingly, EU influence. Cities such as Vienna might deviate from national standards.

- Convergence theories try to explain the adaptation of housing models by single explanatory factors for many countries (e.g. the generalist model in “abnormal times”), whilst divergence theory aims to explain differences by different policies, financial maturity of the housing market etc.

- Welfare regimes according to Esping-Andersen are not a good predictor for social housing solutions and social housing policies.

### Content

Social housing has developed in complex and variable patterns in various respects: It reflects different configurations of ideas, actor constellation, architectural conceptions, norms, financing concepts and policies across different countries. These aspects shaped the concrete forms of housing estates, the actors involved on the provision side, and the types of inhabitants who lived in them. As Harloe (1995, p. 17) states, there however are no simple causal links between a benevolent state or needs of industry and the emerging solution approaches; relationships are complex and vary from country to country.

A wide range of “individual” streams and movements has emerged (and sometimes disappeared) along the course of SI as a social innovation, such as the settler movement (cf. Embedded case Social housing in Vienna), certain philanthropic approaches, the cooperative movement (cf. 2.1 Antecedents and invention of the invention of the SI) and so forth. We will introduce those “individual” development streams throughout the template. In this section, we will focus on a more aggregated perspective.

### I. The universal and the targeted model of social housing

#### Four dimensions – tenure, provider, beneficiaries, funding arrangements

There are four core dimensions help to characterise and differentiate social housing models and policies: the tenure, the provider of the service, the beneficiaries and the funding arrangements (Pittini and Laino, 2011, p. 22; IZA - Institute for the Study of Labor, 2013, 10ff.). Within these dimensions there are the following alternative options:

- **Tenure**: rent; sale of dwellings/ownership (incl. low-cost housing); intermediate tenure (shared ownership solution where tenants buy a share of the dwelling and pay a rent for the remainder)

- **Provider**: local authorities, public companies, non-profit or limited-profit associations and companies, cooperatives, and in some cases even private for-profit developers and
investors (with an increasing tendency towards private and not-for-profit organizations and multi-stakeholder arrangements)

- **Beneficiaries**: potentially all citizens in some countries, with the public sector only playing a market regulating role and enhancing social mix vs. merely those households for whom the market is deemed unable to deliver housing, sector operating separately from the private rental market → eligibility criteria: income thresholds (means-tested or lower), housing conditions, homelessness, unhealthy accommodation, over-occupation and forced cohabitation; sometimes target groups with priority applications such as youth, elderly, disabled persons, families with many children, mentally disabled persons, ethnic minorities or refugees

- **Funding arrangements**: bank loans (inc. interest rate subsidies and government-backed guarantees), mortgages, public grants, public loans, private funds of housing organisations and tenants’ contributions.

*Universalistic vs. targeted approach*

Based on the allocation criteria used within the dimension introduced above, there is a general distinction of **universal** and **targeted social housing models**16 (IZA - Institute for the Study of Labor, 2013; Ghékière, 2007). The following explanations are adopted from IZA (2013, 12f.):

- The **universalistic approach** (also housing of public utility) sees housing primarily as a public responsibility, with the goal to provide the entire population with decent quality housing at an affordable price. Providers are municipal housing companies or non-profit organisations. Social housing assumes a market-regulating role (e.g. through rent control); typical allocation mechanisms are waiting lists, yet sometimes with reserved vacancies to pre-identified types of households with urgent housing needs, or priority criteria of allocation. Housing rents are cost-based, but housing allowances and rent-guarantees are available for disadvantaged households. The housing provision aims to ensure social variety (in terms of ethnicity and income) among beneficiaries to avoid ghetto formation within urban areas and to enhance social cohesion.

- In the **targeted approach**, social housing only addresses individuals and households whose demand for housing with decent quality at an affordable price is not satisfied by the free market. Two sub-models can be distinguished here:
  - The **generalist** sub-model allocates housing to households with an income below a pre-identified income ceiling. Generalist social housing rents are determined by a fixed ceiling, with households benefitting from income-based housing allowances covering part of the rents. It represents the natural evolution of traditional social housing in Western Europe, which was generally directed at workers and middle-income groups.
  - The **residual** sub-model allocates housing to the most vulnerable groups and focuses on minimalist standard provision for the least well off as a safety-net service. Housing is provided according to the basis of need. Social housing rents are either cost- or income-based. The potential beneficiaries are much more restricted and

16 Regarding such models, Harloe states: “such models are analytical constructs of a meta-theoretical nature. They are aids to the analysis of, and theorizing about, social housing development, not a substitute for empirically grounded analysis and explanation […]. It follows that there can be no ‘correct’ specification of such models, only ones which are more or less useful for advancing our understanding of the phenomena under investigation.” Harloe (1995, p. 71)
typically correspond to extremely vulnerable households relying on a variety of welfare state benefits (such as for unemployment, disability, elderly, lone parents).

II. Predictors for the adopted housing models
A substantial amount of research investigates the question of why a certain housing model is adopted by a country, region or city in a specific situation.

Path dependency and local traditions
In general, there is a certain path dependency, since many decisions made in the late 19th or early 20th century (e.g. on providers of SH) had a strong influence on the subsequent development and their implications are still noticeable today (Malpass, 2008). Evidence also suggests that it is somewhat difficult to define national traditions, as in some cases particular cities (e.g. Vienna) or sub-national components of countries (e.g. Scotland) stand out from the national narrative (Lévy-Vroelant et al., 2008). The responsibility for the housing question was often given to the municipal level, and specific local traditions and contexts (e.g. civil society institutions, ruling parties, level of industrialisation, etc.) influenced the respective housing solutions then.

Convergence vs. divergence theory
While the convergence theory (e.g. Harloe, 1995) searches for predictors that explain the development of social housing in general, the divergence theory (e.g. Kemeny, 2005) focuses on explaining differences across countries.

In the convergence theory, Harloe (1995, 71ff.) argues that the “mass model” of social housing (to be understood largely in the sense of the generalist model, i.e. the provision of better standard housing services for lower and middle income groups) occurs in abnormal times. With abnormal times, he particularly refers to the periods after the two WWs in the 20th century (immediately after 1918 until late 1920s and 1945 to mid-1970s) and the respective international capitalism dynamics. Before 1914, he sees the residual model with mostly voluntary and philanthropic solutions in dominance (third phase), as well as between the later 1920s to 1939 (third phase) and after the mid-1970s. For Harloe, this also explains the rising share of owner occupation and decline of renting within social housing. However, the convergence theory is contested as some argue that it is only applicable in the UK, and that the residual models did not became dominant in most continental European countries as indicated (Malpass, 2008: 19; cf. also below).

The divergence theory derives explanatory factors from social and cultural heritage and in contrast to convergence theory treats the international capitalism dynamics not as a factor beyond control (i.e. structurally deterministic), but subject to political influence (Kemeny, 1995). Kemeny, who is most closely linked with the approach, argues that particularly policies and financial maturity of different states can explain different development in social housing. Regarding policies, he particularly focuses on the difference between dual and unitary (or integrated) housing markets17. Kemeny argues that the unhindered, profit-oriented private rental market lead to increased degree of ownership in Anglos-Saxon countries. This in turn causes the residual nature of the separate social housing market (Kemeny, 2006), (Kemeny, 2005). In Continental European countries where the unitary rental housing strategy

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17 In dual rental system, cost renting (rental provision in which rents cover no more than expenditure) is not allowed to compete with profit renting for households. In unitary rental systems, both rental forms are allowed to compete Kemeny (1995).
dominates, social housing competes directly with a more regulated, supported private rental sector, minimizing the differences between both sectors (e.g. by rent regulation, subsidies for private landlords). Financial maturity as the second explanatory factor is defined as the gap between outstanding debt per dwelling in existing stock and average new debt per dwelling build, acquired or renovated. A growth of this gap implies that rents to cover costs will fall, and social renting can become competitive with profit renting or owner occupation (Kemeny, 1995, p. 41). Criticism of the divergence theory states that it does not pay attention to the impact of external forces, such as globalization, or historical antecedents (Malpass, 2008, p. 22).

Welfare models are not a predictor

However, the divergence theory and particularly the work of Kemeny is said to compensate for Esping-Andersen’s failure to pay attention to housing (Matznetter, 2002; Groves et al., 2007). In contrast to what one might expect, the welfare model typology of Esping-Anderson (1990) is not of great help to explain differences in social housing development. For instance, the Nordic countries (Denmark, Finland, Iceland, Norway & Sweden) that are often considered to represent a shared Scandinavian (or social democratic) model of welfare differ from each other in housing policies (besides other policy fields). The central feature of the Nordic model of welfare is to provide benefits provided for all people irrespective of wealth and income (universalism). A further common foundation is the similar division of responsibilities between different housing market actors. State and municipalities have a fundamental responsibility for the development of housing provision, while the private sector is responsible where this sector functions effectively (Lujanen, 2004). However, for instance the position of owner occupation has been different (Bengtsson, 2013a) cf. also the embedded case Social housing in Finland).

<table>
<thead>
<tr>
<th>Further readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Bengtsson and Ruonavaara, 2011)</td>
</tr>
<tr>
<td>(Ghékière, 2008)</td>
</tr>
</tbody>
</table>

### 2.4 Status quo of the SI

#### Questions

How is/was the social innovation established today? Please describe who (e.g., public authorities, private companies, associations and cooperatives, public-private-partnership, etc.) provides which services, products, activities, etc. to whom and under which conditions?

<table>
<thead>
<tr>
<th>Summary of key points</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The share and size of the social housing stock today varies considerably from almost zero (Greece and Latvia) to more than 30 per cent in the Netherlands or 23 per cent in Austria.</td>
</tr>
<tr>
<td>- In absolute terms, France has the highest number of social housing dwellings with 4.23 million, followed by England with nearly 3.98 million and the Netherlands with 2.4 million.</td>
</tr>
<tr>
<td>- There has generally been a decreasing tendency regarding municipal involvement in social housing, and an increase in ownership-based solutions.</td>
</tr>
</tbody>
</table>
- ‘Very social housing’ solutions have emerged for those who do not meet the eligibility criteria of regular social housing provision.

- Funding arrangements increasingly try to drag private resources in the sector

- Social housing currently faces different challenges and issues, such as the economic crisis, EU guidelines and legislation, segregation vs. social mix and urban renewal, an increasing role of ‘non-landlord services’, and resentiments due to a worsening reputation of social housing.

### Content

Social housing today is established in varying degrees and forms across Europe today. Lévy-Vroelant et al. (2008, p. 41) argue that social housing developed as a compromise between different or even opposing philosophies and political understandings of the common good. Today, the sector faces various challenges – not least because of the economic crisis that started in 2008 – and therefore is still dynamically changing, with different actors, countries and regions responding in different ways.

#### I. Dissemination of social housing

**Shares and size of social housing stocks**

The housing system in each country has developed its own distinctive character, reflecting local historical circumstances as well as countries’ own views of the nature and importance of social housing. However, this makes comparisons between social housing sectors of different countries hard or even impossible (Whitehead and Scanlon, 2007), and the figures we get from the literature sometimes vary. The share of social housing stocks (given the definition issues described above) varies considerably across Europe today. When taking the share of social rental stock as a percentage of total housing stock as indicator, the Netherlands, Austria and Denmark have the highest shares of social (respectively 32%, 23% and 19%) housing. The EU average is 8.3%, and Eastern and Mediterranean countries have stocks of social housing below 5% of the total, and Greece and Latvia none at all (IZA - Institute for the Study of Labor, 2013, p. 9; cf. also Pittini and Laino, 2011).

In absolute terms, France has the highest number of social housing dwellings with 4.23 million, followed by England with nearly 3.98 million and the Netherlands with 2.4 million.

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18 As already said, we need to acknowledge that there is no formal definition of social housing. Not even the criteria on which definitions are based are commonly used. Some are based on who owns social housing buildings – where that is the case (such as in Sweden or the Netherlands), housing is social when the buildings are owned by ‘social’ actors such as local authorities or non-profit organisations; other definitions focus on who constructs the houses (for instance in France or Austria); other countries (such as Germany or France) look at where the funding comes from; and still others (e.g. England or Ireland) speak of social housing when rents are below market rates. However, almost all definitions have in common that they somehow relate to the purpose of social housing Whitehead and Scanlon (2007).

Concerning a definition of social housing, one may also add that social housing lies on a continuum between entirely free housing markets and totally sheltered and free living space for society’s most vulnerable and marginalised groups. As such, its boundaries are often very blurred: On one side of it, we see what is often called ‘very social housing’ Lévy-Vroelant et al. (2008) which is targeted at the marginalised, and on the other we see ‘intermediate’ social housing Whitehead and Scanlon (2007) which is more or less providing affordable living space to people who do have an income which however does not suffice to pay for regular market rates; cf. Kieß (1991); Krämer (2013)).
On the other side of the spectrum are Ireland (0.12 million) and Hungary (0.16 million; cf. also country perspective *Social Housing in Hungary*). Figure 1 gives a glimpse at the size of the social housing sectors in a number of European countries.

Partly, these numbers have fallen considerably over the last years due to privatization policies. In England, for instance, it has shrunk from 5.1 million in 1979 to 3.98 million in 2007 as a result of the *Right to Buy* legislation (Whitehead and Scanlon, 2007, 8ff.). In Germany, due to the expiring of time-limited subsidy arrangements for rent restriction, 100,000 units of social housing per year moved to the private sector in the last years (ibid: 10).

![Figure 1: Social housing size in European countries (IZA - Institute for the Study of Labor, 2013, p. 9)](image)

On the other hand, there is still building of social sector housing in most countries. In some countries this mainly depends on local initiatives now (e.g. Germany, Hungary), whilst in others there are national-level initiatives to increase output of social housing to address increased problems of access and affordability (e.g. UK, Austria, France, Denmark) (ibid: 10).
Application of social housing models across Europe

By cross-tabulating different allocation criteria, social housing models can be assigned to different countries. An inverse correlation between targeting level and the size of the social housing sector compared to the total housing stock is detectable here: more targeted (residual) housing systems as currently adopted in the UK, France, Belgium, Germany and different Eastern and South European countries have a relatively small dimension, whereas less targeted housing systems (generalist or universalist) such as in the Netherlands, Denmark, Sweden or Austria have a relatively large dimension.

II. Characteristics and features of social housing

Regarding the main categories of social housing across Europe, the following picture emerges (for a comprehensive overview table shows the situation in all EU member states see (IZA - Institute for the Study of Labor, 2013, 51ff. cf. also Further readings).

Tenure: Increase in ownership

In terms of the tenure, the options in question are rent (either from a social or a private provider), sale of dwellings/ownership (incl. low-cost housing) and intermediate tenure where tenants buy a share of the dwelling and pay a rent for the remainder.

As Table 3 shows, social rental is present (besides Greece) and dominant in most countries. The added shares of social and private rental go up to almost 50 per cent in most countries, and in Germany even beyond. The only exception are Eastern-European countries such as Hungary, where both the social and private rental sectors are similarly small because of the privatization of former public housing that started in the early 1990s after the defeat of the social bloc. This has led to a very high share of home-ownership here (Whitehead and Scanlon, 2007, p. 11; Pittini and Laino, 2011, p. 10).

But also in other countries, privatization policies since the 1970s have allowed the sale of dwellings to sitting tenants. Some countries implemented these policies later than others (e.g. the Netherlands in the 1990s), still other are taking tentative first steps (e.g. Denmark).

Sometimes, the right to purchase is given to the tenants (e.g. England or Ireland), and sometimes landlords can decide (e.g. Netherlands). (Scanlon and Whitehead 2007: 10). The share of owner occupation is particularly high in the UK, Italy, Ireland or Sweden. Some countries (including the Mediterranean ones such as Cyprus, Greece and Spain), have also
provided low-cost housing for sale as a means of social housing. Shared ownership is very present in some countries (e.g. Germany, Sweden), but without a particular geographical pattern (IZA - Institute for the Study of Labor, 2013, p. 10; Pittini and Laino, 2011).

What is more, the tendency in some countries is even reversing. After many years of favoring self-owned housing, over 80 per cent of Italians own their homes. Policymakers therefore ought to achieve more flexibility facing the growing difficulty of those who are not in the condition to take out a mortgage or who need temporary housing solutions. The availability of rent-controlled rental units is crucial in this respect (Fondazione Housing Sociale, p. 2).

Regarding the quality of the tenure provided, on the one hand privatization has tended to remove the better-quality stock from the social sector, such as for example in the UK or Hungary. On the other hand, in areas with an oversupply (e.g. eastern Germany and northern England), but also in pressure areas such as Dublin, Amsterdam or Paris, social housing from the “golden age” is demolished and replaced by mixed-tenure housing. The main purpose here is to provide mixed communities and greater sustainability (Whitehead and Scanlon, 2007, p. 10).

Table 3: Tenure Split in the 27 EU Member States as a Percentage of the Total Housing Stock (Pittini and Laino, 2011, p. 10)

Provision: Declining municipal involvement and increasing diversity of actors

Actors potentially involved in the provision of social housing are local authorities and municipalities (including public companies), non-profit or limited-profit associations and companies, cooperatives, and in some cases even private for-profit developers and investors.

The progressive decentralisation of responsibilities to the regional and local level in the 1990s gradually reduced the responsibility of public stakeholders in housing provision in most countries. As government subsidies and spending are becoming increasingly more targeted and thus also very much limited, the private sector is becoming more and more involved in social housing, e.g. in the form of non-profit housing associations, but also private commercial developers. This includes the development of new dwellings. They rely
on large-scale government subsidies and financing aids, with the public sector regulating and programming the housing provision within public-private partnerships, often on a local level (Pittini and Laino, 2011, p. 58; IZA - Institute for the Study of Labor, 2013, p. 27).

This yields a mixed picture regarding the providers of social housing. In many European countries municipalities still own much of social housing dwellings, e.g. in Hungary or Sweden almost all social housing is owned by municipal authorities. In most Central and Eastern European countries, although relatively small, this constitutes the only form of social housing presently available.

In the larger national social housing sectors, however, e.g. in England there is a 50/50 split between municipalities and housing associations, in France almost 2/3 are owned by housing associations, and in the Netherlands close to 100% (Whitehead and Scanlon, 2007, p. 12). In other countries, cooperatives play important roles (Austria, Belgium, Estonia, Germany, Hungary, Italy, Poland, Portugal, Spain and Sweden). While non-profit housing associations and cooperatives are usually part of the social sector that use private funds and subsidies (e.g. in England, the Netherlands or Ireland), in some countries also purely private developers and construction firms are significantly involved in development and ownership (e.g. in Germany and Austria) (Pittini and Laino, 2011, 32f; Whitehead and Scanlon, 2007, p. 13).

Beneficiaries: eligibility criteria for social mix and very social housing

Eligibility criteria for social housing

Significant geographical variation emerges in the eligibility criteria of potential beneficiaries. Countries including Austria, France and Germany set the highest income ceiling sufficiently high in order to guarantee an income mix among beneficiaries, whereas such ceilings are set at very low levels in other countries (such as Italy). Social housing waiting lists are open to anyone in some countries (Denmark, Sweden and the UK), in order to promote a social mix in social housing communities and to avoid social segregation. However, despite the absence of an income ceiling, strong correlation exists with income conditions here as well (IZA - Institute for the Study of Labor, 2013, p. 11; Whitehead and Scanlon, 2007, p. 18).
Table 4: Access to social housing: income limits (Source: Whitehead and Scanlon, 2007, p. 18)

<table>
<thead>
<tr>
<th>Country</th>
<th>Income limits at entry</th>
<th>% of population eligible at entry</th>
<th>What happens if income exceeds limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Denmark</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>England</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>France</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Germany</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Hungary</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Ireland</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Netherlands</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Sweden</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

Table 4 provides an overview of how the income limits set in various European countries differ. Important to note is that there is often a difference between formal policy and actual practice. As can be seen, de facto practice often distracts from formal rules. This is especially the case where formal rules collide with central objectives within social housing agendas, such as promoting a social mix within communities. For example, in many countries it is an objective to attract people with relatively good income or income prospects and those called ‘key workers’ to social housing communities in order to lift the overall social mix.

However, there is a general, convergent trend for the EU social sector to increasingly target towards the most vulnerable population as a consequence of the development outlined in this section (cf. also 3.2 Solution approaches). The Netherlands represent one of the most prominent examples of this process. While social housing was accessible to all until 1st January 2011, a maximum income limit of €33,000 per household per annum has been introduced (IZA - Institute for the Study of Labor, 2013, p. 25).

Demographics of social housing tenants

Concerning social housing demographics, we see that in all European countries social tenants have a particular demographic profile. While social housing tends to house the young and the old, as well as single parents and larger households, middle-income two-parent families tend to prefer owner occupation. Although this is a desirable objective promoted by many countries, it also leads to segregation and tenure polarisation (Whitehead and Scanlon, 2007, p. 26).
Beneficiaries of social housing are disproportionately often *ethnic minorities*. Three main reasons may account for this: They tend to have lower incomes, to live in cities (where social housing is more widespread than in rural areas) and to prefer living in communities (which is easier in social housing). As a result, ethnic minorities are often concentrated very much in urban social housing areas and/or in peripheries of the cities (Whitehead and Scanlon, 2007, 26f.), such as the “banlieues” in France.

What is more, an increasing part of newly built social housing is set up for special-needs. Definitions somewhat differ here but include housing for the elderly, the disabled (physically and mentally), or sometimes large families (Whitehead and Scanlon, 2007, p. 11).

*Table 5: Demographics of social housing (Source: Whitehead and Scanlon, 2007, p. 26).*

<table>
<thead>
<tr>
<th>Country</th>
<th>Age/household type</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Young families (on new estates), older people/single</td>
<td>Municipalities: working class/disadvantaged, HA: middle class</td>
</tr>
<tr>
<td></td>
<td>person on (on older estates)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children and young people, households with one adult</td>
<td>Low-income and households receiving transfers</td>
</tr>
<tr>
<td></td>
<td>Young and old, single parent, single person</td>
<td>Average household income &lt;74% of national average</td>
</tr>
<tr>
<td></td>
<td>Single-parent families and couples with children</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Older people</td>
<td>Lower income</td>
</tr>
<tr>
<td></td>
<td>Low income and social status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single parent families and couples with children</td>
<td>Lower than average and falling</td>
</tr>
<tr>
<td></td>
<td>Older/smaller than average</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>Single parent, elderly single</td>
<td></td>
</tr>
</tbody>
</table>

*Very social housing*

Whereas in most European countries social housing is available to large parts of the population, or in some countries even to almost all (Whitehead and Scanlon, 2007, p. 18), there is a sub-section in the field of people who are below the income thresholds or do not match other eligibility criteria for social housing. Basically, these can be considered as the most marginalized populations on the social housing market.

Those most vulnerable groups are accommodated in the *very social housing* sector which targets, among others, homeless people, asylum seekers, ex-psychiatric patients, ex-addicts or victims of domestic violence, or speaking more generally very social housing “is aimed at housing as well as incorporating those people excluded from or marginalised in the labour market.” (Reinprecht and Lévy-Vroelant, 2008, p. 210). It is provided very often by municipalities, but also by charities concentrating on the respective vulnerable group and welfare organisations (Whitehead and Scanlon, 2007, p. 20; also see Lévy-Vroelant et al., 2008). This latter fact illustrates the definitional and political question as to who are (in definitional terms) or who should be (in political terms) the beneficiaries of social housing: (low-income) working households or the most marginalized member of society (Whitehead and Scanlon, 2007, p. 21).
Concerning its particular actor constellation, Reinprecht and Lévy-Vroelant (2008, p. 215) hypothesise that very social housing is a contemporary renewal of the original 19th century core idea of social housing and that “the ‘very social’ system is combining, in a contemporary way, the traditional principles that were at the very origins of social housing: the alliance between private actors in the broader sense (including profit and non-profit sectors) and forms of public funding”.

Very social housing draws in special construction standards which are typically lower; temporary and often short-term tenure contracts. There is access control by social workers; and often dwellings are in disadvantaged locations. Overall this leads to a bad image of very social housing and its residents, which also makes it harder for them to get out of them and instead settled in society (Lévy-Vroelant et al., 2008).

Data on very social housing, however, is rather anecdotal, e.g. Lévy-Vroelant & Reinprecht (2008) provide data only on Vienna and Paris: There are 3,000 very social housing places in Vienna and 2,000-3,000 in Paris.

**Funding arrangement: increasing leverage of private capital**

Funding arrangements of housing projects rely on different sources in almost all EU member states, in general with different forms of public sector involvement. In some countries where social housing is provided directly by local authorities, the financial resources come from transfers from the national budget. In Austria, Italy or Luxembourg, public land is offered at discounted prices, or tax deduction and detraction for social housing providers is given (IZA - Institute for the Study of Labor, 2013, p. 11; Pittini and Laino, 2011, p. 27).
Recently there is also an increasing tendency to provision schemes. Public funding and loans are warranted to commercial developers and private landlords in exchange for the using rights for the municipalities or the qualification as protected dwellings to provide social housing. This occurs e.g. in Germany, Italy, Spain, or the Czech Republic (IZA - Institute for the Study of Labor, 2013, p. 10; Whitehead and Scanlon, 2007, 2008). In Dublin, local authorities oblige private developers to transfer 20% of new dwellings on larges sites to the city for use as social affordable housing. A similar policy is established in Munich. In England, between 20 and 50 per cent of larger new and regeneration developments must be affordable housing (Whitehead and Scanlon, 2007, p. 11).

However, in many countries private investments add significant portions to government spending, for instance in Sweden, Germany, or Eastern-European transition countries. In the Netherlands, financing of new housing in the housing association sector is entirely private. EU legislation towards a residual social housing approach is fuelling this development (Whitehead and Scanlon, 2007, p. 11). In Germany for instance, the established model has been building on private-sector provision for decades, with an obligation that housing has to be social housing in the first place and only for a limited period of time. After this period it is privatised, i.e. moved into free markets. In some cities, e.g. Vienna, we also see private actors being involved in the form of public-private partnerships.

There is also a trend of private actors getting involved at the boundaries of social housing, i.e. investments in intermediate social housing and affordable housing. There, for instance, governments or municipalities offer shallower subsidies or tax breaks to investors for building such housing to support, e.g. in France, Ireland, Germany, England, and the Netherlands (Whitehead and Scanlon, 2007).

**III. Current issues and developments in social housing**

Although widely distributed and “mainstream” meanwhile, social housing as a social innovation still faces continuous challenges and need for adaptation (Whitehead and Scanlon, 2007, 51f; IZA - Institute for the Study of Labor, 2013, 27f; Tutin, 2008, p. 54), and there is a variety of recent challenges and developments.

**Consequences of Economic Crisis**

The unexpected external shock of the economic crisis resulting from the financial debt crisis starting in 2008 had various effects on the demand for affordable housing and social allowances in the majority of European countries, as well as on the financial resources available for social housing (Whitehead and Scanlon, 2007; Pittini and Laino, 2011; IZA - Institute for the Study of Labor, 2013, 14ff; Parlasca, 2013).

**Increasing demand rates**

A significant increase in poverty rates, rising rents, and mortgage arrears led to housing exclusion by means of re-possessions and evictions. Middle class households (facing an increasing unemployment rate) and workers with temporary or atypical contracts (limited accessibility to stable tenancy or home ownership) are affected, and the number of people registered on social housing waiting lists rose across Europe. E.g. in Ireland, the number of people in need of local authority housing has increased by 75% since 2008 (from 56,000 to 98,000 applicants). In England, housing waiting lists from 1997 to 2011 constantly increased from 1 to 1.8 million households. In France, 1.2 million and in Italy 630,000 applicants were registered on waiting lists for social housing in 2012. (Whitehead and Scanlon, 2007; IZA - Institute for the Study of Labor, 2013, p. 14)
After an initial phase of significant investment in social housing both as a ‘social shock absorber’ and a way to strengthen the construction sector in many countries, the following economic downturn from the middle of 2011 onwards limits the ability for further public intervention in the housing market (IZA - Institute for the Study of Labor, 2013, p. 16). Public expenditure and the budget presently dedicated to housing policies is reduced significantly for instance in England, Portugal, Poland, Austria and Greece. An upward revision to the VAT rate applied to social housing occurred in Italy, France, the Netherlands and Spain. Only few exceptions such as the Belgian regions of Flanders, Wallonia and the capital Brussels, for example, show a stable, if not increased, allocation of the public budget for social housing in 2012. Table 7 comprises the effects of the financial crisis on basic dimensions of the social housing sector in comparison to data from 2003/2004.

Table 7: The effects of the crisis (IZA - Institute for the Study of Labor, 2013, p. 22)

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Note: Comparisons are made with 2003/2004.
Sources: CECODHAS.

Investment in social housing after the recent economic crisis
Due to the financial debt and following economic crisis since 2008, significant budget constraints occurred in almost all EU member states and affected the availability of financial resources in the sector. Yet, most states have responded to the increased demand with public expenditure in social housing. The investment in social housing was a significant part of some governments’ recovery programmes, and expenditure as a percentage of GDP experienced a sharp increase between 2007 and 2008, as shown in Figure 3 (data averaged
across Europe). Social housing expenditure represented 0.1% on average of GDP in the EU-27 area (IZA - Institute for the Study of Labor, 2013, 15f.).

*Figure 3: Social housing expenditure in % of GDP – EU 27 (IZA - Institute for the Study of Labor, 2013, p. 16)*

With reference to the different social housing models, Figure 4 shows that countries adopting a targeted social housing model took the highest social housing expenditure (0.12% of GDP) until 2005. However, a steep increase since 2006 particularly occurred in countries with a residual model (+0.03 percentage points compared to less than +0.01 percentage points for countries with a targeted social housing model, and constant values for countries with universalist or generalist social housing models) (IZA - Institute for the Study of Labor, 2013, p. 17)
Changes in regulation
In response to the crisis, European countries are applying differing strategies of social expenditures to provide a ‘safety net’ for their populations, with different effects in the social housing sector. Besides the amount of money spent, some countries applied rationalization measures and focused on funding housing associations with some special needs schemes (e.g. pensioners or people with disabilities in Ireland) (IZA - Institute for the Study of Labor, 2013, p. 18).

The regulation of the sector has also been modified in a number of countries in order to increase the financial autonomy and sustainability of social housing organisations by relaxing the norms that regulate the way social housing providers should finance their operations.

As a direct consequence of the crisis, the rising need to facilitate access to private funding and better financing conditions for social housing organisations has emerged in many European countries, leaving social housing to experience an increasing diversification of its finance mechanisms and sources over the last few decades. Despite more expensive funding following the economic crisis, the sector is actually seen as a risk free (and therefore attractive) investment for lenders due to its specific features: high level of regulation, significant explicit or implicit guarantees, and long-term, stable and predictable cash flows. Because of the economic crisis, investors have become more risk averse which somewhat enhances the ability of the social housing sector to obtain funding from the private sector.

Raising additional funding through the private financial sector requires social housing organizations, among others, to prove their creditworthiness to lending and investment institutions, e.g. by adopting a public credit rating (IZA - Institute for the Study of Labor, 2013).

EU guidelines and legislation
There are also challenges to social housing markets in Europe due to EU guidelines and legislation, and particularly countries with a universalist tradition of social housing are increasingly coming into conflict with EU rulings on the permissibility of state subsidies. In
2005 the EU defined social housing as ‘housing for disadvantaged citizens or socially less advantaged groups’ who for financial reasons could not get market housing (Boccardo, 2008; Ghékière, 2008). Further, EU law states that only Services of a General Economic Interest (SGEI) may receive such subsidies. Universalist approaches that sought to achieve social mix and heterogeneity within urban regions also support middle- and higher income groups, which does not qualify as an SGEI (Whitehead and Scanlon, 2007). Generally this leads – together with the effects of the crisis – to an increase of targeting at the most vulnerable population.

However, target groups do not necessarily have to meet all the criteria contained in the definition, as a decision for Sweden in 2007 suggests. The country was allowed to subsidise housing for the elderly as the definition did not stipulate that elderly people had also to be poor to be eligible to such housing. Another argument in favour of holding up a more universalist tradition (such as in the Netherlands or Sweden) could be that the provision of social housing to all does contribute to the achievement of several overarching community objectives, including social protection and improved standards of living (Ghékière, 2008). Legislation was objected by several countries; however, without notable success. In the Netherlands, where social housing was accessible to all until 1st January 2011, a income limit of a maximum of €33,000 per household per annum has been introduced recently (IZA - Institute for the Study of Labor, 2013, p. 25).

**Requirement for multidimensional social housing approaches**

The requirement for multidimensional social housing approaches has been a trend for long and is based on fundamental ideas established already from the beginning of social housing initiatives (cf. also Part 3). The need for a multidimensional approach to the issue of housing, addressing the real estate components together with social and other intangible components is getting stressed increasingly (Pittini and Laino, 2011). Construction projects are thus flanked by programs to support, guide and facilitate community development, with the overarching objective of enhancing the sustainability of local communities through diversity.

Given the variety of requirements, current terminology relates to the concept of corporate social responsibility (CSR) in the social housing sector, or responsible housing. Main topics are:

### Segregation, social mix and urban renewal

Practically in all of the countries there is a concern about segregation of society through social housing. Establishing mixed tenures and a mix of beneficiaries within a geographic area of social housing or to mix social with regular housing therefore is an objective. More and more demands are voiced to carry out the (sometimes contradictory) missions of fulfilling the right to housing whilst also fostering the social mix. Accordingly, social housing plays an important role in urban planning and renewal processes (Whitehead and Scanlon, 2007, p. 32) because of the circumstance that the deprivation of areas and neighbourhoods (associated with urban riots in France in October 2005, and more recently in Denmark and the Netherlands) require large-scale regeneration policies.

### Broadening role to ‘non-landlord services’

What is more, social housing even more comprises non-landlord services (Brandsen et al., 2011). Beyond the living conditions of deprived households, social housing is also increasingly getting linked with measures to address individual problems such as lack of language skills, unemployment or loneliness among the elderly (IZA - Institute for the Study of Labor, 2013). Moreover, there is an increasing focus on community building and strengthening social cohesion within the neighbourhood. This puts pressure on private
developers and landlords to expand their role expertise (Whitehead and Scanlon, 2007, p. 32), and thus inhabitants with special needs are often served in partnership with specialist stakeholders, e.g. in Scandinavia, the Netherlands, and France.

Participatory models and client orientation
Participatory models where residents are given significant control over the design and management of new or refurbished social housing are still on the rise (Knorr-Siedow, 2008). In Vienna, the democratically elected representation of the municipal housing for each complex is supposed to equally represent the interests of the different groups of tenants (age, gender, ethnicity, etc.). In Lyon, there was an open consultation process with inhabitants of deprived areas such as the 8th arrondissement. Residents were asked about the atmosphere of their neighbourhood, with questions designed to reflect precise details, such as the condition of individual staircases in housing blocks, or the cleaning of communal areas. (Enquete Ecoute Habitants, Lyon) (Open Society Foundations, 2014). Due to the orientation towards modern service enterprise tenants are increasingly seen as clients whose needs ought to be served effectively and efficiently.

Energy efficient buildings
Finally, the increasing importance of sustainability requirements for housing imposes a new mission to the social rental sector as a pioneer in technical and social experiments. New dwellings are demanded to meet the highest environmental energy efficiency standards (“zero emissions”). This is a topic of particular relevance in Germany, France, The Netherlands, Denmark, or the UK, and the discussion is underpinned by arguments of strong economic efficiency (Tutin, 2008, p. 54).

Housing markets development and rents
Currently, many housing markets are characterized by price volatility, financial deregulation, a rise in home ownership and the lack of a large rental sector, as well as house-price levels in capital cities and other metropolitan areas. Housing affordability for lower-income employed workers (notably ‘key workers’ in public-sector jobs) therefore has become a concern even more growing in most European countries.

Social housing providers applying estate-based cost rents or income-based rents increasingly have problems to ensure adequate maintenance and improvement of their housing stocks, as rents are lower particularly in the older housing stocks. Value-based rent systems are therefore being discussed (Whitehead and Scanlon, 2007). Self-renovation approaches of beneficiaries are thus adopted in some countries (IZA - Institute for the Study of Labor, 2013, p. 33), however, it is questionable to what extent these can solve the matter.

Other challenges
Locations
Social housing originally was built where industries developed, and later on in the suburbs of cities. However, today the greatest demand for affordable housing is concentrated in pressure areas within cities. Moreover, considerable parts of the housing stock are now becoming dilapidated. This mismatch needs to be solved, also in (re)construction activities. Particularly in the UK or Germany, but also Sweden or Finland, this question currently emerges (Whitehead and Scanlon, 2007, p. 31).

Reputation and acceptance of social housing
A further issue relates to the reputation of social housing. In some countries, such as in France for instance, the image of social housing is getting increasingly worse. Despite financial incentives and penalties, some communes have flatly refused to build social housing
dwellings (Droste et al., 2008), which particularly makes it difficult to take influence on the social mix. The “Not in my backyard” syndrome (NIMBYism) complicates the building of new social housing in prosperous areas. Terming the settlements ‘key worker housing’ brings some mitigation, yet the problem still is increasing steadily. This particularly holds for very social housing initiatives.

| Further data and readings

**Data on the current situation in social housing**
- tenure, eligibility criteria, problem situation, funding arrangements, satisfaction with housing situation, effects on recent economic crisis etc.,
- (Pittini and Laino, 2011)
- (IZA - Institute for the Study of Labor, 2013)
- (OECD)
- (Parlasca, 2013)
- (United Nations, 2013)
- (Whitehead and Scanlon, 2007)

**Data on current funding streams for social housing in Europe**
http://www.housingeurope.eu/section-16/european-funding
http://www.housingeurope.eu/resource-104/social-housing-in-europe

**Best Practice examples**
(European Responsible Housing Initiative, 2014): Shortlist of Best practice examples in five categories (Economic responsibility and sustainability; Local social sustainability, environmental sustainability, good governance and fair relations with stakeholder, responsible human resources management)

(IZA - Institute for the Study of Labor, 2013): Cases on the following topics: Combining the housing needs of different generations; building new energy-efficient houses; providing quality housing and services; enabling affordable homeownership and creating social networks through self-renovation; renovating public housing while reducing tenants’ debt

- cf. also embedded case “Social housing in Hungary”

**2.5 Impact of the SI**

| Questions

In a long-term perspective, how did the social innovation unfold its impact in its initial field of activity and beyond (e.g., did the improved sanitation and health situation also improve the situation of the target group on the labour market)?

How can the positive impact of the social innovation be described (e.g., improved access to resources, learning options, self-confidence, etc.)? At which structural levels of society did the social innovation achieve impact?

Have there also been any negative impacts in the targeted field of activity and beyond?
Summary of key points

- As primary effect, social housing has been providing a huge amount of housing units across Europe for many years; however, this not always was to the benefit of the most marginalized.
- Still there are people affected by a poor housing situation, although to a far lower extent in most countries (i.e. the social problem is not entirely solved).
- Indirect or secondary effects of social housing have become visible in social mobility effects, community development, urban renewal, economic development and employment, as well as energy savings and technological modernization.

Content

Social housing had different effects and impacts along its development as a social innovation. While it is different to describe the impact in a strict sense (i.e. what would not have happened otherwise), several effects can be structured according to their type and dimensions. A basic distinction can be made here between primary effects on the actual accommodation situation of the beneficiaries (and particularly the most marginalized) and secondary effects on individuals and society. These can, however, each be rather positive or negative.

I. Affordable and decent housing provision for the most marginalized?

With regard to effects in terms of mitigating and solving the problem of decent housing provision, a considerable number of social housing dwellings emerged across Europe, as showed the previous section. Furthermore, PART 3 will illustrate that there have been ups and downs in these development, including shifts e.g. from rental to home ownership.

The number of beneficiaries increased considerably, outnumbering the “happy few” who had the chance to benefit from early philanthropic solutions. However, the illustrations throughout the template also show that it was not always the most marginalized who benefited. Furthermore, if they did, the housing provided did not necessarily come at best quality (cf. 1.2 Targeted beneficiary groups; 2.1 Antecedents and invention of the SI; 3.2 Problem solution).

Also, the social innovation still has not succeeded to “solve” the social problem in the sense that the housing need in vanished. As will be shown (cf. 3.1 Social problem), problems such as overcrowding, a lack of basic hygienic facilities etc. are still a problem in practically all European countries, although to varying extents.

II. Secondary effects for individuals and society

Social mobility

Integration of working families in the lower middle class was already a purpose of early philanthropic solutions in the 19th century. Particularly during the “golden age” after 1950, social housing fostered upward mobility for the working class on the one hand, and consolidation of the position of the middle class on the other. Broad access to social housing significantly contributed to an elevator effect and to the chance to benefit from the wealth coming with the economic boom (Lévy-Vroelant et al., 2008, 38f.).
An instrument for doing so were additional measures such as teaching language skills, job training, or individual psychological care, as social housing early on often had been embedded in broader welfare policies (cf. 3.2 Solution approach). At the Société Mulhousienne des Cités Ouvrières, a scheme to gain ownership of the housing for the workers was involved as a means of societal inclusion (cf. 2.1 Antecedents and invention of the SI). Also, already in earlier times emancipatory elements had been incorporated in architectural styles in order to liberate women in WW1 (cf. 3.7 Technological innovation).

However, certain social housing policies, particularly the building of high-rise estates in remote suburban regions that became “hard-to-let” places after a while, might also have worked against social mobility, as protests and even riots, e.g. in the former French lotissements indicate (Harloe, 1995, p. 45) show.

Community development and social mix
Social housing was always closely related to community management and urban socio-spatial segregation, both in positive and negative ways. From the beginning on, at least some parts of social housing solutions (e.g. Familistère in de Guise) involved community building measures, such as meeting rooms, childcare facilities, or even participatory governance structures involving tenants.

However, on the other hand, particularly slum clearances and re-locations, but also social housing policies in the “goden age” contributed to socio-spatial segregation and dissolvement of social ties. Despite examples such as Vienna, where housing policies largely had an anti-segregation effect, urban socio-spatial segregation is a common feature of large-scale neighbourhoods where social housing was built in the 1960s and 70s, irrespective of the model of social housing adopted.

Urban renewal
Social housing has also been strongly been linked to urban renewal policies, i.e. the demolishing and rebuilding of deteriorating housing stocks (Wassenberg, 2008). In some cases, social housing also attempted to dissolve the concentration of vulnerable people in suburban areas by improving the social and environmental standards. However, as the residents then moved to other areas, this often merely led to a displacement of problems (Droste et al., 2008).

Economic development and employment
What is more, social housing construction often also was an instrument for stimulating economic development. This can for example be illustrated by the recovery phase after WW1. For example, with the municipality’s plan to build 25,000 housing units in 1923 (period of the super blocks), the social democrats in Vienna intended to provide jobs for thousands of construction workers, craftsmen, etc. Moreover, the program was to contribute significantly to the beautification of the city. Also after WW 2, the INA plan in Italy from 1950 to 1962 put into operation 20,000 building sites in 5036 municipalities, which corresponded to the stable employment of 40.000 construction workers per year.

Energy savings and technological modernization
When social housing moved into the responsibility of public authorities, it also became a field of experimentation for testing or adopting new and – socially or economically – desirable technologies. An earlier example for this has been the electrification of the social housing stock after WWI, for instance in Germany (related to Neues Bauen, cf. 3.7 Technological developments).
Recently, energy efficient construction has become a mandatory element at least for some social housing construction or renovation (e.g. IZA - Institute for the Study of Labor, 2013, p. 29; cf. also [http://www.powerhouseeurope.eu/](http://www.powerhouseeurope.eu/)). It could be further inquired, however, how cheaper construction technologies have contributed to environmental pollution in previous periods.

### Possible questions of analysis Part 2

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<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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<tbody>
<tr>
<td>WP 1</td>
<td>To what extent has the social innovation been incremental (adaptive change in practice, e.g. with a focus on products or services that addressed identified market failures effectively), institutional (changes in the Social Grid practice, e.g. reconfiguring existing market structures to create social value), or disruptive (radical change in practice, e.g. with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
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<td>WP 3</td>
<td>Evaluative Space: which was/is the initial goal of the SI process? Did it change over time? Who has been/is being empowered by the SI process?</td>
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<td>WP 4</td>
<td>Which kind of technological artefacts and infrastructures were required for the development of the SI? Which kind of novel technological artefacts (TA)(^{19}) and / or new infrastructures were involved in the development of the SI? Which kind of key techniques (TC)(^{20}) are required for the SI? Was it necessary to acquire new techniques (TC) in order to implement the SI? Can specific reoccurring developmental stages be identified for SI? Can their development be described as linear, cyclical, etc.? Are there path dependencies in SI? What drivers or obstacles fostered and hindered the social innovation? Which cognitive frames, networks and institutions did change along the lifecycle of the SI? How did the dynamics between these elements change? Did the reduction of one form of marginalisation cause another?</td>
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<td>WP 6</td>
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\(^{19}\) Technological artefacts (TA) including “hardware” (TA\(_h\)), i.e. any kind of material artefacts, and “software/Apps” (TA\(_a\)), i.e. any kind of software apps, protocols, services, blueprints….

\(^{20}\) This can include: TC\(_s\) – Somatic techniques (e.g. swimming, singing …), TC\(_e\) – Exosomatic techniques (e.g. making fire, writing, haircutting, riding a bike or car,…), TC\(_p\) – Primary production techniques (meaning human appropriation of net primary production in agriculture and exploitation of the lithosphere), TC\(_i\) – Industrial techniques, TC\(_c\) – Communication techniques, etc.
PART 3) Influences and relevant context factors

3.1 Social problem

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<td>Have there been any changes, extensions, etc. in the addressed social problems or marginalised target groups, from a long-term perspective? Can different reasons be identified over time that were responsible for the rise and persistence of the social problem? Are there reoccurring patterns that repeatedly caused a need/fostered the adaptation and distribution of the social innovation?</td>
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<th>Summary of key points</th>
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<tr>
<td>- The need for social housing has been remaining with geographical differences and varying degrees of severity over time.</td>
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<td>- Intertwined contextual factors such as consequences of warfare, economic developments, political transformation, demographic changes, and poorly executed social housing policies contribute to the persistence of the problem.</td>
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<td>- Individual risk factors to be affected from housing problems are having no regular employment, a poor education, a migration status, being very young or elderly. Also people with special needs such as those with disabilities (physical and mental), are increasingly considered in social</td>
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<td>- Homeless people, asylum seekers, ex-psychiatric patients, ex-addicts or victims of domestic violence are addressed by the very social housing sector.</td>
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<td>The need for affordable and decent accommodation for different target groups never disappeared. Statistics show that substandard living conditions including inadequate water supply and a lack of flush toilet and shower are far from being defeated and seriously affect health conditions particularly in the new member states in the EU, but also in the old ones (World Health Organization, 2012). Most affected are people living below the relative poverty level in Eastern European countries, as Figure 5 shows:</td>
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Also overcrowding\textsuperscript{21} is still a problem today, although most likely the scale is different today. In Latvia and Romania the overcrowding rate exceeds 50% (respectively 57.7% and 55.3%) and in most Eastern countries the share of the population suffering lack of space represents more than one fifth of population. The lowest percentages were recorded in Cyprus (1%) and Netherlands (1.7%). Figure 6 shows – not surprisingly - that particularly population at risk of poverty is more likely to live in overcrowded condition (average 30% overcrowding rate) (Pittini and Laino, 2011, p. 16).

\textsuperscript{21} According to the European Union Statistics on Income and Living Conditions (EU-SILC) “a person is considered as living in an overcrowded dwelling if the household does not have at its disposal a minimum number of rooms equal to: one room for the household; one room per couple in the household; one room for each single person aged 18 or more; one room per pair of single people of the same gender between 12 and 17 years of age; one room for each single person between 12 and 17 years of age and not included in the previous category; and one room per pair of children under 12 years of age”. Pittini and Laino (2011, p. 86)
Moreover, the problem evolved in its nature and complexity over time. As it appears to be driven by individual as well as contextual factors, both types of factors can provide some explanation.

I. Contextual factors contributing to the social problem

Regarding contextual factors, an increasing need for social housing usually occurs in times of crises that have an impact on the overall economic, demographic and societal situation. These factors are intertwined (e.g. wars had consequences on the economic and demographic developments or on the social housing stock and policies), yet the factors for analytical purposes shall be discussed separately in the following.

Warfare

Wars, particularly WWI and WWII, for several reasons had severe effects on the housing markets. During WWI, housing investment virtually stopped and housing finance collapsed, given that new lenders were cut off and existing lenders had massive losses as inflation destroyed the value of their loans and debt repayments. Furthermore, rent levels rapidly inflated and the number of evictions of tenants unable or unwilling to pay increased (International Labour Office, 1924, p. 3), so that for instance in Germany and Great Britain compulsory rationing or billeting of housing was adopted.

Furthermore, the housing stock was decimated considerably. For instance, immediately after war housing shortage was estimated 400,000 units in France, a number of 600,000 in England and Wales, or 800,000 in Germany (Harloe, 1995; International Labour Office, 1924). At the same time, the demand increased due to demographic changes such as a high number of returning soldiers and exceptionally high birth rates, marriages that had been postponed during war\(^{22}\), and migration. In Vienna after WWI, for example, a great number of civil servants, veterans, and high ranking military personnel who served in the former Crown Lands (*Kronländer*) returned to the city (Kernbauer and Weber, 1984, p. 6; Zimmerl, 1998, p. 62).

Moreover, war profiteering and growing wage inequalities during WWI caused social tensions across Europe. After WWI, both the left and right wing of the political spectrum radicalized. Revolutionary ideas spread amongst the worker movement across Europe, often accompanied by an also impoverishing middle class, e.g. in Germany. This put public authorities under pressure to deal with social unrests (Harloe, 1995: 80). After the war, a short term of economic recovery then followed a period of economic depression, during which unemployment and high debts accumulated in most countries. Economic turbulences were reinforced by the fact that there was no joint international effort to stabilize the system (Harloe, 1995, 87f.).

After WWII, the political, economic and social consequences were disastrous. The destruction of transport and productive capacity by military action and dilapidation was horrific, particularly in Germany, France, and the Netherlands. The population, however, grew. Refugees and migrants flooded many cities, either for political reasons mainly coming from the East to West Germany, Austria or Italy, or also due to modernization processes in

\(^{22}\) In Paris there were twice as many marriages in 1920 as in 1913 International Labour Office (1924).
countries that had held up a strong agricultural sector for long. Furthermore, the baby boom put additional pressure on the housing situation. In Finland, from 1945 to 1951 the population in cities grew by 415,000 due to the exceptionally high birth rates and migration (Juntto, 1990b, pp. 191–196).

The (social) housing stock was decimated considerably. This was not only due to war damages, but also because of a lack of war-time building and the inherited pre-war shortages.

- In West Germany, estimations are that in 1950 there were about 10 million units, many of them temporary shacks and ruins, for 16 million households (Harloe, 1995).
- In Italy, 40 per cent of the families were living in basements, caverns, shacks, and under-stair units, and 17 per cent cohabitated with other families. This summed up to an estimated housing need of 10 million rooms (cf Embedded case Social housing in Italy).
- In Finland, a tenth of the country's housing stock had been lost by concessions of territory to the Soviet Union and about 400,000 Karelian evacuees needed to be settled within a few years’ time (Juntto, 1990b, pp. 191–196).
- In Vienna, 20% (about 87,000) of all housing units were destroyed, 35,000 people had become homeless (cf Embedded case Social housing in Vienna).

An UN report estimated that in the 17 countries under consideration, the equivalent of six years’ housing construction at average pre-war rates was destroyed. In total, about 15 million units were expected to be necessary to compensate for this in order to replace slum housing, remove chronic overcrowding and account for the newly developing demand. Even on the unrealistic assumption that the countries would double their pre-war rate of housebuilding (given that the private building industry and private sector capital or money markets were barely functioning), a period of 22 years would have been necessary to achieve these numbers of households (UN Economic Commission for Europe, 1949; Harloe, 1995, p. 256).

**Economic developments**

The problem of accommodation for target groups with difficulties to afford decent housing on free markets initially was strongly urged by industrialization and the related economic situation. Also afterwards, economic developments have had decisive effects on the need for social housing. For sure these developments met different economic and structural preconditions in different countries, so that the consequences vary. However, general tendencies can be detected.

The world economic crisis in 1929 and the following great depression led to a cutback of resources and construction activities by public and private investors. This caused mass unemployment to become the key issue, causing renewed social unrests. It also contributed to the rise of the Nazi regime in Germany.

The economic crisis from the mid of the 1970s had strong effects as well. The phase of dynamic economic growth characteristic for the preceding post-war period of recovery was over. After the opportunities for modernization and high productivity rates diminished and infrastructure had been restored, structural unemployment, low growth rates and even recessions emerged. Further, the transformation towards less industrialized and more service-oriented industries with stronger international competition was dawning, and there was a persistent precesence of inflation and a depolarisation of incomes. Deregulation of financial markets in the 1980s further also imposed some problems for sustaining cheap housing capital (Ball, 1986). However, social housing by now had become a mass phenomenon and accounted for a large part of the housing stock in many countries, accommodating broad parts
of society and being represented by large scale social housing institutions (Harloe, 1995, 365f.). As shall be seen below, this lead to an increasing owner occupation and residualization in the social housing system, although not always to the benefit of the most marginalized.

Recently, the economic crisis (as a consequence of the financial / debt crisis beginning in 2008) again quickly filled up the waiting lists for social housing provision (Pittini and Laino, 2011; IZA - Institute for the Study of Labor, 2013; Parlasca, 2013). As a consequence of that, in many countries housing demand transformed and diversified over time. For instance in Italy, Spain or Portugal, an increasing share of singles, single-parent families, immigrants, temporary workers, off-campus students, unemployed youth or elderly demand social housing (Pogliani, 2011; Propersi et al., 2012), although such target groups were already increasingly affected from the mid of the 1970s onwards (cf. 3.2 Solution approach; Harloe 1995). What is more, wages development contributes to the fact that previous target groups of social housing have difficulties to afford even the social housing type of accommodation (Propersi et al., 2012).

Political transformation
Further historical incidents that affected the need for social housing are political transformation processes. During the period of Fascism and Nazi regime, eligibility criteria and general social housing provision became very selective and did not particularly address the most marginalized (Lévy-Vroelant et al., 2008). After the fall of the Iron Curtain and the defeat of the Eastern socialist bloc, economic pressure and mass privatization increased social housing needs in transformation countries such as Hungary (Hegedüs, 2008) (cf. also Embedded Case Social Housing in Hungary). A further consequence was the increase of immigration from Eastern Europe.

Demographic changes
Also demographic changes, described as war consequences already, have important effects on housing needs. For instance, since the 1980s, the share of elderly older than 65 years have been growing up to 30 per cent in some countries as a result of modern medicine and improved standards of living. Similarly, the share of single-parent or single-person households rapidly increased from the late 1960 onwards (Boelhouwer and van den Heijden, H., 1992). The number of single-person households has mushroomed, shooting up from 22 to 48 per cent between 2000 and the present alone. Many of these were low-income households, employed for instance in part time service jobs with temporary contracts. Accordingly, there was an increasing need for smaller units in social housing.

On the other side, there were also a growth of small, dual-earner households, with both partners working in well-paid service jobs. Such families limited the size of their families, delayed having children or remained childless. Accordingly, their budget for renting or buying accommodation in tight urban housing markets is higher, which is a main driver of gentrification processes (e.g Harloe et al., 1992).

Social housing policies
Also (social) housing policies themselves – in relation with other factors – have contributed to a scarcity of accommodation for marginalized target groups, and partly also created additional problems.

Privatization policies since the late 1970 generally aimed at an increase of owner occupation and more private provision and investment in social housing. As the embedded case on Large Scale Voluntary Transfers (LSVTs), Social Innovation and Marginalisation in the UK
shows, privatization in some countries has been creating a substantial ‘demand gap’ between annual demand for housing and the number of housing units actually being built. Further measures have forced housing associations to apply more restrictive access policies to avoid financial risks. In various countries, a high rate of owner occupation leaves little flexibility for social housing provision today (Harloe, 1995; Murie, 2008). Moreover, poorly executed suburban housing developments degraded the environment in major cities and were a source of major social problems in the following decade. In France and particularly Paris, the Zones d’Urbanisation Prioritaire (ZUP) had several drawbacks, as due to their social mix and the poor housing quality they increasingly became problem zones (Harloe, 1995, p. 42).

II. Individual risk factors

Regarding individual factors, many of the initial problems in terms of deprived capabilities (no regular employment, poor education, migration status, being very young or elderly; \(\rightarrow\) cf. 1.2 Targeted beneficiary groups) seem to be at least partly persistent.

Social housing demographics across all European countries show that social housing tends to house the young and the old as well as single parents and larger households; the share of ethnic minorities is disproportionally high. Middle-income two-parent families tend to prefer owner-occupation (\(\rightarrow\) cf. 2.4 Status quo of the SI; Whitehead and Scanlon, 2007). People with special needs such as those with disabilities (physical and mental), are increasingly considered in social housing too (Whitehead and Scanlon, 2007, p. 11). The most vulnerable groups such as homeless people, asylum seekers, ex-psychiatric patients, ex-addicts or victims of domestic violence are accommodated in what has emerged as the very social housing sector in France or Austria (e.g. Lévy-Vroelant et al., 2008).

Possible questions of analysis Part 3.1

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>Did reasons for marginalisation change over time?</td>
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<td>WP 3</td>
<td>How did empowerment in one dimension cross-fertilize empowerment in other dimensions?</td>
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<td>Which complementarities among context- and actor-characteristics were crucial?</td>
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<td>WP 4</td>
<td>Did the lack of access to new technological artefacts (TA) and infrastructures (TI) have an impact on the marginalisation?</td>
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<td>Did the lack of access to training to acquire relevant techniques (TC) have an impact on the marginalisation?</td>
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<tr>
<td>WP 5</td>
<td>Did the social innovation solve or mitigate social problems?</td>
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<td>Did the social innovation (usually) meet the needs of different target groups?</td>
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<td>WP 6</td>
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3.3 Actors and networks

Questions

Can specific networks or individual actors be identified as key players in the idea generation, invention phase, the innovation phase and the diffusion phase of the social innovation?

Are there also typical “adapters” that did not necessarily develop the social innovation (incremental innovation), but adapted it to their context and accordingly contributed to the
diffusion of the social innovation? Can they be located in a specific societal sector (civil society, market, public)? Did networks play a role in the adaptation process?

Were relevant actors or members of networks personally affected by the social problem addressed? Was or is the target group involved in the value creation process? Did the target group members take any collective action?

Which networks or other actors were important as catalysers, multipliers, or adapters? (e.g., sponsors, public authorities, politicians pushing for beneficial changes in legal frameworks, celebrities that increased public attention, etc.)? Where those actors particularly powerful? Why?

Did those actors and networks influence legislation, education curricula, or other institutions?

Which influence did these actors and networks exert on narratives and public discourses regarding the social problem/social innovation?

Please indicate if typical networks or other actors were present when a social innovation was invented or adapted. If so, did these different network and actor constellations change across different phases of the social innovation? Were these constellations influenced by the general framework conditions (e.g., the political welfare regime)?

<table>
<thead>
<tr>
<th>Summary of key points</th>
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<tbody>
<tr>
<td>- Before WWI, social housing was mainly provided by philanthropic fabric owners and social reformers. Political representation of lower working classes was rather weak, social democrats or labour party were only on the rise and more linked to the ‘respectable’ working classes.</td>
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<tr>
<td>- After WWI, municipal authorities committed to providing or more strongly supporting social housing. New links between labour, capital and state had emerged during the war, yet comparatively low wages of working classes caused social tensions. Institutionalization of social housing entities began.</td>
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<tr>
<td>- During and after the world economic crisis (great depression), social democrats were defeated and extreme forces gained power. Private institutions were increasingly involved in construction and maintenance of social housing.</td>
</tr>
<tr>
<td>- In the period after WWII, there was a rather broad consensus amongst societal parties, extreme forces almost completely disappeared. Public sector became heavily involved in many countries, European Union started to get involved.</td>
</tr>
<tr>
<td>- From the mid of the 1970s onwards, the public sector withdrew and private non-profits increasingly gained importance, also in urban renewal projects. Lower working and middle class drifted away, generally conservative parties dominated.</td>
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| Content |

Different actors and networks have been relevant for the development of social housing throughout its course. A basic distinction can be made between beneficiaries (→ cf. also 3.2 Solution approach), actors and networks that directly provided social housing, and those who acted more as social reformers, lobbyists, interest groups, funders etc.
Actor and network constellations have been highly dynamic and heterogeneous over time. Some authors argue that this is a reason for the innovativion capacity of social housing as a field (Lévy-Vroelant et al., 2008, p. 42):

“Social housing was never dominated by one actor for a long period. Private and public interests, central governments and local authorities, leftwing and right-wing ideologies, individualism and collectivism, big estates and singlefamily units, renting and ownership – all could be found in social housing. The heterogeneous (patchwork) character of the system may explain its exceptional capacity for adaptation and innovation. It is also the source of its remarkable pluralism - the actors are continuously reconfiguring, establishing new alliances and ‘techno-structures’ to adapt the fundamental ideas to new needs and circumstances and the structural characteristics given by path dependency.”

This section will provide an overview of the dynamics of these actors and networks including their interactions and interrelations along the relevant phases and discuss reoccurring patterns and constellations.

**Phase 1 – Before WW I**

The basic ideas of social housing were put into practice across Europe by different but interrelated actors (Lévy-Vroelant et al., 2008, p. 34). Generally, the most prominent figures combined several of these functions, such as philanthropists, social reformers, or municipal leaders.

**Proactive bourgeoisie personalities: philanthropist, fabric owners, and social reformers**

On the provision side, philanthropic capitalists developed and exhibited models of potential solutions. There were, however, different opinions on the tenures’ architectural models (small houses vs. tenements → cf. 3.2 Solution approach) or on the way of financing res. leveraging market forces to solve the social problem (‘pure philanthropy’ vs. ‘investment or five per cent philanthropy’; Tarn, 1973; → cf. 3.6 Resources). However, most of them agreed – at least in the beginning – that the housing problem was not a responsibility of public authorities. Nevertheless, usually their motive was to prevent revolutionary change. In this respect, philanthropists were “conservative reformers”. (Adam, 2002, p. 349).

**Mutual exchange and influence**

Networks and exchange among philanthropists were fostered in different ways. Prominent and influential personalities such as Princess Alice of Hesse-Darmstadt, Queen Victoria’s third child, who was very interested in the work of Hill organized a series of meetings to discuss the nursing, education, and employment of the poor, and also the housing question. Hill, Godin and others also published their ideas in books, and the different philanthropists, social reformers etc. were visiting each other. Accordingly, for example German philanthropists like Herrmann Julius Meyer and Gustav de Liagre adopted the approaches of Hill, Peabody and Waterlow in London (Adam, 2002, 337(Rodgers 2001 #2934).

**Networks with beneficiaries**

Some philanthropists were also involved in collaborative models. Industrialist Karl Schmidt until 1913 in Dresden-Hellerau built 400 dwellings in a consortium of several entities, among them the German Gartenstadt-Gesellschaft (garden city company ltd.), a building cooperative, and a union-like association with its objective being “the ennoblement of industrial work through interaction between art, industry and craftsmanship.” (Pahl, 2000: 11). However, in general only few philanthropists and social reformers supported self-help approaches. Victor Aimé Huber and C.W. Hoffmann who fought for the idea of self-help in the context of the “Gemeinnützige Berliner Baugesellschaft” had to distance themselves from
the ideas of Robert Owen and Charles Fourier, the fathers of the cooperative movement, because of the suspicion of communism (Kastroff-Viehmann, 1979, p. 277).

List of philanthropists and social reformers

For a list of philanthropists and social reformers see 2.1 Antecedents and invention of the SI

Another example of an important personality was:

**Victor Aimé Huber** (1800 – 1869) was a German professor, travel editor and social reformer. Initially of catholic faith and orientated towards political liberalism, he converted to the reformist church and developed more and more conservative positions over time. He took part in the establishment of a conservative party in Prussia and became editor of a conservative magazine (Janus), but quickly got in conflict with feudal landlords and withdrew from his position.

After a visit of Manchester’s working classes in 1844, Huber developed an *internal occupation model*. The basic idea was to develop small houses (or cottage) settlements with sufficient space for working families that allowed for a solid, Christian-based family life. Huber was convinced that the higher social classes were responsible for the lower, and also that workers would not be capable to afford ownership in the first place. To acquire the necessary capital and push initiative, he therefore addressed the better off with a stock model. Through specific rent payment models, ownership should then be transferred to the working classes over time, although to secure their economic existence.

Huber also was a strong proponent and intellectual father of the movement of cooperatives in Germany. On various journeys he collected information on the cooperative movement in different European countries such as France, Belgium or the UK. He became a renowned international expert and multiplied his knowledge in different articles and by participating in various conferences. He was a member of the executive board of the *Berliner Gemeinnützige Baugesellschaft*, which built six small houses for 15 families on a property at Schoenhauser Avenue that more or less put his ideas into practice. However, in 1888/1889 the houses were demolished to make space for larger and denser buildings. In general, with his combination of the liberal (cooperatives) and conservative (Christian-based family) life he had difficulties finding a political home amongst the political parties of the time (Schwentker, 1993).

*Main work:* *Die Selbsthilfe der arbeitenden Klasse durch Wirtschaftsvereine und innere Ansiedlung, 1848* (anonym)

**The political class and the workers’ movements**

The most important political streams of the time in most countries were the *liberals*, the *conservatives* (res. aristocrats or royalists) and the *social democrats*. Despite common patterns, however, in each country the political and economic relations among these parties – also regarding their relation to the working classes – were constituted differently and actor constellations varied (Harloe, 1995, p. 62). This also had different consequences for social housing policies.

**Britain**

In the UK, *Conservatives* (the party of the rural landowners) and *Liberals* (committed to laissez-faire and the ‘night watchman state’) had emerged as the two main parties in the last quarter of the 19th century. Despite the joint concern about social unrest in the 1880s that led to various repressive measures towards the lower working classes (→ cf. 1.2 Targeted
beneficiary groups; 3.4 Narratives and discourses), there was also a competition for the political allegiance of the new, better-off working class.

Many of the skilled trade union leaders generally agreed with the resentments against the residual poor, and were socially and politically conservative. Nevertheless, by the 1890s a few of them had been elected to Parliament for the Liberals23, which started a period of collaboration between the Liberals and organized labour until 1914. The modern Labour Party was formed by trade unions, the predecessor Independent Labor Party, the Marxist Social Democratic Federation and the Fabian society in 1900, which was rather late. However, organized workers remained close to the radical wing of the Liberal party and showed only limited interest in the residual poor and industrial and social reforms, including social housing.

In general, organized workers were not so much perceived as a danger as they were in France or Germany, and integration was the main purpose. Until the first years of the 20th century, all parties generally considered housing subsidies as unacceptable on economic and moral grounds, as they will “utterly destroy their moral senses” (Earl of Shaftesbury, 1883; quoted from Harloe 1995: 36). However, they generally supported small-scale experiments of local authorities building houses for the ‘respectable’ working class (‘municipal socialism’) (Harloe, 1995, p. 39).

**France**

In France – where the housing conditions were among the poorest in Europe – the political landscape was generally unstable and dominated by conflicts between royalists and republicans. Furthermore there were historical and religious divisions. The fear of the ‘dangerous classes’ was very high; working classes were seen as barbaric, immoral and an inferior race (Rimlinger, 1971). Repression measures therefore were particularly strong and industrial relations extremely exploitative, an integrative strategy towards working class members was hardly adopted.

Furthermore, there was a strong adherence of liberal principles, and the bourgeoisie strongly opposed ‘municipal socialism’ as accepted widely in Britain and Germany. Even social reformers unequivocally defended the status quo (Harloe, 1995, p. 42). Working-class political organizations were split into reformist socialists and Marxists wing, and the rather small radical liberal wings did not ally with working class representatives, as in Britain or Denmark (Harloe, 1995, p. 43)

**Germany**

Germany had only become a national state after 1870/1871 (Deutscher Bund), and even afterwards the Prussian aristocracy as well as the Kaiser were still dominant compared to the relatively weak parliamentary institutions. Rural aristocratic land owners and industrial capitalists linked with each other and concentrated power in their hands (quasi-aristocracy; Berghahn, 1982). Together with Bismarck, the liberalist movement rooting from the middle class was excluded from power as much as possible.

However, the middle class in general accepted state intervention and bureaucracy because it perceived the state as bulwark against the threat from the working class. In fact, the elites used this “threat” and subsequent repression of the workers movement to ensure middle class acquiescence (Harloe, 1995, p. 49). In difference to other countries, the bourgeois parties in Germany were too fragmented by religion (catholic vs. protestant), location (rural vs. urban)

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23 The Conservatives had voted for a rather paternalistic reform to coopt workers into society without conceding full political rights in 1860s and 1870s Harloe (1995, p. 36)
and occupation (professional vs. commercial-industrialist) and too competitive for the rest of power left by the authoritarian system to link with the reformist wing of the worker movement.

The German workers’ movement, although initially excluded from any access to national political power, was rather restricted in size and adopted socialist ideas rather early. The *Social Democratic Party* (SPD), founded in 1875, unified different streams. There was a strong Marxist influence that was in continuous struggle with the reformist wing (Fletcher, 1987). The SPD became the first mass socialist party and largest German party by 1914, although it also was linked only limitedly to the interests of the unskilled workers.

The state and Bismarck reacted to this threat by at least two strategies. First, anti-socialist laws had the intention to repress workers’ movement organisations including the strong trade union organizations. This suppression was also common at the workplace. As a consequence, a rather rich and diversified subcultures with an impressive array of social, cultural and community organizations emerged. Topalov (1985) termed this “negative integration”.

Further, the Bismarckian social reforms (social insurance legislation) were an attempt to bind middle class and skilled workers to the existing order. Although it was quickly abandoned, ironically the expanding social insurance apparatus integrated some working class leaders and helped to strengthen reformist thinking in these milieus. Yet, the belief remained strong that only a revolution could improve the workers situation (Harloe, 1995, p. 50; cf. 3.4 Narratives and discourses).

The social reform movement began to develop from the 1870s onward and involved a mixture of conservative, liberal and Catholic ideologists. According to some commenters, the unifying bracket here was the protection against revolution (Bullock and Read, 1985, 52, 68). First housing approaches fall in this time. There was in general less opposition to state and local municipality intervention and housing supply in Germany, reflecting the long tradition of civic involvement in urban service functions (Dawson, 1914).

*Other countries*

In the Netherlands, the second half of the 19\textsuperscript{th} century was dominated by a Liberal-dominated government. In general, religion rather than class had a significant impact on social policies here (secular Liberals vs. protestant-dominated Confessionals). Trade unions and labour organizations grew rather slowly and tended to be anti-socialist and/or Calvinistic. In the 1880s the *Social Democratic Workers Party* (SDAP), but organized labour in general only after WWI became a significant industrial and parliamentary force (Harloe, 1995, 23ff.).

In Denmark, under the impression of a long-lasting dominance of monarchial and conservative forces, (land owners and capitalists), a strong liberal party (*Venstre*) with a radical wing (*Radical Liberal, RV*) emerged, where the division was based on the rural/urban division. The Social Democratic Party (*Socialdemokratiet*) quickly oriented to reformism, and in general the workers movement and the industrial capital and its political representatives were rather constructively oriented towards each other. Conflicts still emerged, yet remained comparatively shallow (Harloe, 1995, p. 32).

In Italy, there was a strong influence of the liberal leader Giovanni Giolitti. During the so-called *età giolittiana* (1901-1914), a relative reformism occurred during which several reforms on labour and welfare and investments for modernization of infrastructure were promoted in order to improve the social and economic conditions of the country (Propersi *et al.*, 2012).

67
First Institutionalization of committees, offices and exchange

Already in the time before WWI, institutionalization of committees, offices and agencies oriented towards social housing came up. Also, first conferences were held to facilitate the exchange between relevant actors in the social housing field.

Société Française des Habitations à Bon Marché

For example, in France social reformers founded the Société Française des Habitations à Bon Marché (SFHBM) after the First International Congress Habitations Bon Marché in Paris in June 1890. This lead to the Loi Siegfrid (→ cf. 3.5 Rules, norms and policies) in 1894 that allowed the creation of cheap housing organizations by implementing tax exemptions and by providing the opportunity to use funds of the Caisse des Dépôts (public financial institute in France). Together with a supplementary law supported by Paul Strauss that allowed municipalities to finance social housing and define the rents as safety standards, this marked the recognition of the legitimacy of a "public action" to promote social housing in France (Dumont, 1991, pp. 155–157). After 1912, local authorities were therefore allowed to promote the establishment of independent public housing agencies (public offices HBM). Its governance structure were as follows: one third by prefect, one third by local organizations with housing interests, and one third by communes (departements). Yet, SFHBM strongly refused to publicly build and provided public housing (Harloe, 1995, p. 46).

Other institutions emerged elsewhere. In Vienna, a housing policy committee was founded 1910 and later was transferred into an independent unity for the city of Vienna to deal with social housing. In Amsterdam, the Construction and Housing Supervision (Bouw en Woningtoezicht) was founded, as well as the Municipal Housing Agency (Gemeentelijke Woningdienst) in 1915. In Finland, the Housing Reform Society (Yhdistys yleishyödyllisen rakennustoinnin edistämiseksi) was established in 1910 (Juntto, 1990a). In Italy, the Institute for Social Housing (Istituto Autonomo Case Popolari – IACP) was set up (Propersi et al., 2012).

Mutual exchange

International exchange amongst public policy makers and social reformers took place for instance on conferences. Some of the most important are (Saldern, 2006)

- I. International Congress Habitations Bon Marché in Paris in June 1890.
- IX. International Housing Congress in Vienna in 1910
- II. Congres Internationaux d Architecture Moderne (CIAM) Topic: „Dwelling at subsistence level“ – „Die Wohnung für das Existenzminimum“

Phase 2 – WW1 to world economic crisis

This period saw a variety of new actors entering the scenery, of which some had existed before, but were not really involved in social housing initiatives. Among these are public administrations which institutionalized their engagements in social housing, political parties, worker unions, religious groups etc. (Lévy-Vroelant et al., 2008, p. 35). State intervention was forced and even demanded in the aftermath of WWI, although many considered it as temporarily only and strived for a return the liberal, pre-war ‘business as usual’ (Maier, 1975). However, many changes persisted.

New links between labour, capital and the state

During and after WWI, political and social relations changed. Altered circumstances induced new links between labour representatives, capital owners and the state. Those went along with new social structures (class perceptions) and policy regimes. The need for standardized
mass production in the war economies had led to a new form of corporatism or partnership for instance in Britain or France. Labour representatives and trade union representative accepted the need for an industrial truce during wartime in exchange for a degree of recognition and involvement by the state and capitalists. This included guarantees on earning as well as state intervention to cut the rapidly increasing living costs. The relationship between state and industry, however, was far closer, and lax controls of profits enabled large-scale war profiteering (Harloe, 1995, 76f.).

Spread of revolutionary ideas
Increasing inequalities, also because in fact wages often sharply fell during the course of the war, and other hardships caused mass demonstrations, strikes and riots already during war time particularly in industrial regions, such as the Ruhr area (Marwick, 1974, 30f; Berghahn, 1982; Fletcher, 1987). The newly established worker committees became nucleus for revolutionary agitation, forsaking the reformist way of trade unions and Social Democrats’ leaders. Both left and right wings radicalized, and revolutionary ideas spread across Europe among large parts of the working classes. This was accompanied by also impoverishing middle classes (e.g. in Germany), which caused additional dissatisfaction. The developments threatened social order and put pressure on the elites, who reacted by further concessions, such as a stronger public involvement in housing provision (Harloe, 1995, p. 80).

Concessions to the working classes
After the war, the desire to return to pre-war routine further reduced state control over industry, commerce and finance (Harloe, 1995, p. 88). At the same time, most governments and elites felt that a social revolution was imminent and made substantial concession to the working classes (such as the universal suffrage (only for men) in Britain). This development was also reflected by the full incorporation of the social democratic parties into established political institutions (Harloe, 1995, p. 91). However, the divide between socialist, revolutionary forces and the social democratic, reformist part weakened the left e.g. in France or Germany (Maier, 1975). But even when conservative forces gained dominance after the end of a short post war economic boom, many of the changes achieved were irreversible (cf. also 3.4 Narratives and discourses).

Providers of social housing after WWI
There was a substantial shift in housing providers after WWI. Private, commercial providers suffered from the war consequences, and the necessity for public involvement was broadly acknowledged, as private investment was non-existent.

This led to an increase of direct municipal provision or the foundation of municipally owned housing agencies on the one hand. On the other hand, the number of private non-profit or limited-dividend housing companies and cooperatives rapidly grew. The following numbers gives an impression of the developments in some European countries:
- Of the 1.5 million houses built in Britain between 1919/20 and 1929/30, about just over one-third belonged to local authorities, and less than one third was private but subsidized. The share of council housing fell from over 60 per cent to about 30 per cent, whilst the number of private subsidized houses rose from 17 to 25 per cent (Holmans, 1987, 66ff.)

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24 Most cooperatives built for renting only to their members, sale was only possible with restrictions for resale in order to prevent speculation. Many of them were formed by groups of employees, including the middle class Harloe (1995, p. 118).
- **In Germany**, the share of new buildings by public bodies, cooperatives, and housing agencies rose from about 5 per cent before 1914 up to around 60 per cent in the 1920s in larger towns with over 50,000 inhabitants (International Labour Office, 1930, p. 370). 75 per cent of this share was provided by housing agencies and not by public authorities directly, although ‘public interest’ institutions were built with municipalities as only or main shareholder (Brahl, 1931). Social housing institutions in general expanded rapidly, particularly cooperatives rose from 1300 before the war to over 4000 by 1927 (International Labour Offices, 1930: 324). Also regionally based organizations to provide technical organizations to provide technical support and pool material supply emerged (Schwan, 1935).

- **In France**, in 1923 only 560 private sector and cooperative landlords had established according to the legislation on Habitations à Bon Marché (HBM) societies from 1912, and there were only 130 public HBM offices despite an order from the Ministry of Labour to Prefects to set up such institutions. 50,000 dwellings were constructed in the ‘zone’, the former military circle around Paris, and 1,500 in Lyon’s Villeurbane centre, but such concrete activities were the exception.

- **In the Netherlands**, there were 1294 housing corporations in 1920 (389 in 1914), yet the number contracted to 1118 in 1930 (Bommer, 1931). Similar to Germany, some were public utility housing associations and some were cooperatives, linked either to middle- and working-class employees (Gray, 1946, p. 72). Others were formed by religious denominations (Hetzerl, 1983). The cooperatives usually had management boards elected by tenants. In larger associations, leadership was entrusted to a ‘lady inspector trained in social matters’ (Bommer, 1931, p. 336), referring to Octavia Hill’s methods of paternalistic care.

- **In Finland**, housing companies became a common form of organisation in housing production in the cities in Finland during the 1920s (Ruonavaara, 2005). During the production boom at the end of the 1920s almost 90 per cent of new houses were built by commercial building companies and developers. In this system the construction company and builder is the same person or agent who starts a housing company. After the house was completed the shares of the housing company were sold to future users who thereby took over the company.

Employers and philanthropists - the social housing pioneers before WWI – were either engaged in the mentioned housing associations, or even shifted from building their own housing to support social housing institutions (Harloe, 1995, p. 118). France was among the

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An example for such an institution can also be found in settlers’ movement, namely the GESIBA - Gemeinwirtschaftliche Siedlungs- und Baustoffanstalt (public service of settlement and construction material) in September 1921 GESIBA (1931, p. 8).

In this system the construction company and builder is the same person or agent who starts a housing company. After the house was completed the shares of the housing company were sold to future users who thereby took over the company.
few countries where employers remained in a dominant role for housing provision (Lévy-Vroelant et al., 2008, p. 37).

**Links to political groupings**

Social housing institutions had close links with major political groupings, such as the trade unions, Social Democrats, Christian trade unions, or the Centre party. Each of them formed federal associations of ‘their’ social housing organizations (Umrath, 1950).

What is more, social housing institutions were also exploited by architects and landlords who wanted to build houses or increase the value of their land mainly for commercial reasons. They took advantage of the special advantages of the ‘public utility societies’. Only after 1930 legislation put an end to this practice (Harloe 1995: 118f).

**Further institutionalization and building of associations**

The institutionalization of the social housing sector further proceeded after WWI. Also, more and more associations and interest groups were created:

- Organization like the *Central Union of Building Societies* emerged in Germany and elsewhere as a means of growing self-regulation to control the auditing of accounts (Schwan, 1935)
- The *International Union of Tenants* (IUT) was established in 1926 by National Tenant unions (initiative from Sweden, Germany and Austria) in response to the foundation of the European Property Owners Federation
- Settlers in Vienna created a central organisation (*Zentralverband der Kleingärtner und Siedlungsgenossenschaften* Wien) including more than 70,000 members. This organisation in turn was represented at federal level together with similar interest groups, speaking in total for more than 700,000 members (Kampffmeyer, 1921, p. 84).
- In the Netherlands, housing federations developed, of which one was linked to the Social Democratic Party and the trade unions, and the other to Catholic associations and the Catholic wing of the Confessional wing of the political bloc (Harloe, 1995, p. 124).
- In Germany, there were two federations of building guilds, i.e. producer cooperatives of building workers. One was linked to the labour movement and comprised 18,000 workers from 127 guilds in 1928. The other had no political links and involved just over 6000 workers in 27 guilds in 1926 (International Labour Office, 1930, 374f.). The institutionalization of guilds also occurred in Britain, Denmark, or Vienna. It was an important basis for the corporatism that was installed at that time and an attempt to put part of the economy under the control of the proletariat.

*The incorporation of housing reformer ideas into bureaucracy*

This period also witnessed the emergence of professions that resulted in the incorporation of reformist ideas into the uprising public housing sector of the time. Many architects and planners who had championed the cause of improved working-class housing earlier used to staff the new state housing bureaucracy (Harloe, 1995, p. 83). They were also part of reforming committees and incorporated mainly garden city principles, yet from then on more from a technical perspective that had to deal with issues of implementation, instead of an ideological perspective (Evans, 1987).

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27 The detailed formation of the Union can be read here: [http://www.iut.nu/aboutiut.htm#History](http://www.iut.nu/aboutiut.htm#History)
Important personalities

Again, there were prominent personalities amongst the people of the time who took important action towards the implementation of social housing. Examples are:

**B. Seebohm Rowntree** (1871-1954), born in York, Yorkshire, was an English sociologist, industrialist and philanthropist primarily known for his studies of poverty and welfare and for his record as a progressive employer. He was son of the well-known entrepreneur and later industrialist and philanthropist Joseph Rowntree, a Quaker and cocoa and chocolate manufacturer, and Emma Antoinette Rowntree. After having been educated privately he attended Bootham School from the age of 10 and later the Friends’ School at York. He studied chemistry at Owens College, Manchester, to join H.I. Rowntree and Company in 1889.

Inspired by the work of his father Joseph Rowntree and the work of Charles Booth in London, he carried out the first of his three major sociological studies in York in 1897–98 (“First York Study”, 1901), where he (and his investigators) surveyed 11,560 poor families or 46,754 individuals. Carrying out comprehensive qualitative field studies into the living conditions of the poor, his investigators visited every working class home. Results were published in 1901 in “Poverty, A Study of Town Life”. The second of his empirical studies into the living conditions of the poor was conducted in 1936 and published as “Poverty and Progress” in 1941. The final one, “Poverty and the Welfare State” came in 1951.

Meanwhile in his father’s firm, he became a director in 1897 and was very reformative and progressive in social work policy, having the company establish a pension plan in 1906, a five-day week in 1919; in 1923, the company even introduced an employee profit-sharing plan. As a political advisor, Rowntree was an intimate of David Lloyd George (Prime Minister from 1916-22). He was also director of the welfare department of the Ministry of Munitions (1915–18) and as a member of the Reconstruction Committee (1917). (Briggs, 1974)


**Florentinus Marinus Wibaut** (1877-1936), born in Vlissingen, was a Dutch politician and social reformer. He was son to Florentinus Wibaut (1817-1881), a Vlissingen-based shipowner and trader in fuels and lumber, and Wilhelmina Maria Slaat (1823-1895).

He was also a successful lumber trader and married to feminist politician Mathilde Berdenis van Berlekom with whom he had four children. In 1877, he started to work for the Wibauthuis timbertrade G. Alberts LZN. & Co. in Middelburg in which he made a successful career and also travelled internationally. Home in Middelburg, he first encountered the bad living conditions of the working poor and also with social housing. From then on, to improve the living conditions of the working class and to help workers get good and attractive housing became his central driving motives.

He joined the SDAP (*Sociaal-Democratische Arbeiderspartij; “social-democrat labour party”*) in 1897 and moved to Amsterdam in 1904 where he was elected member of the municipal council in 1907 and, as first alderman for housing, became an important figure in local politics. He engaged for the working class to have social house settlements built. He was later also elected member of the Dutch parliament (1922 to 1935). A life-long active catholic, he also engaged for the international church movement. From 1925 to 1936, he was president of the international League of Cities (Gaspari, 2002; Stieber, 1998).
Arie Keppler (1876-1941), born in Amsterdam, was a local politician there. He is nowadays regarded as a visionary in municipal housing. He studied civil engineering at Delft Technical University where he first encountered the problem of housing shortage among workers. From 1905, he worked for the municipal housing department in Delft where he was responsible for slum clearance and social housing.

From 1909 onwards, he worked for the municipality of Amsterdam where he also was responsible for (social) housing and would from then on play a key role in the construction of social houses. He was inspired by the work of Ebenezer Howard, and these inspirations also entered his social house building work.

From 1915-37, he was head of the newly founded municipal buildings agency (Gemeentelijke Woningdienst). For 22 years he worked strove to build as many homes as possible for workers via the city council and via new housing associations. He helped to establish the housing association Rochdale, assisted and advised inexperienced workers in boards of housing association, and gave many international lectures on social housing. According to Pflug (2014), Amsterdam under Keppler’s guidance (but also with support from other local authorities, such as Florentinus Wibaut) became “the Mekka of social housing in Europe”. When he left the office in 1937 for an early retirement, 30,000 new houses had been built (Smit, 2001).

Main work: Keppler, A. (1926), The Rational Distribution of Cottage and Tenement Houses

Phase 3 – World economic crisis to WWII

Political representation of the working classes

Regarding the political developments and the representation of the working classes in the political system, hardly any stable pattern can be identified across Europe after the “Black Friday” and during the great depression. Social democrats were defeated from power almost everywhere except in Denmark, and radical, sometimes anti-democratic parties from the left and the right gained influence in different countries, although in most countries they remained too fragmented to gain considerable influence.

Workers’ movement united in some countries on the grounds of the fight for better labour conditions, such as reduction of working hours, paid holidays, national pensions (e.g. in France). Also, because of the decline of the social democrats, in some countries there was discussion about broadening the base of the parties to a people’s instead of a workers’ party, appealing to voters beyond the limited section of the working class (e.g. in the Netherlands, Harloe, 1995, p. 157).

Inability of the social democrats and trade unions to respond to the social crisis

However, the radical force that gained substantial influence in Germany and elsewhere was the Nazi regime. Its background were reactionary groups which had not been destroyed since the institution of democracy in 1918, and who had been influenced by anti-democratic and anti-individualist ideas and ideologies such as the volkisch (“people”) community, anti-Semitism, and nationalism (Roberts, 1978). Whilst the Centre parties shifted to the right in the 1920s, the SPD did not manage to mobilize the working and middle classes to resist. Particularly the working class was increasingly entrenched in the existing political and economic institutions and also occupied with bureaucratic organization of its own economic empire (Umrah, 1950). The Federation of Social Building Enterprises (Verband Sozialer Baubetriebe – VSB) among others comprised housing associations, construction companies and insurance companies that were owned by the building workers’ union. With more than
200 daughter societies and 21,000 employees it had created a lot of jobs, but was quite unable to respond to the social crisis (Harloe, 1995, p. 159; Neue Heimat, 1972).

In face of the economic crisis and increasing unemployment the workers and lower middle class (petit bourgeoisie) who suffered from the economic situation became attracted by the Nazis or also the Communists outside the established parties. The left was not able to unite in a sufficient manner to fight this development, so Hitler came to power as the German chancellor in 1933. All parties became dissolved, independent trade unions and all other democratic institutions of the Weimarer Republic disappeared, and Nazi control was exerted over the whole of the economy and society (Neumann, 1942).

Incorporation of German social housing organizations
Although seemingly committed to rural, communal life and anti-urbanism, the Nazi regime developed a coalition with large-scale industry, particularly in the context of rearmament. Some welfare schemes including subsidized housebuilding aimed to bind the working classes to the Nazi regime. In general, German social housing organizations were incorporated into the totalitarian organizations of the state and society after 1933. Both independence and autonomy within a political and social culture of the working class had gone.

Self-governing structures of the associations were replaced by hierarchical command and control structures that were according the Nazi ideology. The main organizations became reorganized into a large bureaucratic structure called Neue Heimat, a structure that was to be held up when the trade unions regained control after the Nazi-period. After this restructuring, housing policies then more or less completely shifted towards the stimulation of rural homestead settlements (Neumann, 1942, 337f.).

Providers of social housing
Due to the public withdrawal (freezing of subsidies and grants etc.) after the crisis, this period saw a rising importance of private organisations in the construction as well as in the provision of social housing. However, municipal providers developed a complementary role for the residual sector, although sometimes this was not entirely voluntarily.

- In France, mainly Societes Anonymes d’HBM (limited-dividend commercial companies with 6 per cent revenue), cooperatives and Sociétés de Crédit Immobiler built houses with the loans from the subsidized housing programme of the time, and not so much small-scale private owners as intended. By 1933 about 180,000 HBM were constructed, of which 80,000 has been built by Offices Publics (i.e. mainly low rent dwellings). In total, under all preceeding legislations in 1939 not more than 320,000 HBM units had been constructed (Denby, 1938, 216ff.).
- In the Netherlands, construction in general decreased due to cuts in subsidies. Some housing was still built by local authorities and housing associations, while falling rents in the private markets caused widespread landlord bankruptcies and repression (Harloe, 1995, p. 168)
- By 1937, about 1000 mostly small housing associations existed, with about 30 per cent linked to Catholic or Protestant social pillar, and probably even more to the Social Democrats. Some of them accommodated the 'respectable' working and middle classes, who earned reasonable wages and held a considerable degree of tenant self-government. Other shosted the socially weaker low-income households that needed social education and a vigorous regime to ensure rents getting paid (Harloe, 1995, p. 170). Some associations got in conflict and were even closed down by the government when they refused to lower the rents (part of the deflationary policies).
- In **Germany**, state loans were provided to local authorities, which could either pass them on to housing cooperatives (usually of skilled workers and the middle class) or to the housing organizations they controlled (low-income and slum rehousing) (cf. above).

- In **Britain**, there was a private construction boom due to growth in the consumer goods industries in some parts of the country. Before the mid of the 1930s, private construction had reached a peak of 286,000 in 1934/5, whilst local authority output ranged between 40,000 and 70,000 per annum at the time. However, when the boom stopped, this amount of public municipality housing rose sharply to 100,000 in 1938/9 (Holmans, 1987, 66ff.). However, many local authorities (Labour-controlled and other) were reluctant to accept the new, residual role for public housing, and only slowly complied with state pressure in this respect (Harloe, 1995, p. 188; Bowley, 1944).

- In **Finland**, the first notable non-profit building consortiums were founded in the latter part of the 1930s. The basic idea was to use the housing company model but without profit interest, which was preferred instead of the housing co-operative system at this time. This development was driven by the Housing Reform Society which oriented on other Scandinavian countries, as well as the social democratic co-operative movement and its enterprises (retailing co-operatives and insurance companies). Construction employers’ organisations too established non-profit construction companies. In 1940 they started a company named Sosiaalinen Asuntotuotanto Oy SATO (Social Housing Production Company). Its aim was to work in co-operation with the government and municipalities. Partners in this consortium were insurance companies and construction corporations, but it did not take up their functions properly until the Second World War (cf. Country perspective Social housing in Finland).

**Professionalization and bureaucratization of housing providers**

The professionalization of social housing providers and the assimilation of the sector in the state bureaucracy that had already started in the previous phases further proceeded. In the mid-1930s, for instance, a little under 20 per cent of all local authorities had appointed formally designated housing managers, usually with a background in property management or public finance (Kidd, 1940). Professional training schemes, university degrees and diploma, and professional bodies developing standards were emerging. Furthermore, the first major manual on housing provision (Ministry of Health, 1938) was published. In this, also the role of the landlord as a regulator and modifier of tenant behaviour (cf. 3.2 Solution approach) was mentioned.

Self-organized and worker-controlled institutions such as cooperatives were still relevant e.g. in Denmark, yet generally lost relevance in many countries (De Schwaan, 1988, 143ff.)

. Harloe argues that the greater transformational potential of the cooperative model in comparison to other social housing models therefore could not really unfold. However, this reflects more generally the increasingly bureaucratic, top-down style of social welfare provision of the time that persisted for many years.

**Phase 4 – WWII to mid-1970s**

After the post-war crisis had been overcome, the advanced capitalist countries experienced a long boom period of rising prosperity and economic growth. Unemployment was reduced to a minimal level, and there was no recession until the mid of the 1970s. In contrast to post-WWI-period, mass social housing programs were applied on the basis of a broader and longer lasting rationale, linked to a more long term process of economic recovery and modernization.
There were, however, some country-specific differences in this development. France and the Netherlands adopted forms of economic planning, while Germany was heavily influenced by the neoliberal doctrine of the ‘social market economy’ (for a more detailed discussion of post-war economic development see Harloe, 1995, p. 221).

The relation between labour, capital and policies after WWII
War had helped to create closer links between organized labour, the capital and the state. The crisis and period of economic recovery after the war helped to sustain these links. Despite continuous distributional issues, pre-war political conflicts did not re-emerge as sharply as before. The extreme right disappeared quite immediately after the war; communist parties were pushed back in the course of the emerging Cold War. This also strengthened the reformist positions in the social democratic movement. State intervention now was generally accepted across the political spectrum.

In some countries, the link between centre-right Christian Democratic Parties and Christian trade unions further contributed to an integration of working classes into society (Harloe 1995: 229f). In fact, with larger parts of the working classes participating in the wealth that had been attained, Labour in the UK and the Social Democrats movement more and more accepted that they had to revise their programmes to broaden their electoral base towards the growing middle classes and white-collar workers (Goldthorpe et al., 1968; Harloe, 1995, p. 234).

However, there also was a widespread struggle in finding agreement about housing subsidy programmes. In Italy, the Christian Democratic Party temporarily abandoned the – later established – plans developed by the INA-leader Puggioni, because he had developed linkages with the leftist trade union to promote his reconstruction plans. When the collaboration was re-adopted, arguments focused on economic recovery and unemployment reduction. However, given that the building sector would have required unskilled labour, this was at the same time generating many spin-offs in other industries (iron and steel industry, timber industry, plumbing activities, etc.) (cf. Embedded case Social Housing in Italy).

In Finland, for instance, the initiative to start a comprehensive housing policy was taken by the civil organisations Family Federation of Finland and Central Union of Tenants in 1948, as politicians had difficulties in finding an agreement. Further, many housing-related issues were settled by central labour market negotiations between employers and labour market unions in case the parliamentary proceedings to push reforms proved to be slow (Juntto, 1990a, 266ff; cf. Embedded case Social housing in Finland).

Providers
Vast efforts of governments in social housing used the publicly accountable and controllable agencies which had gotten involved during the interwar years, rather than assigning fragmented, small-scale and less controllable private actors. Accordingly, there was a general tendency towards collectivism in housing provision (Harloe, 1995, p. 257).

Only after the beginning to mid-1950s when the economy had recovered and a period of steady growth and full employment followed the private sector gained a more significant role. This was even more important as the unexpectedly high rate of new household formation accelerated the effective demand for housing, which had even decreased the number of dwellings per capita or household in many countries (Harloe, 1995, 257; UN Economic Commission for Europe 1952 #2863; UN Economic Comission for Europe 1954 #2864).

Britain, West Germany and the Netherlands began to liberate investment controls that had inhibited private housing production, but still most investment directly or indirectly came
from the state. It was only in West Germany that these developments were followed by a “social market economy approach” which particularly encouraged private building and private investments through tax concessions (Wollmann, 1986).

The dominance of public investment, however, significantly contributed to the growth of non-profit market institutions. With their goals and competences they provided the best opportunity to transform public investment into good and cheap dwellings for the occupiers (UN Economic Commission for Europe, 1954, p. 32). With this development, however, they came closer to being an instrument of the government housing policy, which was in conflict with their desire for autonomy from before the war (cf. also 3.4 Narratives and discourses).

Developments of a few countries shall be sketched for illustration:

- In Britain, some figures on providers for beneficiaries receiving supplementary support are given (welfare payments for low-income households reflect the development of the time). In 1954, 21.5 per cent of beneficiaries were living in council housing owned and provided by the municipalities, 10.7 per cent in owner occupation, and 67.8 per cent in private renting. By 1960, when high rise was close to its peak and the shift to owner occupation had already started, one third of all recipients were in council housing, slightly over 50 per cent were in private renting, and 12.5 per cent in home ownership. When the pace of residualization then had quickened, by 1976 a percentage of 58.9 were living in council housing, 23.7 per cent in private rentals and 17.4 in home ownership (Murie, 1983; Harloe, 1995, p. 293)

- In France, where 5.2 million housing units in total were constructed until 1968, a great deal of housing was built privately based on HLM organizations (the successor of HBM), as well as by Public Offices.

- Germany is in some respect a special case due to the emphasis on private investment within the social market economy. Almost 5.2 million dwellings were established between 1950 and 1959 only. Private social home ownership accounted for 17 per cent of all new housing in 1950 and rose to 43 per cent by 1975 (Einem, 1981, p. 10). The share of non-profit housing associations was 35 per cent of all new housing in 1950 to around 15 per cent in the mid of the 1870s. The housing associations later also got involved in urban renewal projects or landlord services for private owners (Emms, 1990, 18ff.).

- In the Netherlands, the private renting sector declined from 60 per cent in 1947 to 20 per cent by 1975, while home ownership grew from 28 to 38 per cent, and social rented housing increased from 12 to 41 per cent (with a transfer from municipal housing to housing associations over time) (Lundqvist, 1992, p. 50).

Complementary institutions and structures on the (social) housing market

Along with the large subsidy programmes and increasing construction activities in many countries there also occurred further formalization, institutionalization and the development of (corporatist) structures with complementary agencies. This does not only refer to social housing agencies and professionals whose influence and power further increased, reflecting the trust in social planning approaches of this period (cf. also 3.4 Narratives). In Britain, a separate Ministry for housing, local government affairs and planning was established in 1951. Some of them now also were explicitly linked to reconstruction and renewal programmes, such as the enquete commission for the reconstruction of Vienna, installed by Theodor Körner, a Social-democrat, who became the first mayor after war in 1945.

28 These institutions, however, besides the subsidy schemes also built ‘regular’ housing, and not only for rental.
It for instance also entails construction companies, large scale building loan providers, mortgage markets etc. In France, a 'techno structure' of banks, construction companies, architects, urban planners and engineers belonging to the Modern movement developed (Lévy-Vroelant et al., 2008, p. 38). In Italy, directed by of the State to provide for the reconstruction of the country, the National Institute of Insurances (INA) served as a tool for providing fundamental financial services and in order to do so developed a differentiated operational structure (cf. Embedded case Social Housing in Italy). In Finland, the central state department ARAVA (Asuntorakennustuotannon valtuuskunta) developed a system of state subsidised housing loans (Juntto, 1990a, pp. 203–216).

Phase 5 – mid of the 1970s onwards

Political representation of affected target groups
The compromise between representatives of labour, capital and the state that emerged during WWII and then remained for reconstruction during the “golden age” of social housing started to fall apart when the economic situation darkened again (Gourevitch, 1986, 29ff.). Extreme parties at the right and left grew, yet did not succeed in putting either position into practice in a comprehensive way. The social democratic movement, after a successful period in the “golden age” underwent a crisis as well and gave space for a conservative New Right (King, 1987) in many countries, pursuing a neo-liberal ideology (cf. 3.4 Narratives and discourses). Amongst the most prominent examples in this respect in Britain, particularly under the government of Margaret Thatcher.

“Missing middle” - transformation of middle and working classes
In general, the role of the working classes had altered due to the fundamental transformation in many European economies and labour markets. The rise of service industries and the decline of many manufacturing industries led to a ‘missing middle’ and an increasing polarised employment structure. Relatively well-paid, skilled male manual jobs (as well as associated white-collar jobs) disappeared. Employment in service-based industries was characterized by a smaller number of highly educated professionals on the one hand (‘yuppies’) and on the other hand a large number of low-skilled and low-paid jobs, often in part-time and with temporary contracts, particularly for women (Gordon et al., 1992). Such developments often caused imbalances also within countries, e.g. between in Germany between the North-west with its declining heavy industry and science-based high-technology industry in the south

Diminishing support for the political left
Regarding the political representation of the workers, there were different developments. For instance, in Britain there were increasingly strict controls of trade unions, and the power of organized labour to influence governments became very limited (Harloe, 1995, p. 386). In France, however, with the election of social and communist parties, worker’s rights should be expanded, together with an increasing welfare provision and substantial income redistribution. However, in general, the support for social democratic and left parties in general eroded with the falls in manufacturing employment and the rise of new, often high technology growth industries.

Providers
Housing production fell from the high levels it had reached in the previous period in some countries. There were still investment programmes (often for macro-economic reasons such as employment generation), but despite the increasing involvement of private actors, there was a general decline in the new social (rental) housing offerings. The Netherlands was
among the exceptions that maintained almost the same levels. But for instance, West German output in 1989 was 45 per cent below the 1975 level, in France the fall was 37 per cent, in Denmark 35 per cent and in the UK 27 per cent (Boelhouwer and van den Heijden, H., 1992, p. 35).

**Strengthened position of the non-profit sector**

The disengagement of central government agencies strengthened the position of the non-profit sector (associations and corporations) and private actors. Arrangements with the private and the public sectors having well-defined roles emerged. E.g. in Britain, local authorities manage the existing social housing stock while the private sector is responsible for developing new social housing (Malpass, 2008).

The increasingly powerful role of housing associations was also linked to urban renewal processes. The organizations owned most of the housing stock in renewal areas. Their increasing professionalism and financial means make them obvious leaders. Their self-perception changed, and they saw themselves as policymakers, implementers, and social engineers. The ambition grew not only to improving their housing stock, but also the local environment, social cohesion and tenants’ individual potential and well-being (Lévy-Vroelant et al., 2008, p. 39).

Nevertheless, the increasing neo-liberal paradigm also put some pressure on non-profit as well as on local municipality providers of social housing. They increasingly saw themselves confronted with accusations of being inflexible, bureaucratic, inefficient and paternalistic. Some social housing organizations try to counter the loss of influence by transforming into private sector landlords with a diversified approach that retains some commitment to social provision, or by just providing dwellings at the bottom end of the sector as landlords of last resort (Harloe, 1995, p. 369).

Social housing organizations also faced increasing financial and management pressure. On the one side, policy and housing markets development forced them to increasingly accommodate lower-income households, while on the other side increasing rent arrears and the need for new expenditures on community programmes, social work, security provision and rehabilitation are pressing (Harloe, 1995, p. 368).

**Illustrative examples**

The following examples illustrate the developments with regard to different types of providers (all data also quoted in Harloe, 1995, p. 420):

- **Germany** saw a scandal in 1968 when the largest social housing organization *Neue Heimat* collapsed as a result of speculation and corruption among its top management. The organization had been owned by the trade union federation. In general, the decline in social rented construction was from 81,000 in 1975 to 14,000 in 1988. The share of how ownership for home ownership in this time has risen from a quarter to about 75 per cent (Jaedicke and Wollmann, 1990, p. 134)

- **In France**, social housing construction output halved from 110,000 in the middle of the 1970s to the early 1980s, and by this time about two thirds were for home ownership (Ghékiere, 1991: 130).

- **In the Netherlands**, where the growing demand was particularly high, there were some fluctuations in housing production. Social rented housing fell from over 60,000 in the mid of the 1970s to 23,00 by 1979, rose back to 60,000 in 1982, but then again fell to around 23,000 (Lundqvist, 1992, 54f.).

- **In Britain**, new building by local authorities slowed from the late 1960s, and had effectively stopped by the mid-1990s. Housing associations, as the non-municipal part
of the wider social rented sector, were unable to compensate for this huge loss of investment. New construction accordingly was on levels below those achieved by local authorities as recently as 1985. Privatization policies in the 1980s have transformed the pattern of ownership. In 1981 local authorities in Great Britain owned 6 million dwellings (about 93 per cent), compared with just 470,000 in the housing association sub-sector. By 2006 the local authorities owned just 2.6 million properties, while the housing associations had 2.2 million, giving them 46 per cent of the total social rented sector, and their share seems certain to go on rising. The main reason for the relative growth and decline of the two sub-sectors is the transfer by local authorities in England of 1.1 million council-built homes to housing associations (Malpass, 2008, p. 27).

- **In Finland**, a new form of tenure, the *right-of-occupancy housing*, was adopted from **Sweden** at the beginning of the 1990s (Yousfi, Vilkama & Vaattovaara 2010; Ruonavaara 2005). It is a new type of cooperative housing, and the model means that the tenant has the right to live in a specific dwelling when he or she first pays a right-of-occupancy fee for it, which is about 15% of its value. After that, a certain amount each month as a charge for use is to be paid, varying according to the dwelling and its location.

- **In Denmark**, the annual quota for non-profit housing fell from around 13,000 in the early 1970s to around 7,000 by 1980 (Ghékière, 1991, p. 89).

**Public-private partnerships**

Funding for social housing began to be channelled not only through housing associations, but also through private builders and real estate investors; at the same time the municipalities’ role was shrinking, as they withdrew from new construction. Public-private partnership became important (Reinprecht, 2007, p. 37).

**Shifting balances and institutionalization of European networks**

**Client relation towards social tenants**

The mass introduction of housing associations has shifted power relations between housing providers and social tenants. A customer-orientated approach to service provision and less hierarchical structure of tenant consultation has enhanced the influence and power of social tenants. The organisational culture of housing associations means social tenants are more often conceived of as active ‘clients’ rather than passive ‘recipients’ of social housing services. As a result, cognitive-cultural frames are advanced that enable networks of actors to exert pressure and influence on the organisations delivering social housing in the UK (Malpass, 2008).

**European Union**

Alongside with the rising importance of European legislation since 1968 (Boccardo, 2008), also some European housing networks and initiatives were launched, amongst them for instance *Housing Europe* (see below).

**Organized protest movements**

This period also saw a variety of organized protests or even riots as response to the cut in public expenditure in the housing sector, social and economic polarization and so forth. In Britain, urban riots spread in the early 1980s as a response to the demolition of slum dwellings. There was also a year-long miners’ strike in 1984-5. However, the effect was

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rather limited. Also in Germany there was community-based activism against gentrification and the displacement of low income tenants (Katz and Mayer, 1985). In France, outbreaks of disorders and violence accelerated the declining status and reputation of social housing (Harloe, 1995, p. 455)

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Networks of Providers

**Housing Europe** - The European Federation for Public, Cooperative and Social Housing (Brussels)
http://www.housingeurope.eu/section-37/about-us
Established in 1988, network of 42 national and regional federations which together gather about 41,400 public, social and cooperative housing providers in 22 countries. Altogether they manage over 25 million homes, about 12 per cent of existing dwellings in the EU

**EURHONET** - European Housing Network
Established in 2006, Network of about 31 public and social housing companies from England, France, Germany, Italy, Sweden and The Netherlands.

**DELPHIS**
http://www.delphis-asso.org/qui-sommes-nous/who-we-are
Professional non-profit association 26 non-profit social housing companies; research and development unit; promoter of innovation and continuous improvement in the social housing sector; currently the coordinator of AFTER and ERHIN projects.

Lists of National Federations
http://www.housingeurope.eu/section-22/our-members
http://www.eurhonet.eu/members-2/

Networks of Tenants

**IUT** - International Union of Tenants
http://www.iut.nu/
Established in 1926 by National Tenant unions (initiative from Sweden, Germany and Austria) in response to the foundation of the European Property Owners Federation

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<td>WP 1</td>
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WP 3 Distributive aspect: which actors had access to the SI process? Which barriers can be identified at different levels (e.g. geographical distance, knowledge gaps, etc.)?

WP 4 Which scientific networks (e.g. disciplines) contributed to the success of the SI?

WP 5 What industrial actors contributed to the success of the SI?

WP 6 Did different societal spheres (e.g., civil society incl. philanthropy, private markets, and public authorities) contribute at different points of dissemination to the SI?

WP 7 How were policies driven by actors and network constellations?

3.4 Narratives and discourses

Questions

Please, indicate which narratives or discourses accompanied / were relevant for the addressed social problem and the social innovation. How did these change over time? Did they inhibit or foster social innovations?

In which social domains can these discourses and narratives be located (media, parliament/city council, civil society/community)? What were the instruments of the discourse (reports, petitions, opinion leaders, media campaigns, letters to the editor etc.)?

Who was involved in these discourses (e.g., the beneficiaries)? Can any parties be identified that dominated these discourses or narratives? Why could they do so (e.g., power, knowledge)?

Did those narratives influence the perception and acceptance of legislation, education curricula, or other institutions?

Did they affect the perception and acceptance of any social networks?

Summary of key points

- Before WWI, the housing problem was not entirely understood, and there was a strong belief in free markets. Strategic motives, social hygiene, and deviating perspectives on solution approaches played an important role.

- After WWI, there was fear of social uprisings amongst the elites. Intervention in the housing markets were seen as temporary, there was a general wish to return to ‘business as usual’ (pre-war state) as soon as possible.

- During and after the world economic crisis (great depression), there was an increasingly residual approach to social housing, and the sector came to be understood as a complement rather than a substitute for the private housing sector.

- In the golden age of social housing after WWII, functionalism and modernism also became dominant paradigms for social housing. State intervention in the sector was almost accepted as being permanent now.

- From the mid of the 1970s onwards, there was a rise of the neo-liberal paradigm. The publicly supported social housing sector and its organizations became increasingly criticized to be ineffective and inefficient. Living in social housing dwellings more and more became a stigmatization.
When looking at the historical development of social housing, it becomes visible that there often have been different and even conflicting opinions and cognitive frames on how the matter can or should be solved. Narratives and discourses that influenced social housing solutions can be attached to widening circles around the core questions of housing provision, i.e. on social housing, on societal welfare in general, and even more, on societal development. What is more, it becomes visible that the positions (or cognitive frames) vary across different societal groups.

Phase 1 - Before WW1

Problem perception
As already stated in Part 1, the housing misère as an element of the broader social question only slowly came up to the common public agenda in the 19th century, mostly due to the engagement of social reformers and hygienists, but also due to a rising workers’ movement with trade unions that was supported by social democrats who strengthened class consciousness (Fuhrmann et al., 2008; Harloe, 1995; Lévy-Vroelant et al., 2008).

Lack of understanding
The absence of problem consciousness was caused by different reasons. On the one hand, in the beginning the problem as such was not entirely understood. Due to strong seasonal and cyclical changes, periods of undersupply alternated with oversupply and extreme changes in renting prices. So either at some times the problem was expected to be solved without external intervention, or at others housing shortage and related impoverishment was simply accepted as a reoccurring problem (Fuhrmann et al., 2008). It took some time to acknowledge that the housing situation was a societal problem and not due to individual failure.

On the other hand, there was a strong belief in liberal market processes as this was one of the important achievements compared to the outdated feudal society (see below).

Strong status thinking and conservative values of bourgeois classes
Furthermore, the living circumstances of the poor working classes were perceived to be in a diametric conflict with the values of the rising bourgeoisie. The habit, idea and terminology of privacy emerged, which was in juxtaposition with the overcrowded dwellings that were perceived as sites of immorality. Also, status thinking was strong (Hobsbawm, 1989). Furthermore, particularly conservative reformers saw the nuclear family (parents and their children) as fundamental for social order, accompanied by discipline and emotional domesticity, which was perceived as being threatened by the given circumstances (Fuhrmann et al., 2008).

Problem perception among the affected
Workers from rural regions used housing as depots for their stuff in the beginning until 1890s. Contemporary reports indicate that it was necessary to convince parts of the working classes that better living conditions would positively contribute to their overall living circumstances (health, productivity and wages etc.; cf. the approach of Octavia Hill). Lower working classes slowly adopted to the perception of living as a matter of privacy (Harloe, 1995). Furthermore, analyses of households of the time often show an – apparently – unreasonably high share of representative items such as sofas, mirrors etc., which is interpreted as a strategy to rise self-esteem (Schomerus, 1979).
Solution approaches
Elements of the discourse on social housing of the time are the degree of state regulation and
private vs. public involvement, the targeted beneficiaries and the involvement and uprising of
the working classes by education, promotion, and owner occupation, and the discussion of
tenement housing in comparison with small housing.

Public vs. private responsibility
A core topic was how to deal with the social problem or, more particularly, who is
responsible. On the one hand, there were strong liberal forces of “Manchesterial” thinking
across Europe, according to which “everything should be left to the free play of the [market]
forces” (Kampffmeyer, 1908, p. 578). This held true both for the provision of social housing
and policies that supported specific providers to reduce price of working class housing below
cost-covering level. Besides ideological concerns, there was a fear of crowding out private
investments and thus of an increase of the dependency from public money in the long run
(Harloe, 1995, p. 28).

The intensity of this thinking differed however. Public interventions that bypass or affect free
market processes were strongly objected or even “unthinkable” in France and also for liberals
in Britain or the Netherlands, whilst Germans civilians with a longer tradition of corporatist
state-civil society cooperation (Harloe 1995: 51) were open a bit more. Moreover, there was a
particularly strong link between industrial needs and housing policies in Germany, as housing
policies were thought to reduce labour turnover and enforce labour discipline through the
support of housing especially in rapidly industrializing regions such as the Ruhr area where
there hardly was a pre-existing housing stock (Harloe, 1995, p. 48).

However, even among German Social Democrats there was no general agreement on the
issue of government intervention. For instance, until the 1920s Social Democrats in Saxony
preferred to approach the housing problem by means of cooperatives instead of municipally
organized housing companies. Similar discussions can be made out all over Europe. In
Vienna, there were bloodily suppressed mass demonstrations against housing shortage and
rent usury, and when the Viennese social-democrats demanded the construction of municipal
housing they failed due to the resistance and dominance of the Christian-social municipal
government (Wiener Wohnen, 2015). In the UK, social reformers even argued that subsidies
were unacceptable on economic and moral grounds (“if the state is to be summoned no only
to provide houses for the laboring classes, but also to supply such dwellings at nominal rents,
it will, while doing something on behalf of their physical condition, utterly destroy their
moral senses” Earl of Shaftesbury, 1883).

Policies that were finally adapted around the turn of the century often had the purpose to
encourage limited-dividend housing and cooperative by cheap loans and tax privileges (cf.
3.5 Rules, norms and policies). Those policies were rather similar and based on a normative
consensus surprisingly stable across all parties (Lévy-Vroelant et al., 2008, p. 34). However,
some authors also argued that social housing solutions were only adopted when there was an
oversupply on the housing market (e.g. Foster, 1979).

Philanthropy and the role of the market
In fact, until the turn of the century the German as well as the British society were
philanthropy-based (Adam, 2002). Almost all philanthropists agreed upon not demanding city
councils or the federal government to take responsibility for the housing of working-class
families. However, there was some discussion about the role of the market economy with
respect to the “social question” in the capitalist system.

For a more detailed discussion see also 2.1 Antecedents and invention.
Some contemporary reformers believed that “benevolence . . . does not do half its work, unless it can be proved to pay. It must be profitable, in order to be in the best sense a charity.” (Adam, 2002, p. 348). Waterlow attempted to demonstrate how the housing problem for working-class families could be solved within a capitalist society and therefore targeted a moderate, below market-level return of five per cent, whilst Peabody fully reinvested the returns of his dwellings. Waterlow accordingly set up a limited-dividend company, whilst Peabody built a trust.

In most countries, philanthropists rather preferred foundations instead of limited-dividend companies with return expectations and accepted that the situation needed a solution outside the free market system. Indeed, various philanthropists such as Julius Meyer saw foundations without any return as an economic instrument which paved the way toward a new model of society (Adam, 2002, p. 348).

Beneficiaries – deserving vs. undeserving poor and potential for salvation

Also from the beginning, there were different perspectives on who should be addressed with different social housing approaches. The poor were judged into different categories and treated respectively.

For a more detailed discussion see also 1.2 Targeted beneficiary groups

Whilst the more skilled workers of the “respectable working class” with the greatest potential for salvation were sought to be integrated in society and addressed by most social housing approaches, the most marginalized groups (or “undeserving poor”) often faced rather repressive, punitive measures and expulsion during slum clearances. In the late 19th century it was more or less accepted that filtering (the decrease in prices for lower quality dwellings when higher quality buildings are built for the better off) was the solution for this group. Moreover, it was an explicit goal in some countries to destabilize these ‘dangerous classes’ and to impede respectable working class from finding a common cause with the ‘residuum’ class (Gareth, 1984). Influenced by Social Darwinism and Imperialism they for instance were seen as weakening the empire. It was discussed that cheap housing in inner cities would inhibit their outward movement, thus reducing industrial efficiency. Also, deprivation of their citizen, parental rights and incarnation in labour colonies were discussed by mainstream welfare reformers and many labour leaders (Harloe, 1995, p. 37).

Furthermore, there was a class of “deserving poor” or in-betweens. It was acknowledged that there would be some potential for improvement here, however, as became visible for instance in the approach of Octavia Hill, the beneficiaries themselves had to be convinced of the benefits of improved housing conditions. As an English local government official stated in 1895 (quoted in US Commissioner for Labor, 1895, p. 171: “[t]he education of the poorest classes to fully appreciate the benefits accruing from their being housed in healthy dwellings, provide with all the requisite sanitary arrangements and applicants tending to promote cleanly and tidy habits … must proceed their intellectual and moral elevation.”

Housing style: tenements vs small houses

What is more, from the beginning there was a discussion on whether small houses or multi-storey tenements would be best approach of tenure. Small houses were largely favoured by conservative reformers who emphasized the role of the small family within detached accommodation for social order, or also the Garden City movement. Tenements accepted the
status quo of living conditions and were driven by communitarian thinking (Kastroff-Viehmann, 1979).

For a more detailed discussion see also 3.2 Solution approaches

Both approaches were put into practice, although high land prices often made the small houses solution unaffordable. Compromises emerged for instance in Mulhouse with the construction of cluster or quadruple house, and also suburbanization was discussed in this context (Kastroff-Viehmann, 1979).

Control and Cleansing– an extended notion of public health

Finally, it needs to be stated that all early approaches, no matter the background, comprised a strong element of social control. In addition to what is already stated in other sections (cf. 3.2 Solution approaches), two quotes shall illustrate this. The first is by German industrialist, employer, and housing provider Alfred Krupp (Krupp, 1877; translation by the author):

“Besides, talking politics in the pub is very expensive. After work is done, stay in the circles of yours, with your parents, with wife and children. There, search for recovery, reason about the household and education. This and your work should be first and foremost your politics. By doings so, you will have happy hours.”

Moreover, as already indicated in the initial quote, there was a broad understanding of (social) hygiene or cleansing. Topalov describes (1985: 261): “[a] key word characterized one of the main ways to reform: cleansing – that is transforming the physical environment of working-class life in order to change its social reality”.

Phase 2 - WW1 until world economic crisis

The consequences of WWI and the following economic situation made large scale public intervention necessary. As Harloe states, the period marks the transition “from ideology to practice” (1995, p. 138). The most important issues in discussions on the matter are described below:

Problem perception

(Post) war impressions

WWI and also the hyperinflation in 1923 caused insecurity, disappointment and impoverishment in many European states. After a short improvement for the working classes during armament in war time, unemployment, income inequalities (“wartime profiteering”), and also the housing crisis increased again. There were widespread social unrests and revolutionary ideas gained currency (Harloe, 1995, p. 77).

Fear of revolution and the general acknowledgement that free market forces would temporarily be unable to solve the housing situation (see below) resulted in a general consensus that public intervention on the housing market was necessary, and concessions to the working class should be made. It was generally seen as “an insurance against revolutionary forces”. However, by most actors this was only seen as a temporary solution until the time when liberal pre-war status quo could be re-established. A rapid return to ‘business as usual’ was seen as desirable after years of reconstruction and readjustment (Maier, 1975).


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Solution approaches
The collapse of the private housing construction, caused by a lack of private investments and expensive or unavailable materials as well as rent controls (cf. 3.5 Rules, norms, and policies), made public investments inevitable.

Temporary public intervention?
However, there was a fear that policies fostering public housing by rents below market levels would leave the governments with long-time requirements to subsidize working class housing, since private investments would be crowded out. State subsidies should therefore be just temporary and compensate for the conditions that inhibited the functioning of a private market. Accordingly, they should meet the proportion of the cost of new housing that was ‘non-recoverable’ (International Labour Office, 1924, 47f.). This was the difference between the very high costs and the levels of controlled rents. Therefore, subsidies should reduce housing prices to an economic level that allowed for a normal functioning of free private markets. After routine was restored, the need for subsidies would disappear, so the common belief (Harloe, 1995, p. 100).

This ignored, however, that the private housing market already before WWI were not capable of providing an adequate supply of housing for the (poorer sections) of the working classes, even when assisted by the state. Only some observers pointed to this fact early on. In a study on European housing developments in 1924, the International Labour Office stated (1924, p. 3) that the housing system before the war was ruled by the ‘liberal economic theories prevailing in the nineteenth century’ and that these had already created a housing problem immediately before 1914. The war had now ‘precipitated the [housing] crisis, increased its intensity, and gave it the specific from which make it one of the most serious social and economic problems of the present day’.

Others insisted for otherwise rather selfish reasons. E.g. in Germany, despite an estimated housing shortage of 800,000, the house and property owners’ associations resisted to admit that there are scarcities on the housing market. The discussed schemes for providing cheap building land threatened the large speculative gains landowners made before and during the war (Harloe 1995:103). However, by the mid of the 1920s it had become obvious that the return to a fully private housing market would not at all be sufficient to meet the needs on the housing market. In this sense, initially temporary subsidy programs paved the way to the establishment of social housing as a major, permanent alternative on the housing market. What is more, in the emerging welfare states housing became a constitutional right.

Providers
Regarding the question of who should provide the new housing, directing subsidies to the private enterprises was not an adequate strategy, as building industry and financial sector still were too damaged from war consequences to complete this task in France or the UK (Swenarton, 1981). Subject related subsidies also were unthinkable.

Accordingly, the obvious consequence was to rely on the embryonic housing associations, cooperatives and local authorities’ agencies that had emerged before 1914. The war consequences were severe enough to generally accept even direct provision by local authorities (Harloe 1995: 102). Even a socialization of production and distribution of housing was discussed. However, this went too far in the political context of the time (Bauer, 1934, 122, 129):

[the various post-war governments of a ‘Labor’ or Social Democrat’ flavor had, as subsequent events have proved, little greater desire or power to ‘socialize’ anything … than had the Liberals or Conservatives … Except in Russia and possibly on occasion in Vienna, it has never been the conscious vocal purpose of either the city father or the State officials to ‘socialize’ anything.
Nevertheless, resistance remained even among public bodies. In France, the *Caisse des Dépots* refused to give loans of below-market interest rates despite the obligation to do so. In the UK, local authorities had refused to build sufficient housing units under a voluntaristic scheme unless there would be more financial assistance, which resulted in a programme of considerable central direction (*cf. Rules, norms, and policies*). What is more, in some countries, social housing corporations had the reputation of being costly, inefficient and badly managed (Harloe, 1995, p. 124), so that supportive measures remained controversial.

**Beneficiaries and rents**

The discussion of who should be addressed by the new, large-scale housing programme (*cf 3.2. Solution approach*) also manifested itself in the question of which rents should be charged: full market rents (still the majority opinion) or those substantially subsidized? Eventually, the rents charged were somewhere in between market levels and the levels which would have been readily affordable for the lower working classes. So once again the economically better-off working class members as well as the also affected middle class were at the focus of interest (Harloe, 1995, p. 86).

**Housing style**

Continuing from before WWI, the discussion about small houses versus tenements went on. (*cf. 3.2 Solution approach*) for a more detailed discussion

How it was solved generally depended on the acting persons, yet social reformers now were in a better position to put their ideas into practice within the growing public system. Despite costs and land requirements, rationalism, functionalism (separation of living, working, leisure time, and culture), modernism, Fordism and a general conviction that technology might help to solve societal problems also influenced the discussion.

**Phase 3 – World economic crisis to WWII**

**Solution approach**

Evidence indicates that the interwar period saw a general professionalization of housing ‘science’, e.g. in the UK and elsewhere. The problem and its links to urban planning and economic development in general were better understood, as well as the role and potential of different actors. Also it had become clear that a more differentiated approach was necessary to address the different aspects of the problem.

**Relation of public and private provision**

The possibility of aiding recovery and reducing unemployment by a revivified private market was a more realistic proposition in the 1930s than it had been in the 1920s, at least in Britain and Denmark. For instance in Britain there was a boom of the private construction sector in the 1930s. This also affected the discussion on the rule of publicly provided or supported social housing. By many, programmes of social housing were seen as a complement rather than a substitute for private housing (residual conception), particularly in Britain or the Netherlands (Harloe, 1995, p. 160). Malpass (1986, 51f.) summarizes the developments for Britain in this period as follows:

“general needs housing … was subject to strong residualization pressures, initially from the Conservative dominated National Government from 1931 onwards. These pressures came in various forms which reflected the prevailing economic orthodoxies … [t]hey also reflected the consistent Conservative party belief that private housing should not be undermined by municipal competition. Thus council housing was manoeuvred into the position of providing new housing for the poor only … to be restricted to the bottom end of the market, below the level at which private enterprise could produce decent housing at a profit.”
The underlying assumption was that private markets would be capable to serve the housing needs of the majority of the (better-off) working classes, and that then a filtering process would occur drawing the others towards public and social housing. This also comprised the conviction that public housing should not be a lifetime source of accommodation. Most policies of the time followed this assumption.

However, contemporary commentaries recognized that this assumption was not the case in practice (e.g. Denby, 1938, 119ff.), since prices on the private market were still too expensive for most workers. The idea of an universalist approach including mass construction of social housing following a substantial state regulation and planning here came up her for the first time from the political left, but also from Confessional and non-denominational associations like e.g. in the Netherlands.

*Residual approach as an orientation towards the poor?*

The increasing public or municipal housing provision mainly served the poor (though at lower standards). As Bowley (1944) or Malpass (1986, p. 59) conclude, however, this was not necessarily a consequence of a normative orientation toward the poorest people. At least in the Conservative rationale, it rather was a policy to deal with the areas of poorest housing. It was a “response to the inability of private builders to undertake clearance and rebuilding at a profit … [it] was about confining council housing to the unprofitable parts of the housing market, and … about returning to the sanitary role for municipal housing action.”

*Role of housing associations*

Related to their particular role, there also were first signs of a dispute on the role and autonomy of housing associations in relation to the funding state. Associations saw their role not in being an instrument of state policy for residual housing, but rather as being self-governing alternatives to private landlords. Their aim was to provide better-quality housing, devoid of any speculative or profit-making element, for the respectable middle class. This was somewhat in conflict with the more coordinated policy approach that saw different roles for different actors (Harloe, 1995).

*Housing under the Nazi regime ideology*

The anti-urban ideology of the Nazis had a considerable impact on the perspective on (social) housing. There was a wide shift to rural, agrarian-settlements with small, low standard houses. Reasons for this shift were to cut unemployment on the one hand and on the other hand to build up on ideas that had been discussed in Germany already before the Nazi regime gained power. However, there was a political motivation. The Nazis saw this as “a wise policy to bind people to the land, since contact between body and earth is less dangerous than intellectual contacts, stimulated by starvation, in the cities.” (Blumenthal, 1934, p. 22). Furthermore, those settlements also put a strong emphasis on indoctrination with the Nazi ideology (Harloe, 1995, p. 174).

*Phase 4 – WWII to mid-1970s*

In contrast to the phase after WWI, after WWII with its disastrous political and economic consequences there hardly was any nostalgia or yearning for the past.

*Solution approach*

*Functionalism and modernism*

The period was generally characterized by ideas of Modernism and a belief in social planning approaches, leading to an increasing importance of urban planners, social (housing) scientists and engineers. In many countries, five year planning approaches were adopted (e.g. Netherlands). Influenced by *Fordism*, the prevalent planning paradigm of the time, the
functionalist notions accessibility, functionality and uniformity in design to enable series production also became the guiding concepts of social housing policy. Related to this, the period also marked the end of the bourgeois era and thinking in most fields of life.

**From residual to generalist/universalist orientation**
Approaches of welfare capitalism were generally accepted by the established parties in this period, including the acceptance of state intervention in economy and society. After the residualization in social housing of the 1930s, the massive gap on the housing markets across Europe had changed the picture even among the conservative parties now. Besides the destructions caused by the war, the baby boom, economic growth as well as rising rates of employment and rising income had an enormous effect on housing demand that even went beyond what had been envisaged by most politicians and their advisors after the war. Therefore, a generalist or even universal model of social housing was adopted, targeting wide parts of the society (cf. also 3.2 Solution approach).

**The role of public and private actors**
It was self-evident that the extensive need for social housing required governments to take the lead. According to an estimation by the UN Economic Commission for Europe (1949), countries would have to double their pre-war rate of housebuilding and still need 22 years to close the housing gap. This was beyond the competence or willingness of private market industries, even more so given the fact that the private building industry and private sector capital or money markets were barely functioning.

So there was wide political agreement (apart from a few uninfluential free market proponents) that mass social housebuilding was necessary on a scale that was “hitherto undreamt, except, perhaps, by left-wing parties” (Harloe, 1995, p. 255). However, even now general concern among governments about the long-term burden on governments remained. There still was an implicit assumption that the housing market could return to widely private supply when the war-caused housing gap was closed (UN Economic Commission for Europe, 1976, p. 58).

**Rent harmonization**
A further concern that widely remained a topic of discussion due to (at least in the beginning) the acute housing shortage and resistance of social landlords and older, well-established and better-off tenants was rent harmonization. The problem was that in older dwellings from the times before the war rents had fallen although standards were actually still high. Most of such dwellings were occupied by better-off tenants that had acquired access in earlier years. Rents in new houses were higher, and they were often located in peripheral spots. In such dwellings, many of the poorer tenants were housed. Therefore, suggestions were made to link rents to quality, regardless of age, and to use the surplus of the older units to cross subsidize the newer ones (Harloe, 1995, p. 259).

**Phase 5 – mid of the 1970s onwards**

**Rise of the neo-liberal paradigm and ideological individualism**
The legitimacy of social housing as a particular segment of the rental housing stock, supported and/or owned by public or non-profit bodies, has not really been questioned after 1945. By the mid of the 1970s, most parties and governments had accepted (to varying levels) social housing as a permanent part of national housing systems. However, this

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32 The problem was also very present in the public opinion. In Britain, a poll in 1945 showed that housing was the single most important issues for the majority of the electorate (Perry 1986: 222).
acceptance rested mainly on social and political arguments, rather than a strictly economic rationale, which became increasingly contested now (Tutin, 2008).

On the one hand, this was because a rise of neo-liberalism in nearly all European welfare states in response to the economic crisis from the mid of the 1970s onwards. Old arguments against state intervention (inefficient, ineffective, and undemocratic) re-emerged and the free market was praised again, particularly from right wing parties. Accordingly, so-called New Right (e.g. King, 1987) policies such as privatization, decentralization and state disengagement became more dominant on the political agenda and were – in fact – also adopted by centrists and social democratic governments (Lévy-Vroelant et al., 2008; Harloe, 1995, p. 367).

Somewhat being the other side of the coin, there was also an increasing ideological individualism, i.e. the notion became common that each person should look out for him or herself (Lévy-Vroelant et al., 2008, p. 39). This went along with higher prestige of private property, but for instance also with more tailored and individual welfare and also social housing policies. As Lévy-Vroelant and colleagues (2008, p. 44) state: “the social is no longer identified with the common good, but with the concept of personal assistance for those who are not able to provide for themselves.”

Residualization of social housing and the role of private and public actors
The economic situation raised the desire among many governments to shift larger parts of social housing provision back to the private sector to cut public expenditure. In general, the social housing system developed towards a more residual character again, where access is limited to the poorest groups of households. This development is also promoted by single-market regulations of the European Commission. Regulations pressure countries towards more restrictive or residual systems with the rationale that more general assistance is anti-competitive (Tutin, 2008).

Yet it became clear that commitments that had been made (a fear that earlier had always caused government to be precautious) were not that easily to be dissolved (Harloe, 1995, p. 365). Policy makers therefore increasingly understand social housing as a ‘spring board into ownership’, which reveals that they want to encourage those who can leave the social housing sector to do so, but of course this also implies that social housing will continue to have a safety net role for those unable to survive on the open market (Malpass, 2008, p. 27).

Loss of importance and stigmatization of social rental housing
In general, there is also the diagnosis that housing has slipped down on the political agenda in most countries compared to education, health-care or pensions. Harloe (1995, 368f.) argues that this in part related to the end of acute housing shortages and the greater importance now placed on policies relating to economic growth, unemployment and inflation. However, a reason might also be that the beneficiaries under the residual approach, the targeted poor and marginalized have a lower political weight than the better-off working and middle classes previously had.

Even more, in public discourse the stigmatisation of social and municipal housing in particular increased, given the problem sketched out in this section. However, this is somewhat in opposition to the fact that social housing subsidies remain a part of the normative welfare consensus that is highly regarded (Lévy-Vroelant et al., 2008, p. 39).
Further readings

(Blessing, 2015)
(Bolz, 2010)
(Kemeny, 2005)
(Maier, 1975)
(Morris, 2001)

Possible questions of analysis Part 3.4

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<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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<tr>
<td>WP 1</td>
<td>What was the role of cognitive frames in social innovations? How did they relate to institutions and social networks?</td>
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<td>WP 3</td>
<td>How can cognitive frames possibly be measured? What is the evaluative space here?</td>
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<td>WP 4</td>
<td>Which technological visions and scientific advances were used in the discourse?</td>
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<td>WP 5</td>
<td>Did changes in cognitive frames represent specific phases in social innovation lifecycles?</td>
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<td>WP 6</td>
<td>How were policies driven by cognitive frames?</td>
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3.5 Rules, norms and policies

Questions

Were there any policies (in the thematic field or generally) that contributed to the social problem? Were there any legal / constitutional triggers or framework conditions that contributed to the social problem? Were there any other rules or norms that contributed to the social problem?

Were there any policies (within the relevant thematic field or elsewhere) that fostered or inhibited the social innovation, e.g. by altering its capacity and function to tackle marginalisation? Were there any legal / constitutional triggers or framework conditions that fostered or inhibited the social innovation? Were there any other rules or norms that fostered or inhibited the social innovation?

To what extent have rules, norms and policies contributed towards systemic change through social innovation in this field of study?

Is ‘tackling marginalisation’ (either via poverty reduction, social inclusion, etc.) a central, explicit objective or outcome of policies or other rules and norms? Why/Why not?

Did the social innovation build on or recombine existing policies, norms and rules?

Were relevant policies located on a regional, national or international (EU) level? Can different influences of different policies be detected across different regions?

At what stage of the development process did supporting policies become most relevant?

What are the diffuse and unintended effects of policies and/or other rules and norms in this field of study?

Did existing policies change as a consequence of the social innovation? Did other rules and norms change as a consequence of the social innovation? How was this achieved, and by whom? Were those particularly powerful?

How did policies or other rules and norms relate to social networks relevant for the social innovation?
How did policies or other rules and norms represent or relate to public discourses and narratives? How was policy making influenced by them? Vice versa, how did policies and other rules and norms influence public discourse?

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<th>Summary of key points</th>
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<tr>
<td><strong>Before WWI</strong>, regulations with regard to the poor housing situation were ever absent or rather harmful. Sanitary reforms were important, first policies were rather similar across Europe and aimed to provide financial support (loans etc.), without bothering market processes too much.</td>
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<td><strong>After WWI</strong>, housing subsidy programs were on the rise, although still on a small scale and intended to be temporary. Rent controls and compulsory billeting were adopted as well.</td>
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<td>During and after the <em>world economic crisis (great depression)</em>, subsidy programs proceeded on a small scale, yet they were often linked to the obligation of slum clearances and strict management schemes. Under the Nazi regime, ideological criteria were reflected in eligibility criteria.</td>
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<td>In the golden age of social housing <em>after WWII</em>, mass housing programmes (housing-related subsidies) were developed alongside rent controls and other measures.</td>
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<td>From the <em>mid of the 1970s onwards</em>, there was a strong emphasis on owner occupation, and in most countries subject-related subsidies became to dominate.</td>
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<td>The rules, norms and policies relevant for social housing either addressed social housing directly or related fields, such as for example (social) hygiene regulations, public administrative law, and private law (legal forms).</td>
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**Phase 1 - Before WWI**

*Absent or harmful regulations in the beginnings*

When the problem of adequate and sufficient living space for workers during industrialization and urbanization came up in the 19th century, there was hardly any regulation implemented on the housing market. Instead, the liberal, market-based paradigm of the time even reinforced the problem (Lévy-Vroelant *et al.*, 2008), as it put no limit on speculation and market-based housing provision which often exploited the situation of poor workers. (*cf. 1.1 Field(s) of problem*).

Besides the absence of market regulation, public authorities often had no legal lever to address the concomitants of the *misery*, such as poor hygiene. The following refers to the city of Tiverton, UK (Chadwick, 1842, p. 5):

“Attempts have been made on various occasions by the local authorities to correct this state of things by compelling the occupants of the houses to remove nuisances, and to have the drains covered; but they find that in the present state of the law their powers are not sufficient, and the evil continues and is likely so to do, unless the legislature affords some redress in the nature of sanitary powers.”

*Construction laws* of the time also paved the way for the creation of poor quality tenements. E.g. in Berlin, an enactment of the *Prussian Interior Ministry* between 1861 and 1863, comprised a territory development plan with the obligation for private investors to build broad boulevards and parks without public support. To create profits, private investors had to
make the maximal use of the grounds. In accordance with the construction law, they built
dwellings with five or more storeys, courtyards with only 5.3 m², and chambers that only
received light and air through shafts (“Mietkasernen”, cf. Kastoff-Viehmann, 1979). Another
problem was the obligation to build inside the city walls in many cities. This put additional
stress on the often already dense urban areas.

First social housing policies
Nevertheless, the housing problem became more and more obvious along with the rising
“social question”. Social and housing reformers as well as hygienists investigated for
solutions and lobbied on behalf of reforms across Europe (cf. 3.3 Actors and networks). In
these endeavours, the increasing ambition to combat injustice was intermixed with more self-
interested arguments of the elites, regarding economic (keeping the workforce healthy),
public health (jumping over diseases), and fear of uprisings (Lévy-Vroelant et al., 2008, p.
34). Also, it had become clear that early philanthropic endeavours would by no means be
sufficient given the majority of the task (Rodgers, 2001; Harloe, 1995).

Sanitary reforms as precursors
Sanitary reforms and legislation on housing inspection were then adapted first in the mid of
the 19th century to address the housing misery and its concomitants (Harloe, 1995, p. 52).
With regard to the devastating situation in the common lodging houses in the UK, the Public
Health Act of 1848 was legislated. It empowered the local board of health to determine a
maximum number of lodgers permitted per house, segregation of the sexes, promotion of
cleanliness and ventilation, and provision for inspection visits. The Common Lodging Houses
Acts of 1851 and 1853 tried to further improve the situation in these dwellings that were often
the scene for criminality and prostitution. They obliged residents to vacate the premises
during certain hours of the day, which meant that also poor and sick residents had to walk the
streets in the intervening period in all weathers. The control was even tightened when it was
transferred to London City Council in 1894 (Rule, 2008).

Housing policies to combine public and private initiatives
The first “real” housing acts were then passed in all European countries at the end of the 19th
century and were established almost all over Europe at the eve of WWI. They were usually
based on a broad consensus across the political spectrum, despite different local and national
situations across Europe. From the beginning, the core idea of social housing regulation was
to combine private and public initiatives, i.e. to leverage private resources and to involve
private actors in the coordination and provision of social housing. Direct housing provision
through municipalities remained at a minimum level before WWI. This was particularly due
to the dominant market-liberal, “manchesterial” thinking of the time. Public intervention in
market processes was considered as unacceptable in many countries.

Examples of early housing acts
Belgium: Housing act, 1889 (first in Europe)
Britain: Housing of the Working Class Act, 1890
France: Loi Siegfried, 1894; Loi Ribot, 1908; Loi Bonnevay, 1912
Netherlands: Woningwet, 1901
Austria: 22 December 1910 Act

33 For instance the Establishment Act (Vestigingswet) allowed the citizens of Amsterdam only from 1874
onwards to build outside the city walls.

However, the instruments that were established differed widely and included elements such as tax changes, direction of savings towards housing construction, tentative moves towards tenants’ protection, support for home ownership, creation of housing associations and the adoption of administrative instruments (Lévy-Vroelant et al., 2008; Harloe, 1995; Kemeny, 1995, 2005). Some key developments are illustrated in the following:

- **Belgium** and particularly **France** were the first countries to adopt a system with the establishment of state banks to provide cheap loans for non-commercial builders of worker houses. This approach was widely imitated in Europe. Jules Siegfried, the spiritual father and names giver of the *Loi Siegfried* in 1894, understood it as a middle way between the illusion of market competence (as adapted by some philanthropist) and public provision. However, there was a clear focus on ownership and actually no role for local authorities; only in 1906 some departments were allowed to give limited assistance but no direct provision. Also the responsible state organism (Ministry of Finance) that was supposed to provide the loans partly refused to do so. In the end, not more than 7,000 to 8,000 units were built as a consequence of the law, and only for the better off working class.

- In **Britain**, the *Housing of the Working Class Act* was adopted in 1890 (Rodgers, 2001, p. 190). Subsidies were only allowed when there were no viable alternative, i.e. in connection of slum clearances and the rehousing of the most marginalized slum dwellers – but only temporarily and with the argument that these workers would later become more productive members of a liberal society based on free market principles. State support for ownership was excluded by law; apparently to prevent working class housing to become subsequently a source of speculative profit making on the market.

- In the **Netherlands**, within the *Housing Act* (*Woningwet*) of 1901 the National government determined requirements and quality standards that buildings, houses and other public spaces had to meet. Subsidies and loans for affordable housing in public interest (*volkshuisvesting*) were given, sometimes even without own capital of the debtors. Yet, bearing the concerns in the ideological discussion in the NL, the risks of the loans were not borne by the central government but by the municipalities. Local municipalities were responsible for the implementation of the measures, including construction prescriptions, giving construction permissions, and construction supervision (Acker et al., 2008, p. 7). The municipalities thereby received the right to force homeowners to improve the housing conditions. Houses could even be expropriated, declared uninhabitable and demolished (Acker et al., 2008, p. 8). On the other hand the municipality had the obligation to make plans for expansion of the city, including plans for roads, canals, squares and sewerage. The Act also organized the establishment of non-profit housing associations (*woningbouwcoöperaties*), although these were not allowed to operate in direct interest of employers, unions or other organizations. Yet this lead to foundation of corporations by different politico-social groups (Harloe, 1995, p. 29).

- In **Germany**, no coherent social housing policy was adapted due to strong property interests and the insistence on local autonomy of city and state governments. Bills such as the *Prussian Housing Bill* (1904) generally avoided any direct intervention through subsidies (Harloe, 1995, p. 53). Yet public investment was fostered through a provision that enabled managers of the state’s new regional social insurance funds to invest in non-profit and limited-profit working-class building associations. The funds were available at a percentage point below market rate. In the late 1890s first model tenements with large courtyards, playgrounds, meeting halls, kindergartens, and libraries were built (Rodgers, 2001, p. 190). Complementary to this, the reform of the *Baugenossenschaftsgesetz* (building cooperative
law) in 1889 was another important legal act towards social housing provision. It reduced liability and improved chances for cooperatives to take debts from social insurance companies. Subsidized housing credits were mainly used by British-style dividend companies and building cooperatives (→ cf. 3.3 Actors and networks). However, the occurring investments turned out quite differently\(^{35}\). Some cities and municipalities (e.g. Mannheim) also provided the ground for housing for free (Pahl, 2000). A land reform, however, that was discussed (also in Britain or the Netherlands) to address the high land prices fails due resistance from landowners (Harloe, 1995, p. 38).

- In **Austria**, a state-guarantee-based banking system was developed that would channel money from taxes to housing construction, and allowed the state to support housing construction initiatives by guaranteeing the funds (Lévy-Vroelant et al., 2008, p. 38). In Vienna, from 1910 onwards a share of the housing tax is earmarked for a housing charity fund. This became the financial foundation for charitable housing (cf. Embedded Case Social Housing in Italy).

- In **Italy**, the first social housing policy (**Luzzati Law**) was implemented in 1903, followed by the **Testo Unico** on public housing in 1908. Purpose was to provide financial aid to cooperatives, charities and mutual aid initiatives (cf. Embedded Case Social Housing in Italy).

**Phase 2 - WWI until world economic crisis**

The second phase from WWI to the world economic crisis starting in 1929 saw a strong wave of **municipal commitment** (Lévy-Vroelant et al., 2008, p. 34). This already started during WWI, given the social unrests and the hardships also perceivable on the housing market. The right for housing was for the first time established in the constitutions of different countries.

**First subsidized housing programmes during WWI**

As tensions on the housing markets grew during WWI, first public programmes were developed. Although still on a small scale, they provided a first opportunity for housing reformers and professionals to try out their ideas regarding design, financing and administration of public housing. These programmes also set the base for after war housing policies.

For example in Germany, a program of the Reich government provided the equivalent of 25 million pounds in loans, guarantees and subsidies for private, preferably non-profit companies and housing associations. The ideas was to match funds from the Länder and local authorities, but there was strong resistance from landlords and property interests and no equivalent program (British Local Government Board, 1919). In the end, only some minor sums had been invested by the governments to produce housing for disabled soldiers and war widows.

\(^{35}\) In the Rhineland with particularly strong labour pressure reinforced by social Catholicism, regional insurance boards invested up to half of their funds in working-class housing. In Berlin, property holders’ associations and the real estate lobby exerted their influence so that the regional insurance board invested only 7 per cent. Düsseldorf experimented with British style municipal housing, Frankfurt or also Ulm carried out land purchases for low-cost housing. But the vast majority of German cities did not take any action Rodgers (2001, p. 191). Resistance from liberal municipal authorities (liberal) and montan industries impeded stronger development of cooperatives before WWI Fuhrmann et al. (2008).
In Britain, public housing units were provided particularly for war workers from 1915 onwards. However, the “primary interest was to secure increased output …, the welfare or social side of the question was but a means to an end” (History of the Ministry of Munitions, 1976, p. 3). Treasury insisted on minimal provision and temporary buildings wherever possible, and also expected local authorities to take responsibility, which, however, refused. Housing was provided particularly in isolated industrial locations where no housing stock existed and often living conditions were extremely bad. However, rent levels were still very high (to create an economic rent) and sometimes even reinforced social tensions in worker ‘colonies’ provided by the Ministry (Englander, 1983).

Rent controls and compulsory billeting
Rent controls were imposed in almost all countries during the war and upheld partly until the mid of the 1920s. Previous attempts to lower restrictions caused threats of general strikes etc., for example in France (International Labour Office, 1924, p. 125) or the UK (Englander, 1983, pp. 243–297). Also the inflation in the early 1920s implied a further necessity to do so. Also compulsory billeting and housing during war times (e.g. 1917 in the UK) was adopted, which, however, caused further, class-based social unrest (middle class vs. working class).

Housing programmes in the aftermath of WWI
- In France, in 1919 a new legislation provided state subsidies for communes and HBMs to support new housing. This was combined with additional assistance to large families and below-market interest loans. The Caisse des Dépots, receiving national savings deposits for which it paid a very low interest rate, however, again refused to lend for ideological reasons (Harloe, 1995, p. 103). Furthermore, mass social housing construction under involvement of private investments and targeting middle class needs was discussed, yet a program was not adopted by the Senate until 1928. Accordingly, only few new dwellings (all in Paris) were established under these measures, estimated about 60,000 to almost 70,000 at the end of the 1920s (Schwan, 1935; Bauer, 1934). Most of the net interwar increase in the number of dwellings in the Paris region was in the suburban lotissements, which were mainly “appalling, ramshackle, overcrowded and unhealthy semi-rural slums” (Read, 1976: 304f). In fact, over 400,000 units were repaired and rebuild incurring massive state expenditure, which was ideologically acceptable as it restored private property (International Labour Office, 1930, p. 202).

- In Britain, the council housing program Housing and Town Planning Act (‘Addison Act’) in 1919 was the central proposal in a series of social reforms (Gilbert, 1970). It was designed as a three year program to build 500,000 houses. The policy followed a fairly radical approach for the time, with considerable central direction and large subsidies, also due to resistance of local authorities towards previous, more voluntary suggestions. The Treasury was to carry the annual deficits until the housing markets has returned to normal costs and rents in the envisioned seven years, thus bringing the private sector back in (Bowley, 1944). However, financial reform and the ambition to make a national budget surplus to repay debts quickly led to the instruction to local authorities to build with private capital. When the economic situation improved and the fear of revolution decreased, the programme was finally dismissed in mid-921, with only 176,000 units build. However, since private building did not catch up as expected, rent controls and subsidies to private enterprises remained almost the complete interwar period. What is more, a new (short-term) labour government in 1924 established a new Housing Act with a similar design and even higher subsidies for local authorities. It was an attempt to establish council housing as a major and permanent alternative to the private sectors (Bowley, 1944). The following conservative government did only reduce the subsidies, but generally accepted this development. At the end, between 1919/20 and 1929/30
almost 1.5 million houses were completed; however, the housing shortage still remained on a high level in this period (falling from 1.3 million to 1.18 million) (Holmans, 1987, p. 74).

- In Germany, the right for a healthy dwelling was grounded in the German constitution (Weimarer Republik) after WWI. After the very limited success of the first Reichstag initiative from 1918, the situation had further worsened to a deficit of 1.4 million units (International Labour Office, 1924, pp. 317–323). The private construction sector as well as the economic situation of the poor was extremely bad. It became clear that a return to "normal" conditions was very distant, and there was little option but for deeper state subsidies. In 1920 a new system of state loans was provided with matching municipal contributions. It was the first example of a 'degressive' subsidy system. This meant that the loans were interest free at first, and that the repayment than depended from the development of the rent levels or the sale prices, respectively. It those were not to reach a certain threshold, the deficits would be written off (Harloe, 1995, p. 115). The policy also set a pattern established in Germany ever since, namely that the subsidies could be used by any type of constructor (commercial, non-profit/limited-profit, individual), although cooperatives and non-profit/limited-profit were preferred. Until 1921, about 315,000 subsidized units were build (International Labour Office, 1924, p. 346). A source of funding for the state loans was the Hauszinssteuer, a rent tax first imposed in 1921 and then restored after the hyperinflation in 1923. The idea was to raise rents closer to the 1914 levels in real terms. Half of the increases should then go to the landlords who had benefitted considerably from inflation which had decimated the value of their mortgages and debt repayments, and half to the state for a new building fund (Fuhrmann et al., 2008; Harloe, 1995, p. 115). Given the very expensive conditions for housing capital and the high building costs vs. low rent prices, the tax became a crucial source and remained important until the early 1930s. Publicly provided capital from now on remained an essential feature of the German housing production. It amounted about half of all investments between 1924 and 1928 and afterwards 87 or more of all new housing received some kind of support.

- The Netherlands were neutral during WWI and therefore not stroked as hard as belligerent nations, but still affected by a housing shortage. However, the country moved back from rent controls to freely set rents far sooner than other countries, and private renting soon became profitable again (International Labour Office, 1930, 101f.). What is more, the housing act from 1901 had already set the basis also for larger subsidies by the state. However, the legislation was ineffective insofar as it only permitted, but not required local authority action. Therefore in 1918, an emergency act gave the government the powers to compel local authorities to build houses or to support non-profit social housing corporations via subsidies.

36 This marked the starting point for municipal building endeavours which would become a major pillar in German social policy, a development that was mainly pushed by the labour party (SPD) and fractions of conservative parties (Heßler, 2001: 264). Article 155 stated „jedem Deutschen eine gesunde Wohnung und allen deutschen Familien, besonders den kinderreichen, eine ihren Bedürfnissen entsprechende Wohn- und Wirtschaftsheimstätte zu sichern“ (engl: „to ensure every German a healthy dwelling and all German families, particularly those with many children a home for living and economic activities according to their needs.“).

37 Developments were particularly bad here, as the International Labour Office (1924, p. 316) stated: the acuteness of the housing problem in Germany during and after the war places the country in a separate class in an international comparative study ... while signs of improvement are to be found in almost all other countries, Germany is the only country in which the crisis has latterly been aggravated, owing to general economic and political developments.

38 The precise conditions depended on the policies and resources of the individual Länder International Labour Office (1930, p. 356).
There were cut backs until 1924, and only public loans remained with the aspired return to economic ‘normality’. Between 1918 and 1928, about 74,000 units were built with state loans by housing corporations and another 20,000 by local authorities (Harloe, 1995, p. 122). However, the imposing of a restrictive regime to abandon speculation led to a decrease in founding activities and to difficult financial situations of many of the housing corporations.

- In Finland, the State granted loans to housing production between 1920-1922 for non-profit corporations and municipalities. In 1923 half of the building production in cities was state-supported, however, the share of social housing production remained small and non-profit housing corporations were founded on a larger scale only at the end of the 1930s. (Juntto, 1990a, 142ff.). However, there were also other important legal achievements. In 1925 a new law defined the norms and rules of tenancy agreements. This law followed the principles of German, Swedish and Swiss legislation. What is more, given the agrarian question in Finland, tenancy legislation oriented towards ownership (of small farms) that was important for the subsequent housing policy in Finland in general.

- The city of Vienna adopted some of the most progressive laws regarding social housing. An important factor for this was another legal change, namely the first time democratic municipal elections according to the general, equal (including women), direct and secret voting rights in May 1919. The social democrats won the election, and Jakob Reumann became the first social-democratic mayor of the city. A right to housing was formulated and a tenant protection law (1922) was implemented that became central prerequisites for municipal housing programs and (Pirhofer, 1982, p. 30; Förster, 1980, p. 105). Building regulation were revised to reduce costs for housing in the settlers’ areas (Förster, 1980, p. 124). An earmarked building tax was implemented in 1924 to finance superblocks, after an initial face with more garden city style construction activities. By the end of 1924 the city had acquired 7,300,000 square meters of construction land for public housing activities; by 1930 the city already owned more than one quarter of Vienna’s land property (Brahams, 1987, p. 35).

Systematic links to control also in policies

However, the newly-established social housing policies also in general supported a system that was strongly selective and systematically linked to control. In Finland, health legislation in 1927 made housing inspection compulsory in all cities (Juntto, 1990b, pp. 145–148). In the Netherlands, municipal initiatives such as Woonscholen taught people how to use a dwelling properly. Control-Woningen were established for those judged unable to behave decently in a ‘normal house’ and extra supervised. Housing inspectors (visiteuses à domicile in France) were implemented in many countries. They inspected the properties, and (sometimes) at the same time collected rents or distributed social allowances (Lévy-Vroelant et al., 2008, p. 36). In general, also publicly assisted housing rather focused on skilled workers and the lower middle class, and the most marginalized poor were left to the private market.

Phase 3 – World economic crisis to WWII

In the presence of the economic crisis (great depression) and often linked to general policies for recovery and employment, many governments returned to programmes that targeted either on subsidized private housing provision or direct public provision. This was often on a rather limited scale, however. Public housing was usually carried out under local municipalities’ responsibility. This provision was often linked to slum clearances and strict management schemes, which also reflected the residual approach that became more dominant in this period.
- In **France**, the enactment of the *Loi Loucheur* in 1928 meant the first significant programme of subsidized housing in France. The programme (construction of 200,000 HBM units and 60,000 moderate rent units called *Immeubles à Loyer Moyen* (ILM) within 5 years) aimed to preserve the largest possible scope for the private sector in housing development, instead of implementing a permanent state-subsidized housing policy (Harloe, 1995, p. 166; Guerrand, 1967, 117ff.). It was imprinted by the encouragement of home ownership and a focus on the middle class. Small-scale private owners should construct housing under state regulation through subsidized, low-interest state loans. For large families and the disabled, some direct subsidies were given, reflecting the influence of Catholicism. However, non-French nationals were excluded for example. In the end, mainly *Societes Anonymes d’HBM*, cooperatives and *Sociétés de Crédit Immobiler* built with the loans. At the end of 1933, housing support ceased and was not resumed until 1950.

- In the **Netherlands**, a further cut of subsidized housing reduced production in the 1930s (League of nations, economic intelligence Service, 1939, p. 93). Building was increasingly linked to slum clearances, and after a degree in 1934 it even became obligatory for every new building. Together with strict control management schemes and ‘reformatory colonies’ for the most ‘undesirable’ poor, this turned out to be socially problematic in different respects (→ cf. 3.2 Solution approaches). Deflationary policies comprised rent controls, which lead to objections from housing associations that got into financial trouble, and the government had to provide temporary compensation via through reduced interest rates on housing loans (Harloe, 1995, p. 171).

- In **Germany**, a Reich degree in 1931 shifted housing policy for unemployed and low-income classes to rural settlements in general. Initially, they were meant be built by private capital, but quickly state assistance had to be increased. Also, it rapidly became clear that not least because of the re-armament in urban industries, urban housing needs could not be ignored. State loans, guarantees for mortgages and some direct subsidies were given, although resources were by far lower than in times of the *Hauszinssteuer*, and public support was reduced by 80 per cent between 1930 and 1933. State loans were set to a minimum level needed to produce “dwellings of the cheapest kind which the necessitous section of the population can afford” (International Housing and Town Planning Congress, 1937, p. 14). Public assistance was provided in almost 50 per cent of the projects around 1936, and partly also multi-storey building were supported now.

- In **Britain**, there was a generally positive economic development, at least in the south-East and the Midlands, were new consumer industries spread. This also caused a boom in private building, and for many workers, home ownership came into reach. On the other hand, the older basic industries declined, and the need for modernizing urban infrastructure and slum clearing became more and more relevant (Holmans, 1987, p. 66; Harloe, 1995, p. 181). So in general there was a tendency (‘containment policy’, Malpass, 1986) to limit assistance for new public housing to slum clearance purposes that occurred in different steps (Harloe, 1995, 34f.). What is more, the duty to survey slum conditions and reduce overcrowding became formalized in an Act in 1935. Another important development in this phase was the allowance of cross-subsidizing between rents of newer and older dwellings for public authorities. This was important for the provisison of rent rebates for the poor, with rent levels related to income rather than the value of the property.

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39 Since rents fell more slowly than wages etc., in 1932 there were about 150,000 empty properties estimated whilst the housing shortage paradoxically still was very high Umrath (1950, p. 36).
Phase 4 – WWII to mid-1970s

Large scale programmes for social housing were adopted across Europe in the period after WWII. By some still seen as a temporarily expedient (UN Economic Commission for Europe, 1976), large amounts of public resources were channelled into the sector in order to meet the major task of rebuilding a functioning housing market for wide parts of society. In many European countries this was embedded in more general reconstruction policies in the course of modernization. Within this period, some general trends can be identified:

Main patterns in policies after WWII

High shares of public investment
Private capital was – with some exceptions – not present in the sector, as rent controls and other accompanying legislation made private investments not attractive. Also, few countries had financial institutions prepared to rent high proportions of the price of a house over a long term, and so in the second half of the 1950s, up to 65 per cent (Netherlands) of housing investments came from the private sector. Only Germany with its ‘social market economy’ had a share of less than 30 per cent here (UN Economic Commission for Europe, 1958, 39ff; Harloe, 1995, p. 261). Between 85 and 95 per cent of all new constructions were aided in France, Denmark and the Netherlands in 1957. In Germany, it was only 52 per cent.

Start of the shift from construction to consumption subsidies
What is more, towards the end of the period in the mid-1970s and under the impression of the dawning economic crisis as well as due to the problems related to high-rise buildings in remote areas, the period also saw the introduction of rent allowances and a shift from ‘indiscriminate’ construction to income-related consumption subsidies. Initially those were seen as a supplementary measure for those with especially low incomes, such as the elderly, to ensure access to the social housing stock. Given the parallel plans of ‘rent harmonization’ and increasing rents in general, this seemed to be the most economical alternative (Harloe, 1995, p. 266).

Orientation towards home ownership
During the end of the period there was also an increasing emphasis on home ownership to expand subsidy programmes. Vice versa, emphasis on social housing construction was diminishing. Increasing prosperity led many social housing tenants (and voters) to opt for this possibility. Furthermore, necessary institutional structures were established too, such as dynamic private mortgage markets. This set off a gentrification process in many city centres and was highly profitable for private market agencies and the buying households, as the conversion of former social rental housing tenure caused high capital gains (Harloe, 1995, p. 267).

Urban renewal programmes
From the 1960s onwards, there also was a pressure to modernize urban infrastructure, such as new roads, offices, leisure and public services, which led to the demolition of slum housing. This led, however, to the replacement of many urban poor and caused some considerable conflict, although some efforts were made to prevent the displacement. However, an outflow of urban poor to social housing in peripheral estates was reinforced (Harloe, 1995, 267f.).

Examples of housing programmes after WWII
The above described developments varied across different countries regarding pace and intensity. The following illustrative examples will show a variety of policy responses adopted by different countries at the time.
- In **Britain**\(^{40}\), a comprehensive system of town and country planning was institutionalized, including the relocation of population out of the major cities. The *New Towns Act* from 1946 that was revised in 1965 and 1891 as well as the *Town and Country Planning Act* from 1947 allowed the government for centralized planning. Areas could now be designated as new towns, development control functions were passed to *development corporations* (in the case of new towns) or to *county councils* and *county borough councils*. However, during the period measures for more local participation (e.g. shared ownership by locals) were implemented (Kähler 1999). Another development still influential these days was the implementation of the *Parker Morris Standards* (Parker Morris Committee, 1961).

- In **West Germany**, under the ‘social market economy’ regime housing was the only sector of the economy where strong government involvement and controlling forces were maintained. In fact, it was put under an ‘emergency rule’ (Wollmann, 1986, p. 138):

  “so housing control. A rent freeze, tenure security on existing rental housing and a price freeze on real estate … were carried on way into the fifties, expressing the political decision of the ruling Christian Democrats that the interests of landlords and owners of real estate had, at least temporarily, to step aside, as long as this was deemed necessary in order to provide low-rent shelter … and to contribute, through low real estate prices and low rents, to keeping the wage level and, thus, the industrial production cost level down which, in turn, was regarded to be an indispensable precondition for the economic recovery of post war Germany.”

In contrast to most other countries however, there was a rejection of collectivism through public ownership and an encouragement of private ownership and investment (see above). In face of this, the government striving for the revival of non-profit housing institutions. In terms of concrete policies, subsidies and tax breaks were provided either for rental housing or for home ownership. The estates, however, kept the status of social housing for a limited amount of time only – usually 30 or 40 years. After this time it would be turned into normal market housing (Boccardo, 2008, p. 262). Also, inducements for private savings and investments were given. From 1952 this also included premiums for people to deposit their savings on bank accounts in Bausparkassen, a form of building societies (Harloe, 1995, p. 338).

- In **France**, state intervention was late and particularly centralized, and technocratic elites played an influential role in the production of mass social housing (Butler and Noisette, 1983, 70ff.). Initially there had been programs that simply reproduced housing of the type and in the same locations where it had existed before (Duc laud-Williams, 1978, p. 127), based on the HBM (from 1950 onwards HLM – *Habitations à Loyers Modérés*) system. The state subsidized a high share of new-built housing and also retained a high degree of control over the credit market. To leverage private resources however, government and industry came to an agreement that culminated in the passage of the ‘1per cent *patronal*’ (1953), which stipulates that every company staffing more than 10 employees must invest in social housing construction. In exchange for their contributions employers were able to nominate employees to a proportion of the new units. Thus the private sector continued to play an active role in the provision of housing, as it still does today (Ball 2008)\(^{41}\). In 1959, to overcome fragmented

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\(^{40}\) Compared to its European counterparts, Britain initially failed to restructure and modernize its economy immediately after the war, as many structures of industrialization had already been in place before WWI and the focus was on dealing with uneven developments in this respect Harloe (1995, p. 281).

\(^{41}\) Ball (2008) argues that the French legal system relies heavily on the concept of solidarity, i.e. individuals and firms bear some collective responsibility towards each other. Thus it is seen as fair in France that private employers are obliged to contribute to funds for construction of new social housing – and in return they have a say in how such housing is allocated. In contrast, for instance the UK private sector has no implicit responsibility for housing the poor. Recent moves to involve the private sector in social housing in the UK are justified on efficiency grounds rather than because the private sector ‘ought’ to help.
land ownership, a law for establishing Zones d’Urbainsation Prioritaire (ZUP) was enacted. Land prizes were frozen, bought by the state or local municipalities, and then sold to private (social) housing developers.

- The **Netherlands**, among other measures, introduced a dynamic cost rent system. The degressive subsidies altered the pattern of housing loan repayments which rose over time. This reduced the ‘front loading’ of interest payments, assuming that income and rent paying-capacities would increase over time (Priemus, 1981; Harloe, 1995, p. 314).

- In **Italy**, the INA-Casa plan was launched (Fanfani Law) in 1949, followed by some subsequent legislations (cf. Embedded case Social housing in Italy). The plan was based on funds from the National Institute of Insurances (INA), and municipalities were involved in the implementation. The recipient workers would have then been allowed to pay the houses in annual instalments for 25 years, receiving a contribution for this from the employers and the State. Additionally, positive effects on employment rates were intended and in fact achieved. Initially planned to be implemented only for seven years, it remained in force for fifty years. There also were policies set in place to ensure that workers and their families could benefit from green spaces and socio-recreational facilities (Gestione Case Lavoratori) (cf. Embedded case Social Housing in Italy).

- In **Austria**, the Housing Construction Subsidy Acts of 1968 implemented social housing at national level, following the Subsidised Housing Act of 1954 on municipal level in Vienna. Main element was a fund for financing social housing on the level of Bundesländer (federal states), however, these had to be co-financed by money from private sources (cf. Embedded case Social Housing in Vienna).

- Also, there were first legislation developments on the **European** level. To ensure the mobility of labour force as a means to prevent war, regulation 1612/68 in 1968 was to eliminate any discrimination based on nationality, also regarding access to accommodation (Boccardo, 2008, p. 262). Article 9, Regulation 1612/68 stated:

  1. A worker who is a national of a Member State and who is employed in the territory of another Member State shall enjoy all the rights and benefits accorded to national workers in matters of housing, including ownership of the housing he needs.

  2. Such worker may, with the same right as nationals, put his name down on the housing list in the region in which he is employed, where such lists exist; he shall enjoy the resultant benefits and priorities.

### Phase 5 – mid of the 1970s onwards

Legislation on social housing in this period changed in some ways, in general towards a gradual withdrawal of state-related actors (particularly from the central government) both in coordination (decentralization) and expenditure (privatization and cut backs). Monetarism as dominant macro-economic paradigm was associated with such activities following neo-liberal ideologies of the **New Right**, as it only assigned a very limited state control of market forces (Harloe, 1995, p. 381).

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42 Given the persistent presence of inflation, repeated recessions and long term unemployment, public budgets were generally constraint. Monetary policy became the prevalent macroeconomic paradigm in this period, prioritising control of inflation and restoration of external balance (debts of most countries were steadily increasing) Harloe (1995, p. 370). However, as the political costs of rising unemployment became visible, the rigour of these policies were reduced in many countries.
General patterns in policies of this period

Cuts in public welfare expenditures
For reasons described in different parts of this template (cf. 3.1 Problem situation, 3.2 Solution approach), most states tried to cut their expenditures in social housing. Also, there was a tendency of introducing more market principles into welfare service provision, such as competition for the supply of services (“contracting”) or the adaptation of quasi-market processes. In some examples, e.g. in Britain, private actors were even mandated with urban planning processes, while the power of local authorities to do so was restricted (Steward and Stoker, 1989). Furthermore, ownership occupation and more individual subsidies were encouraged in some countries. As Papa (1991) showed, the expenditures however in fact in most countries with regard to the latter measures rose considerably between 1980 and 1990, somewhat outweighing the gains from reduced construction support (see also below).

Individualization and decentralization
Like in other pillars of the welfare state, with the retreat of national actors as opposed to the increasing influence of local and private ones, social housing became more and more individualized, i.e. oriented towards the needs of the different milieus of beneficiaries. When governments withdrew from service provision and devolved responsibilities to subnational governments, it was often argued that this would ensure more sensitivity towards local needs, however, in many cases the implemented restrictions on availability of central resources were rather severe, and central control was maintained (Harloe, 1995, p. 382).

Decision making competencies accordingly are distributed differently. Table 8 gives a more detailed picture on how this is organized today.

Table 8: Decision responsibilities regarding social housing (Whitehead and Scanlon, 2007, p. 14).
Changing from production to consumption subsidies
There was a shift from building (bricks-and-mortar) to personal subsidies like housing allowances and tax deductions in almost all European countries, except Austria and the Scandinavian welfare regimes. Many governments hoped to reduce the financial expenses with this change. However, this objective was not really achieved in this period. On the one hand, there were growing costs for housing because of the reduction in production, the continuous inflation, and the higher capital costs due to deregulation of mortgage markets in the 1980s. Also the share of poor households was increasing. Subsidies took the form of means-tested rents and housing allowances, but despite cut backs in eligibility criteria narrowing the scope to low-income households and cutting the depth of the subsidy, costs were rapidly rising. Indirect tax subsidies were given as well, but they were too low for new market entrants in the changed market conditions, and actually too high for those already established in the sector (Harloe, 1995, 421f.).

Moreover, the costs for housing allowances respectively individual subsidies rapidly increased, so that cost savings in public expenditure through the reduction of supply side subsidies became negated. Additionally, there were costs for recovering deteriorating physical housing stocks.

Further encouragement of home ownership
A part of the privatization policies was also to further encourage home ownership. However, after an initial period of general increase in the 1970s (Netherlands: +7 per cent; UK: +6 per cent; Denmark: +5 per cent; France: +2 per cent, Germany: +2 per cent), the picture was more diverse in the 1980s (Netherlands: +3 per cent; UK: +10 per cent; Denmark: -1 per cent; France: +7 per cent, Germany: +/-0 per cent) (Boelhouwer and van den Heijden, H., 1992).

There is also data illustrating the (related) decline in social rented housing. While the share of the total housing stock in the 1970s was still rising (Britain: +2 per cent; Denmark: +3 per cent; France: +4 per cent; Netherlands: +8 per cent; West Germany: +/-0 per cent), privatization and increasing home ownership led to a decline in the 1980s (Britain: -4 per cent; Denmark: +2 per cent; France: +2 per cent; Netherlands: +4 per cent; West Germany: -5 per cent) (cf. Harloe, 1995, p. 425).

Transformation in Eastern European countries
After the end of the socialist Eastern bloc in 1989, Eastern European countries completely changed their housing model and followed a diverging trend in experiencing a massive housing privatisation. Public authorities were left with a minimal housing stock, constituting the only form of social housing presently available. Only Poland and Slovenia have marginally observed a rising but relatively small non-profit housing sector (IZA - Institute for the Study of Labor, 2013).

Illustrative examples
- In the UK, there have been different types of policies fostering privatization, e.g. the Right to Buy scheme or the Large Scale Voluntary Transfers of the social housing stock to private housing providers (→ cf. Embedded case Social housing in the UK). What is more, a system of local authority investment planning was implemented, with four-year rolling plans that included bids for central government subsidies and investment permissions. However, central control was actually strengthened by this approach through the implementation of the housing regulation (Harloe, 1995, p. 427). In the second half of the 1970s, public expenditure for housing was cut by 20 per cent (Kähler, 1999).
- In France, amongst other measures a new system of more generous housing allowances, Aide Personnalisée au Logement (APL) was introduced that was only available for new or rehabilitated housing. This was promoted at the time through a modernization of the HLM scheme. Also, in 1990 the Loi Besson required departments to draw upon plans (Plans d’Occupation du Patrimoine Scial) for low-income households and established a ‘Housing Solidarity Fund’. This extended and gave a legal status to earlier existing funds to assist in the payment of rent arrears and providing rent guarantees for poor tenants of social and private rented housing (Harloe 1995: 458).

- In Germany, home ownership and private construction was heavily promoted, whilst subsidies for new social housing was further reduced (Boelhouwer and van den Heijden, H., 1992, pp. 127–130). Non-profits had become particularly criticised in the context of the housing organization Neue Heimat due to mismanagement. Eventually, in 1988 the tax-privileged status for non-profits was abolished, except for housing cooperatives Harloe, 1995, p. 465.

- In Hungary, there was a massive privatisation of former public housing estates. A government scheme to subsidise house building by poor households led to construction in areas with relatively high unemployment and bad earnings prospects, rather than in high-demand areas. (Hegedüs, 2008 cf. Social housing in Hungary).

- In Austria, the weakening of the post-war corporatist regime was accompanied by a strengthening of market principles in the rental sector (the 1981 tenancy law deregulated rents) and a general decentralisation of the social housing system (1988). In Vienna, in 1981 a new tenant law formalizing tenant participation is introduced. Tenants are now asked for their opinion in certain questions of the housing areas. In 1989, this is further developed to the charter of tenant co-determination (Mieterinnen- und Mietermitbestimmungsstatut).

- At the European level, EU law on social housing was and is still much under construction. Single-market regulations introduced by the Commission are targeting for instance different rates of VAT or state aid. They pressure countries towards more restrictive or residual systems of social housing, where access is limited to the poorest groups of households with the rationale that more general assistance is anti-competitive. (Boccardo, 2008, 262f; Tutin, 2008))

Further readings and material

(Boccardo, 2008)
(Boelhouwer and van den Heijden, H., 1992)
(Bullock and Read, 1985)
(Duclaud-Williams, 1978)
(Hetzerl, 1983)
(Kemeny, 1995)
(Kemeny, 2006)
(Matznetter, 2002)
(Topalov, 1985)

TENLAW: Tenancy Law and Housing Policy in Multi-level Europe

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Research project analysing national tenancy laws and their embeddedness in, and effects on, national housing policies and markets; as well as effect of EU legislation on national housing policy in a comparative perspective; with national reports for each European country and a detailed glossary in social housing legislation terminologies

<table>
<thead>
<tr>
<th>Possible questions of analysis Part 3.5</th>
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<tbody>
<tr>
<td>WP 1 What was the role of institutions in social innovations? How did they relate to cognitive frames and networks?</td>
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<tr>
<td>WP 3 Which networks/links were shared by social innovators and policy makers?</td>
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<tr>
<td>Were there complementary policies that made a difference? On which basis did their complementarity rest (e.g., same beneficiaries, same social problem addressed, complementary social problem addressed, etc.)?</td>
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<tr>
<td>WP 4 What was the role of research, technology and innovation policy during social innovation process?</td>
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<tr>
<td>What was the role of education (and life-long learning) policy during social innovation process?</td>
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<tr>
<td>Did technological norms and standards play a role?</td>
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<tr>
<td>WP 5 What was the role of policy makers during the social innovation process?</td>
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<tr>
<td>WP 6 Which (social) innovation policies have been successful in the past? In which contexts?</td>
</tr>
<tr>
<td>Which role did policies play in ecosystems fostering social innovation in the past?</td>
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<tr>
<td>How do policies relate to cognitive frames and social networks?</td>
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3.6 Resources

Questions

Please describe and compare different forms of funding that were used to finance the social innovation (e.g., own assets of target group, donations, membership fees, grants, social investments, regular loans, public funds, etc.)? For what purposes were these resources deployed (e.g., machinery, commodities, advisory, etc.)?

Were other forms of resources (voluntary work, social networks, natural resources, etc.) relevant for the social innovation? Please describe their role.

Did those resources change during different phases of the diffusion process or different background conditions?

Summary of key points

- Financial resources are provided in different forms, and social housing providers usually combine several sources.

- Human capital and knowledge creation has been playing a role in the provision of social housing, as well as in the provision of additional (non-landlord) services.

- Social capital can be considered to be important for getting access to social housing, at least in earlier days.
- The working class movement strived for political capital to influence legislation on social housing.

<table>
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<th>Content</th>
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<tbody>
<tr>
<td>Financial, but also other types of resources have played different, crucial role in the provision of social housing. Particularly in the section on → 3.5 Rules, norms, and policies</td>
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</table>

**Basic types of financial resources and support**

**Private providers**
A great deal of social housing today is provided by private housing associations or cooperatives. Particularly construction, but also maintenance of social housing facilities require large amounts of financial capital. When it comes to financial resources, from rather early on there was a basic range of sources: standard bank loans (mortgages), public grants/loans from special public credit institutions, private grants/investments (charity), own funds of housing organisations and sometimes also tenants’ contributions (either rents or membership fees in cooperatives).

Furthermore, to reduce interest costs, public aid schemes exist which may be open for independent providers as well as local authorities (interest rates subsidies). In most countries there is also financial assistance through public funds extending loans or grants, and public guarantees (government backed guarantees), at both national and regional level. Furthermore, municipalities may also provide land at reduced price for the construction of social housing (such as for instance in Austria, Italy and Luxemburg). Finally, there can be tax privileges for social housing providers, such as tax rate reduction to providers, for example income and investment deductions, depreciation allowances, reduced sales and property taxes, exemptions from capital gains tax, and reduced VAT rate (Pittini and Laino, 2011, 28f.).

**Municipal providers**
In cases where social housing is provided directly by local authorities, the financial burden lies either entirely on the municipal budget or there is complementary funding through transfers from the central budget or funding from specific schemes.

Table 9 gives a brief overview on the current state in this respect in the EU27 countries:

*Table 9: Types of Public Support to Financing Social Housing (Pittini and Laino, 2011, p. 28)*
For examples of financial resource provision in social housing please see 3.5 Rules, norms and policies and embedded cases on social housing in Finland, Hungary, Italy, the Netherlands and the UK.

Other resources and capital forms

There are also other types of capital that play an important role within social housing as a social innovation, such as human capital (knowledge and skills), social capital (access to networks, political weight etc.), or cultural capital (understanding of social housing distribution processes). Suggestion made here are to be understood, however, rather as preliminary proposals for discussion.

In the following, we will provide some illustrative examples of the role of financial and other types of resources.

Human capital and knowledge
- For instance, Octavia Hill tried to persuade the target groups from the advantages of decent living conditions and to educate poorer workers in the virtues of thrift, sobriety and good rent paying habits (Adam, 2002, p. 332; Harloe, 1995, 27ff.). I.e. there was some investment in human capital to create a sustainable solution by making minimal quality housing financially viable.

- In cooperative approaches where tenants are involved in the management of the dwelling, human capital in the sense of knowledge creation seems important as well (Fuhrmann et al., 2008).

- Social housing provision with associated educational schemes, job trainings etc. can be seen as attempts to rise human capital in order to enable beneficiaries to move out of a status that causes social housing needs (European Responsible Housing Initiative, 2014; IZA - Institute for the Study of Labor, 2013).

- Also on the provision side, human capital seems to matter. In the Netherlands, between 1852 and 1901 fourteen housing associations were established that built only 4,000 houses. However, architects and constructors gained knowledge about, and experience with, the development of housing blocks. Van Acker et al. (2008: 7) stated that these pioneers set new
norms for both the construction and management of affordable housing and thus made a large contribution to social housing.

**Social capital**
- The privilege to work for a company that provided social housing solutions in early phases of the innovation could be discussed as a form of *social capital*. Vice versa, being part of certain groups such as trade unions in some cases also meant a disclosure from social housing solutions (Kieß, 1991).
- In any case, this holds for cooperatives and housing solutions provided by religious groups, political parties or for trade unions and its members (Lévy-Vroelant *et al.*, 2008, p. 36).
- What is more, the provision of social cohesion and community building within social housing solutions could be understood as the creation of social capital (Novy and Förster, 1991, p. 92; Fuhrmann *et al.*, 2008).

**Political capital**
- Forms of *political capital* proved important at least for skilled workers. For instance, by the 1890s, a few trade union leaders and working class representatives had been elected to Parliament as Liberals and aimed to influence legislation in favour of social housing provision (Harloe, 1995, p. 36). Also the link of the (actually illegal) settler’s movement and social democrats in Vienna seem to be a helpful resource.

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### Building societies – Collective saving for financing accommodation

**Social problem**
In Europe, building societies emerged as a reaction to the problem of lacking access to credit. In late 18th and early 19th century England, large parts of society did not have access to credit although having a regular income. Such income was not enough, however, to accrue sufficient reserves for buying or building residential property. This problem did not affect the marginalised of course, but nevertheless it was a social problem significantly affecting many people. These people were not the most marginalised in a strict sense, but in a way that excluded them from having ownership of their living space (Scholten, 1999).

**Building societies in Britain**
A solution to the lack of credit consisted in collective saving. That is, part of what banks did to provide banking services to a few was done by private individuals: They sort of formed their own cooperative bank in so-called building societies. Savings from individuals were collected as long until sufficient capital had accrued to start a construction project. As such building societies were self-help groups at the time of their invention in Europe. Around 1775, the first building society (Ketley’s Building Society, named after the landlord of the pub where members regularly met) was founded Birmingham (Jokl, 2009; Scholten, 1999; Spreckelsen, 2008). A preceding organisational form can be found in so-called friendly societies, i.e. cooperative arrangements founded to mutually protect members against certain live risks such as debts incurred through illness, death of relatives, or old age – or in other words: The aim of such mutual societies was protection against ‘real’ marginalisation. These societies had arisen in the 17th and 18th centuries and would become most numerous in the 19th century (Encyclopædia Britannica, 2015).

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43 In Europe, the invention was relatively new compared to ancient China, where as early as in the 2nd century B.C. the first collective saving societies have been documented Spreckelsen (2008).
Building on this preceding model and adapting it to meet needs of wider beneficiary groups, building societies were set up along similar principles as these earlier arrangements. Members had to deposit a fixed amount regularly. As soon as a certain sum had accrued there would be a payout of the entire amount either made to directly purchase residential property by the cooperative or to give a loan and enable one of the members to buy property. In the latter case, the single beneficiary was determined by drawing of lots or through an auction. Once all members had received their share, the society was terminated (“terminating building society”) (Scholten, 1999).

The model became quite successful, also because these societies were rather small arrangements. This allowed them to gather relatively large amounts of information about every single member concerning his/her economic situation and thus creditworthiness (Guinnane, 1993). As a result, there were at least 69 building societies in 1825 and 1,500 in 1873. Over time, however, organizational principles changed a bit in some cases, e.g. the terminating model was partly replaced through permanent set-ups. And a second important development consisted in the way resources were allocated: Due to the problem that waiting times were fairly long sometimes, some societies started to pay interest on the capital deposited; in turn, they also started to charge interest for the sums lent. And the societies also tried to reduce waiting times by taking deposits from ‘regular’ savers, i.e. ones who would not be willing to build or buy property. That is, some building societies became more like regular banks and abandoned the collective savings approach.

Building societies in Germany

More than a hundred years after Kettley’s Building Society had been formed in Birmingham, the first building society in Germany was set up in Bielefeld, the Bausparkasse fur Jedermann (Building society for everyone) by the protestant pastor Friedrich von Bodelschwingh (Spreckelsen, 2008). It helped several 1,000 workers to get to own a house, but still it failed to exist permanently (Jokl, 2009). Only after WW I, the approach gained broader acceptance and use in Germany. Besides the general lack of urban living space it was also the economic crisis and the hyperinflation of 1923 that sharply reduced access to credit for the majority of people. So in 1924, the first building society (“Bausparkasse”) was founded and named “Gemeinschaft der Freunde” (“community of friends”). In the following year, very many building societies were set up: Between 1926 and 1931, more than 400 were founded some of which semi-public entities such as “Landesbausparkassen” (LBS; state building societies); many of them, however, dissolved within a couple of years (Scholten, 1999, p. 107; Lehmann, 1983, p. 19). In contrast to most British societies, the German ones were set up as permanent entities right from the beginning.

Soon after the founding boom of the late 1920s, the field went into a crisis, because waiting times for savers to receive a loan for building/buying property had increased more and more. German societies reacted to this problem in a similar way as the British did and tried to attract ‘regular’ savers – unsuccessfully, however, because in Germany there was a well-established banking field in place where these regular savers already had their savings. Thus overall, German building societies “involuntarily” maintained the initial collective savings approach (Scholten, 1999).

Further readings
(Papa, 1991)
<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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<tbody>
<tr>
<td>WP 1</td>
<td>How did power structures affect the resource endowments of the marginalised over time?</td>
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<tr>
<td>WP 3</td>
<td>How relevant was the combination of different resources (complementarities vs. substitutes)?</td>
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<td></td>
<td>How did eventual complementarities come about?</td>
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<td>Who had/has access to the crucial resources and on what did/does accessibility depend upon?</td>
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<tr>
<td>WP 4</td>
<td>Did the nationalization / privatization of relevant infrastructures impact on the access to social innovations?</td>
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<tr>
<td>WP 5</td>
<td>Are there recurring dynamic patterns during the course of the diffusion of a SI?</td>
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<td></td>
<td>Do different forms of financing contribute to the same diffusion results?</td>
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<td>Can the role of capital forms (social, cultural, ecological, etc.) for social innovations be specified?</td>
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<tr>
<td>WP 6</td>
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</table>
### 3.7 Social and technological innovation

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<th>Questions</th>
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<tbody>
<tr>
<td>Was the social innovation fostered by or related to technological innovations like</td>
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<tr>
<td>- a new general purpose technology (e.g., information and communication technologies) and/or by scientific advances?</td>
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<tr>
<td>- a new artefact (e.g. mobile phone)?</td>
</tr>
<tr>
<td>Was the social innovation fostered by or related to a new infrastructure (e.g. Internet)? Was the social innovation fostered by the emergence of new techniques?</td>
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<tr>
<td>How did technological innovation contribute to the social innovation, or vice versa? Did technological innovation help to distribute the social innovation or even improve it?</td>
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<thead>
<tr>
<th>Summary of key points</th>
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<tbody>
<tr>
<td>- Technological innovations of the phase preceding WWI comprise primarily the floor plans of social houses, i.e. private dwellings allowing certain levels of privacy for families, but also spaces within and/or between social houses facilitating community amongst inhabitants.</td>
</tr>
<tr>
<td>- In the early interwar period after WWI, there was a first massive wave of technological innovations, both “hard” ones (such as broad-scale electrification and the widespread introduction of electronic household devices) but also “soft” ones like architectural rationale organising dwellings more functionally around the needs of inhabitants. These trends were also crossed with and influenced by aesthetic and artistic considerations (e.g. expressionism).</td>
</tr>
<tr>
<td>- After the World economic crisis, the resulting unemployment rates and general economic scarcity and turmoil meant that technological innovations had to facilitate cost-efficiency in social housing, both in building and more and more also in using the home as a productive site.</td>
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<tr>
<td>- <em>After WWII</em>, social housing had to be provided to even larger masses than ever before, and therefore technological innovations again facilitate fast and cost-effective building. Standardization and modularization of building led to homogeneous, multi-story blocks in many European cities.</td>
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<tr>
<td>- The period following the economic crisis of the 1970s was characterised by a shift from fast and cost-effective building to more quality-related parameters, i.e. more technologies to facilitate individualised building. Another major trends emerging at the beginning of the 1990s was to integrate ecological considerations into social housing.</td>
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<tr>
<td>Social housing as a social innovation was also interlined with different technological innovations and architectural styles. This was because of developments towards affordability; however, it also reflected contemporary opinions on adequate living conditions. Some of the most important developments and their creators (particularly architects) shall be illustrated in this section:</td>
</tr>
</tbody>
</table>
Phase 1 - Before WWI

Early architectural styles can be linked to the discussion on small houses vs. tenements as a living solution for the lower working classes (cf. 3.2 Solution approaches).

Small housing model projects in the wake of the 1851 world exhibition in London

In the wake of the London World Exhibition in 1851, architect Henry Roberts designed a prototype of a two-storey workers house with four dwellings, arranged in pairs around a common staircase (Prince-Albert-House, named after Prince Albert, the co-organiser of the Exhibition). Thus, four families could live privately under one roof in such cottage style houses without interfering. Having been concerned with the urban housing problems since 1825, Roberts had close relationships with the Society for Improving the Condition of the Labouring Classes (S.I.C.L.C.) (cf. also 2.1 Antecedents and invention). (Eger, 2010; Frampton, 2002; Roberts, 1850, 1859, 1862)

His model worker house for the World Exhibition had major influence on planning worker housing for the rest of the 19th century throughout and beyond Europe, such as in Shrewsbury (England), the Cité Ouvrière in Mulhouse (France), where there were clear references to the Prince-Albert-House. Mulhouse was among the first places were these ‘cluster’ or ‘quadruple houses’ – however with a little lower standards to cut costs – were build on a large scale. Principles were also adapted for instance by the Bochumer Verein (“Bochum Association”), a steel concern in the Ruhr area (Däbritz, 1934).
MODEL HOUSES FOR FOUR FAMILIES,
ERECTED BY COMMAND OF
HIS LATE ROYAL HIGHNESS THE PRINCE CONSORT, K.G.,
AT THE EXPOSITION OF THE WORKS OF INDUSTRY OF ALL NATIONS, 1851,
And subsequently rebuilt in Kensington New Park, Surrey.

Source: (Thelondonophile, 2012)
London: Two early architectural blueprints for tenement-style worker housing

The two other actors driving architectural innovation into social housing during phase 1 were George Peabody and Sydney Waterlow. They were the first to implement practical solutions for working-class housing in London on a rather broad scale. These ideas would soon become blueprints for working-class housing in Germany, other European cities and North America as well (Adam, 2002), and as such they can clearly be regarded as innovations in themselves, although they did not apply revolutionary materials or technology. However, although due to the high land prices in London both men fostered the development of multi-storey tenements, the underlying architectural approaches differed. They reflected their own respective ideologies in serving the needs of workers.

A typical building of the Peabody Trust would feature four five storey blocks formally sited round an open space. The first such building was Commercial Street, Spitalfields, built in 1864 by architect Henry Darbishire. They contained flats of two rooms, with a small proportion with only one, as well as a few with three rooms. Flats would be arranged off spine corridors, shared lavatories, sculleries, and washing facilities. This was the major distinguishing feature from Waterlow’s architecture. Peabody held to the principle of associated dwellings sharing lavatories and sculleries, based on two arguments: First, he argued that this was sensible as it allowed proper supervision of the sanitary arrangement and thus overall a healthier environment; and second it reflecting his social orientation and his conviction that families should live communally which was also the norm of the time (Adam, 2002).44

The Peabody Spitalfields estate, 1864. © Peter Higginbotham.

Waterlow small houses. In contrast, Waterlow’s Industrial Dwellings Company, founded in 1963, reflected his quite different views on society as a whole and on families in particular. His architecture opted for a single staircase house, built up to five floors in height. He wanted workers to live in self-contained tenements with their own sculleries and also water closets (which were very innovative and cost-intensive at the time). This expresses Waterlow’s rather modern view on how families should live: In line with the new bourgeois family ideal that had been emerging at that time in industrializing European countries (cf. 1.3 Problem background), Waterlow contended they should live segregated from one another in their private individual units. Apart from that, Waterlow followed the S.I.C.L.C. doctrine of self-contained dwellings based on the London World Exhibition cottages of 1851. He sought to build cost-effectively, with concrete floors, roofs and lintels and prefabricated Scandinavian windows (Adam, 2002).

**Phase 2 - WWI until world economic crisis**

After WWI, architectural answers to the housing misere further flourished, although usually within more general “schools” that emerged across Europe. A crucial input was also the use of a rationalized and restricted series of house types and methods of construction, with an emphasis on the use of new materials and technologies (Hawkes, 1976).

**Functionality as paradigm of Neues Bauen in Germany**

An important development in German social housing was the Neues Bauen (‘New (ways of) Building’) movement (Gutkind, 1919) which combined new architectural approaches and concepts with social reform ideals, social policy approaches and corporations’ endeavour to house their workforce. Besides the most popular example, the Neues Frankfurt settlements, there were numerous examples in major German cities, such as the Weißenhofsiedlung settlement in Stuttgart, the Dammerstock settlement in Karlsruhe, or in Berlin the garden city Falkenberg, the Schillerpark settlement, the Großsiedlung Britz (Hufeisensiedlung), or the Großsiedlung Siemensstadt (Ringsiedlung). Many of them were built with the involvement of renowned architects and city planners like Walter Gropius, Bruno Taut or Martin Wagner (Heßler, 2012; Ruck, 1988)).

Continuing developments already starting at the eve of WWI, the Neues Bauen movement in Germany (Gutkind, 1919) applied rationality and new materials to create buildings of enhanced functionality and living standards (Heßler, 2012). e.g. get substantially more sunlight and air into formerly dense, dark and overcrowded urban settlements. In this way the architectural goals were somewhat similar to that of the Garden City movement, but the ways to achieve them grounded not so much on just using more space and fill it with green but in smarter architecture making more effective use of the space available in central urban areas. New materials such as glas, iron and concrete became increasingly available and constructors learned to make use of them. And also new processes and building techniques, such as steel casting, iron trellis construction, a glass columns were developed and used.

**Development of household devices / liberation of house wives**

Because the actors behind that movement targeted very much workers, Neues Bauen settlements were built preponderantly in communities where social democrats had political majorities. And since at the very same time in Europe the feminist movement was very active and growing, a parallel development took hold in this respect as well: The attempt to liberate women from their household duties by applying more effective household technology and/or by applying existing technologies more effectively.
However, there was also the widespread perception that the newly developed and very innovative electric appliances were highly exclusive luxury products. And to the worker population they indeed were, and industry actors quickly realised that. As the rich dropped out as buyers, since they were rather sceptical and had their household employees do the work the new machines were supposed to do, the industry needed to target middle and lower classes. That made it an important actor in this respect. Its conclusion on upper classes resistance against their innovation consisted in declaring households of middle income to be “the actual home” of rationalisation and mechanisation. Thus became evident in its attempt to create products which it could label and market for instance as the Volksstaubsauger (“people’s vacuum cleaner” emphasising its mass suitability), Volkskühlenschrank (“people’s refrigerator”), Volkswaschmaschine (“people’s washing machine”) or even Volksherd (“people’s stove”) (Heßler, 2012, p. 137). The goal was to ease and enhance housework which was promoted with a notion of liberalisation: Housewives were to be liberalised from the hardship of housework (Heßler, 2012, p. 77).

**Broadscale electrification**

But the new and “liberating” appliances also needed space. As a result, residential construction in that era often became an intersection where actors from numerous sectors met in their joint endeavour to implant electronic devices into new households. Industry marketers as well as housewife associations had realised the importance of architects and urban planners for their own plans (marketing/installing electronic devices). With targeted “education” campaigns in architecture, settlement and house ownership magazines they campaigned for broadscale household electrification. In this respect, particularly social housing settlements were regarded as very important (Heßler, 2001, p. 263). Electric device suppliers, utilities and the electricity industry explicitly focused their efforts on them, not only as target groups for marketing efforts, but also realising that very often it was their own workforce which benefitted from electrification. Therefore, for instance, major appliance manufacturers like Siemens and AEG were driving forces and pioneers in worker household electrification. But also many settlements of municipal housing were equipped with electric kitchens (Heßler, 2001, p. 264).

Another commonly promoted way, especially in social housing, was joint purchasing and using of household appliances such as washing machines, refrigerators, vacuum cleaners, etc. To that end, sometimes even cooperatives were founded (Heßler, 2012, p. 77).

In this respect, it may be good to look at the city of Frankfurt which is generally regarded as the prime example for the Neue Bauen in the course of a labour-party-led building programme. From 1925 to 1930, the Neues Frankfurt (“New Frankfurt”) programme was implemented by the social-democrat municipal government under Mayor Ludwig Landmann and his Baurat (“head municipal architect”) Ernst May. Both exterior and interior design of the new dwellings built in the course of the programme incarnated the prototype of the new urban living culture. In stark contrast to the Kaiserreich45 when no toilets, no electricity, no bathroom and no warm running water were the norm, the Neues Bauen/Neues Frankfurt settlements marked an enormous improvement in the standard of living for the middle and lower classes that lived there (which were in total still the exception, however). Architects and urban planners emphasised the relevance and importance of electrical household appliances for the hygiene within dwellings and for abolishing “coal and ashes” from inside. To seek and use sunlight through north-south-orientation, column building, terraces and

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45 The era between 1871 and 1918 is called Kaiserreich or Deutsches Reich (German empire).
gardens were among the architectural tools employed to increase the wellbeing of inhabitants besides consequent electrification.

One particularly interesting example at the intersection between social and technological innovation in the Frankfurt context is the so-called Frankfurter Küche (“Frankfurt kitchen”). It was initiated in 1926 in the course of the Neues Frankfurt programme by Ernst May and designed by architect Margarete Schütte-Lihotzky. Its central aim was to combine simple yet aesthetic design with excellent functionality based on rational understanding of the work processes the kitchen user had to perform regularly. That is, numerous devices should ease the workflow and they should be easily reachable. That also meant that the kitchen was rather small, resulting in reduced space requirements, so overall this original form of the modern built-in kitchen fitted very well with the demand for large amounts of dwellings confronted with limited supply of building space (Heßler, 2001).

Expressionist aesthetics for social housing during the Amsterdam school

In the Netherlands, around 1916 a number of young architects were referred to as the Amsterdamse School, an expressionist architecture style related to German Brick Expressionism. It was characterized by brick construction together with art glass and ironwork, yet masonry often with a rounded or organic appearance and integrating architectural sculpture. Most representative examples are Michel de Klerk, Johan van der Mey and Piet Kramer (Witt, 1983).

The Amsterdam school was imbued with socialist ideas and therefore also designed a number of social housing buildings and settlements. The most well-known is Het Ship (“The Ship”), resembling the outlines of a ship. Designed by Michel de Klerk, this is a site located in the Spaarndammerbuurt district of Amsterdam containing 102 apartments built for workers employed in the nearby docks, as well as a meeting hall and a post office. Not only de Klerk but also other well-known architects and planners like Hendrik Petrus Berlage (1856-1934) and Piet Kramer (1881-1961) embraced social housing in their work. They cooperated with the housing associations to get their aesthetically artful buildings funded (Witt, 1983).

Already before WWI 1901, he housing act had obliged the Netherlands to clear its older, substandard working-class housing, and Amsterdam school architects got many of the related jobs. As strong ‘local patriots’, they had the ambition to contribute to building a beautiful Amsterdam, even for the poor and in deprived areas. Therefore even social housing, they combined architectural art elements of expressionist heritage with cost-effective pragmatism (Witt, 1983).

Red Vienna – cost saving construction materials and simplified building styles

In the Red Vienna period (cf. Embedded Case Study), it became obvious that in order to meet demand sustainably, social housing construction needed to become more affordable. To that end, a number of architectural-constructional innovations could be employed that related primarily to the more efficient use of or alternatives for scarce and thus expensive building materials. However, it also illustrates the continuing debate between garden style-small houses and multi-storey tenements.

For instance, the settlers used clay bricks or slag masonry which they could produce themselves instead of having to buy ready-to-use but expensive conventional bricks during the transformation of their informal settlements. One particularly important substitute materials innovation was the ‘pax brick’, a masonry brick made of cement, slag, sand, and water pressed by hand and then filled with clay. They were estimated to save up to 50% costs
(Schacherl pp. 21) and served as a major construction material until 1923 when the economic situation improved and conventional bricks could be used (Baaser, 1960; Koch, 1987, p. 5) (Novy and Förster, 1991, p. 155).

Another important technological innovation was Adolf Loos’ ‘house with one wall’. It was also born out of the demand for large supply of houses built efficiently, particularly since in the first phase after WWI, small, garden city like housing was preferred in Vienna (This switched to “superblocks” in the late 1920s). The ‘house with one wall’ was an invention to build row houses in a system with only one load-bearing wall. Several accompanying inventions helped not only to save building material but also labour force, because the houses could be constructed mainly by unskilled workers. Another invention in this context was the ‘core house’, an idea that emerged in the early 1920s and first presented during the 5th exhibition of the Vienna construction and settlement in September 1923 by the architects Margarete Schütte-Lihotzky and George Karau ((Novy and Förster, 1991, p. 76). With this type of innovation one part of the house was immediately habitable (thus the ‘core house’) and was constructed with simple means and materials. Later on this type of core house could be extended to complete settlement houses through further building measures and from the settlers’ own means. (Förster, 1980, p. 68; Neumann, 1929, p. 23; Novy and Förster, 1991, p. 76). For these core houses, Margrete Schütte-Lihotzky also designed furniture and built-in kitchens to make the life of a housewife easier (cf. Neues Bauen in Germany). This architectural approach attained a lot of international interest (Frei, 1991, p. 139; Novy and Förster, 1991, p. 60).

**Phase 3 – World economic crisis to WWII**

The World economic crisis and the resulting unemployment rates made it hard for tenants even in social housing to pay their rent. There was also a comparatively slow rate of technological innovation utilised in housing generally and social housing in particular. The emphasis was more on further using and improving technologies that had already proven to be cost-savers in previous periods. Nevertheless, where new technologies also had the potential to improve efficiency and thus reduce the use of resources in the mid and long run they were utilised when affordable, yet again not so much in social housing (Heßler, 2001, 2012).

**Technological innovation for efficiency**

In Germany, for instance, such a development became visible. The Nazi regime put very much emphasis on efficiency in every realm of life, including house work. Generally, the anti-urban ideology of the Nazi regime shifting the focus to small, basic single-family houses outside the major towns in rural colonies (Highton, 1935; Fuhrmann *et al.*, 2008) also had some adverse effects on the use of innovative technology in social housing. Yet on a more general basis however, the emphasis on household technology and electronic kitchen devices of the preceding phase was continued in Nazi Germany. Contemporary ideologists and women’s associations praised technological progress and efficiency in every kind of work, including house work. Progress and experiences gained in the industry were demanded to be used in households as well, and the dependency on foreign imports was intended to be reduced by efficient house work. Efficiency also was said to help women save time which should then be used for a job as women’s employment was also promoted during that time (Heßler, 2012, p. 251). However, this was directed more at private households than at social

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46 E.g. the Heuberg-Siedlung.
housing where there was more emphasis on low building and operating costs (International Housing and Town Planning Congress, 1937; Blumenthal, 1934).

So in general, this period was of course characterised by austerity and the resulting focus and emphasis on efficiency and thus on technological innovations that would come at low cost and/or improve to cost-benefit ratios in work processes (Heßler, 2001; Blumenthal, 1934). Although there were also exceptions to this in countries where the economic crisis did not hit as hard (at least in some regions), it appears that these were not the countries where at that time there was much emphasis on deploying technological innovations in social housing, but more on modernising urban infrastructure and slum clearing (Holmans, 1987, p. 66; Harloe, 1995, p. 181).

**Phase 4 – WWII to mid-1970s**

There are mainly two developments that with respect to technology and technological innovation characterized post-WWII (social) housing: First, the housing shortage and the resulting need for speedy (re)construction; and secondly the insight that the house is an important and highly relevant socio-economic space in which productivity matters. Resulting from this insight there was an emphasis on efficient housework in house-building discourses and policies (Oldenziel and Hård, 2013; Flagge, 1999); (Heßler, 2001). Both of these trends had existed before, but now were continued even more insistently.

**Pressure for rationalizing design and construction fosters multi-storey buildings**

The housing shortage after WWII was extreme, and “all postwar societies in Europe faced massive housing shortages well into the 1960s” (Oldenziel and Hård, 2013, p. 203). Since the (social) housing stock did not match the resulting demand, building of new social housing peaked, caused an intense pressure to rationalize design and construction, and to substitute traditional building materials in short supply by new ones. Building technology played a central role in the continuous attempts to do so: Reconstruction in general and social housing in particular favoured simple multi-storey apartment buildings in order to promote “socialized forms of housing – rather than the detached homes that symbolized individual consumption” (ibid.: 204). As a result, multi-storey buildings became widespread in social housing in the 1960s, also since flat building approaches had been increasingly criticised because of their high demand for ground which was becoming scarcer (Pahl, 2000).

Also major construction companies that wanted to test innovative construction techniques played a role (Dunleavy, 1981). To build such large houses quickly and at low cost required speedy and large-scale production of building materials. The technology employed consisted in prefabrication, modularization and standardization. The prefabrication of concrete slabs which could be assembled quickly and relatively easily became the dominant technology in social housing construction (Oldenziel and Hård, 2013; Flagge, 1999; Kähler, 1999).

**Kitchens as a subject of innovation**

In general, however, the impact of technological development remained smaller than in other industries (UN Economic Commission for Europe, 1954; Harloe, 1995, p. 259). In this respect it is a noteworthy fact that not so much the outer shell of houses was the most interesting technological aspect in post-war building in Europe. Instead, one focal point of the relationship between (social) housing and technology historically has been the kitchen.47 The

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47 In fact, Oldenziel/Hard (2013, p. 204) note that almost “a century before [Richard Nixon] traveled to Moscow, the design of modern kitchens had become the focal points of utopian socialists, social reformers, and
fact that the kitchen is very much the productive heart of the dwelling and therefore an important macroeconomic production factor had become clear to political leaders during the two World wars (Oldenziel and Hård, 2013, p. 215). Both before and after WWII, “modernist kitchens were considered technological marvels – and were politically controversial. Cold war statesmen Richard Nixon and Nikita Khrushchev, together with Winston Churchill (United Kingdom), Ludwig Erhard (West Germany), and Walter Ulbricht (East Germany) – all considered kitchen appliances to be building blocks of the social contract between citizens and the state: to consume was to be a true citizen.” (ibid., p. 197) As far as political agendas fed social housing policies, these kitchen considerations may be assumed to have manifested themselves in those as well. At least the widespread existence of modernist kitchens was all but to be taken for granted in the preceding century. Upper class houses had the kitchen separated from the living area, while lower class dwellings had no or only a very small designated kitchen area. After WWII, however, a room within the living area designated as the kitchen became more or less common, also in social housing, and there was continuous emphasis on the firm belief in societal technological progress which expresses itself (among others) in the level of modernity of the kitchen in the average household; in fact kitchen modernity was even an important subject of the cold war (ibid.).

Functionalist concepts in architecture
Besides this technological “arms race”, probably an even more important development consisted in the role played by home economics: Home economists – who were mostly women who had gained extensive expertise in organising housework and food production during wartime – acted as mediators between governments and citizens. Their aims were twofold: Believing that homemaking is a serious profession and the home a place of hard work, they firstly wanted to educate housewives in every kind of technology. The goal here was to “shape homemakers into professionals skilled enough to solve any modern household problem.” (Oldenziel and Hård, 2013, p. 217) This also included basic electrical and plumbing tasks. And secondly, home economists also saw the need to design homemakers’ “workplace” accordingly, i.e. as places where efficient and effective work can be performed best. This was also one of the goals of the functionalist trend in architecture dominating at that time ( cf. 3.4 Narratives).

However, functionalist concepts were not embraced entirely by the target group, because often they did not reflect cultural and habitual traditions in European societies. As a result, in many places in Europe there were open conflicts between architects and tenants who did not appreciate functionalist building and sometimes even went as far as demolishing walls to regain their traditional room division. The role of home economists and their associations was to mediate between functionalist architects, governments and the target group (homemakers). Of these groups, as it also was their own origin, the home economists saw themselves as representing the homemakers. The result, particularly in socialistically and/or social-democratically led countries such as the UK, France, Finland, the Netherlands, (East) Germany and Turkey, was that women, home economists, architects, governments and building/home appliances firms collaborated in the building of modern and technologically well-equipped houses (Oldenziel and Hård, 2013, 216f.).
Phase 5 – mid of the 1970s onwards

The period following the economic crisis of the 1970s was characterised by a gradual withdrawal of state-related actors from housing and also by a certain market saturation after the massive building efforts of the previous two decades.

Renovation of historic housing becomes important

Standardisation and modularisation which had been the dominant building technologies of the 1950s and 60s became less important, at least in public discourse. Instead, technologies to renovate historic housing (not so much in social housing though) were developed and used. However, despite the shift in narratives, the conventional construction techniques of previous decades were still massively employed, at least in the early 70s (Flagge, 1999, p. 863). That changed not very much until the 1980s when the narrative of abolishing standardised mass construction was made reality more and more.

In the spirit of postmodernity, building and construction became very much diversified and fragmented, with a multitude of highly heterogeneous approaches, from imitating historic building, striving for nostalgic comfort, but also emphasising functionality – and also the dreams of making everything feasible technologically were still in place and influenced building. Therefore, concerning technology, not so much technologic innovation shaped that phase, but rather the recombination of existing technology, primarily being renovation and methods that allowed using old housing stock for new purposes. One more or less remarkable exception might be “imitating technologies”, i.e. either new or old methods and practices used to make conventional building more historic (Flagge, 1999, 891ff.).

Ecological considerations

With the early 1990s this began to change, as ecological considerations entered architectural and construction discourses and policies. Now the orientation towards more quality in buildings also increasingly included technological advancements, including ecological considerations such as energy-saving technology for heating and insulation. This latter aspect did not play such an important role in the beginning of the phase, but since the early 1990s and particularly since the turn of the millennium it has gained importance and relevance substantially. For example in Vienna, ecological key performance indicators have become integral parts of calls for tender of all social housing settlement plans, and so have also innovative and intelligent floor plans, community spaces and security considerations. As a result, all new buildings fulfil the requirements for low-energy houses (50kwh/m²/year or less). But there are also other innovative model projects in Vienna based on the effective use of socio-technological innovations: In the Oberlaa settlement, for instance, 750 dwellings are heated with used water from nearby hot water springs and both its used water system and its green areas are watered from a rainwater collector. Another example is a car-free model settlement in which the funds not used for building garages have been diverted into an impressive infrastructure, green roofs, an internet café, a bicycle garage, etc. (Seidler, 2002).

Individualization also becomes reflected in architectural styles

The fact that social housing became more individualized has been also reflected in architectural developments and trends during the 1970s and 80s. Again in Vienna, new settlements were planned by Raimung Abraham, Carl Pruscha and others which appeared introverted and externally repelling and features redefined apartments with intimate open spaces. The building of 2,500 dwellings at Wienerberg involved an innovative two-phase planning process. Other progressive trends were co-decision and co-management approaches in social housing projects (Seidler, 2002, pp. 24–25). Thus not so much technological
innovations dominated the development of social housing at that time, but instead planning and organisational innovations.

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<th>Further readings</th>
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<td>(Dewick and Miozzo, 2004)</td>
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<td>(Frampton, 2002)</td>
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<th>Possible questions of analysis 3.7</th>
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| WP 1 | ...
| WP 3 | Can patterns of sequencing be observed?
| WP 4 | Can recurring patterns on the interplay of social and technological innovation be specified?
| WP 5 | To which step in the social innovation and diffusion process do technological innovations contribute? (idea generation, invention, innovation, diffusion process incl. adaptation, etc.)
| WP 6 | ...

3.2 Solution approach

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<td>Did the concrete activities of how the social innovation approached the social problem change and renew over time (including new forms of organisations, resources, or communication)? Describe the most relevant activities to prevent, mitigate or solve the marginalisation (e.g., service provision, lobbying, advocacy, etc.)?</td>
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<th>Summary of key points</th>
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<td>- Social housing solution approaches have been heterogeneous from the beginning. The framework parameters have been subject to continuous change over time, and so have the adopted solution approaches.</td>
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<td>- Already before WWI, the different solution approaches (philanthropic/employer, self-help, municipal), focused on skilled, ‘respectable’ members of the working class or the ‘deserving’ poor. Small houses and tenements as rivalry approaches with different ideological backgrounds were used from the beginning; however, also some compromises emerged early on.</td>
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<td>- After WWI, the focus on skilled workers and also lower middle classes remained for strategic reasons due to their crucial political and social importance; some (municipal and private) providers based selection also on religious and political orientations. New ideas of accommodation emerged related to new architectural styles (Neues Bauen, Amsterdam School etc.). Additional services and functions beyond accommodation, but also strong control systems were maintained.</td>
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During and after the world economic crisis (great depression), the primary beneficiaries remained the same, although the more marginalized no longer were directly approached with low standard municipal housing. Under the Nazi regime, racist ideology became influential in the selection process.

In the golden age of social housing after WWII, broad parts of the society were addressed to overcome the acute housing shortage. Small houses, but also settlements with high-rise buildings in remote areas were built.

From the mid of the 1970s onwards, social housing saw a residualization towards the marginalized members of society. Demolition of older housing stocks and urban renewal gained importance.

Content

Regarding the solution approaches for the housing problem it can be stated that there have been heterogeneous activities from the very beginning (cf. 2.1 Antecedents and invention of the social innovation). Since then, there has been continuous change and adaption. As Lévy-Vroleant et al. (2008, p. 43) put it:

“Since the origins of social housing, almost all those parameters which defined it as a social project, and which contributed to collective well-being and social cohesion, have changed. The population living in social housing and their social milieus have changed, as have the standards, needs and conceptions of good housing. The relations between housing and the work force have changed. The forms of collective financing and the collective welfare or protection systems have changed. Path dependency is still evident in the development of social housing in the three countries [Austria, France, The Netherlands], but changes can occur very quickly if the conditions allow it. And above all, one could hardly claim that a good balance between demand and supply has been reached.”

Changes in the solution approach can best be traced along the four main dimensions of social housing, i.e. tenure, beneficiaries, providers and funding arrangements. Since the two last dimensions are answered in other sectors of the template (cf. 3.3 Actors and networks; 3.5 Rules, norms, and policies; 3.6 Resources), we here focus on the first two and their main influential factors. What is more, the actual way of service provision, including additional services such as community building, is relevant and will be included in this section.

Phase 1 – Before WWI

Beneficiaries

During the first phase of the beginnings of broader social housing activities, before WWI, the beneficiaries were not necessarily those most affected by the housing crisis and the related impoverishment of the time. As already stated in 1.2 Targeted beneficiary group(s), philanthropic capitalists such as Krupp and also many social reformers of the time rather focused on the better skilled, ‘respectable’ working class that displayed the greatest “potential for salvation” (Harloe, 1995, p. 20), i.e. for social integration. With some limitation, this also holds true for the ‘deserving poor’ (cf. Octavia Hill’s approach), whilst the ‘undeserving poor’ faced rather repressive measures.
Early focus on the better-off, respectable working class
The philanthropists Georg Peabody in London or Hermann Julius Meyer in Leipzig favoured artisans over paupers and set a minimum as well as a maximum income threshold (30 shillings weekly London; 35 marks in the Leipzig) (Adam, 2004). In Krupp’s employer housing estates in the Ruhr area, even retired workers could spend their old age free of charge. A considerable amount of the dwellings however were strictly rented to non-unionised workers only and preferred foremans etc. (Krämer, 2013). However, there also were some exceptions. The employer housing dwellings of industrialist Karl Schmidt in Dresden-Hellerau could also be rent regardless of the status of being or continuing to be an employee (Pahl, 2000, p. 11).

First municipal housing initiatives, for instance in the UK, also rather targeted the better-off working class, not least because given the liberal market spirit of the time it was urged by the political elites to charge market rents (Harloe, 1995, p. 37). Even early self-help was a solution only for the better off in the beginning, since the more marginalized did not possess the money necessary for these ownership-based solutions (cf. 2.1 Antecedents and invention of SI).

Situation of the most marginalized
For target groups that did not suit this criteria, the perspectives were rather doom, as outlined in Part 1. Shelter homes, squatting or private accommodation after a filtering process were the remaining options.

Housing style and service provision

Small houses vs tenements
From the very beginning there was a discussion about the adequate form of social housing provision that was heavily influenced by ideological discussions and the background of the different providers, but also by purely economic constraints (cf. also 4.4 Narratives and discourses).

Roughly speaking, there were two basic alternatives: small houses (also cottage-style housing) and larger, multi-storey tenements (also – derogatory – barracks or “Mietskaserne” in German) (Eger, 2010). Small houses were favoured rather by conservatives, as they picked up the ideas of privacy and small families as fundamentals of the social order. The idea of worker cottages was already developed in the second half of the 18th century in the UK – at least in theory; there was not much actual construction because most workers could not afford it (Loudon, 1846; Wood, 1806). It followed the ideal of small worker houses with a spacious living room and good hygienic standard and air condition. Proponents contended that families should live segregate from one another in individual self-contained units and with separate entrance, sculleries and water closets (single staircase model) (Kastroff-Viehmann, 1979). The Garden City Movement favoured this model, too, (Pahl, 2000, see below) whose principles became partly adopted also by prominent philanthropists, such as Waterlow or Meyer.

Tenements for several families (often 20 and more) were accepted as the norm of the time – this form of housing meant that families lived communally in multi-storey buildings consisting of flats with two or three rooms with common lavatories and washing facilities. Central staircases lead to spine corridors. This was argued to facilitate supervision, control

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48 Hermann Julius Meyer was one of the most famous publishers in nineteenth-century Germany. His publishing company, the Bibliographisches Institut, was and still is renowned for the Meyer's Lexicon.
and hygienic standards (Adam, 2002, p. 336). In some case, tenements were linked to socialis ideas that put the community building aspect at the forefront and fostered it by supplying community rooms etc. (Godin, 1871). This aspect made it suspicious to conservative reformers and policy makers. For example, the buildings of the Peabody trust adopted this approach. In practice, it occurred that high land prices made tenements the only realizable solution at least in city centres, which also conservative reformers had to accept (Kastroff-Viehmann, 1979).

**Cluster or quadruple houses as a compromise**

However, some compromises emerged that were rather persistent over time. For the Société Mulhousienne des Cités Ouvrières in Mulhouse, ‘cluster' or quadruple houses were built as cheap small houses for industrial workers. They enabled four families to live under one roof without having to share rooms (inner walls were organized by the shape of a cross). The dwellings even had an own garden for every family. The model was adopted in other industrial worker settlements and reached mass distribution particularly in the Ruhr area in Germany, such as by the Bochumer Verein at the end of the 1860s in Stahlhausen or by Krupp in Friedrichshof, Essen. Small houses settlements, although with lower standards more oriented towards the tenements, became quite common and were called Kolonien (colonies) (Kastroff-Viehmann, 1979, 277ff.).

These types of small houses also became a potential instrument of property development for working class members. In Mulhouse for example, the textile mill owners introduced the first ‘monthly payment’ arrangement that enabled workers to save for their own houses. This important precursor to the modern house mortgage loan led to ownership after a 15 to 20 years’ time.

**Decentralisation and the Garden City Movement**

Another potential solution was seen in decentralisation and the building of colonies with small houses outside the cities to disburden metropolises from overcrowding. This did not directly mean suburbanization, but rather the foundation of new cities in the countryside following well-thought out principles and policies to provide healthy living space out in the greens. This solution was promoted by the Garden City Movement (see Embedded Case Study on Garden City Movement) and its founding father Ebenezer Howard (Pahl, 2000, p. 5).

The ideas of Howard basically were oriented in a broader sense towards social reform as well. They were generally received positively amongst philanthropists, social reformers and policy makers, particularly since it was also seen as a strategy to stop political radicalisation (Kastorff-Viehmann, 1997: 287). Yet it was also criticized, by Engels for example for being a societal set back (Engels, 1970), and nobody could really answer the question how people should find work in these settlements.

The ideas of the Garden City movement were generally more adopted by conservatives, yet aesthetic and general city-planning motives were at the forefront. In Europe, few garden cities were actually built (Letchworth, Welwyn in the UK, Dresden-Hellerau in Germany), and the ideas found more consideration in suburb creation.

**Standards**

Given the variety and confounding factors already in this earliest phase of social housing, it is difficult to make a general statement on established minimum standards. For instance, the first buildings in Krupp’s employer settlements in 1963 consisted of nine rows of two-storied houses, eight of which would contain units of 15m² with a combined kitchen/living room, a
bedroom and a toilet; and sometimes there still was overcrowding. Later on, (Altenhof II, 1907-1914) provided nicely built and diversified stone houses, inspired by the British Garden City, i.e. semi-urban/semi-rural settlements with architecture oriented towards inhabitants’ needs (clean air, good transportation, close shops, schools, kindergartens, etc.) and featuring lots of green spaces within the settlement (Kieß, 1991).

Paternalistic approach of care and control
What is more, there was a rather strongly exerted double strategy of paternalistic “care and control” in most solution approaches of this time (Fuhrmann et al., 2008), regardless of whether the background was collectivistic or libertarian. In these conceptions, housing was at the core of the organisation of the inhabitant’s entire life. The most ambitious projects controlled and supported residents ‘from cradle to grave’ (Lévy-Vroelant et al., 2008), which was also criticised by contemporary voices. Kurt Eisner commented on the Krupp settlements as “cemeteries for the living” (Eisner, 1912, quoted from Bolz, 2010, p. 91)

Services beyond housing
Finally, already early social housing pioneers had in mind aspects of social mix and urban development. E.g. the Peabody buildings and Meyer’s model tenements were scattered throughout various districts in the cities of London and Leipzig respectively, in order to avoid the emergence of working-class ghettos (Adam, 2002, p. 335).

Also, the idea of linking social housing with other services, education or community building activities was established very early. In the Krupp settlement, there was an enhanced supply of food and other groceries by offering affordable daily goods in so-called Konsumanstalten (consumption institutions). Godin in Guise included facilities for recreation and education in his settlement, and Octavia Hill also included a strong education aspect (Adam, 2002, p. 333).

Phase 2 – WWI to world economic crisis
The phase after WWI was characterized particularly by first municipal commitments on a broader level (cf. also 3.3 Actors and networks; 3.4 Narratives and discourses; 3.5 Rules, norms and policies), as private provision was very strongly affected by the consequences of war.

Beneficiaries
Focus on skilled workers and middle class remains
Within state and municipal initiatives, the more skilled workers and middle classes that had also been affected heavily by the war were still regarded to be of crucial political and social importance. The first mass housing programmes of social housing accordingly were “not a simple response to housing needs but a response to strategically important housing needs, in brief the needs of those sections of the population – the skilled, organized working class and part of the middle class – whose continuing dissatisfaction posed the greatest threat to the re-establishment of the capitalist social order” (Harloe, 1995, p. 101).

Moreover, the general ambition to return back to ‘business as usual’ (i.e. the situation before the war) meant to attract private investors for working-class housing provision. This led to policies targeting on rents that were oriented towards market levels (the subsidies rather focused on the increased costs for construction and capital after WWI that were expected to sink again). Accordingly, housing provided under such regimes was particularly affordable by ‘the aristocrats of the working classes, the skilled and highly paid artisans’ (Member of the British parliament, quoted in Swenarton, 1981, p. 83).
Selection based on religious and political orientations

What is more, municipal authorities mainly selected social-housing residents on the basis of membership of unions or socialist or communist parties, according to the political ‘colour’ of the municipality. In the Netherlands for instance, there were housing associations for Catholics, Protestants, socialists, generalists, etc., resulting in streets or neighbourhoods of like-minded people (Lévy-Vroelant et al., 2008, p. 36).

Housing for the most marginalized

Nevertheless, a major need remained was to house the homeless, a high portion of whom were unemployed. Local authorities also met this requirement, although with very different circumstances, as the following quote shows for Germany:

> in the majority of cases large buildings of the barrack type have been erected at great expense, and sometimes discarded railway carriages and wagons have been used. Former military depots, munitions and rolling stock sheds have also been adapted for the purpose. In large cities special homes are built for the homeless, in which there are large mens’ and womens’ dormitories … this kind of accommodation is a temporary measure and it is intended to abolish this as soon as possible and provide the usual type of dwelling instead, although this will of necessity be of a primitive kind (Brahl, 1931, p. 193).

Also, repressive measures such as slum clearances and filtering – in fact equating the disciplinary approach towards the working class residuum of the period before WWI – in some places remained (Denby, 1938).

Some exception occurred in Vienna, where the local authorities practically legalized informal settlements of the settlers at cities margins. Gardens for self-sustainment had become the territory for cheap and often primitive shelter here, the number of which being an estimated 60,000 after WWI. (Novy, 1981a, p. 46). The settlers were largely involved in the development of adequate housing and infrastructure. (cf. also Embedded case Social housing in Vienna).

Housing style and service provision

During and after WWI and its exigencies and consequences, social housing became a matter of professional and bureaucratic organization carried out to a large degree by public institutions, along with other aspects of social and urban reform (Harloe, 1995, p. 76).

Adoption of housing reformers’ ideas

In general, it can be stated that housing programmes marked a further step in the incorporation of housing reformers aims’ on the housing market. New plans often – but by no means always – relied on Garden City principles of low density and cottage style development, for instance in Britain. This, however, again showd the orientation rather towards middle class workers.

Also new ideas emerged in this respect. In Germany and particularly Frankfurt (cf. also 3.7 Technological and social innovation), some of what are still considered to be the best examples of social housing design was built under the influence of the Modern movement and principles in contemporary architecture. These dwellings went beyond the purely individual satisfaction of housing needs, particularly if they were linked to the labour movement (Harloe, 1995: 118).

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49 This compartmentalisation or pillarization (verzuiling) of society was to last until at least the 1970s and its effects are still visible in Dutch society.
Comparatively high quality standards in social housing

Instead, the Neues Bauen (“New construction”) movement combined new architectural approaches and concepts with ideals of social reforms (Gutkind, 1919). It continued developments that had already started before and during WWI in the armament industry. Neues Bauen applied rationality and new materials to create buildings of enhanced functionality and living standards (Heßler, 2012), e.g. get substantially more sunlight and air into formerly dense, dark and overcrowded urban settlements. Compared to the Garden City movement, the ways to achieve these goals grounded not so much on just using more space but used smarter architecture making more effective use of the space available in central urban areas.

The Amsterdam School of architecture, an expressionistic style using bricks, glass etc., also strongly engaged in social housing and developed ambitious projects, often linked to the cooperative movement (cf. Embedded Case (Financing) Social Housing in the Amsterdam School). Amongst the most prominent example is Het Schip (The Ship), a monumental public housing block of apartments. It offered spacious apartments with separate kitchen and bedrooms, flushing toilets and plenty of natural light to families. Het Schip was commissioned by the socialist housing association Eigen Haard.

In Vienna, after an initial period of the garden city style being put to the forefront, around 1923 there was a shift favouring superblocks in social housing policies, mostly for financial reasons. What was innovative here was the payment model. Tenants did not pay a regular rent to landlords but an earmarked tax to the city. This tax was graduated according to the size and location of the home and according to the financial abilities of the tenants. Poor people in small homes paid only little or no tax. Being an essential contribution to solidarity in housing policy, the new housing tax also had the psychological effect that building houses for all people in need was a common undertaking. ( Förster, 1980, p. 104; Bauböck, 1981, p. 130)

The social housing corporations frequently reached higher standards than the private sector, since housing reformers demanded that social housing must raise the working class-housing. By influencing the entire market they also wanted to foster improvements in private building, which is why those actors even more strongly objected subsidies (Harloe, 1995, p. 124). Local patriotism of architects for instance in Amsterdam also were motivated by aesthetic considerations, even when building for the poor and in deprived areas.

Services beyond accommodation

As already in the first period, social housing provision often did not remain limited to the actual accommodation (cf. also the electrification and liberalization approach inherent in Neues Bauen). Accordingly, the increasing municipal commitment of the time often was accompanied with the establishment of a local welfare state. Social housing therefore became a central tool not only for combating the housing-related misery, but also more broadly for stimulating mass educational and moral reforms (Lévy-Vroelant et al., 2008, p. 36).

Moreover, some more remote dwellings also resulted in consequences such as long commuting times, eroding of neighbourhood relations, or a lacking connection to infrastructure (medicine, playgrounds, shopping opportunities etc.) for house wives, children, elderly etc. (Fuhrmann et al., 2008). Therefore some dwellings incorporated community facilities too. The settlers in Vienna, for example, developed the community house (Genossenschaftshaus), which usually existed in the centre of every larger settlement. It gave room to the Vereinszimmer (club room), administrative offices of the cooperative, a cooperative store, a library and a restaurant/cafeteria. Cultural activities took place here and
at times also secondary education for adults as well as festivities (Novy and Förster, 1991, p. 92).

Systematically linked to a system of control
However, also in the newly-established system of social housing, a system of control was implemented in many regards. Dutch municipal initiatives, for instance, developed Woonvolden. These were houses where people were taught how to use a dwelling properly. Control-Woningen where held for those judged unable to behave decently in a ‘normal house’ and were specifically supervised. Also in France (visiteuses à domicile), Vienna, or Germany control through housing inspectors existed. Their role can be considered to be ambiguous also because they (sometimes) collected rents or distributed social allowances, but at the same time inspected the properties (Lévy-Vroelant et al., 2008, p. 36).

Phase 3 – World economic crisis to WWII
In the presence of the economic crisis (great depression) and often linked to general policies for recovery, many governments returned to programmes that either subsidized private housing provision or comprised direct municipal provision. Those were already known from the previous period, however, under the ambition to turn back to ‘business as usual’ (i.e. the state before WWI) they were actually meant to be temporary solutions.

Beneficiaries
Housing policies in this period generally kept focusing on the skilled working classes and middle classes, at least as dwellings with a solid or even improving quality were concerned.

First examples of tenant participation in housing management
The role of the beneficiaries in the different solution approaches varied. Cooperatives built spacious housing facilities for the better-off working classes that were largely maintained by their occupants themselves. In housing societies such as limited-dividend companies, however, some centralization occured, which appearedly caused a waning influence of the tenants on the housing management (Harloe, 1995, p. 179).

The situation of the most marginalized
In many areas overcrowding and shared dwellings as well as the lack of a fixed bath or hot water supply to a sink were still far spread (Holmans, 1987, 72ff.), Authorities more closely monitored such developments now, and there was an increasing share of direct municipal provision (sometimes also referred to as public or municipal housing) besides subsidized private building with lower rents and also lower standards for the most marginalized.

The rise of such residual approaches accordingly took the ‘unrespectable’ working under more systematic consideration in many countries. However, approaches were far from being appreciative. Tight controls, quality oriented at minimum standards, and relocation following slum clearances were typical (see below). So in general, one can state that the most marginalized were addressed more directly now as compared to the filtering approach without residual options that was had been adopted earlier. However, this was not necessarily for attentive reasons (cf. 3.4 Narratives and discourses), and the consequences were socially problematic in many respects.

Beneficiaries under the Nazi regime
A special case occurred under the Nazi regime, when racism also became manifested in the selection of beneficiaries for social housing (“Volksgenossen” and “Aussonderung der Gemeinschaftsfremden”). Slum clearances were rather common as well. Housing policy was mostly addressed mostly towards members of the middle class and civil servants while little
or no attention to the needs of the poorer social segments (Saldern, 2006; Harloe, 1995, p. 160).

**Housing style and service provision**

**Residual approach and slum clearances**

This social housing sector generally differentiated in this period. Direct housing provision by public municipalities at lower rents and with minimal standards of space and amenities more and more emerged as an alternative for the poorer households. This *residual approach* was linked with a shift back to multi-storey buildings in many countries (Harloe, 1995, 165ff; Lévy-Vroelant *et al.*, 2008, p. 37). However, self-managed housing estates by cooperatives maintained higher standards, and housing associations that mainly served the more skilled workers mostly did the same.

While already carried out before, also *slum clearances* and relocation of slum dwellers became a more dominant topic in this period. This was partly due to the upcoming ideology of fascism and racism in some countries, but also for reasons of impoverishment due to the economic development. The consequences of relocations after slum clearances was a socio-spatial segregation of the working-class population, based in fact on the pre-war system of a classification of the poor into different categories. In the Netherlands for instance, signs of the socially problematic nature of this residual social housing approach were perceivable, as shows the following quote (Denby, 1938, p. 109):

> [w]ell-to-do families turned out of a district which is being re-planned, are said to get a suitable dwelling without difficulty in houses built either by private enterprise or by a public utility society, while the poorer or less desirable families are housed in dwellings built for them by the municipality itself.

**Strict housing management schemes**

What is more, the relocation of the poorer and ‘less desirable’ working class also involved the impositions of *housing management schemes* that were even stricter than in the periods before. To exert influence on the most ‘undesirable’ dwellers, even the architectural design was adapted. Separated bedrooms were implemented to ensure the segregation of parents and their children during the night, and the kitchens were kept extremely small to reduce them to a working instead of a living unit (Denby, 1938, 113ff; Harloe, 1995, p. 169).

Some of the poorest target groups now were provided with dwellings situated on special, municipality build estates (‘experimental colonies’). The stigmatization of living here, however, was considerable, and therefore they were not fully occupied. Quality was poor and there was strict control, such as locking up at 11 pm in the night (Denby 1938; 117; Harloe 1995: 169). In fact, housing management became a profession with ‘scientific methods’. To coerce tenants in a socially acceptable form of behaviour, there was a progressive system. Tenants could be promoted from reformatory colonies with a very strict and punitive system to normal municipal housing, following more Octavia Hill principles. (The Building Centre Committee, 1936, p. 280; Harloe, 1995, p. 170; Denby, 1938).

**Shift towards rural building under Nazi regime in Germany**

A special development occurred in Germany. In congruence with the anti-urban ideology of the Nazi regime, the focus in housing for the working-class shifted to small, basic single-family houses outside the major towns in rural colonies, engaged in subsistence agriculture (Highton, 1935; Fuhrmann *et al.*, 2008). International construction was criticised as “artfremd”, and *Neues Bauen* declared as being too expensive. Multi-storey buildings were suspicious to be a breeding ground for socialism (Saldern, 2006). Instead, simple and minimal quality construction (“*Einfachwohnbauten*” and “*Primitivsiedlungen*”) was adopted.
Often 20 qm² living kitchens were considered to be sufficient. As Blumenthal (1934, p. 22) reports, rural housing often normally lacked electricity, flush toilets and other basic facilities.

Also in Vienna, construction activities rapidly declined after 1931, and the Red Vienna was defeated after the end of civil war in 1934. (Austro) fascism and from 1938 the Nazi regime took responsibility, and their (few) housing activities were strongly coloured by fascist and racist ideologies.

**Phase 4 – WWII to mid-1970s**

After the destructions of WWII, housing shortage was extreme particularly in some countries, such as Germany. Social housebuilding therefore occurred on a scale hitherto unimaginable. This was interlinked with processes of industrial modernization, as well as an ongoing demographic change and urbanization. The phase after WW2 therefore is also described as the “Golden Age” of social housing.

**Beneficiaries**

*Eligibility criteria cover wide parts of society*

Particularly in the beginning, a rather *generalist* or even *universal* model of social housing was adopted by most countries, targeting on wide parts of the society. In France and Germany, the upper limit for admission to social housing was an amount twice the average income of a skilled worker, and many units were allocated to white-collar and other high-income categories. In the Netherlands, there only was a limitation that new units should be assigned to members of the working class, which was vague and meaningless in practice. However, in Britain even this weak restriction, had been removed (Harloe, 1995, p. 261).

After economic recovery had proceeded and prosperity had increased, the better-off working class increasingly started to opt for ownership solutions. Interest mainly focused on the older and more attractive housing in the city centres, and tenure frequently was conversed in these areas.

*The situation of the most marginalized*

Allocation of housing types to different income groups resembled the type of building and tenure in this period. High-rise dwellings built on peripheral estates in the 1960s and early 1970s (see below) were refused by better-off households. Only the poorest households had no choice but to accept accommodation here, even though despite additional subsidies the rents were high. Conditions were worsened due to a lack of communal services and poor public transport connection. Towards the end of the period, these settlements began to develop into “hard-to-let” units or “problem estates” (Harloe, 1995, p. 266).

Furthermore, non-citizens were often excluded from access to social housing (e.g. in Austria), while in France and the Netherlands immigrants from former colonies got access at least theoretically. Nevertheless, there was a consensus on building specific collective accommodation for migrants (foyers) in France (Lévy-Vroelant *et al.*, 2008).

Also from the 1960s onwards, the pressure to modernize urban infrastructure let to the demolition of slum housing, often comprising estates from before WWI where mostly poorer households were accommodated. This however led to the replacement of many of the urban poor and caused social tensions.

What is more, an explicit *residual* orientation towards ‘specific population groups’ re-occurred at the end of the period, when the generalized approach in some countries came to an end. Those specific groups for instance were the elderly, isolated households, one-parent families, migrant workers, large households, and those living in pre-1918 housing (UN
Economic Commission for Europe, 1980). This caused, however, additional tension, as these households had had a lower rent-paying capacity, while dwellings at this time still were being built by increased quality standards (Harloe, 1995, p. 265). It was therefore begun to offer support in the form of subject-related rent allowances and consumptions subsidies (cf. 3.5 Rules, norms, and policies).

**Housing style and service provision**

**Type of buildings and tenure**

The buildings constructed under these circumstances and through the regime of subsidized housing differentiated throughout this period. On the one hand, there was a rapid rise in the proportion of units built as single- or two-family houses in France (from around 1/3 to ½ between 1960 and the mid-1970s), the Netherlands (from ½ to ¾ in the same time), and in Germany (from under ½ to ¾ per cent between 1970 and 1976/7 (UN Economic Commission for Europe, 1980). Semi-detached (duplex) and terraced (row) house properties were built at low space densities (cf. 3.7 Technological innovation). In fact, principles of the Garden City movement were still influential for instance in the UK (cf. New Towns Act 1946) (Kähler, 1999).

On the other hand and in sharp contrast, multi-storey (high-rise) buildings accounted for the first time for a substantial part for new social housing in the 1960s. This was mainly due to the continued drive for higher building productivity and/or higher output of the limited skilled labour. Furthermore, the spacious building approach got criticised increasingly because of its large demand for ground which was becoming scarcer (Pahl, 2000). There was an increase in squatting empty properties including offices in major cities, e.g. in Britain (Morgan, 1984, p. 165).

Despite this, interests of major construction companies that wanted to test innovative building techniques, new materials etc. in the post war years played a role here, as well as housing professionals who used their increased power (Dunleavy, 1981). Compared to building in the private sector, producers and managers here rather were in a position to dictate the conditions. Although this short trend only lasted until the early 1970s, due to the constructional defects and its unpopularity it left a baleful legacy (Harloe, 1995, 264f.). Accordingly, the distinction between flat-dwelling social tenants and single-family house owners that has been inherent since the beginnings of social housing in this time got further physical manifestation. However, in Britain or Germany this was not tantamount to the separation between manual workers from the working-class and better-off middle-class white-collar workers as the latter also lived in rented apartments (Harloe, 1995, p. 264).

However, there also were specific developments. In Finland, society was still rural and the industry could not provide enough jobs for such a large group of people. About 50 per cent of the active population were employed in agriculture. So between 1945 and 1956 a number of 100,000 new farms were founded, mainly in the eastern and northern parts of the country (Juntto, 1990a, pp. 200–203).

Furthermore, towards the end of the period, measures of ownership encouragement gained popularity among policy makers. This was one of the predominant issues in the need to cut back generalized state support (UN Economic Commission for Europe, 1985: 74).

**Standards in social housing units**

Given the efficiency constraints regarding material and workforce as well as the rapid increase in effective demand, governments initially responded by merely maintaining
minimum standards or by reducing earlier standards of social housing dwellings in new units, such as by limiting the size and reducing amenities (e.g. in France or Britain).

However, after the general economic situation as well as income levels had increased, from the early 1960s onwards standards in social housing improved. In this time, the average floor space increased by about 20-30 per cent in new units, while at the same time the average size of households was declining. In Germany and the Netherlands, the proportion of new units with central heating increased from less than one-third to almost 100 per cent (UN Economic Commission for Europe, 1980: 10f). These changes were reflected in and let by legal norms for social housebuilding in all countries.

An explicit example for this development are the Parker Morris Standards in Britain that became mandatory for all council housing in new towns after 1969 and are still influential today. It was drawn up in 1961 by an influential report on housing space standards. The Committee took a functional approach towards determining space standards in homes by considering the space needed for normal household activities as well as by considering what type of furniture and what space would be needed to use the furniture in the rooms. Included in the standards are, for instance, one flushing toilet each for one, two and three-bedroom dwellings, anthropometric requirements such as a net floor area of 72 square metres in a semi-detached or end-of-terrace house for four people, 2.3 cubic metres of storage space for the kitchen, or heating systems to maintain the different spaces at certain temperature level (Parker Morris Committee, 1961). Such standards were developed in many countries.

Another example can be studied in the Country perspective Social housing in Italy. It particularly shows the challenge of developing general standards that are at the same time flexible enough to account for the conditions in different regions. Furthermore, the case shows how such standards have been subject for political discussion.

Phase 5 – mid of the 1970s onwards

Social housing in this period saw a general trend towards privatization, individualization and also residualization.

Beneficiaries

Developments on the side of beneficiaries were twofold, and the sector became more polarized. On the one hand, better-off middle class households that had long been at the centre of social housing and social housing policies increasingly were forced to leave the sector. With the shift towards privatization and residualization, rent controls were more and more eliminated or relieved, and these target groups did not fit the stricter eligibility criteria for housing allowances any more (Harloe, 1995; Malpass, 2008) cf. also 3.5 Rules, norms and policies).

Marginalized as main target groups of social housing

On the other hand, this period saw an increasing concentration of low-income housing households in social (rental) housing. Particularly the share of some of the poorest and most vulnerable target groups increased, such as ethnic minorities, elderly and handicapped, single-parent households, students etc. (e.g. in Britain, Finland). Many tenants were now partly or fully dependent on transfer incomes from the welfare state that turned more and more into personal support – in the case of housing either in the form of housing allowances or through personal subsidies (Harloe, 1995, p. 366).
Since the number of poor households increased in most countries due to higher unemployment rates\textsuperscript{50} and at the same time housing cost became more expensive\textsuperscript{51}, there was also an increasing demand for social housing claimed by these households. Demographic and social changes, such as an increasing share of elderly, single-parent, or single-person households altered the demand for accommodation (Boelhouwer and van den Heijden, H., 1992). In fact, in many countries social housing has changed from a broadly based tenure accommodating a range of income groups, to an increasingly residual sector for the poor. Associated with politics of housing that were promoting home ownership (\( \rightarrow \) cf. 3.5 Rules, norms, and policies), social housing was gradually shifted to take the role of a safety net (Malpass, 2008). Even forms of ‘very social’ housing (Reinprecht and Lévy-Vroelant, 2008), targeted at the most deprived, emerged (cf. 2.4 Status quo of SI).

This led to a differentiation among social housing tenants. In the older social housing dwellings, different economic and social backgrounds (although not ethnical) were mixed, while in the newer ones, there was a concentration of the poorest, disadvantaged target groups. Both sections remained rather separated (Harloe, 1995).

\textit{Increasing tenant participation in governance}

This period also saw an increased conception of participation of tenants in decision through housing associations. This became more and more institutionalized also by formal regulations (\( \rightarrow \) cf. 3.5 Rules, norms and policies) and is ongoing until today. Amongst the forerunners was Vienna again, were model projects were launched with tenants asked for their opinion in certain questions of the housing areas.

\textit{Housing style and service provision}

In this period, along with privatization and individualization, as well as the construction of dedicated units for different target groups, there were increasing inequalities between different countries and regions.

\textit{Demolition and urban renewal}

In this period, the increasing age and/or poorly designed buildings of the previously built social housing stock started to become a major problem. Also, the planning approaches that had been adopted before led to the development of peripheral areas that, with the increasing concentration of tenants in economic or social problem, started to become problematic “hard-to-let” areas (Harloe, 1995, p. 367). At the end of the 1990s, very run-down neighbourhoods (‘\textit{sensitive urban areas}’) led to urban renewal programs that featured demolition of big social housing estates (Lévy-Vroelant \textit{et al}., 2008).

\textit{Very social housing}

For the most marginalized groups, very social housing with low construction standards in term of amenities and finishes, temporary contracts, and access control by social workers emerged, e.g. in Paris or Vienna. Dwellings that usually take the form of ‘social residences’ or ‘social hostels’ are often in disadvantaged locations. Residents can live there for a limited time and must agree to engage in their own process of integration (Reinprecht and Lévy-Vroelant, 2008, p. 210).

\textsuperscript{50} According to the European Community (EC), the number of the poor rose from 38 million in 1975 to 50 million a decade later.

\textsuperscript{51} The cost of housing increased as a proportion of household budgets. In the Netherlands, housing costs as a percentage of total household expenditure rose by 30 per cent between 1975 and 1987, in Denmark it was 26 per cent. In France, West Germany and Denmark the rise was around 17-20 per cent, in the UK 11 per cent.

Concerning its particular actor constellation, Lévy-Vroelant and Reinprecht (2008, p. 215) hypothesise that very social housing is a contemporary renewal of the original 19th century core idea of social housing and that “the ‘very social’ system is combining, in a contemporary way, the traditional principles that were at the very origins of social housing: the alliance between private actors in the broader sense (including profit and non-profit sectors) and forms of public funding.

Standards
With tighter public budgets, in some areas already established standards were relieved again, such as in Britain were the Parker-Morris-Standards in municipal housing were reversed (Kähler 1999). In some contexts, however, the focus at least intentionally shifted from fast and cost-effective building to more quality-related parameters. In Germany, for instance, the narrative went to emphasise “Lebensqualität” (quality of life). This was accompanied by architectural and city planning conceptions expressing desires for liveable and loveable cities (Flagge, 1999, p. 861).

Services beyond
The provision of non-landlord services are playing an increasingly important role (Brandsen et al., 2011). Amongst the variety of measures linked to social housing, Lévy-Vroelant and Reinprecht (2008, p. 209) argue that ‘Housing is not enough’ given the increasingly unstable labour conditions, and that insertion (entry or re-entry to the labour market) has become a leitmotif.

Further readings
(Reinprecht and Lévy-Vroelant, 2008)
(Swenarton, 1981)
(Wassenberg, 2008)
(Wiener Wohnen, 2015)

Possible questions of analysis Part 3.2

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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<tbody>
<tr>
<td>WP 1</td>
<td>Which cognitive frames, networks and institutions did change during the course of the lifecycle of the SI?</td>
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<td>To what extent has the social innovation been incremental (with a focus on products or services that addressed identified market failures effectively), institutional (reconfiguring existing market structures to create social value), or disruptive (with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
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<tr>
<td>WP 3</td>
<td>How stable were the social innovation solution approaches? How dependent were the solution approaches to contingencies (individual characteristics of promoter/inventor, contextual circumstances)?</td>
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<td>WP 4</td>
<td>How did education/training contribute to the diffusion of the social innovation?</td>
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<td>Did the solution involve support in acquiring the relevant technological artefacts (TA)?</td>
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<td>Did the solution involve support in access to the relevant infrastructure (TI)?</td>
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<td>WP 5</td>
<td>Can the development of cognitive frames, networks and institutions be described as linear, cyclical, etc.? Are there path dependencies in SI?</td>
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<td>WP 6</td>
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3.8 Social impact measurement

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<td>Have there been any attempts to measure the impact of the social innovation (on the level of a specific intervention, a national level by public authorities, etc.)? Did these measurements influence the development of the social innovation?</td>
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<tr>
<th>Summary of key points</th>
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<tr>
<td>- Although social impact measurement for social housing has recently gained importance, steering measures of social housing based on data evidence was adopted quite early on.</td>
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<td>- The primary impact of the UK sector has recently consisted in impressive performance of service delivery, yet with significant performance variations among housing associations.</td>
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<td>- The most salient weakness identified was problematic accountability.</td>
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<tr>
<td>As elsewhere in the context of social innovation, social impact measurement is gaining importance also for social housing. Steering measures of social housing based on data evidence was adopted quite early on, with first examples given from before WWI. Statistics were deployed in the discussion of the social question to link bad housing to social and physical pathologies and to workplace conditions. E.g. in Vienna, in 1907 the central organization for housing reform in Austria is founded to statistically assess the housing situation and to suggest legal measures.</td>
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Today, there are numerous measurement initiatives undertaken, at least in the UK. Kendall (2003) refers to social housing to illustrate the impact of the voluntary sector in the UK. He concludes that it had derived considerable benefits from being a relatively “late starter” compared with other parts of Europe, as it has avoided problems encountered elsewhere with mass social housing and private renting; further advantages have been its status as a protected niche and a relatively generous funding regime between 1974 and 1988. The primary impact of the sector consisted in impressive performance on service delivery, yet with significant performance variations among housing associations. The most salient weakness identified was problematic accountability (Kendall, 2003; Murie and Walker, 2002). As impact has become increasingly important in the housing association sector, it has grown to exceed the market share of council housing and thus has inherited some of the more problematic housing stock. The efficiency agenda (Gershon, 2004) got housing associations more involved with four main activities, all of which had an effect on their impact: Annual efficiency statements; the operating cost index; investment partnering and limiting the number of directly funded associations; and grant for developers. These initiatives increased the emphasis on and evidence of efficiency savings amongst housing associations (Mullins, 2010). |

In the UK social housing sector there is both a recognised need for tools to appraise programmes and projects and also considerable interest in measures to assess whether intended social outcomes are actually being delivered. Tools such as social return on investment (SROI) that compare several of these dimensions are attractive in this context. Although the government has actively promoted them (Mullins, 2010), the caution expressed
by (Paton, 2003) should be noted that “although everything can be reported on and even measured the opportunity costs of doing so will often be so great that it is simply not worthwhile” (Paton, 2003, p. 7).

Case studies undertaken with eight large housing associations (Mullins, 2010) found there are a range of tools available to housing associations to prioritise investment, measure outputs and outcomes and link these to corporate goals. Differences in scale, focus and types of social investment activities undertaken in the sector meant that a wide range of different tools were used and there was relatively little standardisation or homogenisation.

### Further readings

(Paton, 2003)

(Murie and Walker, 2002)

### Possible questions of analysis 3.8

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### 3.9 Further obstacles and drivers of the diffusion of the SI

#### Questions

What further contextual factors can be identified that fostered or inhibited the diffusion of the SI over time (e. g., legal framework conditions, economic/political situation or crisis, dominant welfare regime, ecological situation, power structures, cognitive frames, religious constellations, demographic developments, etc.)?

What further factors can be identified on the level of the innovative agents that fostered or inhibited the diffusion (e. g., organisational capacity of the inventor, resources, resistance of employees, value set or skills of the leaders)?

Can different patterns of drivers and obstacles be identified, like for bottom-up vs. top-down adaptations of the innovations or related to different context conditions?

If the innovations were adapted across different regions or national borders, were there specific obstacles?

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<td>Which contexts did matter? In particular, which definition/level of context did matter? (e.g., geographical surrounding, political/economic situation at the macro or global level, belonging to professional groups, etc.)</td>
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<td>How do different influential factors in the diffusion process of SI interrelate?</td>
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## Overview development phases

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<td><strong>Problem situation</strong></td>
<td>Industrialization, mass impoverishment, social question</td>
<td>War destruction, dysfunctional housing and capital markets; wage imbalances, social tensions</td>
<td>Withdrawal of private investors; high unemployment rates</td>
<td>War destruction, scarce resources and labour force</td>
<td>Budget constraints/ withdrawal of public sectors; tensions and need for renewal in housing stock</td>
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<td><strong>Beneficiaries</strong></td>
<td>‘Respectable’ members of working class, ‘deserving poor’</td>
<td>cf. phase 1, also lower middle class</td>
<td>cf. phase 1/2, also more marginalized, partly racism in selection</td>
<td>Broad parts of society up to middle class</td>
<td>Focus on marginalized populations (elderly, single, disabled parent households, students etc.)</td>
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<tr>
<td><strong>Solution approach</strong></td>
<td>Small houses (Garden City), multi-storey tenements, quadruple houses; strong private control</td>
<td>Small houses (Garden City). multi-storey tenements, superblocks, systematic public control and living education</td>
<td>Multi-storey tenements, lowering standards, small houses and ruralisation under Nazi regime</td>
<td>Multi-storey tenements, often in suburbs</td>
<td>Demolition, urban renewals and relocations, very social housing; tenant participation in governance</td>
</tr>
<tr>
<td><strong>Actors and networks</strong></td>
<td>Mostly private providers, social reformers, weak political representation of lower working classes, first SH entities (committees etc.) founded</td>
<td>Increasing municipal provision, links between labour, capital and state through war, social tensions caused by wage imbalances, social reformers became part of institutionalization in sector</td>
<td>Increasing role of private actors in construction and provision, extreme forces on the rise, with inactive left parties</td>
<td>Strong public construction and support, broad coalitions in the presence of war damages, extreme forces pushed back, European Union enters the field</td>
<td>Withdrawal of public sector, increasing importance of non-profits also in urban renewal, missing “middle class” and domination of the “New Right”</td>
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<td><strong>Narratives and discourses</strong></td>
<td>Lack of understanding; liberal market belief, social hygiene, deserving vs. undeserving poor</td>
<td>Fear of social uprisings, temporary intervention, hope for return to ‘business as usual’ (pre-war state)</td>
<td>Residual approach to social housing, sector as a complement (for lower working classes) rather than a substitute</td>
<td>Functionalism, modernism, state intervention in housing market mostly accepted as permanent</td>
<td>Rise of neo-liberal paradigm, residualization, criticism of social housing sector to be ineffective/inefficient; stigmatization</td>
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<td><strong>Norms, rules and policies</strong></td>
<td>Initially absent or harmful regulation, sanitary reforms, market-conform support mechanisms (loans etc.)</td>
<td>Further loan programmes, tax deductions and subsidies, rent controls and compulsory billeting</td>
<td>Subsidy programmes, obligation of slum clearances, strict management schemes</td>
<td>Mass housing programmes (subsidies, (temporary) tax deductions etc.), rent controls etc.</td>
<td>Fostering home ownership, rent harmonization, subject related subsidies.</td>
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<tr>
<td><strong>Resources</strong></td>
<td>Philanthropic financial resources, human capital creation for financial viability (Hill), striving for political capital to participate in legislation</td>
<td>Increasingly public financial resources, social capital to get access for social housing, human capital creation through educational purposes</td>
<td>Tendency towards private financial resources, exclusion for lack of social or political capital</td>
<td>Large scale public financial resources; exclusion for lack of social or political capital</td>
<td>Withdrawal of public financial resources, emphasis on building human capital and knowledge, social capital through social cohesion</td>
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<td><strong>Technological developments</strong></td>
<td>Housing design to cover small scale family needs in an economic way</td>
<td>Functionalism and aestheticism, electrification (Neues Bauen, Amsterdam School)</td>
<td>Facilitation of cost-efficient production</td>
<td>Facilitation of fast and cost-effective building; standardization and modularization</td>
<td>Individualization in housing, ecological issues</td>
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PART 1) Social problem addressed

1.1 Field(s) of problem
This case study deals with the development of social housing in the city of Vienna from 1919 to the present, covering more than 100 years.

1.2 Targeted beneficiary group(s)
Social housing in Vienna serves as a case for exploring the development of a social innovation coping with severe shortage of housing and the precarious situation of homeless people and families.

Vienna’s social democratic local government after WWI created a local welfare state, whose aim was to promote better housing and living conditions as well as better health and education for working-class people. As Reinprecht (2007) points out, among the various programs developed in the Red Vienna period, the construction of municipal housing was the most ambitious and most prestigious undertaking. The Vienna municipality played a key role as both developer and owner. Social housing was built throughout the city and thus had a long-term anti-segregation effect.

1.3 Problem background

Housing in Vienna at the turn of the 19th century
Generally speaking, the construction sector enjoyed a veritable boom in Vienna during the second half of the 19th century. However, it was not spared collapse in some areas, in the wake of the severe economic crisis at the time of the 1873 World Exposition in Vienna. It is interesting to note in this context that housing construction and housing in general was a field entirely controlled by private enterprise. The German term ‘Gründerzeit’ - literally translated, it means ‘age of the founders’, also translated ‘Wilhelminian era’ - is an appropriate and eloquent description thereof. The tenant was very largely dependent on the private landlord. This resulted in major inadequacies and severe shortcomings. A typical feature of the period was the flat whose kitchen was directly entered from the corridor. It had neither a water tap of its own nor a bathroom or toilet. Running water had to be fetched from the communal tap in the corridor outside the flat, the so-called ‘Bassena’, from Italian ‘bacino’. The often exorbitant rents gave rise to another social phenomenon, that of the ‘Bettgeher’. The tenants of a flat sublet some beds for the night/day to people who were unable to afford a flat of their own.

This housing situation was particularly widespread in the suburbs, i.e. the districts that were incorporated in 1850. Quite a number of these houses have survived. We also see certain
patterns, with some districts having always been associated with the upper echelons of society. Mention should be made here, for instance, of the 4th district, Wieden, with its concentration of embassies or the 8th district, Josefstadt, with a more well-to-do segment of residents of notaries public, lawyers and senior civil servants. Outside the city, in the more rural suburbs, veritable high-quality residential neighbourhoods prevailed even as early as the second half of the 19th century.

*Urban Growth*

The urban area and the outskirts - they formed part of the province of Lower Austria at the time - converged more and more. Many of the problems were difficult or even impossible to solve for the communities on their own because their fiscal revenue was simply not enough. This situation was perceived as increasingly harmful. The result was another wave of incorporations, this time of communities south of the Danube, from 1890 to 1892. During the first decade of this century (1904), another community, Floridsdorf, became part of Vienna. It lay north of the Danube and had seen a terrific economic upswing, thanks to the machine manufacturing industries located there.

Population figures in Vienna had continued to rise rapidly, not only as a result of the incorporations, but also as a result of the massive influx into the capital of the Austro-Hungarian monarchy. We have on record the tallies of the regular censuses since 1869. In 1880, the city had had 726,000 inhabitants; by 1890 their number had grown to 1,365,000 - thanks to the incorporation of the suburbs. By 1910 the city reached the highest figure in its history, with 2,031,000. By comparison, London boasted 7.25 million by 1910, Paris 2.85 million and Berlin 2.07 million.

Already before 1918, during the Wilhelminian era, about 300,000 people were homeless. During those times, the living situation for the working class was one of the worst in Europe. Thus it is no surprise that many tenants were suffering from infectious diseases such as lung diseases, tuberculosis – also called the Vienna disease.

Already prior to 1914 the Vienna social-democrats demanded the construction of municipal housing but failed due to the resistance and dominance of the Christian-social municipal government. (Wiener Wohnen, 2015)

*Development of infrastructure*

The increase in population went hand in hand with mounting demands on the urban infrastructure which had to be met once again around the turn of the century after the construction of the metro railway system and of the Second Vienna Spring Water Main. Now the city government set about to operate the most important technical services and utilities itself, "deprivatising" many hitherto private enterprises. This was true in particular of the transport sector as well as the electricity and gas utilities. These programmes, which had been intended, among other things, as sources of municipal revenue, triggered a rapid increase of expenditures. Most of the budget was spent (in this order) on education, debt service, roads and streets, general administration, welfare and water supply. (Wiener Magistrat, 2015)

It should be noted that all these programmes also reflected the profound change that was taking place in terms of more participation in the political life of the country of more segments of the population. The late 19th century had seen a major extension of the right to vote in general - it had been "decoupled" from tax payments (1907: men's suffrage, 1919: women's suffrage) - as well as, at the same time, the emergence and rise of mass parties. These included in particular the Christian Socialist movement, which was the strongest party
until the end of the monarchy in 1918, and the Social Democrats, whose rise began with the end of the First World War. (Wiener Magistrat, 2015)

After WWI, the city of Vienna which used to be at the geopolitical centre of the Austrian-Hungarian Empire found itself at the periphery of the new Austrian republic. Many civil servants and high ranking military personnel who used to serve in the former Crown Lands (Kronländer) returned to Vienna as did many war veterans (Kernbauer and Weber, 1984, p. 6) (Zimmerl, 1998, p. 62). Vienna was cut off from its former agrarian and resource hinterland and had also lost its traditional sales markets, namely Bohemia, Marovia, Hungary and Galicia. As a consequence, the food supply situation became very severe and homelessness after 1919 increased. (Weber, 1981, pp. 593–595)

The settlement movement was born out of the suffering of the poor people. The disastrous housing shortage was to some extent attributable to the huge influx of people flocking to the imperial capital from all corners of the Habsburg Empire. However, it was also partly due to the fact that most housing was owned by private landlords who let their property with an eye to maximising their own profits. At the outbreak of the First World War in 1914 Vienna already had a population of two million, the poorer sections of which lived in appalling conditions: so-called bed lodgers who couldn’t even afford the rent for a room but merely had the use of a bed for a few hours a day. Or subtenants who had a tiny room to call their own – but in an overcrowded tenement flat with no running water, no toilet, no daylight and poor ventilation, where disease was rife and spread quickly. (Wiener Wohnen, 2015)

The need for new housing programess reoccurred after 1945. The end of WWII brought the end to the Nazi regime in Austria. 20% (some 87,000) of all housing units in Vienna were destroyed, and in Vienna alone 35,000 people were homeless.

In 1989, after the fall of the Iron Curtain, immigration from Eastern Europe increased, also in Vienna. At the same time, the number of single households and the demand for more space per person increased.

PART 2) Social innovation solution, development and impact

2.1 Antecedents and invention of the SI solution approach

Roots of community housing can be found in company-owned residencies, the Garden City Movement and the Kaiser-Franz-Joseph-Stiftung, a charity founded before 1919. A few essential steps and dates are listed below:

- **1883** The association of workers‘ dwellings is initiated in order to find solutions for housing shortage. Only 18 family homes are built.
- **1898** The Kaiser Franz Joseph I. Jubiläums-Stiftung for peoples‘ dwellings and and charitable organisations is founded as successor of the association of workers‘ dwellings
- **1904** The social-Christian municipality of Vienna opens the municipal charity home Lainz (Städtische Versorgungsheim Lainz)
- **1907** The central organization for housing reform in Austria is founded to assess the housing situation statistically and suggest legal measures
• 1910 A share of the housing tax is earmarked for a housing charity fund. This fund is the financial foundation for charitable housing. Up to 1918 some 8,000 dwellings are constructed.

• 1910/1911 For the first time discontent tenants and homeless people are organizing mass demonstrations against housing shortage and rent usury. The demonstrations are bloodily suppressed.

• 1912 The first workers’ home according to the design of Hubert Gessner opens. This type will be pioneering for the later superblock of the Red Vienna.

• since 1912 250 emergency dwellings are created to host homeless people.

• 1913 The housing policy committee that was founded 1910 is transferred into an independent unity for the city of Vienna to deal with social housing.

• 1913 The elections on the basis of curia suffrage make Jakob Reumann the first social-democratic mayor of Vienna (until 1923).

• 1917 Emperor’s decree to fight rent speculation on behalf of the war situation.

2.2 Phases of development of the SI

1 Settler’s movement - Grass-roots movement gains momentum in a political vacuum.

The settlement movement was born by the suffering of the poor people. The disastrous housing shortage before and after the first world war was to some extent attributable to the huge influx of people flocking to the imperial capital from all corners of the Habsburg Empire. However, it was also partly due to the fact that most housing was owned by private landlords who let their property with an eye to maximising their own profits. The tenant was very largely dependent on the private landlord. This resulted in major inadequacies and severe shortcomings. A proletarian family at that time was constantly on the move: from one shelter to another, almost without any rights of belonging.

At the outbreak of the First World War in 1914 Vienna already had a population of two million, the poorer sections of which lived in appalling conditions: so-called bed lodgers who couldn’t even afford the rent for a room but merely had the use of a bed for a few hours a day. Or subtenants who had a tiny room to call their own – but in an overcrowded tenement flat with no running water, no toilet, no daylight and poor ventilation, where disease was rife and spread quickly. (Wiener Wohnen, 2015) Those who had a shelter could consider themselves lucky because at that time, more than 300,000 people in Vienna were homeless.

2 Superblocks - Community housing during the Red Vienna period.

Among the cities implementing municipal housing in the inter-war period Vienna takes an outstanding position. The austro-marxism practiced at that time does not only comprise social housing and with it municipal schools, improvement of hygiene but an emancipatory undertaking including a cultural mass movement and a new lifestyle, a shared notion of “belonging” for the working class and for the marginalized (Reinprecht, 2012, p. 209). We have to bear in mind the context of this municipal housing innovation. This period marks a time of extreme political tension between the well-organized working class active in the
industrialized towns on the one hand and – mostly rural and national dominating – lower middle class on the other hand. The city of Vienna developed towards an austro-marxist local social state, based on a new type of tax policy and innovative social policies in the areas such as health, education and housing. This reformist policy was closely linked with the struggle for cultural and political hegemony. Compared to the first period covered here we have to point out that the austro-marxist city government acted rather paternalistic in many respects and overruled the autonomous settlers’ movement (Reinprecht, 2012, p. 209). The superblocks were designed to prepare for a new society. Housing was not defined as just giving shelter, but as a social practice and new form of culture, a contribution to the constitution and reproduction of the working class family, its collective resilliance and identity. This emerging social class was to be the antipode to the conservative-reactionary and catholic social policy and their idealisation of family, class and patriotic territorialism. (Pirhofer and Sieder, 1982, p. 326)

3 Stagnation - Disruption during the period of Austro-fascism and the Nazi regime

The austro-fascist regime that came to power in 1933 deprived the parliament of its power, inaugurated an authoritarian feudal state and dissolved the municipal constitution of Vienna, thus making the capital dependent on national legislation as was the status before 1923. Under the Nazi regime many gigantic constructions for Vienna with regard to infrastructure and also housing were planned. Most of them however were not realized. With regard to social housing only some 3,000 units were built during the whole period. The major housing programme that was established tried to create dwellings for unemployed people at the outskirts of the city which resembled more the settlements of the 1st period rather than the buildings of the 2nd period, the Red Vienna. Construction activity ceased in 1942 and the incapability of the Nazi regime to deals with the continuous housing shortage was compensated by the inhumane aryanation policy which was responsible for the deportation and killing of the Jewish inhabitants, thus making room for the migration movement caused by the war (Eigner et al., 1999, p. 16).

4 Reconstruction era and corporatist housing policies after WWII.

After World War II social housing and the superbloc of Vienna were confronted with a totally new situation. The framework conditions, especially the welfare state conditions, had changed dramatically. Instead of the austro-marxist Red Vienna the new model is based on a corporatist consensus, arranged and negotiated by the elite of the social partners. It is characterised by a national welfare state, legitimised by its stabilising and paternalistic function, guaranteeing social peace in the post-war era and improvement of the general living conditions. The welfare model also implied full employment, standardised labour relations and a patriarchic model of the nuclear family. Financially, it was based on an employment centered work society with social insurance and a subsidiary system of social benefits, complemented by social housing (among other community financed activities). (Reinprecht, 2012, p. 210)

While the outcome of the Red Vienna housing programmes contributed to the dignity and acknowledged citizenship of the proletariat, the reconstruction era served to institutionalise the right of the working class, turning them into centre-stage citizens. Policies in this era
targeted not only the proletariat but much more the middle class, securing its risky way towards social establishment. Included in this clientele are those with standard employment and their families and with Austrian citizenship. Others are not included. Immigrant groups entering the country (and city) in the mid-1960s are excluded until 2006, after a change imposed by a new EU directive (Reinprecht, 2012, p. 211).

5 From post-corporatist welfare state to neo-liberal economization

The reconstruction era was marked by a general increase of wealth and welfare. The collective economic and social rise was also accompanied by a catch-up modernisation. This development comes to slowdown in the late 1970s, due to the oil and economic crisis, the end of full employment, and progressing flexibilisation of production systems and life styles. At the same time we witness a socio-cultural and socio-political diversification. Traditional values such as the patriarchic nuclear type family are deteriorating. Social groups find new forms of identification, employment and private life undergo change toward more pluralisation, individualisation. This is reflected by changes in the Vienna municipal housing policies. Changes in the consecutive years are already ushering in the neo-liberal paths which culminate in the EU competitive law and the end of Vienna style municipal housing in the new millennium. Starting in 1981 tenant protection for newly built dwellings are softened. Furnishing and standards of several new housing blocks are lifted and reacting to individual needs rather than meeting standardized construction. The increase of single households on the one hand, patchwork families emerging on the other hand paired with increasing demands for more comfort and bigger spaces called for more flexible construction approaches. This also brings about higher rents. Thematic, innovative approaches and experiments are attempted, e.g. energy efficient houses. Private actors are brought into the process of competition for construction contractors, thus sharing the burden of financial and technical risks. (Reinprecht, 2012, p. 213) The share of better off middle class families decreased compared to the two prior decades and municipal housing was increasingly associated with marginalised citizens. Some observers even speak of “inner segmentation” as housing is more and more left to the private sector and the state had to retreat partially from this traditional field of corporatist politics. (Reinprecht, 2012, p. 214) All in all, in the post-corporatist era the institution of municipal housing was no longer to realise collective advancement; instead municipal housing policies is transformed into the management and refinement of housing management for a more and more diversified and fragmented social structure.

2.3 Streams of development of the SI

Geels and Schott introduced an analytical framework for multi-level perspectives on socio-technical transitions and environmental sustainability (2007). This approach can also be used for identifying streams of developments in social innovation. Geels and Schott distinguish three analytical levels:

- **Niches:** the locus for radical innovations
- **Socio-technical regimes:** describing regimes which are locked in and stabilised on several dimensions
- **Exogenous socio-technical landscapes:** these describe major societal transformations caused by socio-technical change of a longer period of time.

For our case study here we can say that these three levels almost occurred in a consecutive way. We first observe the niche characterized by housing created during the settler's
movement, marking the beginning of social housing at a time of political vacuum, when no top down solutions were ready to cope with the problem of massive housing shortage. The level of landscape marks the superblocks, the Community housing under the Red Vienna. In this phase, municipal housing is not only institutionalised but a cornerstone of a much bigger social movement, creating an ideology and a locus of ‘belonging’ for the proletariat and thus leading to the third level, the social transformation. At this time the achievements of the regime phase are widely acknowledged and from now on, the era is characterised by incremental rather than radical innovations, notably the reconstruction phase of community housing after World War II and the creation of new houses to cope with the migration flows and increasing demand, quantitative as well as qualitative.

2.4 Status quo of the SI

The last social housing units were built in 2004, already under the jurisdiction of cooperatives. Today, there is a different approach; on account of EU directives and competition laws, the city of Vienna does not invest directly into community building any more.

In Vienna the housing structure still differs from the rest of the country, which shows that the historical developments of the 1920s and even before have a long-lasting impact. Social housing in Vienna accounts for 48% of the dwellings, compared to only 25% in the rest of the country. In Vienna, the percentage of the publicly owned dwelling stock (mostly municipal ownership) is 26, while in the rest of Austria it is 10. (Reinprecht, 2007, p. 35)

In Austria as a whole privately rented dwellings are of a relatively high importance with 20% as of 2007. 55% of the housing is owner-occupied. Social housing accounts for 25%, of which 10% are publicly owned and the remaining 15% belong to non-for-profit or semi-public housing associations (*Genossenschaften*).

While the city of Vienna still leads the way in social housing, the prevailing trend of the sector has also affected its social housing policies. Since the 1950s there has been a significant withdrawal from publicly funded housing programmes. ‘Between the 1950s and the beginning of the 21st century state/municipal housing as a percentage of new housing construction fell from 35 to 1’. (Reinprecht, 2007, p. 35). The city of Vienna withdrew from the public engagement in new constructions due to financial pressures and a neo-liberal turn in the housing sector (in part due to the conservative-right-wing government at that time).

However, in his new election campaign the mayor of Vienna, Michael Häupl, announced the building of 10,000 new housing units after his re-election (in 2015). This is a new initiative to encounter ongoing speculation and rising rents. The new homes will be especially built for young people just starting an education or an employment.52

Two-thirds of Viennese citizens live in municipal or publicly subsidised housing, and eight out of ten flats built in the city today are financed by Vienna’s housing subsidy scheme. For many years now, Vienna has been recognised as an international pioneer in publicly subsidised housing construction, the policy of providing supply-side building subsidies allowing more new flats to be built than in other major cities. The city is even further ahead of the field when it comes to housing refurbishment: the City of Vienna subsidises the

52 http://rathausklub.spoe.at/sp-klubtagung-rust-wien-baut-wieder-gemeindewohnungen
modernisation of some 10,000 flats per annum, while in Munich the figure is only about 1,000. (Wiener Wohnen, 2015)

### A proud record

1900: Vienna has over 2 million inhabitants, 300,000 of whom have no home of their own.

1934: One in ten Viennese citizens lives in municipal housing.

2013: One in four Viennese citizens lives in municipal housing. (Wiener Wohnen, 2015)

Vienna’s first municipal housing complexes brought a quantum leap in living standards for their tenants. The upward trend continued uninterrupted from then on – though obviously not always in quite such a spectacular fashion. As the graph below shows, the average living area in square metres per capita expanded from 22 m² to 38 m² between 1961 and 2001. Nowadays the benchmark standard is 40 m² per capita, not least because the number of single-person households has mushroomed, shooting up from 22 to 48 per cent between 2000 and the present alone. In other words, we are witnessing decisive changes in the demographic structure which are driving demand for smaller and above all more affordable flats. Here too the City of Vienna has come up with a contemporary solution: SMART flats are compact, low-cost dwelling units with sliding part-in social housing, with some 6,500 dwelling units per annum built with public funding. It is a similar story with the multitude of climate and environmental protection measures the city implements as part of its municipal housing refurbishment programme. (Wiener Wohnen, 2015)

![Living area in Vienna](image)

Figure 7: Living area in Vienna (Source: City of Vienna - Wiener Wohnung, 2014, p. 11)
Figure 8: Property ownership (Source: City of Vienna - Wiener Wohnung, 2014, p. 13)

Figure 9: Standard of municipal dwellings (Source: City of Vienna - Wiener Wohnung, 2014, p. 13)

Figure 10: Vienna is growing (Source: City of Vienna - Wiener Wohnung, 2014, p. 13)
2.5 Impact of the SI

- During the first years of the young Austrian republic, between 1919 and 1923, the number of self-sufficient gardens and primitive shelters, as established during the beginning of the settler’s movement, was estimated at 60,000 (Novy, 1981b, p. 46; Novy and Förster, 1991, p. 26; Bauer, 1923, p. 171; Förster, 1980, p. 406). Between 1923 and 1927 almost 30,000 units were completed.
- Between September 1923, when the Vienna building programme began, and the end of 1933, a total of 58,667 dwellings had been built by the city. By the end of 1934, when the buildings begun before the Austro-fascist coup of February 1934 had been completed, this number increased to 61,175.

The total number of new dwellings built by the municipality of Red Vienna, including those constructed between 1919 and 1923, was 64,125. In addition to this new construction, the city had provided a further 2,145 dwellings in renovated or requisitioned old buildings. By the end of the Social Democrats’ tenure, the municipality owned and administered 66,270 of 613,436 total living quarters recorded in the census taken in the capital in 1934. This means that the Social Democrats had increased the housing resources in the city by 11%. By 1934, between one-tenth and on-eighth of the total population of Vienna was living in municipal dwellings built almost entirely by mean of the city’s annual income (Czeike, 1959, p. 53).
- 1951: 100,000 housing units have been constructed until 1923 with the support of the social housing programme.
- During the reconstruction and expansion period: 1956: 50,000 housing units completed since the end of WWII.
- 1969: 100,000 housing units completed since the end of WWII.
- 1981: 200,000 housing units completed.
During an incremental innovation period, especially in the 1990s: On account of the remodeling activities and new modern constructions the quality of living quarters in Vienna strongly improved. Just to give an example: while in 1984 39% of all social housing units were classified as ‘sub-standard’; in 2009 only 5% were in this lowest category.

Today: ‘Wiener Wohnen’ is the biggest housing management organisation in Europe.

PART 3) Influences and relevant context factors

3.1 Social problem

After WWI not only the political situation in Austria and especially in Vienna had totally changed but also the population, the food, and the housing situation. In the aftermath of WWI the former empire’s internal market had disappeared, which led to a continuously growing trade deficit. The loss of the large agrarian regions which used to belong to the empire and ensured the food supply was a difficult issue; on account of this loss food had to be imported. In order to reduce the dependence on imports, the government promoted a self-sustaining agricultural production, even with reference to people living in towns. (Bobeck and Lichtenberger, 1966, p. 126; Schaffhauser, 1993, p. 143; Zimmerl, 1998, p. 62)

After WWI, the city of Vienna which used to be at the geopolitical centre of the Austrian-Hungarian Empire found itself at the periphery of the new Austrian republic. Many civil servants and high ranking military personnel who used to serve in the former Crown Lands (Kronländer) returned to Vienna, just as many war veterans (Kernbauer and Weber, 1984, p. 11; Zimmerl, 1998, p. 62). Vienna was cut off from its former agrarian and resource hinterland and had also lost its traditional sales markets, namely Bohemia, Marovia, Hungary and Galicia. As a consequence, the food supply situation became very precarious (Weber, 1981, pp. 593–595).

The end of WWII brought the Nazi regime in Austria to an end. 20% of all housing units in Vienna were destroyed, i.e. some 87,000. In Vienna alone 35,000 people were homeless.

1989: After the fall of the Iron Curtain the immigration from Eastern Europe increased, also in Vienna. At the same time the number of single households and the demand for more space per person increased. Tenants wanted to have more comfortable housing.

3.2 Solution approach

Hunger and homelessness were two important factors influencing the upcoming social housing movement of the 1st period described in this case study. Another factor were the elections of May 1919 in Vienna, the first democratic municipal elections in accordance with the general, equal, direct, and secret voting rights. For the first time also women had the right to vote. In comparison to the rest of Austria, in Vienna the share of workers was especially high. The Social Democrats won the elections, which made Jakob Reumann the first social democratic mayor of the city and determined the course of some long-term changes in society that would reach far beyond Vienna. The municipal election was made possible through a constitutional change which had been discussed for more than 50 years. At the beginning of the 1920s Vienna as a city and municipal entity obtained a federal state status of its own and became independent from the federal state of Lower Austria. Some politicians also wanted to
reform the municipal boundaries, integrating some parts of Lower Austria into Vienna, in order to have agrarian land for the city’s food supply. This reform, however, was not implemented and thus the Vienna politicians had to think of alternative strategies to solve the severe food situation in the city.

In order to design new strategies, the political decision makers turned to the poor people’s settlement movement that was essentially a grassroots movement of illegal settlers in and around Vienna aiming at providing food and housing as a response to the lack of public provision. Although these movements were primarily initiated to ease the food shortage, the exponential shortage of housing after WWI changed their focus. The gardens aiming at self-sustainment became areas of cheap and often primitive shelter. During the first years of the young republic the number of such gardens and shelters was estimated at 60,000. (Novy, 1981b, p. 46; Novy and Förster, 1991, p. 26; Bauer, 1923, p. 171; Förster, 1980, p. 406)

These settlements were located mostly at the urban periphery where land was still available but not easy to reach.53 On account of illegal logging in parts of the Vienna Woods that bordered the city, new building ground became available for settlements.54 Within the city, former parade grounds were turned into small gardens and areas for shelter.55 (Förster, 1980, p. 90; Hoffmann, 1982). Later on, during the 1920s some settlements became legal, others were removed, and some had to wait until 1975 to become legal (Auböck, 1975, p. 112).

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53 Floridsdorf, Kagran, Stadlau, the later 10th, 11th, and 12th district.
54 Wolfersberg, Salzberg, Biberhaufen, Schwarzlackenau, Strebersdorf, Lainz, Bruckhaufen.
55 Schmelz, Prater.
Private and public housing building had stagnated during the war and after the war there was no investment because banks would refuse to loan money for housing projects. The settlement movement was born out of the suffering of the poor people and indirectly supported by the new laws on the eight-hour work day. (Hoffmann, 1987, p. 9) While many of the illegal settlements started out as shelters dug in the earth, tentative sheds made of garbage and wood
followed and finally the first regular houses emerg ed (Hoffmann, 1982, p. 200). While many of the illegal settlements started as shelters dug in the ground, provisional sheds made of garbage and wood followed and finally the first regular houses emerged. It is important to understand that the settlers’ movement was born out of sheer desperation and need, and not out of political ideology. However, the movement became stronger however as the settlers began to organise themselves into cooperatives (*Genossenschaften*) in order to build settlements together. In Vienna, some 50 cooperatives emerged representing more than 80 local groups (Kampffmeyer, 1926, p. 131). They soon created a central organisation (Zentralverband der Kleingärtnern und Siedlungsgenossenschaften Wien) with more than 70,000 members. This organisation was active at the federal level along with similar interest groups and represented the interests of more than 700,000 members. (Kampffmeyer, 1921, p. 84)

On 21 September 1923, a few weeks before general parliamentary elections, the Social Democrats announced the municipality’s plan to build 25,000 housing units over the next five years. Thus, the period of the superblocks started. Like the earlier programme (the settlements), this plan was linked to efforts to curb unemployment in Vienna. It was intended to provide jobs for thousands of construction workers, craftsmen, sculptors, and architects. The new housing programme, as it was announced, was to contribute significantly to the beautification of the city. The estimated budget for the building programme was 400 million crowns per year (approx. $5,700,000 in 1923), which was to be paid out of the housing construction tax.

By the end of 1924, a year of serious economic crisis in Austria during which the stock exchange collapsed and industry was affected by 380 successive strikes involving over 265,000 workers, the municipality nevertheless managed to complete the building of 2,478 dwellings. In 1925 additional 6,387 units were completed. In 1926 construction figures rose to 9,034, so that by the end of that year a total of 20,849 dwellings had been built since the inception of the five-year programme. Further 7,000 dwellings were under construction. Thus, in December 1926 the city decided to add another 5,000 units to its programme for 1927. By the end of that year almost 30,000 units had been completed and 6,000 more were under construction (Czeike, 1959, p. 53).

![Viktor-Adler-Hof](image)

*Viktor-Adler-Hof, one of the first superblocks in Vienna, Triester Straße 57-65, 11th district, built 1923 to 1924, 111 housing units, architect: Engelbert Mang*
Inspired by this dynamic, in May 1927 the Social Democrats announced a second five-year programme. Scheduled to begin in the following year, it involved the construction of additional 10,000 dwellings. This ambitious schedule, however, could not be met. Several incidents put a halt to the programme, e.g. political tensions, the failure of the Bank of Austria in 1928, and the world-wide economic depression. Nevertheless, between September 1923, when the Vienna building programme began, and the end of 1933, a total of 58,667 dwellings had been built by the city. By the end of 1934, when the buildings begun before the Austrofascist coup of February 1934 had been completed, the number of dwellings increased to 61,175 (Czeike, 1959, p. 53).
Thus, the total number of new dwellings built by the municipality of Red Vienna, including those constructed between 1919 and 1923, was 64,125. In addition to this new construction, the city had provided further 2,145 dwellings in renovated or requisitioned old buildings. By the end of the Social Democrats’ tenure the municipality owned and administered 66,270 of 613,436 total living quarters recorded in the census taken in the capital in 1934. This means

**Fuchsenfeldhof, Längenfeldgasse 68; 12th district; constructed between 1922 and 1925; 452 housing units; architects: Hermann Aichinger, Heinrich Schmid. This was also one of the first superblocks built by the Red Vienna. It is still home to several community institutions such as a launderette, a swimming bath, a kindergarten, a workshop for apprenticeship, and a library. Just as the famous Karl-Marx-Hof (see further below), the Fuchsenfeldhof was also a place of fierce fights during the civil war in 1934 and was subsequently occupied by the Austrofascists.**
that the Social Democrats had increased the housing resources in the city by 11%. By 1934 between one-tenth and one-eighth of the total population of Vienna lived in municipal dwellings built almost entirely of the city’s annual income (Czeike, 1959, p. 53).

The solution approach after WWII was a reconstruction period from 1945-1959. Typical for that phase are the duplex apartments which could be combined later, making one bigger apartment out of 2 small ones. When Franz Jonas, a son of a working class family, became mayor of Vienna in 1951 he promoted an approach of social urbanisation in the city. It was a programme consisting of 8 topics, aiming at, inter alia, separating living and working spaces, easing the situation in densely populated living quarters, and renewing certain areas which used to be dominated by small workshops. The standard furniture and facilities were improved, all newly constructed housing units had their own bathrooms, and the minimum size of the apartments was increased from 42 auf 55 square metres.
During the 1960s, after the phase of reconstruction had been completed, a period of urban expansion started. The municipality began developing new areas on the outskirts of the city. The plan was to ease the situation in the condensed metropolitan area and to raise the quality of life. The Großfeldsiedlung, the settlement in Stadlau (both in the 22nd district) and the Per-Albin-Hansson-Siedlung East (10th district) were built. The average number of newly constructed housing units was 9,000 per year.

The municipality responded to the developments after the fall of the Iron Curtain and the once more increased demand for affordable housing by subsidising up to 10,000 newly constructed housing units per year. New urban enlargement projects were developed at the boundaries of the city, e.g. Leberberg, Wienerberg, Langobardenstraße, Donau City, and Wohnpark Neue Donau. On account of the remodeling activities and new modern constructions, the quality of living quarters in Vienna strongly improved. Just to give an example, while in 1984 39% of all social housing units were classified as ‘sub-standard’, in 2009 only 5% were in that lowest category.

3.3 Actors and networks

During the 1st period of the settlers’ movement the municipal government was not prepared for this mass movement. Since there had been no public housing programmes for a long time and necessary reforms had been blocked by conservatives, there were neither policies in place to meet the housing needs nor a response to the situation by the settlers themselves. During the first republic cooperative housing began in Vienna (the number increased every year) (Förster, 1979, p. 119).
Settlers organized in cooperatives were dependent on the cooperation with the municipal government. Settlers organised in cooperatives depended on the cooperation with the municipal government. The city government was looking for a solution to the shortage in collective consumption in exchange for public support and provision of property for settlements. Legally, the principle of non-for-profit and common benefit housing was introduced in the cooperation between the municipality and the cooperatives. (Frei, 1991, p. 172; Novy and Förster, 1991, p. 90) This included the following agreements: The cooperatives were in charge of the organisation of the housing construction and infrastructure, which was usually done by the municipality. The technical and social infrastructure, including road construction and maintenance, street lights, waste collection, etc., was within the responsibility of the settlers. In the beginning the municipality had no financial means to provide such services.

Some commentators regard the weak government and missing state power as reasons for the fast spread of the illegal settlements and their continuous existence. The old monarchy had been abolished and Austria was falling apart as a nation and as an empire. Disillusioned soldiers were returning from the front and the supply situation in the cities was miserable. Political order could hardly be maintained, leaving a power vacuum for some time; thus, competing new centres of power emerged, giving more room than usual for action to individuals and interest groups (Stiefel, 1983, p. 105). Not only the state failed to solve the situation but also the market.

Eventually, the city of Vienna supported the settlements, for example by improving the infrastructure for transporting material and people to the construction sites, by providing water to the gardens in the summers through fire brigades, and by connecting remote locations with the municipal supply networks (Auböck, 1975, p. 113). In legal terms, many settlements were eventually converted into proper settlements and even financially supported through credits. (Förster, 1980, p. 68)

The Social Democrats in Vienna had made housing policy one of their priorities and regarded it as a socially and economically fundamental issue. The newly formulated right to housing let to big municipal housing programmes and thus to a major cultural leap in the working class. (Pirhofer, 1982, p. 230; Förster, 1980, p. 105). Tenant protection was a central requisite for public housing policies and was a major object of discord between the different parties during the entire inter-war period. In 1922 the new tenant protection law was passed in the parliament with the support of the Social Democrats (in opposition) and the ruling conservative party against the interest of the landlord organisation. At that time no other country made use of tenant protection as a means of social welfare and it changed especially the structure of housing in the city of Vienna with its 2 million inhabitants. The new tenant protection policy was a precondition for the extensive public housing programme and, likewise the building programme, made tenant protection a long-lasting institution.

The reconstruction after WWII was made possible by the election of Theodor Körner, a Social Democrat who became the first mayor of Vienna during the period of the second republic, starting in 1945. He established a commission of enquiry for the reconstruction of the capital and signaled a clear support for a new era of city planning and public housing. Vienna
suffered from a severe shortage of construction material, transport means, and skilled workers.

3.4 Narratives and discourses
Some politicians inaugurated by the social democratic mayor Jacob Reumann during the first period promoted the incorporation of the settlers’ movement into the social democratic movement. They were quite successful. Indeed, many of the settlers could be regarded as Social Democrats. They were labourers, railway workers, and some worked for the city of Vienna. The incorporation of the settlers into the social democratic movement has to be understood as a dynamic process. It was not static and there were also other options. The joint objective of the majority of the settlers sharing social democratic convictions was not only the creation of new spaces for living but also a **transformation of the social order**.

*Strong public support*

The first mass demonstration of the settlers took place on 26 September 1920, including representatives of all political convictions; some 50,000 participants were involved, demanding the expropriation of speculative property and a land reform. At the next mass demonstration on 3 April 1921 more than 80,000 settlers followed the call of the Hauptverband für Siedlungs- und Kleingartenwesen, which marks the hegemonisation on behalf of the social democrats, on the one hand, and the divide of the settlers’ movement, on the other. While in this way the Social Democrats overcame their resentments towards the petit-bourgeois settlers, the more conservative fraction of the settlers’ movement went their own way by representing mostly members from the federal states (Bundesländer) by associations. (Novy and Förster, 1991, p. 29; Novy, 1981b, p. 31). The third and biggest march took place on 12 March 1922 when settlers, tenants, and construction workers demonstrated for the continuation of the tenant protection laws and for measures against homelessness and unemployment through supporting the settlement movement. The demonstration counted some 100,000 participants (Frei, 1991, p. 136).

The three historic mass demonstrations between 1920 and 1922 had made clear that there was a strong support in society for social reforms so as to improve the housing situation and that there was sufficient political pressure to provoke reactions on the political side. As a result, the municipal and national policies started supporting the Vienna settlement movement; without this support the movement would not have been successful (Novy and Förster, 1991, p. 29).

The settlement movement of this first period, i.e. their related associations, used many occasions to provide the wider public with information on the movement’s demands and progress. These occasions were garden exhibitions, building fairs, etc. Technical innovations contributed to the progress of the settlement movement. During the 5th construction and settlement exhibition in Vienna in September 1923 the most important new house types (core houses) were presented by the architects Margarete Schütte-Lihotzky and George Karau in a 1:1 scale. Both architects worked for GESIBA (Gemeinwirtschaftliche Siedlungs- und Baustoffanstalt (public service of settlement and construction material). Several innovations in construction helped to turn the post-war primitive sheds into regular but still affordable houses (Novy and Förster, 1991, 37 ff.). (see below).

The involved architects and urban planners followed the creed that the focus of their design should not be on individual houses but rather on housing ensembles. Unifying ornaments and
clear lines were to emphasise this point of view. (Neurath, 1922, p. 34) The characteristic design of settlers’ houses as part of a cooperative dates back to the traditional British workers’ homes as they used to be built by many corporations and by the British garden city movement around 1900. (Novy and Förster, 1991, p. 87)

**Co-developments:**

Many of the city’s communal facilities – hospitals, counseling centres, libraries, playgrounds, kindergartens, youth centres, gymnasiuums, day-care facilities, laundries, carpentry shops, theatres, cinemas, post offices, cafes run by the city, cooperative stores, etc., and sometimes also the offices of various municipal departments – were located in the new housing blocks. Historians have pointed out that by incorporating workers’ dwellings in the party’s new social and cultural organisations the Gemeindebauten thus became the frame and focus for intense socialist activities. Thus, the housing as the locus of so many of the municipality’s communal organisations and facilities was the nexus of Red Vienna’s institutions and the spatial embodiment of its communitarian and pedagogic ideals.

**3.5 Rules, norms, and policies**

**Institutionalization**

The year 1921 marks the zenith of the settlement movement during this 1st period and its integration into the municipal administration and into a system of self-help and self-improvement. (Novy, 1981b, p. 36). The high degree of organisation of members in the Social Democratic Party and in the unions helped to organise self-sustaining groups for many spheres of life. Cooperatives spread at all levels and in all sectors, thus forming a large network with the aim to prevent private profit making, improve cost advantages for the community, form standards and typologies to make mass production more efficient and consumption affordable, and to finally achieve some independence from the private market. These efforts were supported by decisive measures on the political side. (Novy and Förster, 1991, 29, 53)

At the municipal level the city council decided already in 1920 to establish a general housing programme. The original idea eventually evolved into a master plan to turn 1,1215 ha into an area for settlements and 770 ha into allotment gardens. Several famous architects, including Peter Behrens, Josef Frank, Josef Hoffmann, Adolf Loos, and Oskar Strnad, were assigned the task to design the master plan in more detail with an appropriate combination of high and flat buildings.56 (Frei, 1991, p. 135; Neurath, 1922, p. 41; Novy and Förster, 1991, p. 46) All this is exemplary of the 1st period.

As mentioned above, the Social Democrats in Vienna had made housing policy one of their priorities and regarded it as a socially and economically fundamental issue. The newly formulated right to housing led to big municipal housing programmes and thus to a major cultural leap in the working class and is worth mentioning here again. (Pirhofer, 1982, p. 230; Förster, 1980, p. 105). Tenant protection was a central requisite for public housing policies. In 1922 the new tenant protection law was passed in the parliament with the support of the Social Democrats (in opposition) and the ruling conservative party against the interest of the

56 In the construction areas Heuberg, Lainz, Rosenhügel, Hoffingergasse, Laaerberg and Straßäcker Rukschcio and Schachel (1987, p. 286)
landlord organisation. The new tenant protection policy was a precondition for the extensive public housing programme and, likewise the building programme, made tenant protection a long-lasting institution.

In 1954 the municipality established the **Housing Construction Subsidy Acts**, a landmark in the reconstruction period. It can be considered a third pillar of the post-war corporatist state, next to consensual employment centered work society with social insurance and a subsidiary system of social benefits, which financed the Austrian welfare state. The new law intensified the communal housing activity with Fordist-style prefabricated parts, contributing to the industrialisation of construction work in general and specifically of municipal housing (Eigner *et al.*, 1999, p. 22; Reinprecht, 2012, p. 210).

The **Housing Construction Subsidy Acts** of 1968 also implemented at the national level, ensured funding for social housing on Bundesländer (federal states) level. This law integrated and harmonised the previous subsidy acts. It also contributed to the standardisation of the housing units, i.e. increasing the size from 45m$^2$ for the smallest unit to 56m, and from 70m$^2$ to 80m$^2$ for the bigger unit. (Brahams, 1987, p. 77) One year later, the Housing Improvement Acts (*Wohnungsvorverbesserungsgesetz*) was implemented at national level. It was the prerequisite for the refurbishing of the 1$^{\text{st}}$ and 2$^{\text{nd}}$ generation municipal housing. The Karl-Marx-Hof and the George-Washington-Hof, two of the early municipal housing complexes, underwent general refurbishment because the quality of the houses had gotten poor over the years. The amendment of this act, in 1974, made it possible for the tenants to make such a request. (Eigner *et al.*, 1999, p. 26)

In 1974, during the expansion period, a new law concerning the urban renewal was introduced, not the lease to prevent demolition speculations. The focus was on eliminating infrastructure damages. The district Ottakring established the first office for urban quarter management and urban renewal. (Eigner *et al.*, 1999, p. 26)

In 1981 a new tenant law was introduced and the new Vienna housing subsidy program established. Since the end of WWII, 200,000 housing units have been completed. Tenant participation was introduced; from then on tenants were asked for their opinion as to certain questions of the housing areas.

An additional reform of the tenant law was implemented in 1982 at municipal level allowed the municipality to demand some financial support for the maintenance of the buildings. (Eigner *et al.*, 1999, p. 26)

From 2004 on, all of Vienna’s subsidized housing was transferred to common housing cooperatives (EU directive), marking the beginning of the neo-liberal period.

### 3.6 Resources

In April 1921, during the 1st period, 12 days after the second mass demonstration of the settlers and their supporters, the ruling Christian democratic party in the Austrian government implemented a new fund supported by the votes of the Social Democrats in the parliament. The fund supported the settlements set up by the housing cooperatives. However, against prior intentions the majority of the finances was invested into bigger tenant houses. In the following years the social democratic municipal government of Vienna invested far more into settlements than the national government in all of Austria (Hoffmann, 1982, p. 143)

The institutionalisation of the settlement movement in Vienna’s municipality became obvious through the establishment of the Siedlungsamt (settlement office) and the Siedlungsfond.
(settlement fund). All administrative competencies relevant for the support of the settlements were concentrated in one public institution (Posch, 1981, p. 48). Hans Kampffmayer, an internationally renowned promoter of the garden city became director and Alfred Loos chief architect, later Kampffmayer’s successor. Some of the major pioneers of modernity were hired as architects, e.g. Tessenow and Josef Frank (Hoffmann, 1987, p. 17; Novy, 1981b, p. 31; Novy and Förster, 1991, p. 29). The settlement office pursued a holistic approach: It took care of social benefits for settlers, organized the property, supervision of construction, credit lending and counselling in construction matters. (Posch, 1981, p. 18; Kampffmeyer, 1926, p. 131).

Another landmark of the ongoing social transformation inspired by settlers’ movement was the foundation of GESIBA in September 1921 (cf. also 3.5 Rules, norms and policies above).

Role of the cooperatives

One noteworthy characteristic of the Vienna’s housing policy and a landmark of the 1st period was that the administration of the housing was transferred to the housing cooperatives. The cooperatives as communal property owners put an end to the private for-profit home ownership. A new law prevented property speculations, at least to some degree. Property owned by the municipality was transferred to the cooperatives at a minimum interest rate. In this way the cooperatives and the subsequent settlers or inhabitants did not have to invest money for buying land but just for the annual lease. If land was scarce the municipality expropriated land or negotiated a low price for the cooperatives. By the end of 1927 1,430,000m² of community land had been transferred to the cooperatives and the settlers. It was not possible for the cooperatives or inhabitants to sell the land; however, if an inhabitant died, the right to live there could be transferred to the heirs. (Novy and Förster, 1991, p. 114; Novy, 1981b, p. 29; Internationaler Verband für Wohnungswesen, 1932, p. 19)

Financing of community housing

The general regulation as to financing the community housing of the settlers during the 1st period was that 85% of the building costs had to be covered by a loan and the rest had to be financed by the settlers through working on the construction site (not of their own homes but on other construction sites). However, in fact the municipality waived the repayment. Together with the cost of the original property and the costs for the principal development and maintenance the community actually financed the cooperatives more or less 100% (Kampffmeyer, 1926, p. 132; Förster, 1979, p. 121).

Settlers as construction workers

One additional characteristic of the settlers’ movement was the settlers’ engagement in the construction work. As from 1921 the settlements were supported by the city of Vienna on condition that the settlers also made a considerable contribution by working on the respective construction sites. A resolution by the municipal council had made this clear (Kampffmeyer, 1926, p. 132). As mentioned above, 15% of the respective building project had to be financed by the settlers through working on the related construction site. All settlers were poor so that they could not finance housing by means of cash payment or by selling valuables. This provision stood in contrast to the practice prevailing in Vienna before 1918 and also the practice in many cities abroad, where the cooperatives demanded from the settlers a significant financial contribution for the membership and in return provided living space with low rents or leases. In Vienna the post-war solution was regarded as a much more just approach which made housing affordable, even for the unemployed. This approach was called
'muscle mortgage’. In fact, the overall majority of the houses were constructed by the settlers themselves and only a small part by professional building workers. The settlers also contributed to the infrastructure by digging ditches for sewage and electricity pipes; they also worked in quarries. 15% of the construction costs equaled 1,600 working hours. The working hour rate equaled that of an unskilled worker paid according to a collectively bargained standard payment agreement. Higher working hour rates were allocated to skilled labourers and lower ones to women and young adults. For reasons of efficiency and solidarity the settlers did not work on their own future houses. Only after the working hours had been completed the settlers were evaluated according to their neediness and entered a draw for the homes. (Brahams, 1987, p. 24; Kampffmeyer, 1926, p. 132; Förster, 1980, p. 123)
Central to the new housing policy of superblocks was its financial basis. The Social Democrats in the Vienna municipal council passed a new building tax in January 1923, which marked the beginning of the 2nd period, i.e. the building of superblocks. This was made possible through Vienna’s independence as a city with its own tax sovereignty and the absolute majority of the Social Democrats in the city council (Brahams, 1987, p. 34; Hautmann and Hautmann, 1980, p. 31; Förster, 1980, p. 103). Tenants did not pay a regular rent to landlords but a tax to the city and this money was invested into the construction of new public housing. Thus, the income was earmarked for the building of housing. The taxes were graduated in accordance with the size and location of the home and the financial abilities of the tenants. Poor people in small homes paid only little or no tax. It was a progressive mass and luxury taxation reflecting the creed of social justice, which implied that those who already had a home should help those who did not. In comparison to all other cities and countries the strong tax progression characterises Vienna’s housing policy. It was an essential contribution to solidarity in housing policy. (Förster, 1980, p. 104). The new housing taxation also had the psychological effect that building houses for people in need was a joint undertaking. (Bauböck, 1981, p. 130)

Between 1923 and 1926 the city could raise its income from 3.37 million schilling to 38.47 million schilling through the housing taxation and reached a stable level of 36 million schilling in 1931. Between 1924 and 1927 the city had a net income of 117 million schilling through the housing taxation alone and the total expenditure for housing construction increased to 372 million schilling, which was a record high. (Czeike, 1959, p. 403) Compared to the pre-war period, construction costs rose by 60% and interest rates had doubled. Without the new housing construction tax the landlords of the traditional tenant houses would have achieved enormous profits. However, since the private building of housing had become unprofitable, their income would not have been invested into new homes but in other sectors of economy (Novy and Förster, 1991, p. 54). Additional taxes used for the public housing sector, even though they were less important, were the property tax and the capital gains tax (Förster, 1980, p. 104). The gains from this tax reform were to be used as follows: 60% for
social housing (blocks), 30% for the settlers housing, and 10% for the remodeling of existing social housing. (Kampffmeyer, 1923, p. 33)

The tenant protection law had resulted in a radical land depreciation in Vienna, which enabled the city government to buy enough land within the city for their ambitious housing projects. (Danneberg, 1929, p. 63) By the end of 1924 the city had acquired 7,300,000 square metres of construction land; by 1930 the city already owned more than a quarter of Vienna’s land property. (Brahams, 1987, p. 35)

After WWII, in 1947, one of the first large social housing complexes, the Per-Albin-Hansson-complex (in the 10th district) was built marking the beginning of the reconstruction period. It was build out of gravel from houses destroyed during the war. The Swedish government financially supported the reconstruction of parts of Vienna, therefore the complex was named after the Swedish prime minister of that time.

Only two years later, in 1949, we witness the establishment of the first fund for housing reconstruction. Start was the ‘Hugo-Breitner-Hof’ (1,132 units). Several legal provisions for subsidizing municipal housing followed during the subsequent years (see also chapter 3.5 above):

- In 1954 the **Housing Construction Subsidy Acts** was established by the municipality.
- In 1968 the **Housing Construction Subsidy Acts** was also implemented at national level, the fund for financing social housing on Bundesländer (federal states) level.
- In 1969 the **Housing Improvement Acts** (Wohnungsverbesserungsgesetz) was implemented. cf. 3.5 Rules, norms and policies

Subsidies for social housing programs were reorganized with the Housing Construction Acts of 1968. From then on social housing had to be co-financed by means of private sources. The average construction of housing units decreased to 3,000 per year. On account of the decreasing population and the high numbers of housing units built over recent years, the quantitative demand was compensated. The public budget shifted to remodelling of housing and urban renewal.

In the last decades, during the period of incremental innovation, the responsibility for funding and housing promotion schemes was gradually transferred from central government to the federal provinces. This process was completed at the end of the 1980s and has led to a territorial fragmentation of social housing policy. Today, regional governments play a key role in the implementation of social housing policy, whereas local authorities have reduced their activities, particularly in terms of new construction. (Reinprecht, 2007, p. 36)

Further legal provisions regulating funding for municipal housing were introduced during the 1980s:

- **1981**: A new tenant law was introduced as well as the new Vienna housing subsidy program established. The tenant participation was introduced. Tenants were asked for their opinion as to certain questions of the housing areas.
- **1984**: Foundation of the **Bodenbereitstellungs- und Stadterneuerungsfonds der Stadt Wien (WBSF)** (Land provision and urban renewal fund of the city of Vienna). This was the precursor of the **Wohnfonds Wien (Housing fund Vienna)** and was in charge of the remodelling activities. 10,000 housing units were remodelled each year. The
remodelled units are now rented privately, including units in the famous Karl-Marx-Hof, Goethehof, Rabenhof and in the Sandleiten housing complex.

- **1989:** The Vienna Wohnbauförderungs- und Wohnhaussanierungsgesetz – WWFSG was implemented. The municipality also established the Mieterinnen- und Mietermitbestimmungsstatut (tenant co-determination statute).

One innovation that came along with the advancement of ICT was E-Procurement which made funding and allocating of housing units easier (cf. technological innovation below, chapter 3.7)

### 3.7 Social, organizational and technological innovation

*The settlers' movement period – organizational innovation for self-help and technological innovations for cutting construction costs*

An additional institutionalisation of the settlers’ movement during the 1st period emerged with the guilds that were founded for constructing settlements, apartments, and infrastructure. Some observers called this ‘guild socialism’, a combination of state socialism and syndicalism and an important basis for the corporatism that was established at that time. It was the expression of the attempt to put part of the economy under the control of the proletariat. The principle of local community government was transferred to parts of the economy (Novy, 1981b, p. 34; Novy and Förster, 1991, p. 89; Hoffmann, 1982, p. 145).
Subdivisions were responsible for the professional work on the construction sites where the settlers also worked themselves to reduce the costs, however, under the supervisions of professional building experts and workers (Förster, 1979, p. 122; Frei, 1991, p. 139). Other subdivisions designed and provided fitted built-in-furniture, which was produced in a standardised and thus efficient way. For this purpose the later famous architect Margarete Schütte-Lihotzky designed furniture and built-in kitchens to make the life of housewives easier. This architectural approach received much international attention (Frei, 1991, p. 139; Novy and Förster, 1991, p. 60).

In order to reduce costs of the settlements it was necessary to reform several provisions of the Vienna building regulation. For example, fire proof partition walls were eliminated from the regulation after the reform of 1920. Further, the minimum height of a story of the building was reduced to 2.6 metres; the minimum width of the stairs was reduced to 90 cm. It was permitted to use hollow masonry, wooden ceilings without filling, wooden stairs without flush-mounting and outdoor peat litter toilets (Förster, 1980, p. 124; Posch, 1981, p. 63).

Scarcity of material and the need to reduce costs led to the use of alternative construction materials such as clay bricks or slag masonry. They were produced by the settlers themselves. Most of the new settlements were not far from such production sites, which saved transport costs. One important innovation concerning substitute materials was the ‘pax brick’. It was a masonry brick made of cement, slag, sand, and water, and it was pressed by hand. Pax bricks were filled with clay. They served as a major construction material until 1923 when the economic situation improved and conventional bricks could be used (Baaser, 1960; Koch, 1987, p. 5; Novy and Förster, 1991, p. 155). This alternative and cheaper construction method was estimated to save up to 50% of the building costs (Cremer, 1992, p. 21).
Most settlement construction sites also included carpentry, locksmithery, tinsmithery, and glass workshops, where the building elements were produced in small series. Building a home was not understood as an individual effort or undertaking but as a standardised work to serve the masses where efficiency was needed. These workshops were community-owned; some became cooperatives. This form of cooperative working is interpreted as a milestone to present alternatives to the private market economy and for subsequent mass production at a larger scale. (Cremer, 1992, p. 21) The cheap production method can be considered as a technological innovation, although it had not necessarily been a result of technological progress but rather of scarcity and need.

One additional important innovation was Adolf Loos’ ‘house with one wall’. This idea was also born out of the necessity to build huge amounts of houses in an efficient and effective way using only scarce resources. The house with one wall also gave more flexibility to the constructors and the occupants of the housing. It was an invention to build row houses in a system with only one load-bearing wall. Several accompanying inventions helped not only to save building material but also labour force, because the houses could be constructed mainly by unskilled workers.⁵⁷ (Cremer, 1992, p. 37)

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⁵⁷ E.g. the Heuberg-Siedlung.
House with one wall, by Adolf Loos
The core house was another technical innovation of that time. The idea emerged in the early 1920s. With this type of innovation one part of the house was immediately habitable and was constructed with simple means and materials. Later on this type of core houses could be extended to complete settlement houses through further building measures and from the settlers’ own means. ( Förster, 1980, p. 68; Neumann, 1929, p. 23; Novy and Förster, 1991, p. 76). The first larger settlement of core houses was implemented by means of a credit of one million schilling which was granted by the city of Vienna to the GESIBA. 198 core houses were built in several locations of Vienna.  

Additional innovations concerned the interior design of the houses. In almost all big settlements of the 1920s, architects designed model furniture. The so called reform furniture consisted of lightweight and mobile pieces but also walk-in closets adjusted to the limited dimensions of the settlers’ homes. Adolf Loos, Margarete Schütte-Lihotzky, and Franz  

58 Landengasse in Simmering, Jedlesee and Jägermais in Floridsdorf, in Wolfsberg and the settlements Eden and Friedensstadt (Kernhausgasse).
Schuster became famous for their interior design. Margarete Schütte-Lihotzky developed the first prototype of the built-in kitchen, a precursor of the later famous Frankfurt kitchen which found international acclaim and distribution. For the bedrooms Adolf Loos designed closet walls that could be altered according to the users’ needs. For his type of core house Georg Karau designed furniture that could be combined in a system, similar to the American bookcases (Novy and Förster, 1991, p. 76).

Further innovations of that time occurred on the organisational level. The notion of the settlers that their joint undertaking can only work if they form a functioning community led to several initiatives and artefacts, for instance the community house (Genossenschaftshaus). Every larger settlement owned one of those houses; they were built by the settlers themselves or existing larger buildings were remodeled by the settlers. They were usually located at the centre of the settlement. These community houses included a Vereinszimmer (meeting room), administrative offices of the cooperative, a cooperative store, a library, and a restaurant or cafeteria (Novy and Förster, 1991, p. 92). The promoters of the settlers’ movement regarded the community houses as the heart and brains of the settlements; they were places of cultural activities which at times were also used for secondary education for adults, and for festivities. This was interpreted as the expression of genuine community life. (Max Ermers in the ‘Festschrift der Siedlung auf dem Rosenhügel’, as cited in Novy, 1981a, p. 134).

**Incremental innovation from the reconstruction period onwards**

From the reconstruction period onward we witness several technical innovations which are however less radical in nature and can be classified as more incremental. New technological advances in the post WWII area until today found their expression also in the modernization or modern design of social housing projects in Vienna. In fact, the secure financing gave new housing ideas room for experimentation and to take up innovations in the private housing sector as well:

- During the reconstruction period, around 1950, need for housing increased further. A fast construction program is initiated for some 55,000 people. This program made possible the construction of several thousand small duplex apartments which could be combined to bigger apartments later on (one of them in Siemensstraße).
- In 1962 the first prefabricated elements made of concrete are produced for the Vienna social housing programme. During that time a database of social housing applicants is established, including a statistical analysis.
- The first housing complex heated with solar energy was completed in a complex at Johann-Gottek-Gasse in 1982.
- In 1993 the first low energy housing were subsidized by the municipality, 22nd district, Am Hirschfeld
- 1998: The ‘electronic file’ for the allocation of housing units is introduced.
- In 2001 E-Procurement is introduced, as well as cash pooling and electronic banking. Wiener Wohnen launches its first Internet site. Visitors of this site can deposit their request for a social housing unit.
- From 2004 on innovations in construction boosted low energy and passive buildings (‘Neuen Siedlerbewegung’, Orasteig/Brünner Straße).

Especially the pre-fabrication of construction parts strongly increased the construction capacity. For this purpose company ‘Montagebau Wien’ was founded. This also helped to decrease construction costs. Between 1961 and 1970 4,500 housing units could be built.
annually. New neighborhoods were created with the new type of construction. Some 20,000 housing units could be built with pre-fabricated parts until 1984. The use of pre-fabricated parts symbolizes the mindset of rationalisation by standardized large-lot production of that time. The ground plan for the new housing units were designed to be most efficient, e.g. with short distances between bedroom, bath and kitchen. An additional technical innovation that made the establishment of these new neighbourhoods efficient was the district heating system. The housed could be heated from one central power plant. (Eigner et al., 1999, p. 20)

A couple of social innovations accompanied the settlers’ movement of the 1st period: Kindergarten, playgrounds, sports activities, day care, youth clubs, theater and music groups etc. emerged, financially supported by the settlers, sometimes with additional support from the city of Vienna. In some cases the social-democratic party had its own sections in the settlements. (Novy and Förster, 1991, p. 90)

On the economic side we witness innovations as well. Due to high unemployment settlers were depending on collective self-sustainability. They set up their own workshops, nurseries, provisions for health care etc. in a collective/cooperative manner to generate economies of scale, work more efficiently and thus cut prices. The entire food supply and retail was organized through the cooperative (Konsumgenossenschaft) that ran the stores in the settlements. (Novy and Förster, 1991, p. 90; Kampffmeyer, 1926, p. 135)

The settlements were run and administered by their own members, at times experts for bookkeeping were consulted and they worked at voluntary basis. Conflicts within a settlement were usually solved by “Siedlungsschiedsstellen” (ombudsman) if the cases were not of greater dimension. (Novy and Förster, 1991, 56, 91)

All settlements developed intense passion for breeding and herding small animals and for gardening. The German pioneer and garden ecologist Leberecht Migge had a big influence on such developments.

During the Red Vienna period the Vienna type of social housing was developed, as already mentioned, and symbolises especially the first generation of housing complexes, those that were built from 1923 to 1926. The simple design of the floor plan foresaw an apartment with a kitchen as the main room and adjunct to this a bedroom for all members of the families (which usually consisted of 5 to 6 people). In most apartments a small entrance space was also designed, leading to a separate room with a water closet and another room for a scullery. This first generation came to an end by 1926 when delegates of the International Town Planning and Housing Congress took tours to the achievements of the Red Vienna. This first generation came to an end by 1926 when delegates of the International Town Planning and Housing Congress took tours to the achievements of the Red Vienna, organised by the city administration. The visitors marked that the new apartments were too small. City officials responded immediately, announcing that in the new building programme for 1927, four new apartment types would replace the old 38 and 48m² units. The 38 m² units had only a niche for the kitchen whereas in the bigger unit the kitchen was a separate room opening up to the bedroom.

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59 In Kagran and at Erzherzog-Karl-Straße.
In addition the installation of gas pipes and stoves, and portable showers in the kitchens were planned. This was only made possible by the technological progress in the energy and infrastructure sector and had also consequences for the floor plan of the new type of apartment (also called Western type because it was close to the standard types of apartments in western countries, at least in terms of size) (Blau and Platzer, 1999, p. 198). It had also more than just kitchen and bedroom, which is additional to the kitchen, also a living room and a bedroom, at times, two bedrooms. In the new plans, the Wohnküche, central space of the proletarian dwelling, was eliminated and replaced by a ‘working kitchen’ (Arbeitsküche) and separate self-containing living room. The cooking niche or scullery also disappeared, so that the linked Spülküche, wash area, and toilet that had been a feature of many of the early apartments was eliminated. In the new floor plans, the toilets all opened off the small entrance hall.
Floor plan for the 1st generation of social housing apartments for the superblocks of the Red Vienna era; this one was designed by Anton Brenner for the complex at Rauchfangkehrergasse, 1924. Source: Ottillinger, 2015, p. 53

To understand the floor plan design of the 1st and 2nd generation housing units in the Red Vienna superblocks we have to look back to the ‘Gründerzeit’ era. The working-class dwelling before the period of the Red Vienna and even the period before the settlements had been little more than a corridor (Gangküchenhaus), divided by walls into rooms. In the usual Viennese tenement apartment, consisting of a kitchen and one room, the kitchen was the room in which the family actually spent time. The other room was reserved for sleeping and representation. (Blau, 1999, p. 200) As mentioned before, there was no direct light, thus the opening up the Vienna type apartment and its Western sibling either toward the street or toward a light and spacious yard with trees and fresh air, not only marks an important innovation but also an elevation of the proletariat at that time.

As in the Gangküchenhaus, in the Vienna type house and in the western modernised version of it one entered a room by going through another room or several other rooms, except for kitchen and toilet (the typical entry sequence of the first apartment type advances from threshold to small entrance hall, to Wohnküche, to bedroom, to Kabinett (if any)). Thus, instead of being channelled by means of a corridor, traffic within the apartment is filtered through spaces that are as flexible, multipurpose, and multidirectional as possible. The traditional Wohnküche used to be a place for cooking, eating, and attending household chores; but it was also a place for study, play and leisure activities. (Blau, 1999, p. 200, 2012, p. 182)

This design of the movement from room to room resembled the bourgeois Ringstraßen palais architecture and similar well-to-do family homes of the 19th century which in turn idealised the design of the emperor’s palace. The westernised version of the Vienna type apartment was considered an embourgeoisement of proletarian living spaces – causing a lot of reason for discussion of proletarian identity.
Remarkable in this context is the changing role of the kitchen: Formerly the central space of the family, now the realm of the housewife. This change was made possible by the innovation of the already mentioned Frankfurt kitchen, designed by the Vienna architect Margarete Schütte-Lihotzky (and others, working under the direction of Ernst May, housing administrator in Frankfurt). The Frankfurt design team created a new designation for the kitchen: the traditional Wohnküche, in which wood or coal-burning stoves functioned as both cooker and living room hearth, was an anachronism since stoves at Frankfurt – and later also in Vienna – were gas fired and could be turned off when not in use for cooking. The double use therefore no longer represented a fuel economy. Since the Frankfurt apartments were centrally heated, there was no need for the kitchen to open to the bedroom or living room. According to this notion, the most efficient use of space was to separate the cooking area from the living area, to make the kitchen and living room into discrete though interconnected spaces, divided by a sliding door. The new kitchen developed by Schütte-Lihotzky in 1926 was a ‘working kitchen’ for meal preparation and related tasks, but not for eating or other domestic or recreational purposes. In the development of the new kitchen design, Schütte-Lihotzky had in fact employed Taylorist methods of time-motion studies, calculating the distances between sink, stove, dining table, and so on (Blau, 1999, p. 198; Ottillinger, 2015, 52, 56, 57).

The re-design of the apartments and especially the kitchen did not occur without heated discussion among Vienna city officials and architects, arguing pros and cons of dismantling the working-class home.

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During the period of reconstruction big social housing complexes are constructed such as Wohnpark Alt-Erlaa and Am Schöpfwerk (1975). They represent the new reform projects on the level of municipal social housing. Satellite towns emerged at the periphery of the city where land was still affordable for the municipality. According to the mind set of that time, living was separated from working. Leisure was separated from education, industrial centers were separated from consumption etc. Eventhough this kind of urban planning was heavily contested it went on for a while and changed the orientation of the community policy. The special separations of different spheres of life caused more and more traffic. Thus the municipality put more emphasis on modernising the infrastructure such as roads, public transportation, energy and water grids, sewage and less the planning of the municipal housing. (Eigner et al., 1999, p. 21)

Era of remodelling of housing and urban renewal – innovation in administration and tenant participation

The 1970s represent the era of remodeling of housing and urban renewal and were thus a fruitful ground for incremental innovations in various fields, including administration and tenant participation. Between 1972 and 1973, for instance, the beginning of the automated rent calculation and rent collection can be observed (Mietzinsverrechnung und automatisierter Mieteinzug).

1974: A new law concerning the urban renewal was introduced as already mentioned in chapter 3.5 Rules, norms and policies. The focus was on eliminating infrastructure damages.

Two years later the first municipal housing consultancy is started in the 1st district, Dobloffgasse. During the same time the project ‘Dachterrasse 16., Habergasse’ starts the first effort of tenant participation.

Also mentioned before was the new tenant law which the municipality passed as well as the new Vienna housing subsidy programme. The first version of tenant participation was introduced. Tenants are now asked for their opinion in certain questions of the housing areas.

A landmark is constructed in the three subsequent years: the Hundertwasser-Krawinahaus, one of the best known social housing, located in the 3rd district, Kegelgasse, containing 52
units and 4 shops and a total of 250 trees and bushes. The Hundertwasser House is one of Vienna's most visited buildings and has become part of Austria's cultural heritage.

The Hundertwasserhaus is an apartment house built after the idea and concept of Austrian artist Friedensreich Hundertwasser with architect Joseph Krawina as a co-author. Friedensreich Hundertwasser started out as a painter. Since the early 1950s, however, he increasingly became focused on architecture, advocating natural forms of decay. He advocated the ideas on forested roofs, "tree tenants" and the "window right" of every tenant to embellish the facade around his windows. Hundertwasser also developed new architectural shapes, such as the "eye-slit" house and the "high-rise meadow house". In lectures at academies and before architectural associations, Hundertwasser elucidated his concerns regarding an architecture in harmony with nature and man.

In a letter dated November 30, 1977 to the mayor of Vienna, Leopold Gratz, the federal chancellor at the time, Bruno Kreisky, suggested that Hundertwasser be given the opportunity to realize his ideas in the field of architecture by allowing him to build a housing project, whereupon Leopold Gratz, in a letter of December 15, 1977, invited Hundertwasser to create an apartment building according to his own ideas. The search for a suitable building plot took several years. Because Hundertwasser was not an architect he asked the City of Vienna to provide a professional architect willing to transpose his concepts into architectural drawings. To this end, architect Josef Krawina was invited to join the artist and to help him to put his ideas into practice. (Hundertwasser et al., 1985, 160, 161)

The city government introduces the Vienna Wohnbauförderungs- und Wohnhaussanierungsgesetz – WWFSG in 1989. The municipality also installs the Mieterinnen- und Mietermitbestimmungsstatut (tenant participation statute).
The tenant participation statute, which later was to be expanded in 2000 and again in 2015, is the democratically elected representation of the municipal housing for each complex vis à vis the management of *Wiener Wohnen*. It is supposed to equally represent the interests of the different groups of tenants (age, gender, ethnicity, etc.). Among other issues, the council can determine how the green areas of the complex are to be designed and how to invest a limited budget for the building. It can also speak for the tenants if certain maintenance actions have to be taken by *Wiener Wohnen*. (Wiener Wohnen, 2015)

*Since the 1990s: Extension of the subsidized housing units*

The municipality intends to improve housing through (incremental) innovation. Modern (thematic) approaches emerge such as women’s craft shop, auto-free quarter, inter-ethnic living quarter (Liesing), redefinition and modification of historic industrial complexes such as Gasometer in the 11th district.

*Wohnservice Wien* (residential service Vienna) is established in 2000. It is the central division for construction, management and allocation of subsidized new housing. In alignment with § 71 of the *Wiener Stadtverfassung* (Vienna municipal constitution) this division is managed as an enterprise. The *Mieterinnen- und Mietermitbestimmungsstatut* (tenant participation statute) is revised. It was once more revised just recently at the beginning of 2015 as a result of intense negotiations of experts and representatives of the tenant council. It comprises several possibilities of all tenants and is supposed to support the exchange among the different generations living in a municipal housing complex. What is new since 2015 is the active participation of adolescent tenants and the possibility to participate in a wide variety of matters not only for legal tenants but for all who live in the housing complex. A newly elected tenant council is holding this voluntary office for four years before new elections take place. The revised tenant participation statute invites all tenants to actively take part in shaping everyday live in a municipal housing complex and to elect representatives. The council of representatives is supposed to communicate regularly with all tenants and organizes open meetings regularly and can make major decisions concerning the housing complex. The major idea of the participation is to create a climate of good neighborhood. (Wiener Wohnen, 2015)

*Social housing for the 21st century:* Korbergasse 4-6, 12th district, built between 2000 and 2001, 17 living units, architect Miroslaw Zawila. It includes a social care living quarter.
In 2009 the common enterprises \textit{Stadt Wien – Wiener Wohnen Außenbetreuungs GmbH} and \textit{Stadt Wien – Wiener Wohnen Hausbetreuungs GmbH} are merged and the new entity is named \textit{Wiener Wohnen Haus- & Außenbetreuung GmbH}.

Since 2010 several competitions for construction contractors take place: for developing Gerasdorfer Straße under the motto "living safe and secure"; Nordbahnhof; and Mautner Markhof Gründe. The two latter ones have to develop new ideas under the motto "living with cultural diversity". Seestadt Aspern is intended to do the first move towards a climate neutral living quarter. What is more, Eurogate, is supposed be become Europe’s biggest living quarter constructed of passive houses on the grounds of the former Aspanger Bahnhof. Several reorganisations in the management of the housing units take place, among them a welcome service for new tenants. In addition, Wiener Wohnen starts the dezentralized approach „Wiener Wohnen vor Ort“ to complement its general client services and is now located directly in several community buildings.

Several organizational innovations of incremental quality accompanied the technical and social innovation of the expansion era and the subsequent era of incremental innovation and neo-liberal reforms:

1995: Introduction of \textit{Bauträgerwettbewerbe} (competition for construction contractors) and \textit{Grundstücksbeirat} (land advisory board). Their task is to evaluate all housing projects according to planning-related, ecologic and economic criteria. The competition for construction contractors also marks the softening of the corporatist welfare state, when private industry was introduced into the process not the least to share the burden of financial and technical risks. (Reinprecht, 2012, p. 213) In 2009 social sustainability is introduced as the 4th criteria in the evaluation of construction contractors’, putting emphasis of affordable, suitable for everyday use and promoting community-friendly living quarters. These criteria are first applied in the competition for the Sonnwendviertel.

- 1997: Several municipal administrative departments are merged, and in accordance with §72 Wiener Stadtverfassung (municipal constitution) the division ‘Magistratsabteilung 17 – Wiener Wohnen’ is created, i.e. the managing authority for social housing in Vienna.
- 2011: \textit{Wiener Wohnen} adopts a new credo: Clear targets based on a new vision are supposed to turn \textit{Wiener Wohnen}, which is located at a central location into a modern service enterprise in order to effectively and efficiently serve its clients’ needs.

3.9 Further obstacles to and drivers of the dissemination of the SI

Several developments were responsible for the fact that the settlers’ movement ceased to be the focus of interest and that the subsequent movement of the Red Vienna received more attention. Some external factors were the increased inflation which considerably decreased the need for capital investments in the building of housing. In 1922 the victorious allies concluded an agreement on monetary stabilisation, which in Austria led to a shortage of public investment. The ruling conservative party withdrew from public financing of housing and mainly favoured private investments. The Social Democrats had profited from incorporating the settlers’ movement but the movement itself had lost its dynamism over the
years and was not capable of fighting the financial odds by means of sheer self-initiative. Actually, the settlers’ movement lost the characteristics of a movement and became more and more part of the municipal housing policy (Hoffmann, 1982, p. 140; Kernbauer and Weber, 1984, p. 11; Frei, 1991, p. 136)

February 1934: The ban on all political parties except for the Christian Social Patriotic Front (christlich soziale Vaterländische Front) leads to a civil war, during which many of the social housing superblocks are damaged. Vienna loses its federal independence and is ruled by the Austrofascist regime. The social housing programme is put on hold. The only exceptions are the settlements for supplementary income (‘Nebenerwerbsiedlungen’) which were intended to ease the situation of an increasing number of homeless and unemployed people.
After the annexation (‘Anschluss’) of Austria to the Third Reich in March 1938 thousands of Jewish tenants and settlers (and also some of the brains of the social housing program like Hugo Breitner) were deported and killed. The Nazi regime is lifting the tenant protection and expels Jewish inhabitants from more than 70,000 homes. Even though the rime announced at the beginning that 60,000 new homes are to be built in Vienna, in fact only 300 per year are constructed.

As of 2000, when a new right-wing government took office, the housing debate has been influenced by pro-market and pro-privatisation arguments. There was a strong political push towards a privatisation of publicly owned dwellings. This policy mainly aimed at state owned flats; Vienna’s municipal housing was not a target. Funding for social housing began to be channeled not only through housing associations but also through private builders and real estate investors; at the same time the municipalities’ role was becoming less important, as they withdrew from new construction projects. Public-private partnership has become important, particularly in Vienna. (Reinprecht, 2007, p. 37)
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This description of (financing) social housing during the Amsterdam School Period (1910-1930) will start with the societal developments in the second half of the 19th century in the Netherlands; then the importance of the Housing Act of 1901 and the Amsterdam School will be explained and finally a summary of the different funding forms will be presented.

Background

In the second half of the 19th century housing was not within the responsibility of the Dutch government and local municipalities only provided minimal housing support in cases where public health was at risk; this means that housing was the responsibility of individual citizens. Because of industrialisation, economic development, and agricultural crises an increasing number of people moved to the cities, e.g. the population of Amsterdam increased from 243,304 in 1859 to 515,727 in 1900 (Acker et al., 2008, p. 6).

In Amsterdam, until 1874 all new building had to be established within the city walls and only little (or no) attention was given to sewerage, paving, and lighting. According to a report of the health commission of Amsterdam there were 4,984 basement dwellings (kelderwoningen), of which 3,650 should have been immediately declared uninhabitable. In 1,000 of these dwellings it was even impossible for an adult to stand upright. In 1893 inspectors found almost the same situation (Acker et al., 2008, p. 6).

The Establishment Act (Vestigingswet) of 1874 allowed the citizens of Amsterdam to build outside the city walls. On account of an expanding population and a lack of houses, investments were made in hovels and these investments were often very profitable. In the late 19th century the housing and living conditions deteriorated and diseases like typhus and cholera spread. Gradually the bourgeoisie realised how bad these living conditions in the cities were and started to invest in better and healthier housing for industry workers by means of private organisations and associations. The financial aim of these investments was to break even. The first housing association was founded in 1852, Vereeniging ten behoeve der Arbeidersklasse te Amsterdam (Association for the benefit of the Working Class in Amsterdam). Between 1852 and 1901 fourteen housing associations were established (Acker et al., 2008, p. 7). Although they built only 4,000 houses, their contribution to social housing was considerable. Architects and constructors gained knowledge and experience from developing housing blocks; these pioneers set new norms for both the construction and management of affordable housing (Acker et al., 2008, p. 7).

Housing Act of 1901

The basis of the Housing Act of 1901 is a report titled Het vraagstuk der volkshuisvesting and written by the Society for Public Welfare (Maatschappij tot Nut van ’t Algemeen; see for its importance also the comprehensive case study on financing generalised access to education). In 1899 three ministers proposed a Healthcare Act and a Housing Act which were based on the ideas presented in this report; both Acts were ratified in 1901. The Housing Act was a response to the precarious housing situation and put an end to the unclear and fragmented
legislation of that time. From then on it was legally established in the Netherlands that housing is a national responsibility.

The Housing Act addressed the quality as well as the quantity of proper (social) housing. The national government determined housing policies, the requirements that buildings, houses, and other public spaces had to meet, and set aside financial resources for the development of social housing. Local municipalities were responsible for the implementation of the building regulations and for the supervision of construction works (Acker et al., 2008, p. 7). From then on it was only allowed to build with permission of the local municipalities. The municipalities thereby received the right to oblige homeowners to improve the housing conditions; homeowners could even be expropriated and houses declared uninhabitable and demolished (Acker et al., 2008, p. 8). On the other hand, the municipality had the obligation to make plans for the expansion of the city, including plans for roads, canals, squares, and sewerage.

The Act also organised the establishment of housing associations (woningbouwcoöperaties) and allowed the government to grant advances and subsidies to these private organisations so that they could build housing that met certain quality standards for the common good. These private organisations could only apply for funds if they worked in the interest of public housing (volkshuisvesting; affordable housing) and operated on a not-for-profit basis. It was even possible for the housing associations to receive a loan without having own capital. Thereby, the Dutch government promised to support housing associations in case of operating deficits.

Amsterdam School Period

Around 1910 the Amsterdam School (Amsterdamse School) of architecture evolved in the Netherlands. During the two following decades the style of the Amsterdam School was mainly applied in the building of social housing, schools, and other utilities. One of the most prominent examples of social housing is Het Schip, a complex of houses for industry workers (arbeiderswoningen) in the Spaarndammerbuurt, a quarter of Amsterdam; this complex was designed by the architect Michel de Klerk (1884-1923) and built by the housing association Eigen Haard. Not only de Klerk but also other well-known architects and planners such as Hendrik Petrus Berlage (1856-1934) and Piet Kramer (1881-1961) were imbued by socialist ideas and embraced social housing in their work. They cooperated with the housing associations to receive funding for their aesthetically artful buildings.

One of the many social housing associations founded in this period is Eigen Haard; it was founded in 1909 as an idealistic housing association. In the first decade after its foundation Eigen Haard was able to execute large building projects because the city council of Amsterdam gave advancements and guaranteed its payments. The day-to-day management was in the hands of the board and there was a general annual meeting for its members. In 1914 residents’ committees were implemented to improve the management of the associations and increase the influence of its members. In the first years residents paid relatively low rents but in 1920 the municipality of Amsterdam agreed with the Amsterdam Federation of Social Housing Associations (Amsterdamse Federatie van Woningcorporaties), which was founded in 1917, to increase rents of social housing by 60 percent. Both, the board and the general meeting of Eigen Haard objected to this rent increase; however, the Dutch government forced the city council of Amsterdam to increase rents; finally Eigen Haard had to accept this but the whole board resigned (Steenkamp, 2009, p. 13). Today Eigen Haard still exists and has turned into a large housing association with more than 60,000 spaces for rent, including social houses and commercial property.
According to Reinprecht et al. ‘The so-called Amsterdam School gained international fame: more than 30,000 housing units were built there between 1915 and 1921. The underlying idea was to uplift the material and moral condition (according to the views of the time) of the population’. (Lévy-Vroelant et al., 2008, p. 36) Pflug (2014) argues that another socialist, Arie Keppler (1876-1941), played a key role in the construction of social housing in Amsterdam. In 1905, when he worked as an inspector of the Construction and Housing Supervision (Bouw en Woningtoezicht), he argued that most of the housing in the different quarters of Amsterdam were in a poor condition; at that time the only thing he could do in his function as inspector was to declare these houses uninhabitable, however, with this decision he did not solve the problem: workers were still without proper housing. A couple of years later, in 1915, Keppler became director of the newly founded Municipal Housing Agency (Gemeentelijke Woningdienst). For 22 years he worked to build as many homes for workers as possible through the city council and new housing associations. He helped to establish the housing association Rochdale, assisted and advised inexperienced workers in boards of housing association, and gave many international lectures on social housing (Pflug, 2014). According to Pflug (2014) Amsterdam became under Keppler’s guidance ‘the Mekka of social housing in Europe’. When Keppler left the office in 1937 for an early retirement 30,000 houses had been built.

It seems that the First World War was a turning point in the development of social housing in the Netherlands. Although the Netherlands stayed neutral, the economic consequences of the war were enormous. An increasing interest rate and higher construction costs made the real estate market unattractive for private investors. The government reacted by lowering the interest costs of advances for the building costs and decreased the land price for housing associations. This caused a rapid increase of houses built by housing associations; between 1916 and 1920 the number of social houses increased by 36,900 (Acker et al., 2008, p. 9). Also the number of approved housing associations increased rapidly; according to Grinberg ‘By 1906 fourteen had been allowed, between 1918 and 1920 under the impetus of a severe housing shortage 743 were recognized, and by 1922 there were 1,341’ (Grinberg, 1982, p. 38). Many of these newly established housing associations were managed by workers’ collectives, socialist organisations, and religious groups. Municipalities also started to build social houses.

When the economic conditions improved in the 1920s housing associations lost some of their importance. The government reduced its financial contributions and some housing associations had to face financial problems as a result of the building boom in this economically extremely difficult period. Rents increased, which led to vacancy and default (Acker et al., 2008, p. 8). In the years after the financial crash of 1929 the situation worsened. Housing associations had to decrease the rents for tenants, the government lowered the interest rate and prolonged the loan terms on land to 75 years. The loans for building costs were maintained for 50 years (Acker et al., 2008, p. 9). Of course, this lowered the yearly costs for housing associations.

Two kinds of funding

The Housing Act of 1901 made subsidies and advances for private housing associations possible. From 1901 to 1934 (and later after World War II and 1994) two kinds of funding were used (Acker et al., 2008, p. 14):

1. Object-related subsidies.
These contributions were used for investments in the construction of social housing; the rents were used to pay the interest and to repay the loan principle (the subsidy).

If the rent price was lower than the cost price housing associations did not have to repay the whole amount.

2. Location-related subsidies. These contributions were used to prepare building location, e.g. for soil sanitation.

3. In 1975 a third form of subsidy was introduced: (individual) subject-related subsidies. Although object-related subsidies were still used, a large part of the Dutch population still could not afford social housing.

Bibliography


Social Housing in Finland - Development stages in a Nordic country with delayed industrialization

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**Historical background and current condition of housing in Finland**

During the 19th century Finland was part of the Russian Empire as an autonomous grand duchy until it achieved its independence in 1917. In 1860 80 percent of the population lived in the countryside and less than 10 percent in cities. The population growth was quite fast: in 1860 the total population in Finland was 1.7 million, in 1900 2.6 million, in 1940 3.6 million, and in 1970 4.6 million inhabitants.

It is important to note that urbanisation in Finland happened relatively late. Until the beginning of the 1960s the majority of the population lived in rural municipalities. Until 1957 more loans were granted for the building of farmhouses than for the construction of housing in towns. Large-scale migration to the cities and urbanisation did not begin until the 1960s. Therefore, until the 1950s the question of social housing concerned both the rural and the urban population.

From the first period of industrialisation until today the fundamental issue as to housing and housing policy has been the migration from rural areas to a few urban centres, especially to the capital city Helsinki and its surrounding areas. The migration rate was at its highest during the late 1960s and early 1970s.

Currently 50 percent of the population lives in the south-western part of the country, in the triangle between the three cities Helsinki, Tampere, and Turku. At the beginning of 2014 there were 320 municipalities, 57 of which were urban municipalities, 64 semi-urban municipalities, and 199 rural municipalities.

At the end of 2013 the total population in Finland was 5.45 million and at that time there were 2.9 million dwellings (306,000 (10.5 percent) not permanently occupied).

Since 1990 the number of dwellings has grown by 696,000 (on average 30,000 per year). The peak of building activity was during the 1970s and 1980s. The construction has concentrated in towns; between 1995 and 2013 76 percent of new dwellings were in cities. By the end of the year 2013 the number of flats was 1,290,000 (44 percent of all dwellings), the number of detached houses was 1,165,000 (40 percent), and the number of semi-detached houses was 396,000 (14 percent).

In Finland most rented dwellings are flats and most of owner-occupied dwellings are in detached houses; Average flats have 56.6 m² and detached houses 109.9 m². Average owner-occupied dwellings have 96 m² and all rented dwellings 53 m².

25 percent of the population live in rented dwellings and 75 percent in owner-occupied dwellings. About half of the population lives in detached houses.

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61 Statistics Finland; http://www.stat.fi/tup/suoluk/suoluk_vaesto_en.html
In 2013 the total number of Finnish households was 2,600,000. The average size of private households was 2.05 persons. During the past decades the amount of one- or two-person households has increased up to 75 percent of all private households at the end of 2013. The number of one-person households was 1,083,000, i.e. 42 percent of all private households.

On account of the recent and rapid process of urbanisation, the housing stock in Finland is relatively new. 90 percent of all dwellings were built after 1945 (in Sweden 68 percent and in Denmark 63 percent). (Juntto, 2008, Appendix 1., p. 119, ref. Housing Statistics in the European Union 2004.)

Yousfi, Vilkama and Vaattovaara (2010, pp. 210–211) describe the general outlines of the current Finnish social housing system as follows: In Finland social housing is defined as “the state-subsidised provision of rental housing through public and private non-profit organisations for people who meet the eligibility criteria. The dwellings are generally owned and managed by municipalities, social-housing companies owned by the municipalities, or non-profit housing companies and organisations. By law, there are no differences in the allocation of dwellings among the different providers, although the municipalities and companies owned by them tend to carry the biggest responsibility for providing housing for the most marginalised low-income households.

Access to social housing is means-tested. Eligibility depends on the social and financial circumstances of the applicant in terms of household income, assets and the urgency of the need for housing. The Council of State sets the upper income limits annually in relation to family size and region of the country. The limits (are) rather generous, and approximately 75 percent of the population qualified. Compared with other European countries, the upper income limit (is) relatively high, and upwardly mobile tenants (are) allowed to remain in social rental accommodation even if their income later (exceeds) the set limits.

Income limits were abolished in April 2008, and the selection of tenants is now based solely on the urgency of the housing need. The first priority is given to applicants with the most acute need, including homeless persons and families, households living in extremely crowded conditions, and people moving home to start a new job. The Housing Finance and the Development Centre of Finland advises municipalities and other providers of social housing on the categorisation of applicants into one of three groups according to their housing need. If two or more households have similar needs, priority is given to those with less income. Capital assets are also taken into consideration, and there are still upper limits that restrict the eligibility of wealthier households.

The level of rents in the Finnish social-housing sector is based on the cost-recovery principle, meaning that all maintenance and capital construction costs are covered by tenants’ rents. Rent levels therefore vary significantly depending on the age, location and construction costs of the housing estate. Some municipal social-housing companies adjust the rents in order to keep them at a reasonable level in all of their estates. Unlike in some other European countries Finnish social-housing rents are thus not linked to the income of the residents. The non-profit principle guarantees that the state subsidy covering the production of social housing ends up with the residents.”

The period before the First World War

In Finland the liberalisation of the economy started in the 1860s and 1870s. Restrictions on free workforce mobility were removed during this period. As a result, the surplus population
in rural areas had the possibility to migrate to industrial areas. One reason for the migration away from agriculture was crop failures and famines in the latter part of 1860s.

During this period housing was a particular problem for two large social groups. The first one was the rural population, especially tenant farmers and the working population engaged in agriculture who did not own or could not rent land for farming. The other group was the working class population in industrial localities.

**Rural population**

Because of the late and slow industrialisation process, the growing population in rural areas could not move into industrial occupations in huge numbers. The emigration to America also started rather late and was significant only in parts of western Finland. Therefore, in Finland the tenant farming system was significant for a longer period of time than, for example, in Sweden. However, at the same time the agricultural sector in Finland was gradually connected to the market economy. This development led to conflicts between tenant farmers and land owners who wanted to increase the productivity in agriculture. Land owners wanted to change the terms of tenancy agreements. The so called agrarian question became a major political issue in Finland at the turn of the 20th century (Peltonen, 1992).

The agrarian question is relevant to the topic of social housing in Finland, because the way it was solved had important consequences for the Finnish housing policy later on. The tenancy system was transformed after the Finnish Civil War in 1918. Tenant holders were given the right to buy their holdings. The reform was financed with state loans and bonds. The state paid the price of the land to the land owner and the tenant farmer had to pay the loan back to the state within 38 years. On account of the inflation, this proved to be a very advantageous arrangement for the debtor. The reform was rapidly carried out in the 1920s and led to the abolition of the whole tenancy system within a period of twenty years. By 1939 about 118,000 households made use of this right in order to establish small independent farms. The Finnish peasant holdings started to develop into family farms. The state also supported the establishment of new small farms for landless people. With the support of state funding about 27,000 new farms were established before the Second World War. This improved the living conditions of some 140,000 people to a great extent. (Vihola, 2004)

The general social policy before the Second World War was based on the idea of developing Finland as a rural society. The political and ideological ideal was an independent peasant working on a family farm.

**Working class population in industrial locations**

In Finland the industrialisation started on a larger scale in the 1880s and first in the southern part of the country. It was not entirely an urban development because factories were established both in rural areas and in cities. The sawmill industry and the pulp and paper factories, which formed the largest industrial sector, were located near water systems because of power supply and transportation. Also metal and textile industries were important and were mainly located in cities in southern Finland.

Municipal authorities were not prepared for the social change and the housing of new factory workers soon became a social problem. At first the housing issue was solved in a temporary and random way. Particularly employers in small industrial localities played a major role in supplying housing for the first generation of factory workers. Later on the companies gave up
the principle of providing housing and urged their workers to build their own houses by renting building plots and by lending money for building costs. (Juntto, 1990b, pp. 79–82)

In larger cities such as Tampere and Helsinki the problem was that there was no available building land for new houses. Areas outside the boundaries of the city developed into places of unorganised housing, which was often in poor conditions. Over the years cities acquired more land from neighbouring municipalities and planned new building areas for the growing population. (Juntto, 1990b, pp. 86–93)

The special characteristic of this phase is that social building activities and public funding by municipalities and the state were weak. Speculative building and economic fluctuations were common in the cities even before the First World War. Usually, cities or municipalities owned the available building land and sold it in auctions to private builders. Constructing housing and running rental homes was a significant new type of business and occupation. The building companies were often small and short-lived. The great majority of working class people lived in privately-owned rental houses in segregated city areas.

The housing standard of working class houses was low. A typical dwelling for a family was a single room and a kitchen. Average rent costs amounted to 10 percent - 17 percent of monthly incomes. Families often had at least four children. Many families had unmarried young workers as subtenants in their homes. They were probably relatives or people from the family’s home area. In ideological discussions the system of having subtenants in family dwellings was usually seen as a moral problem, however, on the other hand, it was also a way to impose social control on these young people. (Juntto, 1990b, pp. 109–111).

In Helsinki, Tampere, and Turku first workers’ housing companies were established as of the 1850s, first by the initiative of local industrialists. These were pure rental housing companies which provided rental housing for workers. The idea was that tenants would save money and buy the dwellings. Initially, the motive was philanthropic but soon business considerations became more important. From the end of the 1880s more successful workers’ housing companies were founded by active members of the working class movement. In 1897 the parliament started to grant low-interest state housing loans to workers’ housing companies. However, this lasted only seven years. These early housing companies were important in that they established an early form of those housing companies which became dominant in Finland after the First World War. These companies could provide rather a small amount of dwellings; by 1900 4 percent of the dwellings in Helsinki were workers’ housing company dwellings. They were also available only for the more wealthy segments of the working class. Workers’ housing companies did not succeed in allievating the housing problem because public funding by municipalities and the state was insufficient. (Ruonavaara, 2005).

One reason for the prevalence of private housing development during the period before the First World War was the financing system. Loan periods were short and the share of self financing was high, for example, 50 percent of the building costs had to be self-financed. Banks granted loans for the building of rental houses because they were considered as a good security, however, they rejected to finance self-build. Unlike in Germany, Sweden, and Denmark, in Finland there were not such financial institutions such as pension funds to provide capital for housing production. At this time the central problem in advancing forms of social housing in Finland was the underdeveloped funding system for housing production. (Juntto, 1990b, p. 90)
In contrast to Sweden, Denmark, or Germany, in Finland housing cooperatives have not become that important in the housing sector. Ruonavaara (2005) provided a detailed description of this development. One explanation is that already existing laws could be applied to housing companies and the law on cooperatives was passed later. However, it is interesting that some forms of cooperatives became successful in Finland (retail trade, banking), but not housing. According to Ruonavaara differences between Finland and Sweden can at least partially be explained by the history of the civil society in both countries. In Sweden, the social democratic movement and its organisations were significant actors in the housing-related policy. In Finland the civil society was divided into two sides: the bourgeoisie and the workers, both of which had their own organisations.

In Finland the turn of the 20th century was a time of active discussions on housing policy. Working class housing conditions in industrial locations were regarded as the most important social problem, initially in the sense of a moral issue (the debate was connected with the strong temperance movement at that time) and later in the sense of a healthcare-related problem (the spread of tuberculosis was of special concern). Laws and regulations on urban planning, house building, and housing inspection were established. Technical innovations such as electricity, fresh water supply, and sewerage systems were introduced in many cities. Studies on housing, health, and social conditions were conducted. At that time, leading public officials, municipal medical doctors, and city engineers were professionals who played an impotant role in introducing new ideas in the public debate and in collecting information regarding housing conditions. Ideas and innovations were adopted from other European countries, especially from Germany. One active organisation in the housing policy debate during this period was the Housing Reform Society (in Finnish ‘Yhdistys yleishyödyllisen rakennustoiminnan edistämiseksi’, later ‘Asuntoreformiyhdistys’), which was established in 1910. Despite the public debate on social issues, there were only few actual reforms on social policy and they were only slowly implemented. (Juntto, 1990b, 100-105, 111-119, 130-134).

The groups who benefited most from early forms of social housing (such as workers’ housing companies) belonged to the more wealthy segments of the working class, because they had steady jobs and good salaries. Railway workers and workers employed by the city administration formed such groups. Most working class families had to find their dwellings on the privately-owned rental housing market.

The period between the First World War and the economic crisis in 1929

In December 1917 the Finnish parliament declared Finland’s independence. The Finnish society was divided along social lines into The Whites (conservative and anti-socialist upper and middle-classes, farmers, and peasants) and The Reds (socialist urban workers and the landless rural cottagers and workers). From January to May 1918 Finland experienced a civil war during which The Reds were defeated. The White peasantry became a dominant political force in the 1920s and the 1930s, and the labour movement was practically excluded from the political decision making until the end of the 1930s. (Alapuro, 1988). In subsequent years the conservative and the agrarian party followed the line of a residual social policy. On the other hand, the independence created the possibility and the need to modernise legislation on social issues.

During the First World War the housing production in Finnish cities almost stopped. Economic depression during WWI also caused a housing crisis. The parliament passed several laws to temporarily regulate rents and housing. The inflation rate was very high and building
costs increased enormously (by 700 percent between 1914 and 1919). Between 1920 and 1922 the state granted loans for housing production to non-profit corporations and municipalities. The government support seems to have been significant at the beginning of the decade. In 1923 half of the building production in cities was state-supported. (Juntto, 1990b, pp. 142–144). However, the share of social housing production in Finnish cities during the period between the World Wars was small and non-profit housing corporations were founded only at the end of the 1930s.

Housing production in the cities was very low after the First World War but it started to increase very rapidly in the middle of the 1920s. The peak was reached in 1928 (over 9,000 new dwellings), only to collapse after 1929. There was a short renewed increase between 1930 and 1932 and the bottom (1,000) was hit in 1933. During this period about half of the new dwellings were built in Helsinki. Fluctuations in housing production were also sharper and stronger in Helsinki than in other cities. Changes in production volume followed general economic fluctuation in the country. (Ruonavaara, 1993, pp. 112–115).

Statistical information shows that during the 1920s housing conditions in cities improved until the year 1929. The occupancy rate (the number of persons per room) dropped from 1.9 to 1.5. On the other hand, the situation concerning housing conditions was strongly polarised. The majority of the urban working class population (70-80 percent) lived in small apartments (one room and a kitchen) and the occupancy rate in these dwellings was higher than average (Ruonavaara, 1993, pp. 63–67).

Some important laws were passed during this period. In 1925 a new law determined the norms and rules of tenancy agreements. This law followed the principles of German, Swedish, and Swiss legislations. In 1927 health-related legislation made housing inspection compulsory in all cities. (Juntto, 1990b, pp. 145–148)

In 1926 a law on housing companies was passed. The law defined housing companies as companies whose purpose is to own and manage residential housing (one or more houses). The law gave legal backing to the practices that many housing companies had already adopted. In the 1920s housing companies became a common organisational form in the housing production sector in the cities, which provided a way to share the risks and profits and get financing for housing construction. (For a more detailed description of the Finnish Housing Company law see Ruonavaara, 1993, 214 and 225-227). The establishment of the housing companies is the most important innovation in the Finnish housing system during this period.

A housing mortgage institution (Asuntohypoteekkipankki) was launched in 1927. Initial capital came from state bonds; later on the housing mortgage bank issued its own bonds and loaned capital abroad. 55 percent of the housing companies in cities were financed by this bank. In 1927 the state established a financial fund to support the building of individual family houses. The loans were granted by the ministry of social affairs and the ministry of agriculture. (Juntto, 1990b, pp. 146–148)

During the housing production boom at the end of the 1920s almost 90 percent of the new houses were built by commercial building companies and developers. In the favourable market situation this gave a possibility to achieve speculative profits. It has been estimated that in Finnish cities between 1919 and 1943 two thirds of the housing production was organised in this way. (Juntto, 1990b, pp. 148–151)
The Finish housing company model

Finland has a special ownership model for apartment buildings and terraced houses (Lujanen, 2007). In this model the buildings are owned by the housing company, and the shares are divided in such a way that they correspond to an ownership of a certain flat. Separate legislation was developed for this model in 1920.

The highest authority in a housing company is exercised by the shareholder's meeting, which is usually held twice a year. Each shareholder can vote according to the number of shares he or she owns. The number of shares is generally based on the size of the flat.

The shareholders' meeting approves, among others, a budget, which is used to verify the monthly payments by shareholders. The shareholders' meeting also makes decisions concerning major property repairs. The shareholders' meeting also elects the board of directors, which exercises decision-making power. The board consists in general of at least three members.

The board appoints a superintendent (manager), who is responsible for, among other things, collecting monthly payments and keeping company accounts. The superintendent prepares various repair-bid documents for the company board. Superintendents are usually employed by a property management agency.

The share certificate of each apartment can be used as flexible collateral when taking out loans for purchasing property or making repairs for the apartment. Alternatively, the company can take out loans against mortgage collateral for making repairs to communal structures and facilities.

Company-specific loan interests rates and instalments are paid in connection with the monthly payments. These monthly payments are sufficient enough to cover the costs for company administration, repairs and also heating. If the apartment owner fails to pay the monthly payments, the company can take possession of the apartment in question and pay the unpaid amount using revenue earned from rent. In cases such as this, however, the owner does not lose his/her ownership.

In the Finnish housing company model decision-making responsibilities are clearly defined and the property's communal structures have one specified owner. Loans can be granted, on one hand, for repairs of communal structures and facilities and, on the other, apartment-specific needs (the purchase of the flat and apartment-specific repairs). To sell housing company shares referring to a certain flat is easy for the owner to do. The sanctioning system for those who have not paid their maintenance charge is functioning well, which means that these sanctions are rarely used. The result of this clear-defined decision-making process is that the buildings and their communal structures and facilities are in good condition and adequate repair measures can be taken. Shareholders can be either individual people or companies, municipalities or non-profit organisations. Individual people can either live in their own dwelling or rent it out. As a result, the housing company model enables the integration of owner-occupied dwellings and rental dwellings in the same buildings and thus decreases segregation. The Housing Company system has been functioning in Finland without any greater problems already from 1920. As a consequence of this the share of Housing Company dwellings in the housing stock is as high as 45 percent.
The period from the economic crisis in 1929 to the Second World War

Finnish researchers investigating housing policy do not see a big difference between the time before and after the great economic depression. A dramatic change can be observed as to the volume of housing production which in 1933 dropped to 1,000 new dwellings built in cities. The economic depression began in 1929 and lasted until 1934. After 1934 the housing production increased but remained on a lower level than in the 1920s.

According to Anneli Juntto the crisis after 1929 was an economic crisis, however, there was no housing shortage. Rental dwellings were available and the rental housing market was functioning. The problem was that the income of many people did not suffice to pay their rent. In the 1930s even whole families had to live as subtenants. (Juntto, 1990b, p. 157)

The share of owner-occupied dwellings increased gradually (see table 2 in Ruonavaara, 2005, p. 227) the majority of the urban population and especially the majority of the working class still lived in rented dwellings. Owner occupancy started in the middle class.

The first notable non-profit building consortiums were founded in the latter part of the 1930s. The basic idea was to use the housing company model but without profit interest. It is important to notice that at this point the housing company model was preferred instead of the housing cooperatives system.

Two initiators were active. The first one was the Housing Reform Society which had collected information regarding social housing production in other Scandinavian countries. The other party was the social democratic cooperative movement and its enterprises (retailing cooperatives and insurance companies). The first consortium - Helsingin Asuntokeskuskunta HAKA - was founded in 1939. Later similar companies were established in other cities. At the end of the 1940s municipalities played an important role in these consortiums in many parts of the country.

Also construction employers’ organisations established non-profit construction companies. In 1940 they established a company named Sosiaalinen Asuntotuotanto Oy SATO (Social Housing Production Company). Its aim was to work in cooperation with the government and municipalities. Partners of this consortium were insurance companies and construction corporations. Just as HAKA, SATO also operated country-wide. However, neither of them had the time to start their functions properly before the Second World War. During WW II (1939 - 1945), building was highly difficult because of the shortage of workforce, capital, and materials, and because of the growing building costs. (Ruonavaara, 1993, pp. 137–139; Juntto, 1990b, pp. 152–154).

The establishment of these consortiums marks the beginning of a proper modern social housing production and social housing policy in Finland. There seem to be some reasons behind this development at this time. One reason is the gradually increasing political and economic influence of the social democratic movement during the 1920s and 1930s and the movement’s interest to implement social reforms. Another reason is the consolidation and development of the construction industry itself. The industry was interested in promoting social housing production because it was a way to restrain business cycles. The state and the municipalities only joined the social housing production after the Second World War.
Period from the Second World War to the mid-1970s

Anneli Juntto divides the housing policy in Finland during the period of the welfare state into four phases: The first (1945-1957) is a phase of corporatism and reconstruction. The second (1958-1967) is a phase of privatisation and residual housing policy. The third (1968-1977) is a short period of broad institutional housing policy and the establishment of the welfare state as a response to the crisis caused by the rapid urbanisation. From 1977 onwards a shift towards market domination and a second wave of privatisation in housing policy can be observed (Juntto, 1990b, pp. 191–349).

During the reconstruction period from 1945 to 1956 the three forms of social housing in Finland were the state supported rural housing production, rent control and rental market regulation, and state supported loan system for housing production in cities. The number of families receiving housing allowances was minimal. Housing benefits became an instrument of social housing only later during the 1960s as a part of the more comprehensive welfare system.

After the Second World War the Finnish society had two big housing-related problems. A tenth of the country’s housing stock had been lost as a result of the territorial concessions to the Soviet Union and in only few years about 400,000 Karelian evacuees had to be resettled. The soldiers returning from the war also needed work and homes. Again, the solution was the founding of new small farms with public financial support. This was reasonable, because Finland was still a rural society and the industry could not provide enough jobs for such a large group of people. About 50 percent of the active population was employed in agriculture. Between 1945 and 1956 100,000 new farms were founded, mainly in eastern and northern parts of the country (Juntto, 1990b, pp. 200–203).

The second problem was a housing crisis in cities. Between 1945 and 1951, the population in cities increased by 415,000 because of the exceptionally high birth rates and migration. During the same period only 56,000 new dwellings were built in Finnish cities. Many people had to live for years in temporary accommodations. Important instruments in housing policy after the war were rent control and public regulation of rental markets (Juntto, 1990b, pp. 191–196).

The situation after the war was favourable for social reforms but political parties had difficulties in finding agreement on issues of social policy. The initiative to start a comprehensive housing policy came from civil organisations, the Family Federation of Finland, and the Central Union of Tenants in 1948. The Family Federation was an active pressure group in Finnish social policy in the 1950s and during this time it played an important role in introducing innovations in the Finnish housing policy. At first the plan was to establish a central state department, ARAVA (Asuntorakennustuotannon valtuuskunta), to plan and supervise building production and housing policy in the country. The parliament decided to restrict these functions; the only function Arava was permitted to fulfil was to act as an office granting state-subsidised housing loans. The Arava loan system was the most important instrument of public housing policy in Finland. (Juntto, 1990b, pp. 203–216).

During the first decade Arava loans were granted to all builders, i.e. to municipalities, non-profit construction companies, private construction companies, and families. The aim was to increase the volume of housing production. The financial support was channeled to owner-
occupied housing and private rental housing construction. This was probably not an intended political decision but rather a result of circumstances and conflicting interests. The reselling of Arava-financed houses and flats was not regulated. The building prices and plans were regulated, but there was no inquiry into the financial position to the occupants of dwellings. The state loan system did not have quotas for different tenure forms. One target of the whole system was to end the rent control system after the war. The outcome was that the state financed more housing for owner occupancy than for renting. During the 1950s the state housing loans were mostly granted to middle-class families and the Arava system improved most housing conditions for the well-off part of the population. (Juntto, 1990b, pp. 208–211)

Juntto (1990b, pp. 231–258) refers to the period between 1956 and 1967 as an era of privatisation and residual housing policy. On the one hand, principles of housing policy were clarified and the public support was directed to improve especially the position of the homeless and people in low-income groups. On the other hand, at the same time the allocation of funds to social housing was gradually reduced. The amount of new state housing loans was reduced and rental regulation decontrolled. However, the housing production in cities remained on a high level. In Finland the housing level still lagged behind other Western European countries. The average size of dwellings was smaller and the occupancy rate higher than in other Scandinavian countries.

The stagnant situation in the period from 1956 to 1967 can be explained by a few factors. Firstly, the civil organisations were passive. The construction industry, right-wing parties, and the agrarian party opposed the Arava loan system and the municipal housing policy. Left-wing parties and the labour movement were inactive as regards housing-related initiatives, partly because of their internal political conflicts.

The urbanisation of the Finnish society happened between 1965 and 1975. Technological and economic changes reduced the demand for workforce in agriculture. At the same time the baby boomers reached the marrying age. The years between 1968 and 1972 were a time of strong economic growth. By 1970 50 percent of the population lived in urban locations. The housing production increased dramatically and between 1965 and 1975 about half a million new dwellings were built to a large extent in new suburbs on the outskirts of towns and cities. One third of these new houses were rental dwellings and two thirds owner-occupied dwellings.

In Finland the welfare state was established between 1961 and 1977. In 1961 laws on employment pension insurances and in 1964 the legislation on health insurance were passed. The new outlook in social policy was based on the arguments of economic growth and the need to respond to the social change in Finnish society. The Finnish model of social policy was based on corporatism. Politically, it rested on the cooperation between left-wing parties and the agrarian party and economically on centralised labour market settlements between employers’ and labour organisations. (Juntto, 1990b, pp. 259–260).

The housing policy was given a permanent status in the welfare state. In 1968 the parliament passed a law on housing production which provided the instruments for public regulation and public funding of housing production. The state’s central housing agency (Asuntohallitus) replaced the old Arava organisation in 1966. Asuntohallitus controlled the granting of state
funding for housing production and regulated the policies and income limits for various housing subsidies. In Finland the housing loan system has always been bank-dominated and the state only granted secondary loans. The state loans included conditions that worked as measures for achieving various housing policy goals.

The system of general housing benefits was launched in 1975. The system is technically rather complicated and the support is channeled to low-income households, pensioners, and students. Income limits are strict. Instead of being primarily an instrument in social housing, it has become a part of the general income support (Juntto, 1990b, pp. 272–274).

The housing policy and the corporatist incomes policy were closely connected during the building period of the welfare state. Labour market organisations demanded large-scale housing production in towns and cities. On the employers’ side it was a question of availability of workforce and a way of controlling wage costs; on the employees’ side it was a question of the real wages and availability of housing. In many cases housing-related issues were settled in central labour market negotiations if the parliamentary proceedings to promote reforms proved to be slow. The labour market organisations typically agreed on wages and other work-related questions and the government as a third side implemented social and tax reforms and regulations. For example, rent control was begun anew in 1968 as a part of the general wage agreement. The purpose of the whole model of a centralised income policy was to control the level of inflation and wages, and to secure the competitiveness of the export industry. The system is designed to favour the active part of population but it has influences on the passive population as well. (Juntto, 1990b, pp. 266–268)

During this period also the discourse on social issues changed dramatically. The whole era was characterised by great optimism as to social planning. During the era of philanthropy very much faith was put in education and guidance. During the era of building the welfare state the faith was put in planning. Social scientists and engineers became key professionals. One indicator of the trust in planning is the great number of committees and committee reports during this time.

**From the mid-1970s onwards**

By 1977 the migration wave in the Finnish society was settled and the housing production fell to the level of 40-50,000 new dwellings a year during the 1980s. In the housing policy there was again a shift towards market domination. Housing subsidies were reduced from 1977 onwards. The housing benefit system remained a part of the general social welfare. State-supported housing production declined and at the beginning of the 1980s there was a shift towards consumption subsidies and interest subsidy loans which mostly benefitted people with a high income (Juntto, 1990b, pp. 299–318).

In Finland, as a part of a general liberalisation of financial markets the housing finance was liberalised in autumn 1987. A great amount of foreign capital was suddenly transferred to Finnish housing markets. The result was a boom in housing demand and soon the real prices of housing started to rise. The housing market was heated up especially in the metropolitan area where the housing prices increased by 40 percent in just one year (in 1988).

After a long period of economic boom, the Finnish economy experienced a deep depression at the beginning of the 1990s. One of the reasons was the economic policy implemented during the previous decade. Political decisions of supporting the external value of the Finnish
currency weakened the competitiveness of the Finnish industry. The collapse of the Soviet Union destroyed a key Finnish export market overnight. For many years the unemployment rate was over 12 percent. The economic crisis was also a nationwide bank crisis. On account of the high interest rates and decreased property values, many property owners went bankrupt (Juntto, 1990b, p. 23).

The Finnish welfare system responded to the unemployment and the economic depression by substantially increasing the volume of housing benefits. The state started to finance rental housing construction in a large scale, partly in order to protect the construction industry from a complete shutdown. (Juntto, 2010, p. 23)

The migration to regional growth centres and especially to the metropolitan area has increased again since the 1980s. Growing housing costs in these areas have increased the need for reasonably-priced apartments for rent. The rent control was abolished in 1995 in order to increase the supply of rented apartments. A new form of tenure, the right-of-occupancy housing, emerged at the beginning of the 1990s. It is a new type of cooperative housing, the model was adopted from Sweden. Most of these houses are located in the metropolitan area and virtually all production has been state-financed. (Yousfi et al., 2010; Ruonavaara, 2005)

Finland joined the European Union in 1995 and is one of the Eurozone countries. This has further increased the liberalisation of the Finnish financial system from the beginning of the 2000s. Housing loan periods are long, even 30-60 years, and the interest rates have been relatively low and stable. Currently almost all housing loans in Finland are tied to floating interest rates. The state-supported Arava loan system has greatly lost importance, because the loan conditions are regarded as restrictive and the difference as to the interest level between Arava loans and bank loans is insignificant.

**Finnish housing regime and its relation to other Nordic countries**

In his article “Home ownership and Nordic Housing Policies in ‘Retrenchment’” (Ruonavaara, 2012) Hannu Ruonavaara has presented a model of the policy orientation and institutional basis of Nordic housing regimes (Ruonavaara, 2012, p. 98, see Table 11). He also describes the special characteristics of each country in the model.

*Table 11: The policy orientation and institutional basis of Nordic housing regimes (Ruonavaara 2012: 98; quoted after Bengtsson 2006, 328)*

<table>
<thead>
<tr>
<th>Policy orientation</th>
<th>Institutional basis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ownership</td>
</tr>
<tr>
<td>Universal</td>
<td>Norway</td>
</tr>
<tr>
<td>Selective</td>
<td>Iceland</td>
</tr>
</tbody>
</table>

However, the table and its dimensions can be a useful tool for the comparison between the Nordic regime and other European housing regimes. Perhaps the empty box at the right ending of the lower row (institutional basis: renting; policy orientation: selective) describes
the British case, as Bo Bengtsson noted in his article on this model (2013b, p. 405). One should also bear in mind that the model describes the situation of the Nordic housing regime at its high point in the 1970s and 1980s. Bengtsson (2013b, pp. 433–436) also argues that by 2013 Finland, Iceland, and Norway have all adopted the model in which the institutional basis is on renting and policy orientation is selective. Housing regimes are not stable and at least the history of Finnish housing policy shows that changes can happen quickly.

Bengtsson also puts forth some other dimensions in the Nordic housing model (2013b, pp. 402–411). First, there seems to be a lot of variation in the form of organising the ownership of dwellings. In Denmark the ownership is organised by housing associations. In Sweden municipalities are the owners. In Norway cooperatives are the dominant form. Finland has its characteristic housing company system. In Iceland the system is based on private ownership. The second dimension is the role of municipalities in providing housing. Municipalities are important in all Nordic countries but the type of influence varies. Especially in Sweden (and to a lesser extent in Finland and in Iceland) it is the municipalities that own houses. In Denmark and in Norway the municipality influences housing by giving instructions. The third dimension concerns the type and strength of residents’ associations. In Denmark, Sweden, and Norway these associations have been influential. In Finland and Iceland not residents’ associations but trade organisations have played a major role in housing policy. The conclusion is that the Nordic housing regime does not build up a single type and it is possible to find variation and nuances.

When making comparisons between countries and regions there methodological questions always have to be considered: The first one concerns the selection of a single case to represent a more general type. If there is a distinctive Nordic housing regime, which one of the countries could serve as a representative case? Each country seems to have its own special characteristics and at least Sweden with its corporatist rent negotiation system seems to be an exception, even in international comparison. Another methodological question concerns the operationalisation and translation of concepts and institutions. In the case of Finland such an issue is the Finnish housing company. In many respects it has the same functions as the housing cooperatives in other Nordic countries (see in detail Ruonavaara, 2005, 214, 232). The third methodological issue relates to the question as to what countries and in which moment in time are to be compared. The common understanding has been that Finland is a ‘homeowners’ society’. This is true, since 75 percent of the population lives in owner-occupied dwellings and usually the comparison was made with countries like Germany, Sweden, and Denmark. However, now that there are 28 countries in the EU, it can be observed that Finland is somewhere near the average63.

Bibliography


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- Other country reports: http://www.tenlaw.uni-bremen.de/reports.html
Social Housing in Italy – Development and Post ww2-Policies

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Background

Italy is a country with the rate of home ownership among the highest in Europe (over 70 percent of the households), a large number of dwellings (1.3 homes per family) and a limited social rented sector (about 19-20 percent of total rental dwellings stock; 4-5 percent of total dwellings stock). It is also a country where housing demand changed over time and nowadays more vulnerable groups of population such as unemployed and temporary workers, youth and young couples, elderly, recent immigrants cannot afford extremely high real estate and rents prices particularly in the metropolitan areas.

Social housing policy in Italy has never followed a smooth or clear path. As outlined by Propersi, Mastrilli and Gundles (Propersi et al., 2012; Tosi and Cremaschi, 2001), until early 1900’s, Italy did not have a national social housing policy and most of the response to housing problems came from philanthropy. A relative reformism occurred during the so-called “età giolittiana” (1901-1914), named after the liberal leader Giovanni Giolitti, during which several reforms on labour and welfare and investments for infrastructures modernization were promoted in order to improve the social and economic conditions of the country. The first social housing policy, the Luzzati Law, dates back to this phase (1903), followed by the Testo Unico on public housing in 1908, which however was mostly addressed to provide financial aid to cooperatives, charities and mutual aid initiatives. In the same period the Institute for Social Housing (Istituto Autonomo Case Popolari – IACP) was also founded.

During 20 years of fascism housing policy were mostly addressed to middle class and civil servants with little or no attention to the needs of the poorer social segments. A turning point in social housing occurred after the WW II, when the INA-Casa plan was launched (Fanfani Law, 1949). Initially planned to be implemented only for seven years, it remained in force for fifty years. It was the largest social housing program ever undertaken in the country, acknowledged as “the great and lasting success of post 1945 social housing” and able to build “real communities based on a solid foundation of communitarian social policy and outstanding architecture and urban design” (Pilat Zeier, 2014, p. 3).

In the economic booming phase (the 60’s and 70’s), regulations were reframed and actors and strategies changed. Municipalities planned for social housing with the support of co-operative associations and the IACP. A new law promulgated in 1962 (L.167/62) identifies three main categories of social housing (Pittini and Laino, 2011):

• Agreed housing (edilizia convenzionata): private housing, for rent or sale, to be sold at an agreed price between the municipalities and the housing provider. The agreement

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64 Crossing information about allocation criteria (universal vs. targeted) and dimension of the sectors (large, medium and small share of social housing stock), a recent report of the European Parliament classifies Italy in the group of generalist targeted small size social housing model. European Parliament (2013)

65 It has been estimated that approximately 1 million social housing units need to be built: Pogliani (2011)
typically includes discount on the local tax and on building permission costs and the lease of the land for 99 years.

- **Assisted housing** (*edilizia agevolata*): financial support is provided both for rent (between 20 and 60 percent of the cost) and for sale (between 10 and 30 percent subsidies) and targeted to low and middle income households. This latter is mostly intended as a measure for facilitating home-ownership.

- **Subsidized housing** (*edilizia sovvenzionata*): rental housing are provided and owned by the public sector and subsidies cover between 60 and 100 percent of the cost. It is addressed to poor families, rents are very low (about 25 percent of market rents) and proportional to the income of the tenant.

Another important step was represented by the ten year *Gescal* (*Gestione Case Lavoratori*) plan aimed to ensure that workers and their families can benefit from green spaces and socio-recreational facilities.

The 70’s marks the end of national housing policies and a progressive transfer of power to the regional or local governments. Public funds for housing were reduced and privatization policy of public housing was progressively adopted. By the end of the past century, the social housing system was characterized by a limited State involvement, a continuously declining social housing supply, a large regional variance of policies, and a not sufficiently targeted housing strategy.

In recent years the social housing system has seen further transformations in two main directions: first, the decentralization process to regions and municipalities has been completed, leaving to the central government the responsibility to establish general principles and minimum quality standards for social housing; second, a new landscape in social housing system is now open that gives rooms to public-private collaborations. Although with a noticeable delay compared to other European countries, Italy is now experimenting new directions in social housing policy that can open interesting perspectives for social entrepreneurs. Local authorities (regions and municipalities) are experimenting new housing policies and initiatives promoted by bank foundations have grown in the last years in order to encourage ethical investment (not free grants) and real estate funds dedicated to social housing.

The two case studies analyzed in this contribution are illustrative of two different phases in social housing policy in Italy: a nationwide centralized housing plan that belongs to the Italian history (the INA-Casa plan) and the most recent evolution in the social housing system with a National Housing Plan which sets the basis for new forms of public-private partnerships (the FIA case study).

**The INA-Casa Plan**

*Historical background and legislative framework*

Soon after World War II the Italian government was bound to face the paramount questions of reconstruction and massive unemployment rates in the country, which had been brought on his knee by the tragic conflict. The need for a totally renewed urban plan was apparent – in order to answer to the double need of breaking off the existing links with the fascist era and setting up a novel post-war urban order in the country – and many politicians envisaged in this demand a unique leverage to foster development in the country. The immediate result was
the production, in the period 1945-1949, of a number of incoherent, diversified and isolated initiatives, taking place in the absence of a coherent and clear institutional plan for the economic recovery. In these years, the private building industry focused – with the tacit consent of national institutions, still incapable of setting up a clear reconstruction plan – on the realization of high-level and expensive housings, mainly located in central areas, and thus regardless of the needs of the poor and more densely populated suburbs.

In fact, some legislative measures were adopted, together with the implementation of international programs such as the UNRRA-Casas (United Nations Relief and Rehabilitation Administration – House Reconstructions) and the European Recovery Program (the official name of the Marshall plan), but eventually they failed in setting up a comprehensive and adequate solution for the ongoing housing problem.

In this context, a new action was proposed in 1946 by Annetto Puggioni, president of the National Institute of Insurances (INA), whose farsighted view had brought him to undertake an early analysis of the relevance of the housing problem in Italy. According to Puggioni, the National Institute of Insurances was an ideal organism to bring about the required change in the country:

“As you know, two main duties have been assigned to INA: representing the driving force of social legislations in the country and being a financial tool in the hands of the State to provide its fundamental services. [Therefore, INA will ensure the support] to any direct initiative for the reconstruction of the country”.

The five-year plan presented by Puggioni provided for the issue of specific bonds by INA, whose yields would have been invested in a fund for the reconstruction of workers’ houses. The recipient workers would have then been allowed to pay the houses in annual instalments for 25 years, receiving for this a contribution from the State. While this was only a draft proposal, many municipalities showed their clear appreciation to it, highlighting in their communications to INA that “the very critical situation of the houses [in the industrial and commercial areas severely affected by the war] is getting exceptionally harsh and municipality authorities are therefore induced to call for an inclusion in the list for house reconstruction, as suggested by the [Puggioni] plan”. In particular, the Italian municipalities were experiencing such an extreme need that they declared to be available to donate their building land, also providing the water required for the realization of the works.

For the promotion of his plan, Puggioni looked for and found an agreement with the leftist trade union CGIL, which eventually became detrimental for the realization of the plan in the post-war Italy, whose development was massively influenced by the US policy, constantly in fear of a European communist “deviation”: in fact, when in 1948 the Christian Democratic political party won the elections, the plan was temporarily abandoned, partly because of this understanding with the trade unions. However, given the urgency of the housing question, the new-elected government – and in particular the Christian-democrat Amintore Fanfani, Ministry of Labour and Social Policy – soon re-launched the collaboration with Puggioni, highlighting that his proposal could have also worked as a stimulus for the economic recovery and the unemployment reduction, given that the building sector would have required unskilled labour, generating at the same time many spin-offs (iron and steel industry, timber industry, plumbing activities, etc.).

Law 43/1949, also knowns as the Fanfani Law, was therefore approved by the Italian Parliament on 28 February 1949, providing for a series of “measures to increase the employment rates of workers, favoring the construction of houses for them”: that is, the
starting point of the new program for the construction of affordable and decent housing for the poor, the INA-Casa plan, whose rational was clearly based on Keynesian theories and Christian solidarism.

**Main characteristics and funding**

The implementation of the plan was assigned to a new, created ad hoc organism, the *Ente INA-Casa*. In order to avoid any burdensome procedure – that would have hampered the correct functioning of the plan itself – such organism was conceived to operate in close collaboration with the existing INA offices. The operational structure included an *Implementation Committee*, responsible for the decisions concerning the use of the funds, the construction process and the payment procedures; and the *Management INA-Casa*, the executing body. Both the entities were composed of members representing several groups: workers, employers, engineers, members of cooperatives, and Ministries. The program was scheduled to last over the course of two periods of seven years and it would have been financed through a mixed system, involving the State, the employers and the workers. The latter would have contributed through the deduction of 0.60 percent of their monthly salary (“the cost of a cigarette”, as reported by some advertisements); the employers through a contribution corresponding to 1.20 percent of the monthly salary paid to their employees; and the State through a contribution corresponding to 4.0 percent of the contribution paid by workers and employers (article 5, Law 43/1949). Furthermore, municipalities were allowed to levy an additional tax to all those people who were living in a house whose size was “exceeding the family needs” (article 6, Law 43/1949). Finally, the State committed itself to pay to management INA-Casa a further contribution of 3.20 percent of the construction cost of each house build in the first seven years of the plan, up to a maximum threshold of 400,000 Italian lire for every room, for a period of 25 years (article 22, Law 43/1949).

The provision of quality houses was a crucial problem, since it required the establishment of a set of rules homogenously applicable to the different Italian regions and provinces: that is, they needed to be strict, but flexible at the same time, capable of guaranteeing high-quality and affordable buildings. The technical and construction parameters were set by an official Communication published on the Official Journal of January 4 1950, establishing the following:

- Population density should not exceed 500 inhabitants per hectare
- Height and spacing between the buildings should favour a good exposure to sunlight. That is, building should not be higher than 4 floors and the distance to the next building should be 1.5 times of the building height itself
- Big balconies and two-sided exposure to sunlight
- Building size should be 30, 45, 60, 75, 90 m², for 1, 2, 3, 4, 5 room-houses, respectively

In order to guarantee the efficient allocation of resources, the regulations also established a threshold price per meter for each room (400,000 Italian lire), which could be reduced to 270,000 Italian lire when the houses were built in “semirural” area, notwithstanding the respect of hygiene and decent living requirements.

**Main beneficiary groups and impact**

In July 1948 the legislative bill presented by Amintore Fanfani was still in the process of being discussed at the Chamber of deputies. At this stage the proposal for the selection by lot of the beneficiaries, initially included in the bill, was hardly debated in the Parliament and the opposition – and the Communist Deputy Giuseppe Di Vittorio, in particular – claimed for the
adoption of other criteria, linked to the evaluation of actual family needs. After being examined by the Senate, such criteria are incorporated in the final law and replace the selection by lot, together with some other substantial modifications, such as the obligation of renting 50 percent of the housing built through the plan, and selling the rest.

On 7 July 1949 the first construction site began its operations within the framework of the plan and by 31 October 1949, the total number of sites grew up to 650: 2,800 rooms were built every week and about 560 families were able to enter their new houses every week. At that rate, 1,920,000 rooms were built in 14 years, 936 billion Italian lire were invested, and around one third of the 17,000 Italian engineers and architects were involved in the process, allowing 355,000 Italian families to improve their living conditions and quality of life. According to a survey conducted by INA, before moving in the new houses, 40 percent of the families were living in basements, caverns, shacks, under-stair units and 17 percent cohabitated with other families, for an estimated housing need of 10 million rooms. Many of them were immigrants from the countryside and Southern Italy and a large share was represented by Istrian and Dalmatians refugees.

The Plan was in force until 1963, when it was repealed by Law 60/1963 and ex-post it was particularly able to demonstrate its efficacy and its overall success: from 1950 to 1962, 20,000 building sites had been made operational, in 5,036 municipalities over a total of 7,995, providing for the equivalent of 102 million standard working days (10 percent of the total in the period), corresponding to the stable employment of 40,000 construction workers per year.

The Housing Investment Fund (Fondo Investimento per l’Abitare – FIA as a part of the National Housing Plan

Historical background

The most recent evolution in the social housing system in Italy is a National Housing Plan (NHP) which sets the basis for new forms of public-private partnerships. A part of this plan is a fund system based with the purpose to develop innovative financing instruments, such as the Housing Investment Fund. An official definition of social housing in Italy has been officially provided for the first time only in 2008. Social housing consists mainly of dwellings intended for disadvantaged individuals and families who are unable to access housing in the free market. This definition includes dwellings a) rented on a permanent basis; b) built or rehabilitated through public and private contribution or the use of public funding with ownership at approved prices (private social housing), c) rented for at least eight years and also sold at affordable price, with the goal of achieving social mix, d) ownership at approved prices (private social housing). Social rental housing currently represents about 4 percent of the national housing stock. The current size of public sector housing stock is about 1 million housing units (300,000 belonging to local authorities and 700,000 to other public authorities), which means 5-6 percent of occupied dwellings and less than 20 percent of rented housing stock. The proportion of social housing is higher in larger cities and in Northern cities such as Milan.

Legislative framework

The legislative framework has been designed through three main steps.
1. **The National Housing Plan – NHP**

Article 11 of the Legislative Decree 25 June 2008, n. 112/2008, converted in Law 6 August 2008, n. 133, and the subsequent DPCM (Premier’s Decree) 16/07/2009 established a National Housing Plan (NHP) that formally started private social housing by attracting private resources, providing a strong incentive to public-private partnership and generating an integrated network of real estate ethical funds.

2. **The Integrated Fund System – IFS**

Introduced by the above mentioned Article 11 of Decree Law 112/2008, the system is aimed to develop and test innovative financial instruments through the participation of public and private entities and involving national and local funds, in order to increase the supply of Social Housing according to the Decree of the Minister of Infrastructure 22 April 2008 n. 146, published in the Official Journal of 24 June 2008.

3. **The Housing Investment Fund - FIA**

It is the first National Housing Investment Fund managed by the *Cash Deposit and Loans Investments*, an investment management company. This fund has been set up by CDPI Sgr the 16 October 2009 and approved by the Bank of Italy the 11 March 2010.

**Main beneficiary groups**

The NHP identifies the following disadvantaged categories of beneficiaries:

- Low-income nuclear families, including single-parent or single-income families
- Low-income young couples
- Elderly in disadvantaged social or economic conditions
- Students living away from home
- Persons subjected to eviction enforcement proceedings
- Other people meeting the criteria set forth by article 1 of Law 9/2007
- Low-income legal immigrants, having lived in Italy for at least ten years or at least five years in the same region

These are individuals or families whose income does not entitle them to obtain a public house but meanwhile they are unable to afford the houses market prices (what is usually defined as a “grey area”).

**Main aims and distinctive features**

The National Housing Plan is particularly innovative in its approach to financing social housing in Italy and it sets the basis for new forms of public-private partnerships, through the creation of an integrated real estate fund. This fund, dedicated to increase the social housing stock, includes both national fund and local revolving funds. The rationale is to expand the supply of private social housing units through investments rather than through public contributions.

As common to social housing initiatives, it is aimed to promote a social mix through different rent amounts and provide a range of services to match the needs of inhabitants such as

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66 Piano Nazionale per l’Edilizia Abitativa or Piano Casa Nazionale
67 Sistema Integrato di Fondi Immobiliari – SIF
68 Fondo Investimento per l’Abitare – FIA
69 Cassa Depositi e Prestiti Investimenti Sgr – CDPI Sgr
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establishing a guarantee fund for tenants who face, for instance, unexpected unemployment or loss of self-sufficiency in case of elderly. Moreover, dwellings should be built in respect to energy efficiency criteria, minimizing the impact of polluted emissions and assuring the environmental sustainability. Finally, it is also intended to stimulate the creation of new social enterprises in terms of housing cooperatives of inhabitants and social cooperatives. (EURICSE, 2011)

**Funding**

The aim of a real estate investment funds is to develop a network of funds (what has been defined by Caffini *2012* as the Fund of Funds) with a nation subscription ranging from 1 to 3 billion euros and for a minimum duration of 25 years. The investments are aimed at expanding the supply of social housing units, increasing the rental stock managed by the funds and the supply of ownership at low price. They should also guarantee a target return and economic sustainability of projects. National Fund in local investments can contribute up to 40 percent.

**The Integrated Funds System**

The Integrated Funds System dedicated to social housing projects, has the mission to support investment in the private social housing sector in order to contribute to the increase in the supply of social housing units, in coordination with public national and local policies. It currently consists of a national fund of funds, the *Fondo Investimenti per l’Abitare*, run by *CDPI Sgr*, which invests in local real estate funds to build social housing units at affordable prices throughout Italy, intended for families unable to meet their housing needs on the marketplace, but with incomes higher than those which would entitle them to public housing.

In March 2012 CDPI Sgr completed the first FIA’s subscription of about 2 billion euro covered by the *Cash Deposit and Loans* (49.3 percent, the Ministry of Infrastructure and Transport (6.9 percent), several banking and insurance groups and private pension funds for the remaining part (43.8 percent)).

The pioneer real estate funds set up in Italy for social housing is the *Fondo Abitare Sociale 1*. This experience developed by *Cariplo Foundation* (a bank foundation based in Milan) it has been an important reference point for setting up the IFS on a national basis. It is an ethical property fund set up in 2006 and promoted by *Cariplo Foundation, City of Milan, Cash Deposits and Loans, Generali Insurance, Intesa Bank, Popular Bank of Milan, Cash Geometri, R.E. Pirelli, Telecom, S.G.R. (Society of management of savings): Polaris Italy Funding*. It raised over 85 million euros and developed three projects for about 700 residential units in Milan.

Other similar initiatives are underway in other regions and municipalities (eg. *Fund Veneto House, Co-operative Housing Fund Rome*) or have been recently promoted by other public-private initiatives (e.g. ethical housing fund by *Cooperhousing Foundation* with projects in Florence, Prato, Milan, Turin, Parma)

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70 See Fondazione Housing Sociale, [www.fhs.it](http://www.fhs.it)
Bibliography

Introduction

Over the course of the 19th and 20th century, social housing as an instance of social innovation became institutionally, socially and culturally embedded in the UK (Beckert, 2009, p. 264). Between 1951 and 1979, the proportion of households living in the social rented sector grew rapidly from 19 percent to 32 percent (DCLG, 2015a). With a third of all households living in accommodation owned, managed and/or subsidized by the state at the end of the 1970s, social housing became largely recognized as a common public good.

Following a series of political and economic shocks, policy reforms have transformed the social housing landscape since 1979. Thus far, there have been three key waves of privatization. The first wave occurred in the early 1980s with the introduction of the ‘Right to Buy’ scheme in 1980, enabling social tenants to purchase housing stock at a discounted market value rate. The second wave of privatization occurred from 1985 onwards, with local authorities (confronted with increasing financial constraints) selling large portions of their housing stock to private sector and third sector organizations. The third wave of privatization (frequently cited as the ‘third way’ approach) was the introduction of Arms Length Management Organizations (ALMOs) from 1997 onwards. Whilst local authorities retained ownership of housing stock, ALMOs were principally responsible for managing social housing and its stakeholders.

This case study principally considers the causes and effects of the second wave of privatization – that is, the mass introduction of housing associations into the social housing sector. Taking an historical perspective, social housing can be seen as an embedded social innovation. However, social housing policies designed to enhance the role of non-state organizations in social housing could equally be understood as a form of disruptive social innovation. Large-scale voluntary transfers (LSVTs) of housing stock from local authorities to housing associations were designed to overcome some of the problems and limitations of social housing that is entirely financed, controlled and managed by the state. The structural causes and procedural and substantive effects of this development will be explored in this case study.

Recognizing the compounding effects of each successive wave of privatization, LSVTs will be examined within the context of changing rates of owner occupation, chronic under-investment in affordable housing and house-building schemes, a growing waiting list for social housing and increased rates of homelessness and overcrowding. This case study considers the economic, cultural and political pressures exigent upon LSTVs and as such examines the socio-structural dynamics between institutions, networks and cognitive frames that have a bearing on this social innovation and its capacity to tackle marginalization. In exploring the effects of privatization, this case study summarizes the changing demographic profile of social tenancy and what this reveals about the current status of social housing as an embedded social innovation in the UK.
Social Innovation and Large Scale Voluntary Transfers

The transfer of housing stock from local authorities to housing associations has transformed the social housing landscape in the UK. Accelerating from the mid 1990’s onwards, LSVTs peaked at 150,422 units in 2002-03 in England (Wilcox, 2006). Now, more than 1.3 million permanent dwellings have been transferred from local authorities to housing associations in Britain (Pawson et al., 2009). When the policy was introduced, a great deal of housing stock was in need of repair and/or modernisation – particularly in urban areas. One of the principal motivations for the introduction of LSVTs was to leverage private sector finance for the maintenance and improvement of properties, neighbourhoods and services.

To lock a social component into the governance and operational system of housing associations, a number of conditions were attached to LSVTs. For example, social tenants were offered assured tenancy rights, rent guarantees and housing stocking investment schemes. LSVTs could only take place if tenants agreed to it at a ballot. Housing associations have generally exceeded the commitments, expectations and standards prescribed by central government, local authorities and social tenants. In the majority of cases, they have fulfilled transfer promises, actively engaged in neighbourhood regeneration and supported the development of local facilities and services (Pawson et al., 2009).

The mass introduction of housing associations has shifted power relations between housing providers and social tenants. A customer-orientated approach to service provision and less hierarchical structure of tenant consultation has enhanced the influence and power of social tenants. The organisational culture of housing associations means social tenants are more often conceived of as active ‘clients’ rather than passive ‘recipients’ of social housing services. As a result, cognitive-cultural frames are advanced that enable networks of actors to exert pressure and influence on the organisations delivering social housing in the UK.

Prima facie, the introduction of housing associations into the social housing sector has the capacity to advance social innovation tackling marginalisation. Importantly though, LSTVs cannot be considered in isolation from the other factors that have a bearing on the economic, political and social space within which social innovation and marginalisation occur.

Privatisation and Underinvestment in Housing Stock

Since 1979, there has been a significant reduction in the proportion of housing that is publicly financed, controlled and delivered and a substantial increase in the proportion of housing that is publicly financed and controlled but privately delivered (Edmiston, 2011). Large-scale privatisation and chronic under-investment in social housing has strengthened the role of market forces in the quality, price and accessibility of housing in the UK.

In spite of an increasing population in the UK, the number of permanent dwellings completed annually has fallen dramatically over the last 39 years. In 1979, 251,820 permanent dwellings were completed compared to 137,980 in 2013 (DCLG, 2015c). This is creating a substantial ‘demand gap’ between annual demand for housing and the number of houses actually being built (Heath, 2014). As a result, house prices are rising in the UK and not in line with average earnings (NHF, 2014). In 1979, 57 percent of permanent dwellings were completed by private enterprise, local authorities completed 34 percent and 8 percent were completed by housing associations. In 2013, 79 percent were completed by private enterprise, local authorities completed just 2 percent and 20 percent were completed by housing associations (DCLG, 2015c).

Since 1980, more than £1.8 million permanent dwellings have been sold under the Right to Buy Scheme (DCLG, 2015d). On average, Right to Buy has had a progressive effect on home
owner occupation rates. However, wealthier tenants were much better able to exploit the Right to Buy scheme leading to a process of residualisation in social housing (Stephens et al., 2008). This has dramatically changed the rates of owner occupation, private renting and social renting. In 1979, 55 percent of dwellings were owner occupied. This rate peaked at 69 percent in 2002 and stood at 64 percent in 2012 (DCLG, 2015a). Between 1979 and 2012, the proportion of dwellings that were privately rented rose from 11 percent to 18 percent. Overall, the proportion of dwellings that were socially rented almost halved from 34 percent to 18 percent during the same period. The proportion of dwellings rented from local authorities fell from 32 percent to 8 percent, whilst the proportion of dwellings rented from housing associations increased from 2 to 10 percent (DCLG, 2015a). This marks a significant reduction in state investment in housing stock but an increasingly vital role of housing associations in the social housing sector.

With a contraction in social housing stock, local authority waiting lists for social housing have gradually risen. In 2012, there were 1.8 million people on waiting lists in England alone (Broughton and Keohane, 2013). As a response to the ‘demand gap’, housing stock with private registered landlords rose from 985,000 to 2.4 million between 1997 and 2014 (DCLG, 2015b). This rise in registered private landlord households, has incurred a significant cost to the public sector. In 2014-15 prices, public expenditure on housing benefit was £2.9 billion in 1979-80 and has since risen to £24.9 billion in 2012-13 (HM Government, 2014).

These changes occurring within and outside the social housing sector have drastically altered the socio-economic profile of social tenants.

The Changing Socio-Economic Profile of Social Tenants

Whilst there has always been a greater concentration of lower income households in the social rented sector, there has been increasing residualisation in the social rented sector since the introduction of Right to Buy and LSVTs (Clarke and Monk, 2011). In 1979, half of the poorest households (bottom income decile) were renting from a local authority but around 20 percent of the richest households (top income decile) were also living in social housing (Hills, 2007, p. 87). In 2012-13, 28 percent of the poorest households lived in the social rented sector, compared to only 2 percent of the richest households in the UK (ONS, 2014). In 1979, the number of poor households living in social housing exceeded the number of rich households by 2.5 times. In 2012-13, there were 14 times more poor households than there were rich households living in social housing. As previously stated, the proportion of the UK population living in social housing has decreased considerably since 1979. However, these figures also show a substantial shift in the profile and function of social housing.

With a broad cross-section of the UK population lived in social housing in 1979, housing, and in particular social housing, was largely conceived as a common public good. Paradigmatically, it was a common resource accessible to individuals by virtue of their citizenship rather than a dictate of their absolute or relative need. Since then, UK housing policy has moved to a system of needs assessment and means testing (Stephens et al., 2008). Looking at the history of the UK welfare state, universal benefits and services (such as healthcare and education) tend to receive much higher levels of public support when the majority of the general public make use of that service (Timmins, 2001). However, a ‘shift from more mainstream public provision to a welfare safety net has marginalised the social stock in the public consciousness, and reduced the voting blocks in social housing’ (Broughton and Keohane, 2013, p. 46). Understood in this way, a cyclical development of
public legitimacy has occurred whereby reduced public investment in social housing has led to residualisation and residualisation has led to reduced public investment in social housing.

**Housing Associations & Universal Credit: Corrupting Social Innovation?**

Thus far, this case study has focused on longer-term trends in UK (social) housing policy and the effects of privatisation on housing stock and residualisation. However, more recent trends demonstrate the longer-term effects of LSVTs in a general context of scarcity (Houghton Budd *et al.*, 2014).

At present, the 1996 *Housing Act* governs the allocation of local authority social housing. The Act requires local authorities to develop an allocation system that prioritises applicants for social housing according to categories of need. In 2011 the *Localism Act* gave greater power to local authorities to develop their own social housing allocation systems (Wilson, 2014). Housing associations are legally obliged to cooperate with local authorities to fulfil local housing needs. Where a potential tenant from the social housing waiting list is rejected, the housing association must explain the criteria and reasons for rejection.

In theory then, vacant social dwellings are allocated to meet the most urgent needs in order of priority (Ball, 2008). However, recent and forthcoming welfare reforms are challenging the allocation systems and function of housing associations. As part of the *Welfare Reform Act* 2012, *Universal Credit* consolidates a range of existing social security payments into one single monthly amount paid to working-age individuals between 2013 and 2017. Previously, housing benefit and financial support for housing costs was paid directly to social housing providers and landlords. Under the new scheme, social tenants will be responsible for paying their own housing provider with the financial support they receive from the Department for Work and Pensions.

The *National Housing Federation* – an umbrella body organisation for member housing associations – has strongly opposed this move and suggested it will drastically increase the rate and frequency of rent arrears and debt for low-income social tenants (Bell *et al.*, 2012). It is anticipated this will increase costs for housing associations and threaten their financial sustainability in the long-term:

“For social landlords, the financial security that comes from direct payments has been critical to their ability to secure private investment at highly competitive rates, maximising their capacity to deliver much needed affordable homes at good value to the taxpayer.” (NHF, 2013)

In an attempt to secure their financial security, housing associations have put a number of measures in place to safeguard against the phased introduction of *Universal Credit*. Housing associations are altering their business plans by increasing bad debt provision up to three times their current levels (Williams *et al.*, 2013). Importantly though, many have also altered the criteria by which permanent dwellings are allocated. Some housing associations now require prospective social tenants to: have one months deposit in advance, have a good credit rating and/or attend financial literacy courses. Many of the most vulnerable and high-priority individuals, by virtue of their circumstance, are not able to satisfy such criteria.

In certain instances then, social tenants better able to safeguard the financial security of housing associations, rather than those in most immediate need of housing support, are being prioritised in housing allocation systems. Such developments are undermining the 1996 *Housing Act* and potentially reversing the trend towards residualisation in social housing in the UK. Importantly, within the context of reduced social housing stock, individuals with the most complex housing and support needs are being pushed to the periphery of the social housing sector.
Conclusion

The introduction of housing associations into the social housing sector was part of a broader trend towards privatisation. However it was also intended as a social innovation to disrupt socio-economic structures and leverage private sector investment towards poorly resourced social housing stock. LSVTs instigated some measure of social innovation in the governance, organisational culture and service delivery of social housing. State measures to raise the profile and role of housing associations therefore had some positive repercussions for tackling marginalisation. However, these changes occurred alongside other developments such as the Right to Buy Scheme, an underinvestment in social housing and a rising ‘demand gap’. More recent changes in government policy have altered the economic landscape within which housing associations operate and deliver services. Changes to social security payments and housing benefits are threatening the financial security of housing associations and thereby corrupting their capacity to operate according to social imperatives. Within the context of economic scarcity, housing associations are resorting to measures ensuring their own continuity.

This demonstrates the economic underpinnings of social innovation and the institutional conditions necessary for innovation to function according to social objectives. The intended and unintended effects of social innovation and privatisation are largely subject to change over time and space. Cognitive frames, institutions and social networks have a significant bearing on the outcomes of social innovation in the short and long term. As such, public policy has to respond in a way that is commensurate with the social and economic risks that come with introducing private actors into public service provision.

There are inevitable limitations to private actors delivering public services and goods (Edmiston, 2014). Irrespective of their function, all private actors are subject to the same economic pressures and socio-structural dynamics. Without institutional support or intervention to create economic space, organisations engaged in social innovation are less able to fulfil their social objectives. In particular, they are less able to meet the needs of the most marginalised and disempowered citizens in society.

Bibliography


Social Housing in Eastern European Transition Countries – the Case of Hungary

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Introduction

The housing system changed dramatically in the transition countries in 1990. The socialist housing system, defined by Hegedüs and Tosics (1996) as the Eastern European Housing Model (EEHM), did not correspond at all to Western social housing models, since its main characteristics were single-party control of the housing sector, bureaucratic coordination of housing agencies, subordination of market mechanisms, and broad state control of housing services by means of massive, non-transparent subsidies spent both on the maintenance of the public housing stock and on new construction. New construction was typically favoured over maintenance. Construction subsidies were granted not only for public housing but – partly in the form of low-interest loans – also for owner-occupied housing (rural self-help buildings\textsuperscript{71}, private condominiums, buying of existing housing). State subsidised housing did not depend on the income position of the recipients. So-called cooperative housing represented a form in between public and owner-occupied housing and was counted as private housing in the statistics, however, in practice it was closer to the public housing. A detailed description of this model can be found in Hegedüs and Tosics (1996).

<table>
<thead>
<tr>
<th>Ownership status</th>
<th>1990</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private property</td>
<td>77.3\textsuperscript{a}</td>
<td>95.2</td>
<td>96.3</td>
</tr>
<tr>
<td>of this: occupied by the owner</td>
<td>73.7</td>
<td>92.2</td>
<td>91.6</td>
</tr>
<tr>
<td>of this: rented\textsuperscript{b}</td>
<td>3.7</td>
<td>3.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Property of local municipalities</td>
<td>19.0</td>
<td>3.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Other property\textsuperscript{c}</td>
<td>3.7</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Number of occupied dwellings</td>
<td>3,607,688</td>
<td>3,690,773</td>
<td>3,912,429</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office, \url{census data}.

\textsuperscript{a} Within this, 7.3% of the dwellings were the property of housing cooperatives.

\textsuperscript{b} Including minimal amount of courtesy home use and other titles.

\textsuperscript{c} Property of state owned enterprises or other organisations, churches.

\textsuperscript{71} People were permitted to build their homes in a self-help form; typically, these homes were detached family houses with a small garden. In rural areas people mainly relied (and also do so today) on self-help as regards the provision of housing. These houses were usually constructed piecemeal, each one a private project of an individual family. Limited state loans, housing construction allowance (see later in the text), and subsidised building material prices supported self-building.
In 1990, the year of the political system change, 70% of Hungarian housing stock was private property, 7% cooperative ownership, and almost 20% rental housing owned by the local municipalities (first column of Table 12). The spatial distribution of public rental housing was uneven; half of the dwellings belonging to this category were situated in Budapest, while in the villages its share was negligible (first column of Table 13).

<table>
<thead>
<tr>
<th>Ownership status</th>
<th>1990</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budapest</td>
<td>50.0</td>
<td>8.6</td>
<td>5.1</td>
</tr>
<tr>
<td>County towns</td>
<td>27.0</td>
<td>5.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Other towns</td>
<td>9.2</td>
<td>2.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Villages</td>
<td>1.2</td>
<td>1.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Average</td>
<td>19.0</td>
<td>3.7</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office

After 1990, the socialist housing finance system collapsed and the state had to withdraw from the housing sector. "It cut subsidies for new public and private construction, privatised the building industry and the industry for building materials, liberalised prices for housing services, privatised public housing and the banking sector, etc." (Hegedüs, 2008, p. 145).

Basically, we follow the logic of Hegedüs (Hegedüs, 2007; 2008, 2013a, 2013b) and complement it with data based on the three censuses of this period (1990, 2001, and 2011). After 1990 the government withdrew from the housing sector. The two most important steps of this process were the mass privatisation of the municipally owned dwellings and the drastic increase of interest rates (the so-called ‘consolidation’) of the former housing loans.

Mass privatisation

As both the state and the local municipalities (before the system change they were called local councils) had basically neglected the maintenance of the public rental housing stock, it was in very bad condition. Almost one third of it had been built before 1920 and around 30% of the dwellings had only one room (
Table 14).
Table 14: Some characteristics of the Hungarian housing stock, in %

<table>
<thead>
<tr>
<th>Type of dwellings</th>
<th>1990</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Built before 1920</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>municipal</td>
<td>31.2</td>
<td>n.a.</td>
<td>24.7</td>
</tr>
<tr>
<td>private</td>
<td>13.7</td>
<td>n.a.</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Built after 1989 and 2001a, resp.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>municipal</td>
<td>-</td>
<td>1.9</td>
<td>7.9</td>
</tr>
<tr>
<td>private</td>
<td>-</td>
<td>10.2</td>
<td>9.2</td>
</tr>
<tr>
<td><strong>Having only one room</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>municipal</td>
<td>28.8</td>
<td>44.0</td>
<td>40.2</td>
</tr>
<tr>
<td>private</td>
<td>12.2</td>
<td>10.0</td>
<td>8.2</td>
</tr>
<tr>
<td><strong>Substandardb dwellings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>municipal</td>
<td>18.3</td>
<td>28.5</td>
<td>17.0</td>
</tr>
<tr>
<td>private</td>
<td>32.8</td>
<td>16.3</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office, census statistics, different years.

b A dwelling is substandard if at least one of the following conditions is given: no WC, bathroom or shower, sewage, foundation, or only one room of less than 12 m².

Since municipalities had no financial resources to maintain these houses and apartments, they decided that the best solution would be to get rid of them. On the other hand, there was pressure, mainly from upper middle-class tenants living in better apartments who wanted to buy their dwellings at low prices. The privatisation of public rental housing started already in 1991, primarily in the ‘better’ parts of Budapest. Later, as Hegedüs (2007) says, ‘the 1993 Law on Housing⁷² introduced the ‘right to buy’ principle, except for buildings which had already been designated for rehabilitation or were defined as being culturally significant. Sitting tenants who could afford it generally bought their flats, at an effective price of about 10-15% of the market price. The remaining public rented sector therefore housed families with low incomes and social status. The households ‘trapped’ in the public sector were typically the neediest ones. The same process took place in ‘enterprise housing’, which represented around 3-5% of the housing stock in the 1990s.’ The bulk of the privatisation process was completed between 1990 and 1996. In 2001 only the 3.7% (Table 12) of the housing stock remained in municipal ownership.

According to the law, the municipalities had to inform the tenants about the detailed technical conditions of their houses; based on this, the tenants could estimate the future maintenance costs. Consequently, apart from houses designated for rehabilitation, those houses and apartments which were in the worst technical condition remained in municipal ownership.

Table 14 shows that while the average quality of private dwellings continuously improved, the share of small and substandard dwellings increased in the residual public sector.

The abovementioned Law on Housing gave the owners the right to set the rent, since there is no central rent control in Hungary. Within one settlement the public housing rent depends on the quality of the apartment: it should be relatively lower in case of substandard dwellings. The public rents of standard apartments amounted approximately to 20-40% of the private rents (Hegedüs, 2013a), however, this level varied from settlement to settlement.

Along with the ownership, local municipalities also bear the responsibility of maintaining the housing stock, without any grant structure to compensate for horizontal differences. The result of this kind of decentralisation was that municipalities with the highest poverty levels had the highest need for social housing, the highest maintenance costs, but the lowest financial means. As a consequence of this, for many years social housing rents were highest in district 8, the poorest district of Budapest.73

The privatisation process slowly continued in the first decade of the 2000s and the share of public rental housing fell below 3%. Those who remained dependent on public housing can be classified into three (partially overlapping) categories: the poorest families who could not afford to pay even the discounted purchase prices, families living in houses in very bad condition who did not consider it worthwhile to acquire ownership because of the high maintenance costs, and old people without potential heirs.

The mass privatisation of rental housing was supported by almost all stakeholders. The majority of the households counted on financial benefits and higher housing security. To meet the tenants’ demand to buy housing was a politically popular step which was consequently supported by most of the politicians. Local municipalities regarded privatisation as a good way to get rid of the maintenance burdens. This was also strongly recommended by experts of international organisations, for example the World Bank (Buckley et al., 1992, 1994). There were only a few researchers who warned of the risks, but their opinion was not taken into account (Zsuzsa, 1992, 1996; Hegedüs et al., 1993)

**Mortgage interest rate increase**

Before the political change loans for the building of housing were usually granted at no or very low (maximum 3.5%) interest rate. At the beginning of 1992 this interest rate was increased to 15%, i.e. the market interest rate level. Later, following the increasing inflation, the interest rate even reached 30%. However, according to the law half of the remaining loan was waived for those who could repay their mortgage in one payment. This means that while better-off families could have a huge financial gain resulting from an early repayment, the financial burden on poorer families increased dramatically. Such a situation, exacerbated by loss of employment (approx. one million people experienced a shorter or longer period of unemployment in these years), frequently also led to homelessness. Such families had no access to social housing at all. As

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73 Budapest is divided into 23 districts and has 24 municipalities, one central and 23 at district level. The division of tasks is very complicated but both social housing and social policy belong to the district level.
Table 14 shows, only a minimal number of new social houses were built between 1990 and 2000.

Unlike the privatisation, the increase of the mortgage interest rate was an extremely controversial measure. This can be illustrated by the fact that 1,797 petitions were submitted to the Constitutional Court of Hungary demanding that the law be declared anti-constitutional. The Court decided to reject these demands.\textsuperscript{74} It accepted the government’s argument that the mortgage interest subsidies had reached the mark of 16.3% of the central budget and that this increased burden jeopardised the fulfilment of other tasks. This decision put an end to any further debate.

An interesting aspect of the public debates was that the gains from the interest rate increase and the costs of halving the remaining loans were not contrasted with each other. We can say that the government was buying the silent support of the majority of the middle class.

**Housing policy changes around 2000**

In 2000, based on the improving macroeconomic situation of the country, the government launched a new housing programme. A new subsidy system was introduced for housing mortgages by tax exemption after mortgage payment, which resulted in an unprecedented increase of housing loans in 2001. During the course of this mortgage programme (2002-2004) 60% of the subsidies benefited the upper 20% of the households (Hegedűs, 2013a).

Additionally, a grant programme was initiated to support social housing investment by local governments, covering up to 75% of the costs of social housing investment for social rental housing, cost-based rental housing, housing for young families, and retirement homes. Close to 12,800 units were established, including 8,900 rental units (Hegedűs, 2013a). Mainly as a result of this programme, between 2001 and 2011 the share of newly built social dwellings reached 8% of the total stock. Apart from the opposite effect of the slowly continuing privatisation (25,000 further housing units were privatised in this period), the share of the small and mainly that of the substandard municipal dwellings decreased significantly (\textsuperscript{74} The decision of the Constitutional Court in Hungarian: http://public.mkab.hu/dev/dontesek.nsf/0/9440BEA01EBD9E27C1257ADA0052B0E0?OpenDocument

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In the case of cost-based rental housing the minimum rent was set at 2% of the construction costs. The cost rent was about 40-60% of the market rent, equating more or less double the amount of social rents, again with settlement differences. The cost rent was too high for poor families but not high enough for long-term cost recovery.

Local governments can only allocate vacant and newly built rental units, which represents no more than 4-5% of all housing market transactions (Hegedüs, 2013a). The allocation criteria for new tenancies were not regulated and local politics were of importance in discretionary allocation. There were two typical methods of allocating social housing: waiting lists and special bidding systems. In the bidding system besides an upper income limit solvency was the most important criterion. Local governments dominated by the middle-class usually tended to reject the poorest households in the allocation process.

On account of the fiscal costs of the programmes, the new government, which took office in 2002, tried to slow these programmes down, but it took almost three years to change the subsidy schemes. The social rental programme was stopped in 2004 because of fiscal pressure. In 2005 a new rent allowance programme was introduced, which aimed at using the private rental sector for social purposes, however, it proved to be a failure. The main cause of the failure was that the programme required that landlords be registered with the tax authority. However, the majority of private landlords do not pay tax on this kind of income.

In 2004 the government introduced a new housing allowance programme, which received 90% of its financing from the central budget; the eligibility rules were also set centrally. As a result of this, in 2005 around 8% of the households received this kind of support, compared to 4% in 2003. This level remained more or less the same until 2015. Parallel to this, a housing debt management service was included in the welfare system, since due to unpaid utility bills 13% of the households owed over 3 months’ worth of debt (Hegedüs, 2013a). This service could reach between 10 and 20 thousand families per year.

Another important scheme should be mentioned as well, the housing construction allowance, which relates to private housing but has an important effect on the poor households. This scheme was first introduced in 1971 and remained in force also after the change of the political system in Hungary. It is a grant exclusively for buyers of newly built homes or self-builders, and its amount only depends on the number of children in the household and not on the family income. In 1995 the amount of the grant was increased for families with two or more children, which made it possible for low-income households to build low-cost and low-quality housing without savings. This programme had several negative effects on poor families: The amount of the grant was enough to build a new house only in underdeveloped regions; consequently, the resulting building of housing in these areas increased the spatial segregation of the poor and Roma population.

In 2008 the housing market was hit by the financial crisis and in 2009 most housing subsidies were suspended. In 2015 both the centrally regulated housing allowance system and the debt management service were eliminated, and the task was devolved to the local municipalities. Apart from this, there were no new social housing policy developments in the last years. (The serious problem of housing loan arrears, mainly denominated in Swiss francs, goes beyond the scope of this short summary.)

To summarise, after the system change in Hungary there was no consequent social housing policy. The mass privatisation, the mortgage interest rate increase in 1991, or the 2002-2004
mortgage programme directly increased social inequality. The poorest households were trapped by the social rent system and by the anomalies of the housing construction allowance scheme, which contributed to their marginalisation and spatial segregation. ‘[C]entral and local governments have a dual (partly conflicting) function: as the owners of service providers or as tax levy authorities, they are interested in increasing housing service fees, but they simultaneously have to guarantee the financial security of the households with income benefit programs.’ (Hegedüs, 2013a, p. 215)

**Demand for social housing**

Hegedüs, Eszenyi, and Teller (2009) defined four basic situations which increase the probability of the need for social housing.

1. Young families without family support. The estimated number of these families is 110,000.

2. People living in segregated slum housing (Roma estates, villages situated far from the main transportation system, segregated urban housing): about 300,000 people. This estimation is confirmed by a later survey presented in Domokos and Herczeg (2010): 300,000 people live in 1,600 smaller or larger segregated settings or colonies. However, this estimation does not encompass the inhabitants of fully segregated villages.

3. Elderly low-income families, typically living in own house/apartment with too high housing expenses (including mortgage): about 110,000 families.

4. People living in institutional care. According to the authors’ estimation there are overall 35-40 thousand affected persons, 10,000 of them per year need help to find housing after leaving a care facility.

Altogether about 500,000 social housing units are needed, which equates to a number approximately 5 times of the existing stock.

The annual report of Habitat for Humanity Hungary (Habitat, 2014) gives a lower estimation. According to the organisation 300,000 social rental units are needed. Based on the Eurostat statistics it presents some of the main housing problems in Hungary. In order that more awareness is raised by the report, the organisation mainly focuses on the situation of children. In Table 15 we complement the organisation’s enumeration of housing problems with other data. With respect to severe housing deprivation, Hungary’s figures are the second worst among the EU countries. Based on the data presented in Table 15, the estimate of 300,000 needed social rental units seems to be an underestimate.

*Table 15: Housing conditions and housing deprivation in Hungary, 2013*

<table>
<thead>
<tr>
<th>Share of the population, in %</th>
<th>Total population</th>
<th>Children (aged 0-17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in an overcrowded dwelling</td>
<td>46</td>
<td>-</td>
</tr>
<tr>
<td>Living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>Having neither a bath nor a shower in their dwelling</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Not having indoor flushing toilet for the sole use of their household</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Having neither a bath, nor a shower, nor indoor flushing toilet</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>
in their household
Considering their dwelling as too dark 8 10
Living in severe housing deprivation \(^b\) 18 29
With housing costs representing more than 25% of disposable income 36 -
With housing costs representing more than 40% of disposable income 13 15
Having arrears on mortgage or rent payments 7 -
Having arrears on utility bills 24 -
Having arrears on mortgage or rent, utility bills or hire purchase 26 -


\(^a\) A dwelling is overcrowded if it does not meet the following criteria: (1) at least one room in one household; (2) a separate room for every coupled living in the apartment; (3) a separate room for every single person above 18 years of age living in the apartment; (4) a maximum of two 12-17 year old children of the same sex can live in one room; and (5) a maximum of two children below 12 years old can live in one room.

\(^b\) Housing deprivation occurs if at least one of the following conditions is present: (1) living in a dwelling with a leaking roof, damp walls, floors or foundations, or rot in window frames or floor, (2) no bath or shower and no indoor toilet, (3) the dwelling is considered too dark. Severe housing deprivation: housing deprivation + overcrowded dwelling.

Innovative approaches and the role of NGOs

The most important non-governmental housing organisations are the Hungarian organisation of Habitat for Humanity and the Metropolitan Research Institute. Habitat for Humanity is a well-known international NGO interested in housing poverty. Its Hungarian organisation (HFHH)\(^{75}\) has been operating since 1996. It helps poor families to build new homes (150 families) or renovate their existing homes (620 families), and it organises training focusing on household management and energy efficiency. HFHH also took part in the renovation of homeless shelters. It publishes important housing policy studies, including yearly reports on housing poverty in Hungary.

Its new innovative programme is the Resource Centre, which is a kind of ‘construction material bank’ providing leftover or used building materials for poor families to buy at a low price. It also provides tools for rent to complete small repairs. The programme's goal is to enable low-income families in underprivileged, segregated settlements to improve their own housing. The programme also offers a pre-saving scheme for families to make it easier for them to buy materials and rent tools, and also to make them more aware of their finances. The pilot programme currently runs in a segregated ghetto-like Roma settlement (inhabited by 500 people) of the village Bag (4500 inhabitants). There the organisation cooperates with the BAGázs Non-profit Association\(^{76}\) which operates a wide scale of innovative social programmes (social enterprises, small garden programme, debt-service, community development, women's club, football club, etc).

The Metropolitan Research Institute (MRI)\(^{77}\) was established in Budapest in 1989. Since then the MRI has become a recognised institution working in the areas of housing policy and urban development as well as local government finance research in Hungary. The MRI undertakes
research and consultancy assignments, organises conferences, and designs and provides training in these areas. The majority of the publications referred to in this summary were prepared by the researchers of the MRI.

The proposal for Social Rental Agencies

In the field of social housing in Hungary the most important new proposal that aims at establishing Social Rental Agencies (SRA) is being prepared by the two aforementioned NGOs, HFHH and MRI (see Hegedüs et al., 2014; Habitat, 2013). These organisations aim at developing a model for an affordable private rental sector by utilising vacant private housing for social purposes. The idea is based on the fact that in Hungary 11% of the total housing stock is not inhabited: it is either vacant or not in residential use. There are about 380,000 vacant dwellings, 150,000 of which are located in the capital or in the larger cities. The great majority of these dwellings is well equipped with amenities. (Habitat, 2014, p. 8)

According to the proposal, the SRAs are supposed to act as intermediaries between the potential landlords and the social renters. ‘SRAs – functioning under the central coordination of a National Housing Agency (NHA) – offer a guaranteed, low risk arrangement to landlords. SRAs contact potential landlords who are willing to commit to a long term contract (3, 5 or 7 years, tentatively), for a rent level approximately equal to the 70% of the net rent (market rent minus PIT). In this arrangement the SRA guarantees regular rental income to the landlord, manages potential risks and amortisation in a way that the landlord’s rate of return over the contractual period is still about 10% higher than it would be under individual market renting, and guarantees the preservation of the condition of the property. It is necessary, though, that the landlords contracted by the NHA are granted PIT exemption (which figures as tax expenditure in the national budget); furthermore, an amount equal to 20% of the rent level has to be provided from the national budget as a contribution to the NHA’s Risk Fund […]’. Moreover, the SRAs will be eligible for a special grant to support the social work related to the sub-groups of the tenants who require this kind of assistance. This is a special risk-sharing financial model, where the cost and risk of social housing is shared between the landlord, the local SRA, the NHA (Risk Fund) and the tenants.’ (Hegedüs et al., 2014, p. 5)

A small-scale example of the implementation of this idea is the project ‘Lifeline Foundation for the Homeless’ (in Hungarian: Szalmaszál Alapítvány a Hajléktalanokért). By means of an accommodation browser service the foundation passes on cheap rented accommodation addresses in Budapest, bought from estate agents, to the needy. Those who are not supported by any social facility are supported by special social work.

Social housing activity of other NGOs

There are NGOs whose main field of activity is not housing, but which also have or had housing programmes. The Autonomia Foundation was established in 1990 in order to promote civil society development. It supports civil initiatives in which people mobilise the available local resources in order to reach their goals. Besides direct development work the foundation engages in training and research and facilitates the efficiency of government and European programmes aiming at improving labour market conditions of the Roma population and the poor. Its main fields of activity are labour market and microsavings programmes. Between 2009 and 2012 the foundation ran an individual saving programme, based on the Individual Development Account (IDA) methodology, for low-income, ‘non-bankable’ people.

http://www.szalmaszal.org/index.bns?lang=en
(including Roma and young grown-ups from state care facilities) to improve their housing situation. Clients were also eligible to take out a loan in order to achieve their financial goals. Counselling and family care, practical financial training, as well as technical advice and support for the renovation of housing with special attention to energy saving solutions were provided for the participants in the project. The foundation had signed 170 contracts in 14 settlements; however, the final results of the project are not published on its homepage. The activity of the Autonomia Foundation is financed by European and Norwegian grants and with the support of the Open Society Institute (OSI).

The Hungarian Maltese Charity Service is one of the largest social purpose organisations in Hungary. In the field of social housing its most important programme is the so-called 'Inclusive Village' (in Hungarian: Befogadó Falu) project. It is implemented in two villages (Tarnabod and Erk) situated in an extremely underdeveloped microregion of Hungary. The organisation bought uninhabited houses in these villages to provide low-rent social housing for previously homeless individuals and families. This was preceded by a community development process to gain the support of the local inhabitants. Labour market (in the form of a disassembly business for used electronic devices), transport (village bus), small garden, cultural and other community development programmes are supporting the success of the inclusion.

'Hell’s Tower' is the mocking name of a large prefabrication housing block in Veszprém, which became dysfunctional and practically ghettoised by the late 2000s. The Maltese Charity Service started to buy apartments, renovate parts of the building, and reorganise community life in the block. With important external funding (especially from OSI), the charity turned the declining building into a functional community with intensive social work and basic homeless care.

**Innovative programmes of local municipalities**

‘Magdolna neighbourhood programme’ is a social urban renewal pilot project in one of the most deprived areas (inhabited by 12,000 people) of the 8th district (called Józsefváros) of Budapest. The project is conducted and organised by the district’s urban development company, Rév8, whose shareholders are the municipalities of the 8th district and Budapest. The Magdolna neighbourhood programme was launched in 2005 and has experienced a deep transformation since its beginnings. The main elements of the first phase (between 2005 and 2007) of the Magdolna project were: (1) rehabilitation of housing, (2) improvement of public spaces, (3) establishment of a community centre, (4) improvement of schools and educational opportunities, (5) prevention of juvenile delinquency, (6) development of employment opportunities and economic activities, and (7) the provision of local cultural, social, and health services. The key innovative concept of this phase was participation: physical renovation works in the area were realised through the involvement of local population. In 2008, the resignation of the mayor of the district changed the political context: the strong political support of the Magdolna programme suddenly ceased with the arrival of the new mayor affiliated with the conservative party (FIDESZ). The main conceptual framework of

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80 [http://www.maltai.hu/](http://www.maltai.hu/) is available only in Hungarian.

81 Disclaimer: As an elected member of the local municipality I took part in the design of the Magdolna programme.
the project, based on public participation, community building programmes or structural renewal of buildings did not coincide with the spirit of the new leadership, demanding visible and quick results such as clean and nice facades, public order, etc.’ (Case study of ‘Net-Upp!’, European Network for the Study of Urban Policies and Practices 82.) The Magdolna programme, financed from EU sources continues to be active, however, without the innovative feature of the involvement of local population in the renovation process. The abovementioned Net-Upp case study gives a detailed evaluation of the successes and failures of the pilot project.

The ‘LÉLEK-programme’ of two Budapest district municipalities (8th and 10th district) in cooperation with Hungarian Baptist Aid offers housing to homeless persons in renovated municipally owned housing. The programme involves the selection, preparation, and mentoring of housing complexes; the final aim of the programme is to help the selected beneficiaries maintain their housing and autonomously hold on to a job. The programme can only support a small number of beneficiaries, for whom it provides intensive support and social work for a prolonged period. (Habitat, 2013)

The municipality of Szombathely (a county centre in western Hungary) introduced ‘social accommodation’ to manage the situation of indebted households living in relatively high-cost apartments by means of municipal social rental housing. In order to avoid evictions, the municipality places these households in municipally owned housing units of lower quality which, however, are more easily affordable. In return, the tenants have to cooperate in the municipality’s programme which offers them a very gradual debt reduction management in connection with financial support, as long as they pay regularly. Furthermore, the beneficiaries have to cooperate with the municipality’s family support service. (Habitat, 2013)

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Kruppian (social) housing – An Early Industrials’ Philanthropic Solution
Gunnar Glänzel and Thomas Scheuerle
CSI Heidelberg, Germany

Problem situation
Alfred Krupp (1812-1887) was one of the first major industrialists in Germany. Under his management, the Kruppsche Gusstahlfabrik (Kruppian Steel Mill) became the largest industrial enterprise in Europe, and thus its headquarters in Essen, Germany, became the largest employer in the region. Furthermore, industrialisation attracted masses of the impoverished rural population to become workers in the emerging industrial centres which were at the time rather small towns not at all prepared to become major cities. This had strongly negative effects on the living conditions of workers for whom there was way too little living space. As a result, they frequently changed their centre of living (often they were forced to) which in turn negatively affected their work and (on aggregate) the industrial production process, particularly in the case of specialised and/or highly skilled workers (Krämer, 2013). So there were economic and social problems closely intertwined, and from the beginning in the 1860s onwards Krupp saw and addressed both sides, which is why his endeavour to tackle these problems can be seen as an early example of hybridity in the socio-economic field.

Solution approach
Motivation and goals
Alfred Krupp quite early on realised that the social problems caused by the mode of production could become an economic problems for the company itself, e.g. when workers move too frequently or become unproductive as a result of bad living conditions. Although this insight was not the sole motivation for him to tackle the social problems through social housing (paternalistic “care” for “his” workers too was one of Alfred Krupp’s constant motivators), it was very much central (Kieß, 1991; Krämer, 2013, pp. 3–11). Krupp’s initial and constant motivations and goals were highly complex and diversified: It is commonly accepted that he had both economic and social or even philanthropic motives. However, the economic or power-related elements predominated social motivations a little, an observation also backed by the fact that a considerable amount of the dwellings were strictly rented to non-unionised workers only, pointing towards the assumption that it was not the well-being of workers (as perceived by themselves) which was at the core of attention but their functioning in the production process (as perceived by Krupp himself) (Bajohr, 1987; Berdrow, 1928; Schraepler, 1955). Krupp was clearly a patriarch who wanted total control over the company and expected employees to subordinate themselves accordingly. In “exchange” for solving their housing problem, Krupp expected loyalty towards the company, as he was led by the mutual principle of performance and reward (Fuhrmann et al., 2008; Krämer, 2013). So, obviously, the social problems of the time presented an opportunity for him as an entrepreneur. This interpretation is also backed by the fact that the Krupp company “promoted” its social engagement through PR channels (Krämer, 2013) which also makes it an early example of organisational hybridity. But this in turn can also be interpreted as a

83 In Essen for instance, we see a population growth from 10,000 (1851) to 230,000 in 1905 Fuhrmann et al. (2008, p. 103)
wilful expression of Krupp’s personal view of how workers’ decent living should look like: As he believed that hard work should result in improvement of one’s personal socio-economic situation, this should also manifest in living conditions. Thus, he wanted to include workers into the ‘bourgeois’ society (not the upper, capitalist class of course, but the productive and civil parts of society), and the view of world he believed in he also wanted to communicate by means of his building projects (Fuhrmann et al., 2008). However, this latter aspect became manifest in the actual construction of the building only later on.

Beginnings: Cheap living space for the masses

Therefore in the beginning, it was primarily the demand for living space of his (non-unionised) workforce, particularly being skilled work, which made him build the first housing complexes for workers in the early 1860s. Beforehand, Krupp had been buying or renting existing property for his workers, but he realized that this would not satisfy demand in the long-run (Kieß, 1991), particularly as Krupp saw that at the time many Arbeiersiedlungen (workers’ settlements) emerged all across Europe. So in 1861, he started with a rather small building project for his skilled and most-valued foremen, but at the same time he also realised that he would need way more space. Therefore in 1863, Krupp had the first Arbeiersiedlungen built in what would later be called the ‘Arbeiterkolonie [workers’ colony] Westend’. Its first buildings consisted in nine rows of two-storied houses, eight of which would contain units of 15 m² with a combined kitchen/living room, a bedroom and a toilet; the ninth again was meant for higher-ranking workers and thus was a bit more comfortable. The workers’ houses contained 136 dwellings but no community institutions, and so there was no character of a real settlement (Kieß, 1991).

From the mid-1860s to the early 70s, no new dwellings for workers were built due to a worsening economic situation of the company and also because of the Franco-German war in 1870/71. However, there was a post-war boom which led to a renewed flow of workers to the region (also because of a boom in the montane industry) and thus to a worsening shortage of living space. These developments enabled Krupp to hold on to his plans to provide an all-round support to his workforce and thus also reactivate his building programme. The first new settlement, built 1870-71, was called Neu-Westend (rendering the original one to subsequently be called Alt-Westend) with 96 dwellings (Kieß, 1991).
Several settlements followed in the next years: Until 1874, the Nordhof (162 dwellings), Schederhof (240 dwellings in the first phase, 492 in the second), Baumhof (72 dwellings in the first phase) and Kronenberg (1570 dwellings) were built. Due to a recession, no new dwellings were built from 1874 onwards.

Other services provided to workers

Quite early on, Krupp also provided other goods and services to raise workers’ living standards in the hope of enhancing their bonds with the company and increasing their loyalty. Among these were social security services in the forms of an illness and death benefit fund (mandatory for workers from 1853 onwards) as well as a pension fund (since 1855). Furthermore, he turned to another problem caused by the rapid population increase, namely the massive increase in the price for food. So in 1858, Krupp had a corporate bakery built to serve workers. Also during that time, Krupp workers founded the Essener Konsumverein (Essen consumption association), a sort of cooperative aiming at an increase in bargaining power to outsell prices for food. When that endeavor failed in 1863, Krupp took over, merged it with his bakery and enhanced his supply of food and other groceries. In the following, he offered affordable daily goods in so-called Konsumanstalten (consumption institutions).

Just like the social housing projects, these services and facilities were also meant to serve two closely intertwined ends: To increase workers’ standards of living but also their loyalty towards (and also their dependency on) Krupp and the company. His son Alfred Friedrich Krupp would later set up two foundations, one to take care of sick workers and one to promote community causes in worker colonies (Kieß, 1991; Fuhrmann et al., 2008).
Later stages: Better housing and new beneficiaries

In 1890, after Alfred Krupp had died and his son Alfred Friedrich (1854-1902) taken over the Krupp company, settlement building was restarted and the Baumhof settlement became enlarged to a new total of 154 dwellings. At the same time new and bigger settlements were planned, and the building of the Alfredshof began in 1893. Named after the former head of the family and company, the Alfredshof was built in several phases until 1918 and finally contained more than 1,700 dwellings with relatively high living standards and many community buildings. The Altenhof settlement comprised two parts: Altenhof I (built between 1883 and 1907) contained 607 dwellings, and in contrast to former buildings these were not meant for the current workforce but for retired workers to spend their old age free of charge. Part two, Altenhof II (1907-1914) even consisted of nicely built and diversified stone houses, inspired by the British Garden City, i.e. semi-urban/semi-rural settlements with architecture oriented towards inhabitants’ needs (clean air, good transportation, close shops, schools, kindergartens, etc.) and featuring lots of green spaces within the settlement. In 1929 and 1937, numerous comfortable and very much diversified two-storied buildings were added. After Alfred Friedrich’s death in 1902, the construction of the Friedrichshof began in 1903 and was concluded in 1906. By this time the settlement would finally have 525 worker dwellings with a relatively high standard of living and numerous community facilities. Some settlements followed in the coming years: The Dahlhauser Heide (715 dwellings built 1906-1915) and Emscher Lippe (built 1909-1911) settlements were regular but also fairly comfortable worker colonies, where the famous Margarethenhöhe became a lighthouse project in the Garden City movement. The target population now no more were workers but middleclass foremen and white collar employees.

Interpretation and contemporary critique

The crowding of worker buildings and single dwellings varied considerably, and at times they were pretty much overcrowded, particularly in the early times when demand continued to significantly exceed supply. Over time, living standards (average space per person, hygiene, privacy, etc.) in the Krupp settlements increased considerably, mirroring the economic success of the company during the time of industrialisation and also of nationalistic armament in which there was massive demand for its steel products. So overall, we seem to witness a process in which the company’s social housing projects significantly increased the standards of living and changed predominant motives from economic ones to social or even philanthropic ones. However, we also see critical contemporary voices, e.g. from socialist observers. One of them, Kurt Eisner, commented on the Krupp settlements as “cemeteries for the living” (Eisner, 1912), quoted from (Bolz, 2010, p. 91; Baedeker, 1912, p. 101; Berdrow, 1928, p. 42). Yet such interpretations are supposedly informed primarily by principle rejections of capitalism. Objectively, we do see a material increase in the standard of living of many, however this very often was limited to the very level necessary to keep the workforce functioning. Worker wellbeing and human development as a philanthropic end in itself certainly was not the early core of motivation, although one has to state that within the cognitive frames of their time, the Krupps’ welfare programmes were fairly revolutionary, particularly the later settlements.
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Problem situation

In the 19th century urban populations multiplied due to industrialization. Early in the century there was only one German city with more than 100,000 inhabitants (Berlin), while half a century later there were 5 and another 50 years onwards 41. In 1905, one in five of the German population lived in a city. Of course, this process was not planned or even managed very well and thus brought along numerous social problems, with housing problems at the forefront. This was also triggered by contemporary liberal “manchesterial” thinking according to which “everything should be left to the free play of the [market] forces” (Kampffmeyer, 1908, p. 578).

Thus, building dwellings for the impoverished workers was left to profit-oriented construction firms and speculators. However, the lack of affordable living space for impoverished or lower middle-class workers is only one side of this problem. The other is the overcrowding of cities in more general respect and the chaotic ways in which they grew. This problem is more organisational and infrastructural, but to a certain extent also an aesthetic one.

However, there is more to it: It was also criticised that through the massive population growth, people got deprived of their capability to influence or even form their environment. Not that these issues had been very high on the ideological agenda before, as such emancipatory ideas were still rather new or even revolutionary, but the problems resulting from urbanisation made them much more evident to some contemporary observers: There was no such thing as democratic or communal planning possible, i.e. people were not able to participate in any sort of planned development (Howard, 1944; Kampffmeyer, 1908). Finally, a third aspect of the urbanisation problem is the depopulation of rural areas.

So, marginalisation as a result of urbanisation and overcrowding can be understood as the interplay between more ‘hard-core’ socio-economic and health problems on the one hand and the lack of access to a certain urban living standard and participation in development on the other. The Garden city movement was established on the basis of the insight that these problems were all interrelated and that “the satisfactory solution to almost every social problem is dependent on the successful resolution of the housing question.” (Kampffmeyer, 1908, p. 584)

The ideas of Ebenezer Howard

In 1898, stenotypist Ebenezer Howard published the book “Garden Cities of Tomorrow” in which he laid out his ideas about garden cities:84 Although extending a larger city, the garden cities should become independent entities instead of just being suburbs. As such, they should be placed in the countryside and contain living estates besides industrial, business and cultural...

84 The idea and the book were inspired by Edward Bellamy’s utopia „Looking Backward“ (1888) and supposedly not on Theodor Fritsch’s “Die Stadt der Zukunft” (The City of the Future) published in 1896 Kampffmeyer (1908).
facilities. The core idea was decentralization, since the land prices in urban centres were too expensive to build decent housing facilities.

Howard conceptualized Garden cities in several circles: There should be one central city of approximately 58,000 inhabitants surrounded by six smaller ones of nearly 32,000. The cities themselves should also be circular with a centre (‘Central Park’) of cultural and business facilities surrounded by living estates, all of which in turn were to be separated by spacious greens. All should be connected and well accessible by public transport:

![Garden city arrangement (Howard, 1944)](image)

Besides these architectural conceptions, Howard also connected social reform thinking to his Garden City idea: “When Howard designed the Garden City in the 1890s, he followed unhesitatingly the social ideals he had learned as an obscure Radical of the 1870s and 1880s.” (Fishman, 1977, p. 30) Not only should the Garden City cope with the socio-economic, hygienic, aesthetic and infrastructural problems of urbanisation, but also with the lack of
control, participation, and city management. Howard envisioned that “remedies for this
dismal situation were democracy and cooperation.” (ibid.)

Strongly influenced by ideas of Edward Bellamy (1888) and Peter Kropotkin (1898), Howard
devised the Garden city to allow for a balance between individualism and central
organisation. As such, the “Garden City in all its aspects expressed Howard’s ideal of a
cooperative commonwealth. It was the Zion in which he and his fellow Radicals could be at
ease, the environment in which all the Radical hopes could be realized.” (Fishman, 1977, p.
45) Although he believed in socialist ideas generally, to him it was the most important
principle that no degree of socialism for which citizens were not ready should be imposed. He
rather believed in gradual, voluntary and to a certain extent also “natural” transformation
(ibid, p. 49).

Financing of the model project according to Howard would be achieved in what would
nowadays be coined an impact investing approach: For building the city, like-minded wealthy
individuals should be convinced to invest funds which would pay a modest rate of return
(ibid). Once the cheap agricultural land would have been turned into an attractive Garden city,
land prices would rise and investors could be paid off. Overall this approach could be termed
“philanthropic land speculation.” (ibid, p. 46).

Such approaches, known as “Philanthropy plus 5 percent” were fairly familiar in
contemporary English reform circles, e.g. to raise money for cooperative stores or workshops.
However, Howard devised an important differentiating detail: Part of the proceeds from rental
income would be placed in a sinking fund of which liabilities would eventually be bought
back by investors so that finally residents take ownership of the garden city. They would
continue to pay rents in order to finance public services (ibid, p. 47).

**Contemporary perception, development & impact**

*England*

Howard’s ideas were welcomed to a large extent and quite quickly among societal groups in
England and also elsewhere in Europe. Among them were also industrialists and policy-
makers who supported his ideas; a prominent example was the business man and social
reformer Robert Owen (Pahl, 2000, p. 5). In 1899, the year after Howard’s book had been
published, the “Garden City Association” was founded.

The garden city movement had several interrelated objectives to resolve the housing question:

- The foundation of new cities in the countryside following well-thought out principles
  and policies with the aim of providing healthy living space surrounded by greens.
- The foundation of suburb-like (but independent) cities near metropolises in order to
  disburden them from overcrowding.
- Building Garden villages near industrial sites to provide close living space for
  workers.
- Development of existing cities towards its own objectives and ideals.
- Moving industrial facilities out of overcrowded cities and city centres.

So, although social reform motives played a very important role in Howard’s original Garden
City conceptualisation, they were not so much prominent in the early adoption of his ideas by
the movement. Instead, aesthetic and general city-planning motives here were at the forefront.
Wealthy industrialists like Cadbury, Lever, and Rowntree supported these ideas and the movement through massive PR efforts. Cadbury and a number of other successful businessmen were also on the board of the first garden city building company, among them also newspaper and publishing magnates Alfred Charles William Harmsworth and Thomas Purvis Ritzema. Together, they owned large and influential newspapers, of course held very good additional contacts to the press, and they also offered free advertising space in their newspapers (Hall and Ward, 1998). That enabled them to exercise strong influence on British popular opinion. As a result of this influential support, the movement took off quite quickly and launched a model project just a few years later in Letchworth near London.

Germany

In Germany, there was a strong movement of social reformers active around the turn from the 19th to the 20th century. They formed the “Deutsche Gartenstadt Gesellschaft” (German Garden city association) and spread the Utopian ideas of Garden cities and other social reform concepts throughout the country. As a result, local groups came into existence which used their existing knowledge about local circumstances to start planning Garden cities. One of the central objectives of the movement and the association was to have locals take ownership of their premises and reduce profit-oriented speculation, i.e. to sustainably ensure affordable living space. But also living should become more spacious, hygienic, and community-building. That is, the Garden city movement in Germany was very much connected to ideas of cultural, social and ethical reform Pahl, 2000, Kampffmeyer, 1908). In this respect it was not targeting exclusively the impoverished workers. Instead it conceived itself to be more universal, targeting society as a whole, built on the assumption that what we conceive as marginalisation affects most of society: The lack of a universally valuable way of living in harmony with human nature (Kampffmeyer, 1908).

Therefore, some examples of Garden cities in early 19th-century Germany were not really cases of social housing for those we would think of as the marginalised, but sometimes even more for middle or upper classes. Very often, Garden cities were built, owned and operated by inhabitant cooperatives. This required certain purchasing power from their inhabitants. However, the most prominent early example, Dresden-Hellerau, was built by support of industrialist Karl Schmidt for his workers and employees. Until 1913, 400 dwellings were built by a consortium of several entities, among them the “Gartenstadt-Gesellschaft” (Garden city company ltd.), a building cooperative, Karl Schmidt, and a union-like association with the objective of being “the ennoblement of industrial work through interaction between art, industry and craftsmanship.” (Pahl, 2000, p. 11) A marked difference in relation to earlier worker and employee settlements was the emancipatory aspect: Schmidt sought to grant autonomy and independence to workers/inhabitants; living in the Hellerau settlement should not be tied to or dependent on being or remaining an employee.

In other German cities different actor constellations resulted in differing approaches and differing beneficiaries also. In Mannheim for instance the municipality was a central actor and provided the ground for the settlement for free. A group of local citizens became active to support the idea of a Garden city, and the Landesversicherungsanstalt Baden (regional insurance institution of the state) offered low-interest loans (Pahl, 2000). Thus, here there was no single businessman involved to build living space for workers but rather the community of Mannheim as a whole. However, actors had a hard time raising the necessary resources to build the Garden city.

Overall, the early German Garden city came to a halt with WW I and it failed to achieve the high objectives it initially had set (Pahl, 2000).
Post-war development

In Post-WW II England, in course of the new towns policies the concept was taken up again (New Towns Act 1946) (Kähler, 1999). The Garden city movement also was influential in the US, in Canada, many Southern American countries and also to a certain extent in Germany. However, in industrialised Europe, the spacious building approach got criticised increasingly because of its large demand for ground which has become scarcer over the last decades (Pahl, 2000). This is sometimes also reflected in the prices of living in Garden cities or similar settlements. Contemporary versions of Garden cities are often not very much oriented towards social ends or the needs of the marginalised. For instance, living in a Garden city-like settlement in Berlin-Neukölln is relatively expensive, with prices of more than € 2,400/m² already back in the year 2000 (Pahl, 2000, p. 19).

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The history of freshwater supply as a social innovation

Data collection for a comprehensive case study
CrESSI WP 2, Deliverable 2.1

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“Human demand for water is on the rise, and water links to everything else. There is no nature, no health and no life without water. And there is no environment, no ecosystem and no economy without water. It is a precondition for humanity.”

Karmenu Vella, DG Environment, Maritime Affairs and Fisheries, (Vella, 23.03.15)
Introduction / Abstract

To supply inhabitants of a city or a certain region with fresh water on a regular and controlled basis is a social innovation dating back to the 19th century. Water is an essential precondition for any human settlement and supplying inhabitants with water has therefore been a crucial question at all times. Roman aqueducts brought fresh water from the countryside to the cities. Well masters in medieval cities were responsible for the safety and functionality of wells. But during the industrialisation of the 19th century, cities and their need for drinking water grew. With the confined living conditions of workers and their families, epidemics that had repeatedly afflicted cities in the past became ubiquitous and a threat to the whole population. From the beginning of and more intensively from the mid-19th century onward, cities in Europe started to improve the fresh water supply within their limits. In the following decades, scientists identified the connection between contaminated water and a number of diseases. In 1883, for example, Robert Koch discovered that cholera is waterborne. Over time, scientific endeavour demonstrated that while some diseases are caused by invisible pathogens in the water, others can be prevented by improved hygienic standards.

The drivers and obstacles in the development of fresh water supply are manifold and the impact of the social innovation is complex. The 19th century went through numerous technological changes which also affected fresh water supply. Waterworks and water towers helped to distribute water in a steady manner. Pumping stations made both access to ground water as well as uphill water transport possible. Moreover, water processing started to improve the water quality significantly. The distribution of water closets and the decision of many cities to get rid of sewage by flume water sewerage increased the need for available fresh water. Therefore, it went hand in hand with building a water supply system connecting all house(hold)s as well as industrial plants. As a result, water consumption grew constantly. New water resources had to be exploited to accommodate the growing demand. Up to the 1990s, measures to reduce water consumption were employed in Europe only during emergency situations.

Fresh water supply was also closely intertwined with urbanisation, yet grew beyond it over time. The implementation of fresh water supply was so successful with regard to issues of health, hygiene, and comfort, that it was already considered a sign of urbanity around the turn of the 19th to the 20th century, with cities in Southern and Eastern Europe trailing behind this standard up to the late 1920s. The risk of waterborne diseases like cholera or diarrhoea diminished with the expansion of this technologically improved fresh water supply. After the 1920s, the supply of drinking water became more of a differentiating factor between urban and rural areas in Europe. After World War II, many European cities were occupied with reconstruction and repair of their damaged water networks. But then up until the 1980s, fresh water supply in Western Europe was extended to settlements outside the city limits and even to rural areas. It became so ordinary for the population to be part of the fresh water supply that it felt like an entitlement to have access to the net. And in fact, in 2010 the UN recognized the human right to water, which confirms this sense of entitlement with an international, normative recognition. In the Eastern European countries, water was provided by the state during the communist era. It was cheap or even free of charge. However, the supply network lacked sufficient investments for maintenance and development.

Early on, water quality was an oft-discussed topic. Since the aim in many cities was to prevent epidemics, the improvement of the water quality and the water supply in general were of constant concern. At the beginning, only the point of water withdrawal at the river was sometimes changed from the point where the river left the city to the point where it entered
the city limits. Sometimes, only mechanical cleaning of the water was carried out since invisible pollution was still unknown in the second half of the 19th century. Through technological progress and the on-going discoveries of bacteriology, water treatment improved since the end of the 19th century. After WW II, water treatment plants were built in many European countries. In the 1970s, enhanced measures were undertaken to protect drinking water from pollution by fertilizers or chemical residues. These substances were being washed into the ground water by rain or led into the rivers with sewage by plants along the river banks. The European Declaration on Water of 6 May 1968 already claimed that water had to be protected and to be handled with care. As rivers know no national borders international cooperation to their protection is necessary.

With regard to provision, ensuring fresh water supply was sometimes a matter of private initiative (e.g. fresh water supply in Amsterdam), but most often it was the municipality who took charge of the task, since water is understood in many countries as a public good on the one hand, and its provision to the population as well as the prevention of epidemics are seen as public duties. The key actors in the campaign for fresh water supply and the realization of the needed infrastructure were mostly physicians, engineers, and politicians from a middle-class background. The marginalised were so far excluded from the shaping of public opinion and political influence in the 19th and early 20th century that they rarely played an active role.

Although fresh water supply always targeted society in general, from the very beginning it was a means to address marginalisation, too. From a 19th-century perspective, the marginalised were none other than working class people. Often labour migrants, they flocked from the country side to the cities during urbanisation in search for a way to make a living. Vegetating in dense settlements, often without sufficient access to clean water, they suffered from waterborne diseases and unhealthy living conditions. Providing poor people with access to clean drinking water can be understood as a social innovation in favour of the marginalised. This was also led by cognitive frames (how people of the middle classes perceived people of the working class) and went along with a simultaneous shift in those frames – that is, how the working class perceived hygiene and privacy – since the supply of clear drinking water has always been a matter of sanitary control as well as education.

New questions about the governance of fresh water supply arose in the 1980s in Great Britain and in the 1990s in continental Europe, when growing cost pressure led to the merging of local authorities into larger regional units. Indebted city administrations considered getting rid of their debts by selling public supply systems to companies and renting it back or by outsourcing their operation. The last 20 years have, therefore, witnessed a vibrant discussion about the management of water services. In some cities, like Berlin, privatisation was annulled and the water supply facilities became re-municipalised after public protests.

In contrast to housing, water is seen as a public good in many countries (Juuti and Katko, 2005). All inhabitants need water; all of them should be part of the supply system. What sounds like a logic equation was not the case everywhere from the beginning. In many cities, there was no requirement to hook up. So, making everybody part of a community of water users was in some cases the result of a learning process. It lowered the average cost of innovation, but it was also a matter of control in order to increase hygiene and prevent the outbreak of epidemics. The costs for infrastructure and supply had to be carried by all, but not all participated to the same extent from the improvement. With regard to the prevention of epidemics the obligation of all home owners to connect to the supply system made perfect sense though. Today, according to WHO computations more than 97% of the population in
EU countries live in homes connected to water supply compared with 89% in the whole WHO European region\(^1\). (see below 3.1)

Supplying people with drinking water remains an unmet need in many areas of the world, including rural areas in some parts of Europe. In the WHO European Region, 19 million people do not have access to a source of drinking-water that is adequately protected, and about 100 million people still lack access to piped water in their homes. While access has generally increased in the last decade, there are notable disparities between rural and urban areas, especially in the Caucasus and central Asia, where only half of the rural population enjoys the use of piped water on premises. More than 66 million people in the region still lack access to adequate sanitation facilities. This is not only a matter of comfort, but first and foremost, one dealing with the health and life expectancy of people. In 2010, the United Nations declared access to safe, clean water and sanitation a basic human right. While this right seems to be self-evident considering biological needs, the question what this means socially arises. At the time of the UN declaration, 884 million people lacked access to safe drinking water. This, however, is a major improvement resulting from efforts beginning back in 1980 and continuing to this day.\(^2\)

**Manual for comprehensive case study data collection**

**A short manual to use the comprehensive case study data collection**

**Orientation:**
The template was designed in coordination with all partners who will now use the material for the analysis in their respective work packages. Besides the titles, we also let the questions that guided the data collection, as well as the questions for analysis that were formulated beforehand in the different chapters of the template for a quicker orientation.

**Further readings:**
At various points of the template, a cut was necessary due to limited space, although a further and more detailed elaboration of the issue would have been interesting. At such points we included suggestions for further readings that are mostly available in the attached reference and database collection.

**References and database collection:**
The references and databases quoted in the template have been collected and prepared to be shared by different partners.

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\(^1\) Note that the WHO definition of the European Region does not just include EU countries but all countries geographically belonging to the European continent.

\(^2\) For up-to-date figures see WHO and Unicef (2014).
CCS - PART 1) Social problem addressed

Two caveats have to be voiced at the beginning of this case study:
First, the further the research process developed the more difficult it became to draw a coherent picture. Many different factors played into the process on a national, regional and even local level so the result may look fragmented in the end but it shows at the same time that it is not and was not easy to implement a social innovation. It is important to consider local and historical differences.
Second, the history and the development of fresh water provision in Europe are usually being narrated as a success story. It will be necessary to read between the lines to find out about the role of the marginalised and how much they profited in the end.

1.1 Field(s) of problem

Questions
In which field(s) of activity did the targeted social problem originally arise (e.g., health, care, economic development, work integration)? Are there also any interrelated effects in other fields?

Summary of key points
- Social technical innovation: development of central systems to supply drinking water and to discharge and treat water
- Fire protection: availability of enough water to fight fires
- Health and hygiene: sickness and epidemics caused by polluted drinking water
- Path-dependency
- Affordability

Content

The freshwater case focuses on a social-technical innovation that responds to a confluence of various challenges that arose in the context of industrialisation and the associated growth of cities in Europe.

“The vast expansion of wealth that followed industrialization increased incomes, but improvements in more fundamental indicators such as life expectancy, child survival and public health lagged far behind. The reason: cities exposed people to greater opportunities to amass wealth but also to water contaminated with human waste. The mundane reality of unclean water severed the link between economic growth and human development. It was not until a revolution in water and sanitation restored that link that wealth generation and human welfare started to move forward.”
(United Nations Development Programme, 2006, p. 28).

Motives for the introduction of fresh water supply
Freshwater is a basic good with direct and indirect consequences for many aspects of life and associated human capabilities. It follows that in periods of major change – such as industrialisation – there is a whole nexus of challenges rather than “the social problem”. In the freshwater case starting in 19th century European cities, there is a concern to provide sufficient water to growing cities and to deal with health impacts of unhygienic drinking
water and wastewater (direct health impact). In some cities like Berlin, street cleaning was the pre-dominant motive. By rinsing the dirty streets, city authorities hoped to get rid of waste, faeces and garbage distributed on the streets and thus fight the stench in the city which was considered to cause sickness (miasma theory). These goals are linked to indirect effects such as the impact of disease or even epidemics (such as cholera outbreaks) on labour participation, education and in the end social stability. There is also a concern with fire hazard in rapidly growing cities, and hence again a need of a sufficient water supply (e.g. London, Hamburg). Again, there are direct impacts (life and health) but also indirect ones. Different groups in society will champion different issues in relation to the development of modern freshwater infrastructure such as the health of the working class in the 19th century, or democratic control of water management in the early 21st century.\(^3\)

In most cases, the protection of the inhabitants against epidemics was the most important motive to discuss fresh water supply and create respective systems. Public health was in the 19th century a permanent concern. Especially in densely populated European cities with its miserable housing conditions for the marginalised but also in some rural areas epidemics like typhoid fever, diarrhoea or cholera were frequent and spread widely. Feldkamp lists just as an example the highly infectious gastro-intestinal diseases, cholera and typhus epidemics in some German and Swiss cities between 1866 and 1885: Berlin (1866), Halle (1871), Hamburg (1871/73 and 1892), Munich (1872), Lausen near Basel (1872), Zurich (1884) and Wiesbaden (1885) (Feldkamp, 2009, p. 42). The connection between these diseases and polluted drinking water was not known until the end of the 19th century. Hints pointing in that direction were collected and considered by some physicians and other experts since the 1850s. Others saw the connection between dirt, stench and diseases. Both recommended water as a starting point to the solution of the problem. After the introduction of fresh water supply life expectancy grew, infant mortality decreased and epidemics became few in Europe. The appearance of epidemics in the 20th century was most often the result of irregularities in the water supply, or during or after wars or natural disasters. Was the water supply system intact again or the irregularities taken care of, the number of cases decreased again. (Feldkamp, 2009, pp. 79, 103)

Path-dependency of the social-technical innovation
The technical solution gradually adopted and expanded across European cities combines the supply of drinking water with the use of grey water (for hygiene, cooking, or fire hazards) and does not separate the waters by use for treatment. There is one central system that uses gravity and pumps to deliver high quality water to houses and workplaces (i.e. independent of use for drinking or washing etc.), and there is one system that discharges water and treats the “wastewater”.\(^4\) This system has a path-dependency that over time generates and is confronted with its own problems and opportunities to deal with its social and environmental goals. Especially highlighted should be

\(^3\) See in more detail below in 2.1.
\(^4\) Of course, locally, households or workplaces can for example separate freshwater used in sanitation or washing from water used for drinking and cooking, and for example use greywater-collected rainwater for sanitation. However, this is the exception; in the general case the same water is being used for drinking and toilet alike.
a) the high costs of the infrastructure, which make the issue of ownership and of investment in expansion and maintenance of the infrastructure a permanent controversy in the history of modern freshwater supply (and which pose a severe challenge to developing countries trying to implement this social innovation),
b) the fact that water is a basic need (for drinking and hygiene) and hence, on any property and management regime, it is a regulatory task of the government to ensure sufficient access to water, going along with respective efforts of citizens and civil society groups to push government and private actors towards making and implementing appropriate rules, and
c) the difficulty, due to the centralised infrastructure, to try out and implement alternative, more decentralised ways of meeting the need (see Water Innovation 4.0 below, Sedlak, 2014).

Nexus to hygiene and political questions
A noteworthy interrelated effect is the freshwater-hygiene nexus, in the sense that health improvements related to freshwater and waterborne diseases depend on the improved freshwater/hygiene availability for all and of all in a settlement, and not a privileged few. Otherwise it is difficult to fight epidemics/waterborne diseases. As a result, this is a good case to include the marginalised also from the perspective of the better off. This interrelation has also been understood by social entrepreneurs in a development context (Ziegler, 2012).

In the contemporary perception of the 19th century poor people needed better access to water to stay healthy and clean. This would also make them better citizens and fight to danger of social uproar. This cognitive frame will guide many bourgeois attempts to better the situation of poor and working-class people in the 19th and early 20th century.

| Further sources and readings
On waterborne diseases:
Pathogens which can be transmitted by water: Grombach, 2000, Tab. 1.8.01, p. 86
Epidemics caused by drinking water (1854-1978), international: Grombach, 2000, Tab. 1.8.01, p. 87

1.2 Targeted beneficiary group(s)
| Questions
Who were/are the targeted beneficiaries? What specific characteristics did/do they have that might be relevant for or a symptom of their marginalization (e.g., economic vulnerability, physical handicaps, migration status, lack of access to the education system, etc.)?

| Summary of key points
• This Social Innovation is universal in its scope.
• Middle-class and elites helped to push the innovation in the beginning.
• Target group at the beginning were the economically marginalised: poor, working class people, labour migrants coming from the country-side to the cities, mostly living in the city centres in overcrowded housings close to their workplace.
• After the social innovation had proven its usefulness and technical questions were dissolved, the focus changed to marginalised people in areas at the periphery of towns or in rural areas.
• Also, people living in regions with insufficient water yield, like the Alb region in Southern Germany, were taken into view, suffering from poverty and frequent diseases.
• The capabilities of the target groups were impaired by the lacking access to clean water.
• In the long run, society as a whole profited, not only the marginalised.

Content

Universal scope and involvement of middle classes and elites
Everyone needs access to freshwater and drinking water. In this sense, the social innovation is by definition universal in scope. Our case study in fact shows the slow evolution of this point – culminating in the UN-recognition of the human right to water in 2010 and the subsequent and successful EU-referendum on this subject matter (http://www.right2water.eu/).

This universal scope has the positive effect that even members of the middle classes or elites push for the infrastructure (for themselves or for instrumental reasons, e.g. labour force, fear of epidemics) so that the marginalised groups tend to benefit. The marginalised are, however, especially vulnerable with a view to drinking water: because no one can live without water, substitution possibilities and especially healthy substitution possibilities are limited. Therefore the demand for water is relatively inelastic in response to changes in prices (as dramatically illustrated by the fact that water prices nowadays are disproportionately high in slums, i.e. where people are especially economically vulnerable, United Nations Development Programme, 2006).

Impact of water shortage on the marginalised
Sometimes whole cities, boroughs or villages were affected in the past. But while the wealthier inhabitants could often get access to other sources of drinking water (like water pipes with spring water or bottled water) or move away to regions with a better supply or quality of water, the lower classes (often up to 95% of the population) were affected immediately by the hygienic grievances. So the access to clean water was a question of wealth, status and prestige. (Hirschfelder and Winterberg, 2009, p. 124) The rationale William Lindley, a British engineer, presented in the 1840s to the city of Hamburg for a modern water supply system reads that the rich could always obtain what they need by the sacrifice of money and thus lower the evil they suffer from by the lack of water supply or inferior drainage. Whereas the poor could do nothing but suffer. Experience would show that they would get sick if they had to do without cleanliness and health, they would become a burden to the state and slowly fade away. (Quoted in Steuer, 1912, pp. 18 f.)

After the social innovation had proven its usefulness and technical questions were dissolved, the focus changed to marginalised people in areas at the periphery of towns or in rural areas. The connection between bad water and bad health became more and more concrete. Therefore, the grid had to be extended and new water works needed to be established. Also, people living in regions with insufficient water yield, like the Alb region in Southern Germany or the region of Debrecen in Hungary, suffering from poverty and frequent diseases, were included. (Müller, 1995, pp. 5-6; Péter, 2005, p. 98) Both state and employers were interested to do something about these wrongs as the high numbers of deaths, the bad condition of many marginalised and the high number of emigrants meant decreasing numbers of workforce and soldiers. (Frevert, 1985, p. 423)
Impaired capabilities
The capabilities of the target group were impaired by the lacking access to clean water. Marginalised people were not able to live “a long and healthy life” (sensu Nussbaum, 2000). In the case of frequent sicknesses, children could not attend school on a regular basis. They therefore could not “become educated” which kept them in the position of being marginalised. As functionings like “expressing one’s political preferences such as actually voting” were not fulfilled for most marginalised people before 1918 – and for some not even after – it was difficult for them to develop agency and participate in the discussion and decisions on fresh water supply. (On capabilities and functionings see the paper Chiappero-Martinetti and Jacobi, May, 2014, pp. 3-4, 6.)

Who did profit?
In the long run, finally, society as a whole profited. But the solution which developed finally helped probably the middle classes at first even more than the lower class.

“Workers could not afford water closets, and they benefited only indirectly – if at all – from various sanitation measures undertaken by municipal authorities. Instead of making the proletariat cleaner, running water increased the comfort of the better-off classes. Attempts to convince members of the working class to visit public baths met a similar fate. Admission was prohibitively expensive, and, apparently, many workers regarded the public health discourse as middle-class hype. Throughout most of the nineteenth century, sanitation and public-health technologies remained largely the privilege of an urban minority.” (Oldenziel and Hård, 2013, p. 69)

In the 20th century, a distinct improvement was achieved for all with regard to availability, amount and quality. At the beginning of the 21st century, those Europeans who were marginalised because they did not have adequate access to clean drinking water were mostly living in rural areas. Another group whose permanent access to clean drinking water could be questioned are homeless people in the whole of Europe. (Hirschfelder and Winterberg, 2009, p. 125)

1.3 Problem background

<table>
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<tr>
<th>Questions</th>
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<tbody>
<tr>
<td>Please describe the context conditions that were/are relevant for the emergence of the social problem or the marginalization of the target group. This could be the general economic situation, political situation, welfare policy, a poor education system, religious constellations, demographical or technological development, etc. and/or more specific problems such as market power abuse, discrimination, corruption, etc.</td>
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<table>
<thead>
<tr>
<th>Summary of key points</th>
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<tr>
<td>Industrialisation and urbanisation made water conditions worse.</td>
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<td>High mortality among the marginalised</td>
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<td>Strong position of the middle classes in formulating norms and values.</td>
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<tr>
<td>Hygienic movement influenced local and national developments.</td>
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<td>Unintended consequences by the introduction of water-closets from the middle of the 19th century onwards</td>
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<tr>
<td>Industrial effluents polluted rivers and ground water.</td>
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<tr>
<td>Water was used as cooling water by mining and industry.</td>
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</table>
The moment a country, city or region turned to the question of fresh water supply was depending on different factors:

- Beginning of industrialisation -> increase of population
- Problem of upstream/downstream riparian
- Residing industry: consumption, pollution
- Financial capacity
- Water yield
- Geological preconditions: was it easy to dig or bore a new well? Were there water-bearing beds?
- Immediate threat: danger or experience of epidemics, firestorms

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**Content**

**Industrialisation and urbanisation**

Water was already a subject of regulation up to the 18th century. But industrialisation and urbanisation made water conditions worse. During industrialisation the population grew. Migrants came from the country-side to the cities to make a living. More people lived together. The settlement density grew, the houses became higher, and the cities expanded. The old regulations were not sufficient to cope with this new development. The population growth in Berlin for example was above average: in 1849, the city had 400,000 inhabitants; in 1871, the number had more than doubled to 825,000; in 1914, more than 1.8 million people lived within the city limits of the German capital. (Jellinghaus, 2006, p. 220) The number of inhabitants in Cardiff, in southeast Wales, increased from less than 1,900 in 1801 to more than 18,000 fifty years later. In 1871, almost 60,000 people lived in the port city, a number which had more than doubled by 1900, when there were 160,000 inhabitants living in the city. (De La Motte, Robin and Lobina, 2005, p. 211) Italian cities, to cite just another example, increased by 54% (Rome), 43% (Milan), 32% (Turin), 27% (Palermo), and 14% (Naples) between 1891 and 1901. (See below the country contribution of Nadia von Jacobi and Margherita Fabbri.)

More water was needed to furnish all but at the same time the increase of population and especially of the population within cities caused more sewage and pollution of water, more sewage and more waste were to be disposed.

Finally, industry polluted the water (ground water as well as water of the rivers) in a way and measure unknown before.

These three factors, population growth, urbanisation development, and industrial water pollution, led to a situation in which the supply with drinking water was close to break down. (Hirschfelder and Winterberg, 2009, p. 121)

**Mortality**

While mortality was higher and life expectancy was lower for members of all social classes during the 19th century compared with the European standard of the early 21st century the marginalised were even worse of. In Berlin of 1835, the difference in life expectancy between children of the nobility and children of the poor was 18 years. (Frevert, 1985, p. 424) Infant mortality in families of unskilled workers was 46.5% higher in Prussia in the 1890s than in families of civil servants. (Frevert, 1985, pp. 436 f.)
Strong position of the middle classes
The middle-classes had a strong and influential position in 19th century Europe. With growing influence in trade, industry and educational system the self-confidence of the economic and the educated middle-classes was growing continuously since the beginning of the century. Even though the bourgeois revolution in 1848 failed, many people from a middle-class background tried to follow their interests and influence the feudal system by practical politics and the possibilities of a press under censorship. Middle-class values were spread by the press, by the education system, by books and training etc. (See on this the discourse on hygiene below in 3.4.)

An example for the spread of middle-class values and an influential starter of the sanitary school in Great Britain and hygiene movements in other European countries was the General Report on the Sanitary Conditions of the Labouring Population which was published by Edwin Chadwick in 1842. In this collection of reports and observations he called attention to the bad living conditions of the lower classes. In his eyes the social question was more one of hygiene than of economy or politics:

“The subsequent extracts from the sanitary reports from different places will show that the impurity and its evil consequences are greater or less in different places, according as there is more or less sufficient drainage of houses, streets, roads, and land, combined with more or less sufficient means of cleansing and removing solid refuse and impurities, by available supplies of water for the purpose.” (Chadwick, 1842, p. 4) Chadwick ended his report with a series of conclusions and suggestions for improvement, e.g. drainage, the removal of all refuse on habitations, streets, and roads, and the improvement of the supplies of water. In his eyes especially better supplies of water were absolutely necessary to reach the other purposes. (Chadwick, 1842, p. 370) Chadwick’s report was an important trigger for hygienic efforts in the areas of drainage, sewage, water supply, ventilation, and housing.

Water closets
The introduction and distribution of water closets since the middle of the 19th century further aggravated the problems of sewage, water consumption, and polluted water. As a consequence not only did the consumption of water increase beyond the amount of water which could be met by local wells. It became also more difficult to get rid of the faeces by collecting them the traditional way. Cesspits were often situated close to wells. If they became leaky they started to pollute the ground water. The building of water works, canalisation and – later – water treatment plants became an urgent task. (Hård and Jamison, 2005, p. 221; Jellinghaus, 2006, p. 228)

This can be illustrated by an example from Oldenburg in Northern Germany. On request of the magistrate of the city, Mr Kollmann, a physician, investigated the frequency and the state of the cesspits within the city limits in 1873. Kollmann found out that about 44.4% of the cesspits were situated less than 10 metres from the closest well. Some of them were already heavily polluted and their water was – even following contemporary standards – not potable anymore. (Meyer, 2011, p. 48)

Edwin Chadwick went so far as to see the most important reason for diseases in defective drainage: “Taken altogether, I think that in large towns there is hardly any source of disease more powerful as to its pernicious influence, or more general as to extent, than defective drainage.” (Chadwick, 1842, p. 28)
Factories needed water and produced sewage
The rapidly growing industry in the second half of the 19th century made an extension of the water supply system necessary as in many areas the consumption of water by industrial use increased.

Water taken out of rivers for production was led back into the river afterwards untreated. This behaviour followed a century-old tradition. Rivers had been used as sewers and all kind of garbage and sewage were thrown into them. (Steuer, 1912, p. 23) There was no notion of responsibility of the upstream settlements for the downstream settlements. One thought that the flowing river would remove all pollution as the firm belief was that water would purify itself. (see below 3.4)

Water taken out of the process for cooling
Besides the pollution of the water the immense need of the growing industry to have water for cooling purposes posed a severe problem. Water consumption rose dramatically already in the second half of the 19th century. Especially mining and steel producing regions like the German Ruhr area needed large amounts of water. As Hirschfelder and Winterberg point out, to produce one ton of coal 3,000 litres water were needed. (2009, p. 122)
From now on water was not only used but consumed, industrially taken out of the water cycle. Pollution often made the water unusable, as a potential drink it was destroyed. This was in sharp contrast with the traditional handling of a resource which had seemed to be unlimited. Therefore, this aspect gained more weight in the political discussion. (Hirschfelder and Winterberg, 2009, p. 121) Especially areas of mining and steel production like the Ruhr area which were densely populated at the same time had a multi-faceted problem with their water supply.

Regional reactions depend on different circumstances
The need for a central water supply with potable water was not given everywhere at the same time. The moment a country, city or region turned to the question was depending on different factors:

- Beginning of industrialisation and population growth: the earlier and stronger industrialisation started, cities grew and living conditions deteriorated, the earlier voices were being raised to demand a solution. Therefore, the topic came up in Great Britain earlier than in other countries. Cities had to deal with it earlier than most rural areas.
- Problem of upstream/downstream riparian: depending on the situation of the city in accordance to a river the problem became virulent earlier. Downstream riparians had to act before upstream riparians as the former had to deal with the polluted water of the latter.
- Residing industry: the major type of industry residing in a city or area determined the industrial water consumption as well as the degree and kind of pollution.
- Financial capacity: affluent cities acted earlier than others and rural areas later than most urban agglomerations.
- Water yield: cities in water-rich areas had less problems than cities in water-poor regions
- Geological preconditions: was it easy to dig or bore a new well? Were there water-bearing beds? Could the situation be easily improved with the technological possibilities available?
Immediate threat: cities which had recently experienced an epidemic or felt threatened by it and cities in danger of big fires or having experienced firestorms would take the decision earlier and with less discussion.

**Drinking water quality**
The quality of the drinking water depended on several points, like water yield, degree of pollution, density of the population. Some quotes from German sources may illustrate how bad the water could be:

The condition of water in the villages on the Alb in Southern Germany, a karst area which lacked a healthy water supply up to the 1870s was described by contemporaries as follows. Oscar Fraas wrote in a memorandum for the world exhibition in Vienna in 1873: „Woe the stranger, who wants to drink a glass of water or do the usual washing in the morning in one of the primitive Alb villages where houses have mostly thatched roofs and people are dependent on rain water alone! Straw yellow to coffee brown is the colour of the water which runs down from the thatched roofs; only those who are used to this sight from their youth are able to set the glass onto their lips without disgust.” (Quoted in Müller, 1995, p. 13; own translation)

Similar is the quote of a farmer asked for the water: “For us, it’s still all right, but the livestock does not drink it anymore.” (Quoted in Müller, 1995, p. 15; own translation)

The description of the water quality in Magdeburg in Eastern Germany in the late 19th and early 20th century makes one shiver, too: An evaluation of 1893 reads that the piped water tasted salty and musty, it was sometimes muddy and smelled disgusting, so persons sitting in their bath felt nauseated. (Quoted in Neumann, 2005, p. 46)

And at the end of the 1920’s, in 1929, a contemporary declared it would be easier to produce Rüdesheimer Auslese from liquorice juice than to prepare a chemical hygienic and tasty proper potable water from the Elbe water in Magdeburg. (Quoted in Neumann, 2005, p. 46)

Criteria for good water in the 19th century were its clearness and optical purity. If water had a colour, a foul taste or an unpleasant smell, contemporaries would not consider it to be fit for drinking. This method was rather unsuitable, especially when it came to pollutants, poisons or pathogens which could still not be measured and detected. (Meyer, 2011, p. 81)

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5 „Wehe dem Fremden, den in einem der primitiven Alb dörfer, wo die Strohdächer überwiegen und man rein auf Regenwasser angewiesen ist, ein Bedürfniss anwendet nach einem Glase Wasser. oder der des Morgens die gewohnte Waschung vornehmen will! Strohgelb bis Kaffee braun hat sich das Wasser gefärbt, das von den Strohdächern niederrinnt, nur wer von Jugend auf an den Anblick dieses Wassers sich gewöhnt hat, vermag ohne Abscheu das Glas an die Lippen zu setzen.“

6 „Für uns ging’s schon noch, aber das Vieh saufte nicht mehr.”

7 „Das Leitungswasser hatte einen salzigen und Fauligen Geschmack, war teilweise trübe und roch widerlich, dass Personen in der Badewanne von Übelkeit befallen wurden.“

8 Dr. Bamberger, 1929: „Es dürfte leichter sein, aus Lakritzensaft Rüdesheimer Auslese herzustellen als aus dem Magdeburger Elbwasser ein chemisch hygienisch und geschmackvoll einwandfreies Trinkwasser.“
The introduction of fresh water supply was part of a larger social process which went in different directions. Therefore we have to deal with a general development on the one hand and social components on the other.

By CrESSI definition a social innovation is understood as “the development and delivery of new ideas (products, services, models, markets, processes) at different socio-structural levels that intentionally seek to improve human capabilities, social relations, and the processes in which these solutions are carried out.” (CrESSI Consortium, September 2013, part B, p. 3) The problems described created a need which led to new ideas. To animate these ideas a social innovation was necessary to find a solution for the problem(s) perceived. How this social innovation developed and if and how it successfully improved human capabilities and social relations will be the subject of the following chapters.

See also remarks to 1.1.

<table>
<thead>
<tr>
<th>Possible questions of analysis Part 1</th>
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| **WP** | Possible questions of analysis (addressed within work packages)
| WP 1  | Which individual (or collective) capabilities of marginalised people were deprived? Which functioning could not be achieved? How were conversion rates affected by the context conditions and how did they contribute to marginalisation? Can specific networks (actor constellations), cognitive frames or institutions be identified that were relevant for the problem situation? Can power structures, according to Mann’s adapted framework, be identified that were relevant for the problem situation? Is there a specific field (Fligstein) where the social innovation occurs? | WR 3  | Is there a clear beneficiary that is being targeted? Was the social problem addressed individual-specific or group-specific or context-specific? How did contextual conditions that were/are relevant relate to each other? (e.g. complementarities, co-evolution, etc.) | WP 4  | Did technological innovation cause marginalisation or make existing marginalisation worse? Did technological innovation pave the way for social innovation? | WP 5  | Did social problems addressed by social innovation emerge in certain context conditions? | WP 6  | Which policies/political constellations did contribute to the social problem? |

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9 All questions in the boxes do not have to be explicitly addressed within the case study, but the collected data should allow the analysis of these questions within the work packages.
CCS - PART 2) Social innovation solution, development and impact

2.1 Antecedents and invention of the SI solution approach

<table>
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<th>Questions</th>
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<tr>
<td>When can the first activities of the social innovation be detected? How did they address the social problem, and how did these activities relate to previous solution approaches (if any) for the problems constellation?</td>
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<tr>
<td>How did they provide novelty in terms of goods, services or processes (including new forms of organisations, resources, or communication)?</td>
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<tr>
<th>Summary of key points</th>
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<tr>
<td>• Antiquity: e.g. Roman water supply (Sedlak: Water 1.0)</td>
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<tr>
<td>• Middle Ages: In medieval towns well communities existed. However, economically marginalised were often not able to buy into these communities.</td>
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<tr>
<td>• Early Modern Times: Water supply systems existed in some cities already before the 19th century. Most people relied on water from wells or rivers or on rain water harvesting.</td>
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<td>• In the 1840s/1850s, a new dimension of social need developed which made necessary a new approach of water supply.</td>
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<tr>
<td>• The decisive criterion to talk about fresh water supply as a social innovation is not the central supply with water but the supply with naturally clean or treated water. (Sedlak: Water 2.0)</td>
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<th>Content</th>
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<tbody>
<tr>
<td>Sedlak describes four revolutions in the history of urban water systems:</td>
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<tr>
<td>1. Ancient Roman piped water systems and sewers (Water 1.0)</td>
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<tr>
<td>2. Drinking water treatment as a reaction on expanding cities with enormous health problems as “the massive volumes of wastes flowing out of sewers transmitted water-borne diseases such as cholera or typhoid.” Thus water treatment prevented the spread of those diseases “and lead[ed] to unimagined health benefits.” (Water 2.0)</td>
</tr>
<tr>
<td>3. Sewage treatment plants: modern technologies were used to clean the sewage which had caused problems downstream. (Water 3.0)</td>
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<tr>
<td>4. Present: population and consumption growth and climate change pose two important challenges on the water supply systems. Weather extremes result in too much water in some periods and areas and in too little water at other times and areas. Population and consumption growth increases water consumption still further with less clean water to distribute. The consequence is a chronic shortage. Another issue are rising maintenance costs for pipe networks and treatment plants. (Water 4.0 is to be developed.) (Sedlak, 2014, p. X)</td>
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Antiquity

Already the Romans built piped water systems and sewers for their cities (Sedlak, 2014 calls this Water Innovation 1.0). The Roman water system developed around 300 BC to 200 AC. Aqueducts above or below the ground brought water to the cities. (ibid., pp. 2-3) “The knowledge that the Romans accrued while constructing their imported water systems allowed them to act as the world’s first multinational construction company as they spread water 1.0
to far-flung parts of the empire.” (Sedlak, 2014, p. 5) Their approach inspired many European
cities early on (though they lacked the ingenuity of Roman water management).

The water was delivered at fountains. Only rich Romans had access to piped water in their
homes if they had received an official permission before, but public fountains had first
priority in the supply. This was an important regulation for water use during droughts. (ibid.,
pp. 6 f., 9)

Medieval times
In medieval times it was custom to scoop the water with buckets at rivers or at communal
wells in the public square. (Sedlak, 2014, p. 14) The daily requirement was taken out of these
buckets as long as the supply lasted. Then the housewife or domestics would return to the
source and bring water again. Some families would charge water carriers to bring the water to
the house. (Meyer, 2011, p. 79)

In some cities, well communities existed which took care of the wells in the neighbourhood
and were responsible for their maintenance and repair. Members of these cooperatives
profited from reduced costs in building and maintenance. They paid a well tax, with its
amount sometimes depending on the amount of water withdrawn from the well. At the end of
the middle ages public wells became more prevalent. Since the 14th century officially installed
well masters were overseeing wells and water supply in many cities. Also in the 14th century,
a central supply with pump stations, small water towers and water pipes was launched in
72–73; Pich et al., 2010, pp. 23, 25) Marginalised people often lacked the financial resources
to buy into these communities. They had to rely on water from the river which was polluted
with sewage. (Meyer, 2011, p. 77)

In the Middle Ages, the central water supply with wells and waterworks began. However, for
the time being it is not sure if the city centre areas which were inhabited by the better off were
better supplied with fountains and water than the outskirts where the poorer inhabitants lived.
What can be said is that the connection of private houses to the public water system was
highly prestigious. (Fuhrmann et al., 2008, p. 40)

In the late Middle Ages laws concerning the equipment of wells with “stonewalls, roofs, and
windlasses that made filling a water bucket safer and more convenient” were introduced in
European cities. Rain was used as a source of drinking water. It was collected in underground
cisterns which was problematic in times of drought. Another problem was the poor water
quality since a lot of waste was being disposed in rivers. (Sedlak, 2014, p. 15) When streets
were paved the water quality deteriorated further. (ibid., p. 16) In the 13th century, Paris,
London, and Dublin were already building imported water systems. (ibid., p. 18) In Siena a
regulation of which water of the fountain had to be used for what purpose was introduced: the
highest basin of the fountain allowed for drinking water, the next level for the draining of
animals, and the lowest level for laundry or industry. Public fountains were also early
versions of water hydrants. (ibid., pp. 19-20)

Early modern times
The number of cities, especially residential cities, which had a central supply of ground water
increased in the 17th and 18th century, as well as the number of houses of wealthy citizens and
enterprises with access to piped water. (Schott and Skroblies, 1987, p. 82; Feldkamp, 2009, p. 24)

An interesting cultural point is that up to industrialisation, freshwater was not a “good of distinction”, but was associated with poverty; the rich drank alcohols, tea, coffee etc. (Hirschfelder and Winterberg, 2009, p. 128) important as “cognitive frame” to explain why the marginalised were not necessarily vocal for freshwater supply. Therefore, the need of clean water maybe was not as big in medieval and early modern times as could be imagined today. Water was considered to be the beverage for animals and beggars. (Sedlak, 2014, p. 16) Therefore the question of need or no need of drinking water was also a question of prestige.

A new urgency for innovation in urban water supply arose with early industrialisation in the 18th and 19th century and the correlating growth of urban centres with their increasing domestic and industrial water requirements (including fire protection, factors driving the demand for improved water supply are listed by cities in Juuti and Katko, 2005, p. 223). In particular, increasing amounts of wastewater and a resulting shortage of unpolluted water further downstream caused health problems and waterborne diseases including outbreaks of cholera and typhoid fever.

Change in 19th century caused by industrialisation
The 19th century saw the beginning of centralised and integrated water supply systems. “Fragmented, piecemeal and localized systems were abandoned in favour of highly centralized and integrated water supply systems. This occurred in 1802 in Paris, in 1808 in London and in 1856 in Berlin.” (Prasad, 2008a, p. 6) Other pioneers in water supply and canalisation were Vienna and Hamburg. (Meyer, 2011, p. 45) “In response to the problems caused by inadequate and polluted water supplies, each city relied on its own ideas about public health, aesthetics, and the role of the state in civil affairs in order to develop urban water systems that were best suited for their particular climates and geographic features.” (Sedlak, 2014, p. 26)

Schott and Skroblies point out four factors that led to changes in water supply and sewage system in the 19th century:
1. The growth of the urban population resulted in more faeces and garbage. Therefore, the ground water and the supply by wells were threatened. The traditional way of how faeces were collected and removed became more and more difficult as cities expanded. (> cross link: Justus v. Liebig and the invention of synthetic fertilisers, faeces removal was no longer a business as alternatives became available; see Sedlak, 2014, p. 63)
2. The deteriorating hygienic conditions in big cities led to diseases and epidemics.
3. With the report of Edwin Chadwick on “The Sanitary Conditions of the Labouring Population” in 1842 and the following efforts of the sanitary school the consciousness for hygiene grew. The improvement of urban hygiene was understood as a way to solve the social question.
4. The introduction of water-closets and their great prevalence increased water consumption and made it difficult to empty cesspits. New ways to deal with sewage were therefore urgently needed. (Schott and Skroblies, 1987, pp. 82–83)

Both London and Paris experienced population growth since the 16th century and around the year 1800 had about 1 million inhabitants each. “London continued to rely on local water
sources and to use its rivers for waste disposal, while Paris favoured imported water and protection of its rivers by reusing human waste as fertilizer. By the early twentieth century, unrelenting popular growth and economics forced both cities to adopt similar approaches for water supply and waste disposal, but even today subtle differences in attitude persist among English and French engineers about the design and operation of water systems.” (Sedlak, 2014, p. 27)

As London earlier started to grow than other European cities, solutions were needed earlier. These solutions were provided by private companies. Already in 1236, pipes were built to bring spring water to the city. Between 1609 and 1613, the New River was built as a privately financed inflow of source water to the city. Around 1720, private companies started to supply Londoners with Thames water through pipe networks. The Thames water however was of problematic quality, especially since the river is tidal. (Sedlak, 2014, pp. 27–29)

Not only was England early with the emergence and the perception of the water problem. It was also a pioneer when it came to the discourse about it and the discussion of possible solutions. In this regard the Sanitary Report which was published by Edwin Chadwick in 1842 was influential and became adopted not only in Great Britain but even more so in Continental Europe:

“The mode of supplying water by private companies for the sake of a profit is not however available for the supply of a population, where the numbers are too small to defray the expense of obtaining a private Act of parliament, of the expense of management by a board of directors, of to produce profits to shareholders; it is, therefore, a mode not available to the population of the country who do not reside in the chief towns.” (Chadwick, 1842, p. 72)

“Although there is little probability that regular supplies of water would ever have been obtained without the inducement of salaries to the managers and of returns of interest to the capitalists…” (ibid.)

“One is, that it creates strong interest against all improvements in the quality or the supplies of water; for every considerable improvement creates expense, which is felt in diminution of the dividends of the private shareholders; and so long as a majority of the rate-payers are content with bad water, or deem it hopeless to seek to obtain water of a superiors quality, so long as any public clamour will not endanger the dividends, it appears that no amendment entailing considerable expense can be expected.” (ibid., p. 73)

Extracts from the conclusion of Chadwick’s report in 1842:

- “That the formation of all habits of cleanliness is obstructed by defective supplies of water.” (Chadwick, 1842, p. 369)
- “That the annual loss of life from filth and bad ventilation are greater than the loss from death or wounds in any wars in which the country has been engaged in modern times.” (ibid.)
- “That the public loss from the premature deaths of the heads of families is greater than can be represented by any enumeration of the pecuniary burdens consequent upon their sickness and death” (ibid.)
- “That the younger population, bred up under noxious physical agencies, is inferior in physical organization and general health to a population preserved from the presence of such agencies” (ibid., p. 370)
• “That the population so exposed is less susceptible of moral influence, and the effects of education are more transient than with a healthy population” (ibid.)
• “That these adverse circumstances tend to produce an adult population short-lived, improvident, reckless, and intemperate, and with habitual avidity for sensual gratification” (ibid.)
• “That these habits lead to the abandonment of all the conveniences and decencies of life, and especially lead to the overcrowding of their homes, which is destructive to the morality as well as the health of large classes of both sexes” (ibid.)
• “That defective town cleansing fosters habits of the most abject degradation and tends to the demoralization of large numbers of human beings” (ibid.)

The debate in London became more intense during the Great Stink of 1858 when during a drought the water of the Thames and other rivers sank and the quality of the stream water was even further deteriorated by the sewage led into the river up-stream. Now even the members of Parliament reacted and decided that the Thames should become cleaner and the water quality should become better. (Sedlak, 2014, p. 33)

The introduction of a water supply system in Paris goes back to the Napoleonic era. Intellectuals and political philosophers had the idea that “cities should be comfortable and safe” for all its inhabitants. Engineers therefore tried to integrate the water system into city planning. Crucial for this was the fact that the water supply from springs, wells, and cisterns became insufficient at the end of the 18th century and the quality of the Seine water declined. In 1802, the river Ourcq was canalised to bring fresh water to the capital. About 20 years later, in 1823, a public water supply was introduced with 84 public fountains distributed across the city. These were also used twice a day for an hour each to clean the streets. (Sedlak, 2014, pp. 33-34)

In the middle of 19th century, Paris was stricken with a cholera epidemic. In his report to the Poor Law Commission Chadwick refers several times on discussions and developments in Paris. (e.g., Chadwick, 1842, pp. 61, 70)

In the process of building and restructuring the city of Paris after 1853, Georges Haussmann saw a connection between cholera and the quality of drinking water. Therefore, he opted for a water supply which led water via an aqueduct from the Champagne, a distance of 150 km, into Paris. This connection was opened in 1867. Despite this, as there was no obligation for home owners to connect to the new supply, this measure developed no direct effect. (Lenger, 2012, pp. 22-23)

First steps toward a central water supply in Berlin date back to 1816. Here water was needed for street cleaning and protection against fire. However, it took until 1856 that these ideas were transformed. The public initially opposed the central water supply. Then Johann Jakob Baeyer presented plans for a sewage system seizing Chadwick’s ideas to improve the health conditions of all classes. Yet the city government preferred a gas works for prestige purposes. Finally, police superintendent von Hinkeldey who ruled the city in an authoritarian style bypassed the city parliament and concluded a contract with the British entrepreneurs Charles Fox and Thomas Russel Crampton in December 1852 who then had to build and operate the water supply system. Von Hinkeldey granted them a concession for 25 years and a monopoly to supply private households with water. (Bernhardt, 2005, p. 77; Feldkamp, 2009, p. 25; Kalweit, 1998, p. 140)
The water works officially opened in July 1856. (Bärthel, 1997, p. 48) In the beginning, about 300 households hooked up to the new supply (Hård and Jamison, 2005, p. 240), than the figure grew slowly to 1,141 (Feldkamp, 2009, p. 25). “By 1862, still only 2,349 connections had been made.” (Lanz, 2005, p. 85)

Further readings on the development in Berlin
Bärthel, 1997
Tepasse, 2001, pp. 13-130

Fire protection was the main focus when central water supply was introduced in Hamburg ten years earlier. After the Great Fire of 1842 with heavy destructions in the city and a death rate of 20% of the town population it seemed to be important to have enough water available at all points of the city to extinguish any fire early. In other cities and municipalities the supply of water for fire fighting and the placement of hydrants in the township rather was a spin-off when a net of water pipes existed. In 1892, a cholera epidemic hit Hamburg. The city used piped water which was taken from the Elbe river and led through clarifying basins but not sand-filtered (Lenger, 2012, pp. 149-150; Feldkamp, 2009, p. 25). Hamburg had been the first German city with a modern central water supply which was built in 1845 under the guidance of the British engineer William Lindley. After almost 50 years the system however was completely out-dated. The water was not sand-filtered although this had been postulated since 1853. The upgrade of the water supply system had been torpedoed by a minor lobby of factory owners who wanted to sell small household filters, and by financial concerns. Boroughs which were situated higher could only be supplied with water during the night. Because of the bad water quality, better-off citizens of Hamburg bought source water which was offered by water waggons driving through the city. Others used water filters connected to their water pipes at home in the belief to get proper water this way. The poorer population depended on the supplied, unfiltered drinking water. (Meyer, 2011, p. 52)

Interestingly enough, the epidemic did not strike the neighbouring Altona where the filtration of water from the Elbe river had already started in 1859, following the example of London (Evans, 1987, p. 151). 8,600 people died in Hamburg during the cholera epidemic. Robert Koch, who had discovered the connection between water supply and cholera, was asked to help and investigate. Being the father of bacteriology Koch had discovered the tuberculosis pathogen in 1882 and the cholera pathogen one year later. Moreover, he could provide evidence that the bacillus was released by germ carriers and it was able to multiply and distribute in water. (Müller, 1981, p. 79; Meyer, 2011, p. 53. On Koch see below in 3.3)

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10 See for example the small city of Marktoberndorf: Goer (1985), p. 187. William Lindley had introduced hydrants to supply fire fighters with enough water in Hamburg. (Laube, 2009, p. 43)
12 On the water supply systems in Hamburg see Meng (1993), on Lindley’s activities in Hamburg see below 3.3 and Pelc and Grötz (2008), especially pp. 298-318.
Further reading on the development in Hamburg
Meng, 1993

The cities “where the problems had seen particularly acute pioneered new ways of handling water that became the norm throughout the developed world.” (Sedlak, 2014, p. IX) The goal of the activities was the containment of epidemics and the prevention of further outbreaks (Lenger, 2012, p. 151), but also fire fighting and street cleaning.

2.2 Phases of development of the Social Innovation

Questions
How did the social innovation develop over time and across different contexts? Can different phases or crucial incidents be identified in the development of the social innovation towards a broadly adapted standard? What were the relevant societal levels of action?

Summary of key points

- Phases for water supply services in Europe:
  1. Early 19th century until late 19th century: early beginnings in biggest urban centres with private concessions
  2. From the middle of the 19th century until the early 20th century: municipalities assumed responsibility
  3. From the early 20th century until the 1980s, with WW I and WW II as breaks: expansion of access
  4. Since the late 1950s: water treatment technologies improved, stricter requirements
  5. Starting in the 1970s until the 1990s: Reinvention of privatisation and private operational contracts in some European countries and the reconstruction of the water and sewerage system in many Central and Eastern European countries after the end of the Soviet bloc
  6. Developments of the 21st century: New diversity culture of water management?

- Development depending on local necessity:
  o From larger to smaller cities
  o From cities to countryside (contrast between urban and rural areas)
  o From downstream cities to upstream cities
  o Epidemics as crucial incidents (cholera, typhoid fever, and other waterborne diseases)

- From the 1970s onward environment/protection of the environment in general and of natural resources in particular became an own field of activity. => ecological dimension discussed and considered

Content

Drawing on Sedlak, 2014, Juuti and Katko, 2005, pp. 237-238, Prasad, 2008b, as well as the country cases below, the following phases of urban freshwater supply can preliminarily be suggested, with an early focus in terms of social innovation focus on hygiene and health in rapidly growing urban centres, an additional (“unintended”) focus emerging in terms of environmental impact in the mid of the 20th century, and a focus on access to affordable and safe drinking water as a human right in the new millennium.
1. Starting in the first half of the 19th century, especially in the UK (Prasad, 2008a, p. 6) there was an increased interest in urban freshwater supply, understood also as a social challenge. Often private operators via concessions were building new and improved urban water infrastructure because cities were unwilling or unable to invest in the public works (Prasad, 2008a, p. 7; see Juuti and Katko, 2005, p. 224 for ownership patterns in European cities from 1850 to present). From a social perspective, a crucial insight was the discovery (by John Snow in 1848 in London) of the causal link between cholera and contaminated drinking water. This provided a crucial cognitive frame for improved drinking water treatment to make it “safe” for drinking: water filtration, chlorine disinfection etc. Sedlak 2014 labels this “Water 2.0”. The impact in terms of public health and life expectancy was enormous. (See below 3.3 and 3.4)

2. Due to issues with management, corruption and high costs, municipalities increasingly assumed responsibility and overtook responsibility for freshwater provision (Prasad, 2008a, p. 6; Juuti and Katko, 2005, p. 237) from the middle of the 19th century onward 13.

3. The first half of the 20th century, sometimes up to the 1980s, saw the expansion of access to piped freshwater first in urban and then in rural settings across Europe. By mid-20th century, access to water was nearly universal in Europe (Prasad, 2008a, p. 6) – but not yet to safe and affordable piped drinking water in all EU countries. This period of expansion is driven by the public sector (typically the municipalities). Social policy and cross-subsidies played an important role in making drinking water available to all. The norm of safe and affordable drinking water as a basic right that the government has a duty to fulfil and provide emerged (in Germany for example as part of “Daseinsvorsorge”, a term translated in EU texts today with the French “service publique” or the English “services of general interest”, but actually originally meaning much more than just an administrative term 14). In 2010 this norm was finally becoming recognised as a human right.

4. The expansion of freshwater supply infrastructure and filtration techniques did not eliminate the problem of waste water discharge from households and industry going into the sewers and aquatic systems, causing health concerns and more general environmental impact concerns (partly also because with the invention of industrial fertilisers human waste was no longer being used for agricultural purposes, see Sedlak, 2014, p. 115). Starting in the late 1950s, sewage and environmental regulations emerged that required wastewater to be treated. Sewage treatment became an expected standard for urban water systems (Sedlak’s Water Innovation 3.0, p. 88; for historical emergence of water works and sewage systems in selected EU cities see Juuti and Katko, 2005, p. 224), however by no means a standard that was being directly implemented everywhere. There also are major engineering challenges. A major engineering challenge is to deal with the unequal flow in the sewage system, being only wastewater on some days and wastewater plus rainwater on others (and hence a lot more water on these days). If there are not sufficient retention spaces, after rainy days the efficiency of sewage systems falls: everything goes into the river on rainy days (See Sedlak, 2014, chapter 7). This is not so much a direct threat to human health: as drinking water is being treated anyway and as dangers for swimmers are relatively minor (Sedlak, 2014, pp. 119 f).

13 For England see Hassan (1985).
14 See in more detail below in 3.4.
Nevertheless, urban populations increasingly see this circumstance as unacceptable (> in terms of growing environmental awareness, and from an environmental ethics perspective the concern for marginalised non-human populations). As a side effect, the environmental and sewage regulations serve as a driver for concentration of the providers in the water sector (as services are technical and partly beyond the capacity of at least small municipalities), and the environmental demand for full cost recovery of water service provision can create a tension with water affordability. Last but not least, the environmental sensitivity in practice has translated into a cultural norm of “water saving” that at least in some member countries is widely accepted (see Dobner, 2013 for Germany). De facto domestic water consumption has first risen and then fallen with water saving appliances etc. (see Juuti and Katko, 2005 for comparative numbers).

5. Starting in the **1970s**, UK policy makers, partly influenced by Hayek and neoliberal economists, campaigned for privatisation and rollback of the state. The UK set a precedent that would be followed by Austria, Belgium, Denmark, the Netherlands, Spain and Sweden in Europe (Prasad, 2008a, p. 12) with different management models (build-operate and transfer, management, concessions, joint ownership etc.) (See Barlow, 2008 for an analysis of different models, Prasad, 2007a for history of privatisation in water sector). Privatisation was furthered by the fall of the Soviet Bloc in **1989** and the reconstruction of freshwater supply in the formerly Soviet bloc countries, where infrastructure frequently suffered from insufficient investment.

6. **Starting around the turn of the millennium** (and somewhat earlier in the “developing world”) discontent with privatisation and re-municipalisation of freshwater supply in major European cities such as Berlin and Paris was increasing in the first 15 years of the new millennium (> see also illustrative case below). The process of concentration and privatisation with a few larger co-operations effectively made democratic accountability of freshwater more demanding. Participation, even beyond representation in municipalities, emerged as a theme (with new organizational forms and networks such as “water tables”, see also Juuti and Katko, 2005, p. 238). Generally, commentators see a phase of new awareness of diversity and context-sensitivity (Juuti and Katko, 2005) in dealing with the challenges of climate change (more extreme weather events) and maintenance costs of infrastructure. Sedlak speaks of an emerging Water 4.0 as a collection of different, mostly decentralized approaches (see further discussion 3.7. below).

Throughout all phases, commentators emphasize the importance of path-dependency due to the network- character of the infrastructure of urban water supply; and of the central role of local government (see Juuti and Katko, 2005, pp. 234, 239).

1. **Early 19th century until late 19th century**

*Great Britain*

Great Britain was a pioneer in private sector provision (privately owned works, joint-stock companies) of water services already in the early 19th century. In the second half of the 19th century

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15 Privatisation means the transfer of ownership, responsibility or service provision from the public to the private sector.
century the ownership changed and public provision became a norm. At that time, policymakers agreed that every household regardless of geographical location, social class or income, should have access to treated piped water. This was achieved for most urban regions in the early 20th century. (Prasad, 2008a, p. 23; Juuti and Katko, 2005, p. 41; De La Motte, Robin and Lobina, 2005, p. 205)

**France**
The beginnings of private companies acting in the French water sector date back to the mid-19th century. The Compagnie Générale des Eaux (today Veolia Water) came into being by imperial degree in 1853. (Juuti and Katko, 2005, p. 42) Only the big cities built water supply systems in the 19th century or were interesting enough to attract private entrepreneurs.

**Hungary**
Industrialisation, urbanisation and several epidemics can be regarded as the trigger for the building of a water supply network in Budapest. The provisory water works were built in 1868 following the plans of the British engineer William Lindley. Pumping stations supplied the district of Buda with water, which is situated on the hills. As the water of the Danube was of good quality through natural filtration, its bank filtrate was used for the water supply. (Oelberg, 1997, pp. 54-57)
The Hungarian town of Szeged also relied on stream water at the beginning of the 19th century. In 1862, a private company was founded which supplied some streets in the city with water. It had a concession for 25 years. However, as the company used untreated stream water the pipes were soon blocked by mud. (Péter, 2005, p. 102)

**Germany**
Up to about 1850, there was no general acceptance for a central drinking water system in Germany. This attitude changed in the course of the cholera outbreaks in many cities which created “a general climate favourable to drastically improving water supply and sanitation.” (Lanz, 2005, p. 80). It is important though to realize that many cities already had water supply systems, sometimes organised as stock companies, which served the nobility, the wealthy people and the monasteries with fresh water from outside the city. These services were however too expensive for the bulk of the population. (ibid.) (See the early examples of Berlin and Hamburg above in 2.1.)

2. *From the middle of the 19th century until the early 20th century*
The era of Water 2.0, when municipalities acted or took over former private companies reached from the mid-19th century until the end of WW I. The state of the art of how one could build up water supply, water works, and sewage systems in the middle of the 19th century came from England. (Kalweit, 1998, p. 142)

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16 See on Lindley below in 3.3.


**Hungary**

The 1885 Act on Water in Hungary prohibited the contamination of water. Water supply networks were predominately municipal which meant that the municipalities also set the price of water. (Péter, 2005, p. 93)

Debates and negotiation on water supply in Debrecen started already in 1820. As the region has no surface water and there was always a shortage of good quality potable water three points led to first efforts: questions of hygiene, fire protection and protection against lung disease. Therefore, artesian wells were bored. Yet until the city received a water work almost a century passed. In 1893, the municipality decided to build a central water work - however it was not before 1913 that it started operation. Considering the affordability of water, in 1914 the municipality decided that water taken from public fountains was free of charge while a price had to be paid based on metering if it came from the network. (Péter, 2005, p. 98)

Szeged had to be rebuilt from 1880 to 1883 after a big flood had destroyed most parts of the city in 1879. In 1892, the municipality took over the water supply network but the operation was still under concession. Twelve years later, Szeged received an integrated water supply network by connecting several wells. (ibid., pp. 102-104)

**Germany**

Up to 1900, the urban sanitation in the big cities of Germany was being executed. Between the 1880s and the 1930s, the system was consolidated and extended. Master plans were developed by municipal administrations and civil servants and implemented during the coming decades. Mostly, the responsibility was in the hand of municipalities, sometimes cities co-operated with other municipalities in the surrounding area. (Münch, 1993, p. 340; Bernhardt, 2005, p. 81; Lanz, 2005, p. 81)

Since the 1880s, public opinion in Germany demanded to build public water supply systems in communities of any size to fulfil hygienic requirements. (Steuer, 1912, p. 23) In the middle of the 1880s, almost 90% of the properties were connected to canalisation and up to 1914 most households could be connected to a central water supply. (Fuhrmann et al., 2008, p. 106)

(See Table 1 with the figures for 1912)
<table>
<thead>
<tr>
<th>German States</th>
<th>Number of cities</th>
<th>Population in 1903</th>
<th>Individual supply from wells and cisterns (percentage of population)</th>
<th>Central water supply (percentage of population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prussia</td>
<td>200</td>
<td>12,228,892</td>
<td>4.86</td>
<td>95.14</td>
</tr>
<tr>
<td>Bavaria</td>
<td>28</td>
<td>1,697,233</td>
<td>2.29</td>
<td>97.71</td>
</tr>
<tr>
<td>Saxony</td>
<td>20</td>
<td>1,722,639</td>
<td>5.73</td>
<td>94.27</td>
</tr>
<tr>
<td>Württemberg</td>
<td>10</td>
<td>434,698</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Baden</td>
<td>8</td>
<td>478,828</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Hesse</td>
<td>5</td>
<td>292,990</td>
<td>3.00</td>
<td>97.00</td>
</tr>
<tr>
<td>Mecklenburg-Schwerin</td>
<td>4</td>
<td>134,765</td>
<td>-</td>
<td>100.00</td>
</tr>
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<td>Saxe-Weimar</td>
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<td>108,251</td>
<td>-</td>
<td>100.00</td>
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<tr>
<td>Oldenburg</td>
<td>2</td>
<td>47,391</td>
<td>72.91</td>
<td>27.09</td>
</tr>
<tr>
<td>Brunswick</td>
<td>2</td>
<td>153,691</td>
<td>8.78</td>
<td>91.22</td>
</tr>
<tr>
<td>Saxe-Meiningen</td>
<td>1</td>
<td>15,317</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Saxe-Altenburg</td>
<td>1</td>
<td>39,016</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Saxe-Coburg-Gotha</td>
<td>2</td>
<td>57,565</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Anhalt</td>
<td>4</td>
<td>131,438</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Reuss e. l.</td>
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<td>22,372</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Reuss y. l.</td>
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<td>46,714</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Lübeck</td>
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<td>100.00</td>
</tr>
<tr>
<td>Bremen</td>
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<td>217,142</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Hamburg</td>
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<td>747,162</td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td>Alsace-Lorraine</td>
<td>6</td>
<td>382,010</td>
<td>2.42</td>
<td>97.58</td>
</tr>
<tr>
<td>German Empire</td>
<td>303</td>
<td>19,047,420</td>
<td>4.19</td>
<td>95.81</td>
</tr>
</tbody>
</table>

Source: Steuer, 1912, p. 53.

More statistical material on the development can be found in several publications of the water engineer Ernst Grahn:
Grahn, 1878
Grahn, 1883
Grahn, 1898
Grahn, 1899

The development of local water supply posed legal and technical challenges. In Magdeburg, for example, the water supply was leased for 25 years on private providers by the First Mayor from 1819 to 1843. In 1843, the magistrate of Magdeburg decided to buy the supply network for 4,000 Taler and run the water works as municipal company. This continued to be the form of operation up to 1964.

The deteriorating water quality of the Elbe river lead to the building of a new water work with filtration in 1857. The new waterworks in Magdeburg-Buckau was opened in 1859 and run around the clock (some water works ran only during night time). (Neumann, 2005, pp. 24–25) In 1877, a clarifying basin and new filtration plant had to be built to counterbalance the worsened water quality. The filtration plant was extended in 1907/08 following the French
system of Puech-Chabal. Only five years later, the slow sand filters were extended again and
additional rapid sand filters were installed. This remained the equipment until 1957/60 when
further rapid sand filters were put into the plant. (Neumann, 2005, pp. 38–39)

Berlin also had to struggle with the deteriorating quality of stream water. The private
waterworks company took the water from the river Spree before it entered the city limits. The
water was filtrated in the water work by slow sand filters. However, the contamination of the
Spree made water treatment difficult. Since 1901, only ground water and bank filtrate was
used for the supply. (Kalweit, 1998, p. 140) In 1872, the city of Berlin had succeeded in
buying the waterworks from the private waterworks company. Otherwise it would not have
been possible to extend the water supply network to the whole city and to build a sewerage
network. Members of the city council assembly estimated that the purchase price was up by 2
million Mark compared to the real value of the sites. (Jellinghaus, 2006, p. 230)

As there had not been a requirement to hook up, the connection rates were still rather low in
the Prussian capital. This changed rapidly after the communalisation. Only 19% of the Berlin
households were connected to the water supply in 1864. The figure increased up to about 80%
in 1880 and about 93% another ten years later. (Jellinghaus, 2006, p. 231)

Before the beginning of WW I the threat by waterborne diseases like typhoid fever and
cholera had ceased to exist. (Bernhardt, 2005, p. 81) This does not mean that there were no
outbreaks anymore. But they were no longer taken as something one would inevitably have to
deal with. Instead of this they were thoroughly investigated. This was the case with the
epidemic of typhoid fever in Gelsenkirchen in 1901 and the following lawsuit against the
private provider Wasserwerk für das nördliche westfälische Kohlenrevier zu Gelsenkirchen
AG (today Gelsenwasser). In the course of the trial against four representatives of the
company it became obvious that the company had illegally taken untreated water from the
Ruhr river in times of distribution problems. This was finally considered to be a perpetration
against the food law. Also, during the trial the scientific controversy on reasons for cholera
and typhoid fever was argued out between Robert Koch and the followers of Max von
Pettenkofer.\footnote{On Koch, Pettenkofer and the controversy see also below 3.3. and 3.4.} One consequence of the trial – besides fines for the defendants – was that
Oldenburg resigned the contract with Wasserwerk für das nördliche westfälische
Kohlenrevier zu Gelsenkirchen AG and built up a municipal water supply. (Meyer, 2011, p.
95)

Sources and further reading on the typhoid fever in Gelsenkirchen in 1901 and the following
trial
Howard-Jones, 1973
Grüntzig and Mehlhorn, 2010
Grombach, 2000, p. 87
Feldkamp, 2009, p. 64

Problems of rural water supply
While the development in urban areas took up some speed in the last quarter of the 19th
century many rural areas where reluctant to follow this model. This led to a significant
contrast between urban and rural areas. In some rural areas there was less need to act. (Münch, 1993, p. 340) But others did not even act even though there too the water situation was bad. People were content with the conditions which were not different from those of their ancestors and held back from everything new. (Ehmann and Fraas, 1889, p. 106) Also, the agricultural sector in Germany was facing problems since the 1870s and communities were afraid of the costs. However, politicians and monarchs of several German states were afraid of the spread of infectious diseases from rural to urban areas by trade and migration. Hope was also that an improvement of sanitary conditions in those areas would lead to “cultural progress”. (Steuer, 1912, p. 26) When at the beginning of the 1870s the Württemberg government encouraged the building of a central water supply in the Alb region, the inhabitants were more than reluctant, even though they till then had to transport the water over a distance of 12 km by waggons from the valley to plateau. They also had to pay for the transport with costs summing up on horse or cow (consuming 40 litres per day each) up to 20 Pfennig. Therefore their reluctance was really surprising. The solution was that the state supported the communities financially and that the communities worked together with others and founded group water works serving several communities each. (ibid., pp. 26-27; Müller, 1995) In 1912, Württemberg had 27 group water works serving 378 communities and more developed until 1918. (Steuer, 1912, p. 28; Feldkamp, 2009, p. 65)

Finland
On the developments in Finland see below the country contribution of Jari Aro.

France
In the period of concessions from 1848 to 1900, “investment and operation were realized by private entrepreneurs while the connection rate remained very low” in France. (Lobina, 2005a, p. 74)

Netherlands
In an early period which lasted from 1854 to 1920, fresh water supply was limited mainly to wealthier parts of the cities. Most of the water companies were private. (De La Motte, Robin, 2005, p. 135) People scooped water from the rivers or from the canals which served to drain the polder hinderlands and to take sewage, too. Availability and quality of the water depended on the location, the season and the tides. Health problems increased from the middle of the 19th century. Rotterdam, e.g., became a municipal water supply system in 1874. (De La Motte, Robin, 2005, pp. 138-142; van der Meer, 2005, p. 57)
On the beginning of fresh water supply in Amsterdam see the country contribution of Martijn van der Linden below.

Italy
Modern fresh water supply in Italy was built up in direct subsequence to the Roman times. In Arezzo, a charity started the water supply in 1870. The Fraternita dei Laici began to redirect water from an existent water pipeline which had served the hospital, public buildings and individual citizens and began to construct a network of water pipes for the old part of the city. Together with the municipality the Fraternita dei Laici built a reservoir for water distribution in 1873. Also, public fountains were constructed. Later the municipality purchased the right to new water sources while the charity concentrated on the restoration of the still-in-use ancient aqueduct which was finished in 1923. (Lobina, 2005b, p. 109)
In Bologna, it was the Società Nazionale Gasometri ed Acquedotti who renovated the ancient Roman aqueduct in 1871 which is still in use today. In 1903, the municipality of Bologna started to build a new aqueduct which was finished ten years later and was operated temporarily by the Azienda Municipalizzata del Gas, a municipal company founded in 1900. (ibid., p. 112)

At the beginning of the 20th century, there were already 153 water works in Italy run by municipalities, the figure rising since the legislation of 1903 made it easier for local governments to run public enterprises (Bigatti and Ferrari, 2005, p. 124).

Generally speaking, cities in Southern and Eastern Europe trailed behind the standard of cities in Northern and Eastern Europe up to the late 1920s. (Lenger, 2012, p. 152, Lenger, 2013, p. 327)

3. From the early 20th century until the 1980s

Great Britain
In the early 20th century most households in urban regions of Great Britain had access to piped water. Until the mid-20th century, this was achieved for most rural areas too. This was accomplished through an extensive and costly system of cross-subsidies (Prasad, 2008a, p. 23).

Hungary
WW I and the treaty of Trianon obstructed the further development of water supply in Hungary in general and in Budapest in particular. The population in the capital grew further because of the consequences of the war but there were no financial resources to develop the supply network accordingly. Water became short. Consequently, water meters were introduced to bill the water according to real consumption instead of a lump sum. (Oelberg, 1997, pp. 57-58)

In 1923, the management of the water company in Debrecen was taken over by an also-municipal lightning company. (Péter, 2005, p. 98; country contribution of Attila Havas below)

After the Great Depression, new wells were bored, new pumping stations erected and new water resources tapped to live up to the new conditions. (Oelberg, 1997, p. 58)

The water supply systems of Budapest and Debrecen were both heavily damaged during WW II, but the supply in Budapest was only interrupted for some weeks. The reinstatement work of the systems was completed in 1947. (Oelberg, 1997, p. 58; Péter, 2005, p. 100)

In 1948, the water sector in Hungary was nationalized. The ownership was now with the state while the municipalities operated the system. Between 1950 and 1970 a ‘utility gap’ emerged: 55% of households were connected to water supply but only 28% of sewerage (Péter, 2005, p. 93).

Netherlands
Between 1920 and 1975, rural areas in the Netherlands were connected to the water supply network. Most water companies were managed by the municipalities. Later regional water supply companies were founded which operated as public water PLCs. The connection rate reached 100% in 1970. (De La Motte, Robin, 2005, p. 135)
Germany

During WW I, the continuing systematic expansion of the supply network was interrupted. After the war, new tasks had to be handled. Many cities, especially big ones, like Berlin, Munich or Frankfurt/Main grew in the 1920s by annexation. Along with this the need for water grew, too. Sometimes water works of the neighbouring communities were taken over as it was the case in Berlin, sometimes as in the case of Munich the water supply was leveraged in annexation proceedings. (Münch, 1993, p. 343; Tepasse, 2006, pp. 91-96; Kalweit, 1998, p. 202) In smaller cities like Oldenburg the extension of the grid was only taken up after 1924 when the economic situation had become better again. In the second half of the 1920s, the municipality aimed to supply all settlements with sufficient amounts of potable water. (Meyer, 2011, pp. 99–100)

By 1930 most households in Germany were connected to the public water supply system. (Kalweit, 1998, p. 202)

However, not all benefitted from this development. The economic situation after the war, the hyperinflation of the early 1920s and the growing number of unemployed people, not only during the Great Depression but also before, led to a high number of homeless people in Germany during the Weimar Republic. Illegal settlements emerged in the 1920s and 1930s. In Düsseldorf-Heinefeld, unemployed families settled on a former parade ground since 1924. There, about 2,000 marginalised people lived without water, gas and electricity in the early 1930s. (Fuhrmann et al., 2008, p. 136)

WW I and WW II demonstrated the vulnerability of a central drinking water supply. (Hirschfelder and Winterberg, 2009, p. 125) Bombs damaged water works, water towers and pipes. Where the supply network was damaged water was supplied by pumps in the streets or by tanker vehicles. (Kalweit, 1998, p. 202; Neumann, 2005, p. 29; Feldkamp, 2009, p. 93)

In contrast to electricity and gas, water does not seem to have been rationed immediately after the war.

After WW II, the situation of the water supply in Germany was tense. There were problems with bomb damage to the pipe network, personnel as well as material were scarce and half of the drinking water trickled off to the ground, as did sewage. (Müller, 1981, p. 101; Münch, 1993, pp. 343–344; Neumann, 2005, p. 17; Kalweit, 1998, p. 202) Until the currency reform of 1948 in Western Germany the repairs proceeded slowly but then became fast and thorough (Münch, 1993, pp. 343–344).

To integrate millions of refugees housing development increased and made necessary new feeder and supply lines as well as new connections. In the 1950s, the infrastructure was improved and the rural areas became connected to the drinking water supply network. (Feldkamp, 2009, p. 130) This was not always a smooth development. Big efforts were needed to hook up the city Oldenburg growing by the large number of refugees as well as by new settlements to the water supply in the second half of the 20th century. Housing was priority, leaving the extension of the infrastructure, water supply, canalisation, energy and roads, postponed at first. Many dwellings built at the periphery of the city between 1949 and 1961 neither became connected to the water supply nor to the sewage system. This was extensively caught up on later. (Meyer, 2011, pp. 112–113)

Also, in cities in the GDR, like Magdeburg, the water supply networks of the growing cities were extended. Housing programs led to an extension of Magdeburg by new settlement areas
which were connected to the municipal drinking water net. In the post-war period the extension to and the connection of suburban areas were achieved through the initiative of the inhabitants working after hours with the support of agricultural and industrial enterprises. (Neumann, 2005, pp. 30–31)

The extension of the water supply system in Germany was basically finished in the 1950s. However, at this time water resources had already become insufficient or the quality of the water was so bad that new resources had to be found and developed. Long-distance water transfers were built, deeper ground water wells were bored and artificial infiltration became more important. (Lanz, 2005, p. 81; see for example the extension of the pipe network in Hamburg between 1950 and 1990 due to new settlements, road building and improvements of the supply network: Meng, 1993, p. 339) Since the 1960s, the urban-rural incline in Germany is said to be leveled (Münch, 1993, p. 340).

**France**

In France, in the period of régie from 1900 to 1970, “investment and operation were realised by municipalities while the connection rate increased from 2 per cent to 65 per cent in 1950 and 90 per cent in 1970” (Lobina, 2005a, p. 74).

**Italy**

Bringing water to the city of Arezzo remained a major task even in the 20th century. The commune financed two new aqueducts (finished in 1908 and 1929) to serve industrial and households needs and took over the ancient aqueduct from the Fraternita dei Laici in 1930. The purpose of this decision was to unite the fragmented infrastructure in one hand. (Lobina, 2005b, p. 111)

**Finland**

On the developments in Finland see below the country contribution of Jari Aro.

**4. Since the late 1950s**

After WW II, it became clear that sewage should be treated:

- To better prevent diseases,
- To improve the drinking water quality, especially the taste,
- To support fisher men,
- And to improve the water quality of rivers and lakes which became recreation areas. (Sedlak, 2014, p. 81).

The building of waste water treatment plants (Water 3.0) in the 20th century was driven by the idea to protect downstream drinking water supplies and aquatic ecosystems from the negative effects of sewage.” (Sedlak, 2014, p. 88)

**France**

Water supply as a matter of sewage treatment linked to public hygiene (Water 3.0 according to Sedlak) only started in the 20th century. “In the 1890s in the vast majority of cases sewers discharged directly rivers and streams, and indeed in 1892 only 90 towns out of 691 had sewer systems at all. ... There was indifference to this aspect of public hygiene ... hygiene was not considered a serious component of medical education” (Hassan, 1996b, p. 124). But as of
1958, legislation targeted sewerage system development and offered financial assistance (ibid.).

Water supply as a social-environmental impact was recognized as of 1964 with the creation of six river-basin agencies. They act under the national government, draw income from charges on pollution and service and use this income for water quality improvement projects (via grants to a maître d’ouvrage). An underlying principle is polluter pays, which in terms of water sector management means that the regulatory function of water equality is kept separate from the water supply, thus making “integration” less demanding (Hassan, 1996b, pp. 128-129).

**Germany**

Since the beginning of the 1970s, a new ecological awareness led to new regulations and laws in Germany (Münch, 1993, p. 344). Throughout that decade waste water treatment plants were modernised and water works expanded to improve the water quality with new methods. However, it took until the 1990s for the German Waterworks Association to begin supporting the prevention of pollution. (Lanz, 2005, p. 81)

**Hungary**

The first drinking water treatment plant in Budapest came into operation in 1984. It worked with filtration and ozonisation to get iron and manganese out of the water. (Oelberg, 1997, p. 59)

**Italy**

Waste water treatment in Arezzo started in 1980 by a private company. (Lobina, 2005b, p. 111) In Bologna, it was a municipal plant at the beginning in 1990 which became a PPP in 2003. (ibid., p. 114) Milano started even later to treat the waste water, namely in 2004. (ibid., p. 117)

**Finland**

On the developments in Finland see below the country contribution of Jari Aro.

**Great Britain**

Waste water treatment in Great Britain started early, depending on local circumstances. In Leeds, a wastewater treatment plant was already built between 1910 and 1936. As investments in sewage treatment decreased in the late 1970s, parts of the plant and therefore the quality of the treatment deteriorated. Thus, an expensive upgrade was undertaken and went into operation in 2001. (De La Motte, Robin and Lobina, 2005, p. 209) Waste water treatment in Edinburg started in 1978. The Seafield treatment plant was financed by a loan from a European Investment Bank. Before being discharged into the sea by a sludge disposal vessel, sewage was treated there. This practice was continued until December 1998 when it was prohibited by the EU Urban Waste Water Directive. (De La Motte, Robin and Lobina, 2005, p. 217)

**International cooperation**

The emergence of the environmental movement in the late 1960s led to a different perception of water, its quality and the need of its protection. (Sedlak, 2014, p. 86) One example of
international collaboration to protect a river as an important source of water to many European countries is the Rhine. It streams 1,100 km from Switzerland through Germany and the Netherlands until it enters the North Sea. On its journey, it takes up the sewage of about 50 million people. It hardly is surprising that in periods with little rain or melt water in some river sections about 10% to 30% of the Rhine water is dirty water. (ibid., p. 145) As the effluent of up-riparian cities is often part of the drinking water supply of down-riparians the countries accessing the Rhine founded the international commission for the protection of the Rhine on 11 July 1950. Member states are Switzerland, France, Luxemburg, the Netherlands and Germany.

In April 1999, these countries signed the Convention on the Protection of the Rhine. (See International Commission for the Protection of the Rhine, 25.11.11)

http://www.iksr.org/index.php?id=58&amp%3Bamp%3Bid=24&amp%3Bamp%3BFsize=1&amp%3BL=2&amp%3BcHash=224bfb3280be362122755b72ed2f3468&amp;L=3&amp;hash=d6c7f3a6319686795eb9f6ba94e5b856, accessed 24 March 2015

5. Starting in the 1970s until the 1990s

**France**

In France, the period of affermage lasted from 1970 to 2001. The “population supplied by the régies decreased initially and at an accelerated rate after 1985 when large cities started switching from the Régie to Affermage” (Lobina, 2005a, p. 74).

Not all municipalities switched though, leaving some still under direct operation like the water and sewerage services in Amiens where a conscious decision was taken not to privatise the water management. (ibid.)

**Hungary**

After the end of the Soviet bloc in 1989, the Hungarian water utilities became municipal. The municipalities had the legal responsibility and the compulsory duty to supply the population with water. In 1991, they took over the ownership of the water supply networks again.

Sanitation became compulsory only in 2001. (Péter, 2005, p. 93)

The ‘utility gap’ between connection rates to water supply and sewerage became smaller. In 1998, 98% of the population was connected to the water supply network and 57% to the sewage system. The latter figure increased up to 65% by 2001. (ibid.)

The water supply in Budapest was privatised in 1997 and the company is being run as a private-public partnership. (Péter, 2005, p. 95) This PPP has not always been smooth considering high management fees on the one hand and water price increase above inflation rate on the other (Boda and Scheiring, 2005/6, p. 100).

In Debrecen the water supply network was taken over by a shareholding company in 1995 which is 100% municipal. The connection rate for the water supply network was 98.5% at that time in comparison to 91% in 1980. This resembles the rates for Szeged. (Péter, 2005, pp. 101, 105).

The company operating the water supply in Szeged was privatised in 1994. Therefore the company was divided into four companies, three of them having private investors (multinational companies). The general agreement has been renegotiated in 2001, and since 2005 water supply in Szeged is being provided by a company with private involvement (Péter, 2005, p. 105; see also the country contribution of Attila Havas below)
Further readings on the Hungarian development
Hegedüs et al., September 2003

Finland
On the developments in Finland see below the country contribution of Jari Aro.

Germany
Cost effectiveness and questions of privatisation were to the fore in German discussions on water supply in the 1990s. According to Lanz there were “strong signs of under-investment in privately run water operations” at the beginning of the new millenium, “but increasingly also in public enterprises. Quality control had been reduced to the legal minimum, investment in maintenance postponed, etc.” (Lanz, 2005, p. 81)

Great Britain
On the development in Great Britain, especially in England and Wales, see detailed in 2.3.

6. Developments of the 21st century
See for details on developments of the last 15 years below in 2.3 and in the country contributions.

By following the development through the different periods it became clear that local necessity was an important factor in the implementation of the social innovation. The development went from larger to smaller cities (industrialisation and urbanisation creating need and demand), from cities to countryside (contrast between urban and rural areas), and from downstream cities to upstream cities (again following the local need). Epidemics were crucial incidents (cholera, typhoid fever, and other waterborne diseases) pushing the set up and extension of the fresh water supply. From the 1970s onward environmental protection in general and of natural resources in particular became a distinct field of activity. Ecological dimensions of measures were discussed and considered.

2.3 Streams of development of the SI

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<td>Were there also different “streams” of the social innovation, i.e., different forms and adaptations in the implementation of the basic idea? Did these streams converge or diverge over time?</td>
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<th>Summary of key points</th>
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<td>• Private and public forms of ownership and management alternate. There are periods with more private involvement and periods with more public engagement</td>
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<td>• Arguments brought forward in the discussion on public or private provision are similar in the 19th and 20th century:</td>
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<td>o Municipal provider: more political scope</td>
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Private provider: economic interests predominant, conflicts over diverging interests

- A third form are cooperatives.

| Content |

There are different models of service provision and ownership:
- Public
- Private
- Private in public commission
- Private-public-partnership

In most cities private companies got concession around the middle of the 19th century. It was only later that infrastructure companies were municipalised. City administrations of the emerging industrial society, not only in Germany, became responsible for nearly all spheres of life. (Schott and Skroblies, 1987, p. 79)

Yet contracts with private companies posed difficulties for the cities. The legal frame was difficult (ownership on public goods) and the long duration of the concessions made it complicated to react on new developmental needs of urban infrastructure. Especially with regard to pricing there was mostly no instrument in the contracts which the municipalities could use to control the private company. (Jellinghaus, 2006, p. 217) Water networks were often not extended or only prosperous boroughs were connected. Small cities and rural areas would usually not attract private capital. (See a contemporary view on this: Steuer, 1912, pp. 55-56.)

When the municipalisation started in the late 19th century, this was a reaction to “the inefficiency, costs and corruption connected to” (Juuti and Katko, 2005, p. 39) the private systems. The result was “more effective control, higher employment, and greater benefits to the local people.” (ibid.) British and German cities often built their own profitable waterworks or overtook them early on as they were dissatisfied with private companies (Lenger, 2012, p. 148.) At the beginning of the 20th century, 94% of German waterworks were municipal. (Jellinghaus, 2006, p. 215) Before 1914, waterworks in Scotland, England, Germany, and Italy were municipal, at least in the big cities. (Lenger, 2012, p. 185)

**Great Britain**

As mentioned above the beginnings of water supply in Great Britain were private. But even though this was the case, there were also voices arguing for municipal enterprises, like John Loude Tabberner in 1850:

“[…] the drainage and sewerage, paving and lighting, and the erection of metropolitan buildings, should be under the administrative power of the same commission as the water supply […] for I contend that as the inhabitants pay for all such administrations, they are entitled to have a direct voice in the expenditure be solely vested in an irresponsible power to the ratepayers themselves. I further contend that in such an instituted power is perpetrated an unconstitutional infraction of the civil privileges of the public. I am aware the received supposition is, that no irresponsible power can exist under our constitution, - that through parliament all commissions appointed by the government are made responsible to the people […] So indirect, so remote, is the
responsibility of such commissions to the rate-payers that it is not only understood as a matter of course to be, but really is, merely normal.” (Tabberner, 1850, pp.4-5)

He also saw problems with abuses in local governments and proposed solutions: “But while I seriously and sedulously advocate local government as a civil right, and as an invulnerable safeguard to our international prosperity and peace, I am not insensible to the growing abuses it is subjected to, as the wealth of the general community augments, and as the population and civil responsibilities of each municipality increases; and as these respective developments of civilization natural enlarge, it is essential, having due regard to a fair representation of all interests, to centralize the local administration of all large cities within one, or as few common scopes of action as possible, so as to secure economy, uniformity, and efficiency in all municipal operations.” (Tabberner, 1850, p. 6)

And Edwin Chadwick already argued in 1842 contra privatisation: “From such information as that already cited, it will be manifest that for an efficient system of house cleansing and sewerage, it is indispensable that proper supplies of pure water should be provided, and be laid on in the houses in towns of every size, and, it might be added, in all considerable rural villages. No previous investigation had led me to conceive the great extent to which the labouring classes are subjected to privatisations, not only of water for the purpose of ablation, house cleansing, and sewerage, but of wholesome water for drinking and culinary purposes.” (Chadwick, 1842, p. 63)

Joseph Chamberlain, member of the Liberal party, held the view in 1884 that “it is difficult, if not impossible to combine the citizen’s rights and interests and the private enterprise’s interest, because the private enterprise aims at its natural and justified objective, the biggest possible profit.” Therefore, the state should take over the responsibility for water supply and sanitation services. (Quoted in Juuti and Katko, 2005, p. 41)

The share of private vs. publicly owned utilities in Great Britain had reversed before 1914. From then, 80% of water enterprises were public which had been the same share for private enterprises some decades before. (De La Motte, Robin and Lobina, 2005, p. 205)

Hassan (1996a, chapter 5), proposes three periods of municipal water industry for England and Wales:

A Up to 1973: developed system: “Responsibilities for public water supplies were divided among sixty-four local authorities, 101 water boards and joint committees, and thirty-three statutory water companies. Some 1400 sanitary committees operated sewerage undertakings. And twenty-nine river authorities exercised responsibilities in the water conservancy field” (Hassan, 1996a, p. 101). Following private origins in the 18th century, public provision was pursued in a universal spirit of access to treated water: “The failure of the mid-Victorian experiment with partially regulated private enterprise has led the public authorities to assume direct, though decentralised, control over source developments. Municipal promotion, construction and management of water schemes led to a major improvement in urban supplies. The innovation of constant, high-pressure and pure piped supplies was introduced in many localities; domestic and industrial requirements were met much more adequately; and significant progress in private health and convenience was achieved. By the early twentieth century there had been a dramatic reduction in the incidence of water-borne diseases. The water industry had expanded so that an increase in per capita water consumption of about two
per cent per annum in urban communities took place in the second half of the nineteenth century, and nationally per capita consumption grew by some 1.6 per cent annually between 1900 and 1950, at 2.7 per cent in the 1950s and 3.0 in the 1960s. (ibid.). However, Hassan notes that up to 1973 much less was achieved in the field of sanitation and water quality control (cross-link: here the topic that Sedlak discusses as Water Innovation 3.0 comes up: insufficient sewerage systems and overflows during heavy rains; ibid., p. 102). As a potential reason for the problem, he names the insufficient expertise of the sometimes very small municipal water industries as well as the problem that from a water cycle perspective the river basin and not the municipality are the appropriate unit for an “integrated” management of the various aspects of water management.

B 1973 Water Act creates ten Regional Water Authorities (RWA) with responsibility for all uses of water in England and Wales. Hassan calls it a “revolutionary reform” (Hassan, 1996a, p. 105) that improved the regulatory power over the water management problem. However, there are problems with the “integration” of the various demands. The regulatory power of the RWA in practice came across the problem that on the board of the RWA were members from municipalities, and thus those who cause the problem. “Nominees of local councils sat on these bodies, and undoubtedly they used their position to lobby, occasionally very energetically, on behalf of what they perceived to be local-authority interests, that is, against proposals to prosecute polluting sanitary authorities” (ibid., p. 104). Also, the RWA cooperated with 29 private companies that acted as agent of the Authority. There was a process of concentration: “numbers of separate undertakings in both branches of the industry [sewerage and water abstract/treatment/distribution] from over 2000 at the beginning of the century to around a tenth of this number by 1970. This process of concentration was accompanied by a change in organizational spirit: not only was there an attempt to reduce staff but also to transform the industry from a public service to a business organization ripe for privatization” (Parker and Derrick Sewell quoted in Hassan, 1996a, p. 110). According to Sawkins and Dickie, in the late 1970 there was a change in general political discourse that replaced the post WW II model of the state as a provider to citizens of a range of goods and services with a business organization model (Sawkins and Dickie, 2008, pp. 70-72). This was accompanied following the 1973 oil shock by financial cuts: “In common with other public-sector activities, that water industry was subjected to tough spending cuts” (Hassan, 1996a, p. 111), resulting in insufficient investment in the maintenance of the infrastructure.

C In 1989, RWAs are privatised: ten public limited companies are created, accompanied by the creation of an independent economic regulator – the Office of Water Services (Ofwat). The idea was to bring in private capital to fund the investments required in the water sector and to put it under tougher regulating control - a “success” from the perspective of the government that “seeks to drive down public expenditure and an ownership, and a need to find a way of funding massive improvement in water quality” (Hassan, 1996a, p. 118). However, effectively this also introduces a company perspective, driven by shareholders (who invest), and effectively “short-termism and relatively low investment characteristics” (ibid., p. 120). It also increases the tension between the profit goal and social goals. The 1997 labour government responded with social policies as the prohibition of disconnection for non-payment and a ban of use-limiting devices (Sawkins and Dickie, 2008, p. 76, Downing and Richards, 1998, Prasad, 2008a, p. 23).

The privatisation of the water sector since 1989 followed the belief that the “private sector could deliver services in a more efficient and effective way than the public sector, provided there was appropriate economic regulation.” (Prasad, 2008a, p. 23)
Bakker (2001) argues that changing institutional developments in England and Wales can be understood in terms of changing government and regulatory policies with different priorities (say economic efficiency over social equity). Another theme, partly enforced via privatisation, is the co-ordination of responsibility (e.g. water providers and regulators arguing that social objectives are not part of their mandate).

It should be noted though that Scotland for example did not follow the path of England and Wales “mainly as a result of a massive campaign which saw the involvement of many sections of Scottish society.” (De La Motte, Robin and Lobina, 2005, p. 217, see also Drewry, 2005, p. 73) In 2002, Scottish Water was created by the fusion of the three Scottish water authorities. This public corporation is the provider of water to the whole of Scotland. (De La Motte, Robin and Lobina, 2005, p. 217)

France

France is one of the pioneers of private water sector involvement, and saw a particularly dynamic phase from the 1950s to the 1970s; by the end of the 20th century about 80% of water supply was private (compared to 17% in 1938, and 75% by 1990, Reynaud, 2008, pp. 38, 47 f., Hassan, 1996b, pp. 121, 123). The origins of this dynamic are in the 19th century: “Originally much of the population could obtain water free of charge. Only in the nineteenth century did it become an industrial and commercial product. While a communal responsibility for securing supplies in urban areas had been assumed, it was only with the intervention of private companies that the organisation and distribution assumed a comprehensive and modern pattern. The establishment of the Compagnie Générale des Eaux in 1853 marked the beginning of a new phase in the development of urban water supplies” (Hassan, 1996b, p. 122).

In the background there may be different “philosophies of water (> cross-link: cognitive frame/narrative). In Britain by the late nineteenth century water was regarded as a public service paid for out of local taxation, the tax (water rate) being levied on the value of individual properties, not on the volume of water consumed. Notwithstanding interwar recognition of water’s public utility features, it was more regarded as a market commodity in France, consumers being charged in proportion to their consumption” (Hassan, 1996b, p. 125).

A key characteristic of the French approach is that ownership of the water infrastructure is public (municipality) while management usually is private. It is up to municipalities to enter into different arrangements with private actors: management contracts, leases, concessions (running 10-30 years, Prasad, 2008a, p. 22) that regulate operational, pricing, and investment responsibilities (lease is the most common, Reynaud, 2008, p. 39, for specifics of levels of governance in France see ibid., pp. 40-42, 48, also Hassan, 1996b). This separation of ownership and management may have introduced competition in the French water sector early on and helped to produce an internationally competitive water industry. According to Caulkin (quoted in Hassan, 1996b, p. 127), “the unlikely source of one operator’s international competitiveness is the ‘town hall of rural France.’” As in the UK, over the course of the 20th century we see a process of concentration, with three main actors dominating the sector by the 1980s: Compagnie Générale des Eaux (today: Veolia), Lyonnaise des Eaux (today SUEZ), Société d’Aménagement Urbain et Rural (SAUR). In 2003 there where about 29,300 water services (14,900 for water supply) serving 36,679 communities. Three larger private players (Veolia, Suez and Saur) account for 98% of the private market.
Juuti and Katko point out that a reason for the predominance of private companies in the water and sewerage sector in France might be the large number of municipalities as it is more or less impossible for each of them to have its own water work and sewage treatment plant (Juuti and Katko, 2005, p. 46 f.).

In Grenoble, a syndicat called SIERG was set up in 1947, comprising of the city itself and a number of surrounding municipalities. This however was a short period in the history of water management in Grenoble as the city decided to leave the syndicat after six months already. The task of the syndicat would have been – among others – to find new ways to increase water abstraction capacities. Grenoble paid 50% of the investment costs but was only entitled to two votes in the decision making as were all the others members. (Lobina, 2005a, pp. 75-76) Before and after this syndicat experiment, water management in Grenoble was public up to the 1980s. In 1985 the sanitation service was privatised and in 1989 the water supply followed, the first becoming part of a joint venture of SUEZ and Veolia, the later to SUEZ. Eleven years later, in 2000, the city council of Grenoble decided “to terminate the private contracts and replace them … by a municipal service through two new régies.” (ibid., p. 77) Reasons for this change of mind included bribery, inflated prices, intransparent accounts and others.

According to Hassan, the social impact of the French public-private approach in comparison has been a slower development for all, i.e. especially the less rich as companies focused on rich cities. “As late as 1946, 58% of the inhabitants of rural parishes were still fetching their water from courtyard or village pump ... In 1944 in England and Wales only 30% of rural parishes lacked piped supplies” (Hassan, 1996b, p. 123). The increasing coverage up to almost universal access took one or two generations and required a high level of subsidies from urban to rural areas (Prasad, 2008a, p. 22).

The regulatory requirement however in all cases is: equal access, continuity of service, and adaptability to social innovation (Reynaud, 2008). Despite this, there is no targeted social pricing in relation to water and only ex post financial aid. In 2006, the Water Law 1772 recognized that all users should benefit from water at an economically acceptable cost (Reynaud, 2008, p. 57), in 2000 a social water fund was created (ibid., p. 59) and a 2005 law disallows disconnection due to financial difficulty. There has been a specific fund to invest in water supply for the rural area (FNDAE). According to Reynaud, privatisation has negatively affected the poor and social policy dealing with water poverty is still incomplete (ibid., p. 66). In France, as in other continental countries, private water service provision is however increasingly seen as problematic, leading to numerous (re)municipalisation of water provisions, most notable in Paris. This re-municipalisation in turn has triggered new initiatives with a special social impact focus. One example of water social tariffing is the following: “Ms Celia Blauel, Deputy-Mayor of Paris for environment and President of Eau de Paris, will put forward a proposal to start experimenting a “water social tariffing” to ensure the access to water for all in Paris. The proposal will be discussed by Paris’ City Council on 18 December 2014. The City of Paris together with Eau de Paris already finance a special “water solidarity fund” as part of the housing aids provided by the municipality. Thanks to this fund, around 44,000 low-income households were supported in 2013, with an average contribution for household amounting to 70€. The new social tariffing mechanisms will be elaborated by ad hoc working group and will be carried out in the framework of the “Brotte Law”, which allow municipalities to temporarily repeal some specific legislative provisions in order to ensure the right to water. The experimentation will focus on how combining a mix of instruments, namely:
New water-related support schemes for people facing economic and social exclusion;
New progressive tariffing based on incomes;
Differentiated tariffing schemes according to water uses (domestic or business);

Germany
Water supply and sewage systems were built up in German cities between the 1870s and 1890s. While the supply of gas and of water was often private in the beginning no private company could be found to build canalisation and sewage systems. However, soon not only waste water but also fresh water became a municipal task. Some water works were founded as public ones already, others were acquired later. In 1865, there were 16 public water works in Germany. (Feldkamp, 2009, p. 25)

This corresponds with the German pattern of predominantly public utilities, but there also were private companies in public commission. One example of a company that was private during the whole research period is the Wasserwerk für das nördliche westfälische Kohlenrevier zu Gelsenkirchen AG (today: Gelsenwasser AG) (Olmer et al., 2012; Eiden, 2006, pp. 276-293). The company was the largest German water provider in the 1890s. When Oldenburg assigned the company with the water supply in the city, the company got a monopoly for 30 years if the water works would start operation within three years. After the expiration of the concession the municipality could buy the works or prolong the contract for another ten years. After a maximum duration of 80 years the water works should become public property. The company was a provider for many cities so contracts differed only in nuances and there was not much room for negotiation for the city authorities. (Meyer, 2011, pp. 89–90) The company prevailed even after the typhoid fever epidemic in Gelsenkirchen and the following trial and in 1931 provided 82 urban and rural communities with fresh water (ibid., p. 94).

The arguments brought forward in the discussion on public or private provision are similar in the 19th and 20th century. The following arguments are mainly from German sources and literature but where prevalent in other European countries too:
Town master mason Noack in Oldenburg was against private enterprises in the fresh water supply as they would have necessarily other interests than the city administration. He was also afraid of constant conflicts if private providers for water, sewage and gas would have their own pipe networks in the ground which had to be maintained by different companies. He therefore recommended – without success though – building a municipal water works. (Meyer, 2011, p. 88) The Mayor of Düsseldorf, Ludwig Hammers, raised another point for municipalisation of water supply in 1866: “if only on account of the poorer classes, meeting such an indispensable need should not be left to the private sphere but should be met by the community.” (Quoted in Lenger, 2012, p. 148.) An important motive for the municipalisation of infrastructures was to supply at least in the long run the whole population with water and energy at affordable rates. (Meyer, 2011, p. 329)
In a newspaper article in 1910 Adolf Wagner listed four reasons why water works should be in the hand of the municipality or the state (Steuer, 1912, p. 61): 1. State and municipality

18 See above 2.2.
would be better capable of doing it than private companies, 2. Non-profit interests would be better maintained, 3. Large surplus could be transferred to the municipality or the state, 4. Capitalist power would be bent under the state.

Also, the endeavour of cities to survive in public competition with other cities and the pressure of the local economy which hoped for locational advantages and economic benefit played an influential role. (Meyer, 2011, p. 329)

Local politicians distrusted private monopolists. They argued the monopolists would only be looking for the maximum profit but would not consider the interest of the population or the public interest. Opponents of municipal institutions however argued that administrative structures would have counter-productive effects when running an enterprise. (Jellinghaus, 2006, p. 218 f.) They criticized bureaucracy as being too dull to run a company and incapable to adjust to the economic situation. (Steuer, 1912, p. 61)

A third way of organisation in the water sector were cooperatives or syndicates. The associates were the inhabitants of a community. The operation was non-profit making. This was a solution for small communities or townships which could not attract private capital. (Steuer, 1912, p. 57)

Social impact and health: Already in the 19th century, industrialisation, urban growth and resulting pollution triggered organizational innovation: “Following a typhoid outbreak, the Emschergenossenschaft, a compulsory membership association of water users, was created in 1904 ... The association was unique in that it represented a conscious trade-off of water quality in the River Emscher: the river was turned into the principal carrier of all industrial wastes, while water quality of drinking water was maintained in the river Ruhr” (Nunn, 1996a, p. 156). The success of this Genossenschaft resulted in the creation of many more water cooperatives across the provinces. (ibid.)

In post-war West Germany, water management is a responsibility of the provinces (Länder), though this responsibility is partly constrained by higher-level policy and legislation (for example relevant EU directives). The social idea is based on the concept of *Daseinsvorsorge* (Forsthoff, 1938) that in recognition of the effect of industrialisation and urbanisation on individual live possibilities (> link capabilities and justice) assumes a governmental responsibility of meeting basic aspects of living (water provision, housing etc.). This responsibility is implemented on the communal level19 and can be interpreted differently by the respective community (i.e. what is part of *Daseinsvorsorge* and what is not). Still, access to affordable drinking water is a more or less uncontested aspect of communal responsibility (compare Allianz der öffentlichen Wasserversorgung, last accessed 23.04.2015)

The main driver of this delegation of responsibility to the local level was the response to WW II and the Nazi state. “Main objective is the dispersal of political power to avoid a renewed concentration of military strength” (Nunn, 1996a, p. 157) (> cross link political and

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19 This idea is sometimes derived from the principle of subsidiarity. See more on *Daseinsvorsorge* in 3.5 below.
military power in the sense of Mann, also interesting as it countervails the process of concentration visible in other Western European countries).

By 1970, about 12,000-water use associations were inter alia charged with domestic water supply. Organisationally there is a large variety of public, private and public-private organisational forms, including the Stadtwerke and Wasserzweckverbände (co-operation of various communities to provide drinking water, take care of wastewater, and often also floodwater and other water management aspects; for an overview see (Bundesministerium für Wirtschaft, 2001, p. 16). For 1998, the German Ministry of Economy reports 6,655 water provision organisations (Wasserversorgungsunternehmen) that run 17,489 water works (Wasserwerke) and 8,000 organisations that run 10,273 waste water treatment plants (ibid., p. 15). Accordingly, the relative number of water providers is much higher in Germany (88 per 1 million inhabitants) in comparison to countries such as England/Wales (0.7 per 1 Million inhabitants) or Italy (2.3 per 1 million inhabitants, ibid.).
Environmental impact considerations in West Germany, as elsewhere, acted as a driver towards more centralized regulatory power: starting with the 1957 Federal Water Act (which however retained power within the Länder) and evermore legislation in the coming decades: “the 1970s saw a widening of water resource legislation, incorporating a slow but ceaseless
strengthening of the federal institutions and their authority.” (Nunn, 1996a, p. 159). However, due to the federal structure, policy development is slow and there is much “policy dilution”.

East Germany followed an environmental policy comparable to that of West European countries, but lacked central government interest in enforcement, and hence there are problems with water quality similar to those of Hungary. With unification, West German regulatory approaches to water management were more or less imposed on the newly created five new (Eastern) provinces (Nunn, 1996a, pp. 164 ff.).

Privatisation started in the 1990s and lasted to the beginning of 2000 (with a focus on public-private partnerships and private actors such as RWE, Vattenfall, EnBW, E.on and Veolia20). It furthered a process of concentration familiar from other countries, with an estimated decrease of water providers from 6,655 (in 1998) to 4,663 (in 2013, see Dobner, 2013, p. 72). However, more reliable estimates are difficult to obtain due to the varieties of privatisation, a lack of data and the frequently secret nature of public-private agreements (still Dobner, 2013, p. 73 estimates that in “several hundred” water associations private actors play a role in partly or fully privatised water provision for an estimated 1 million population)

Privatisation proved to be unpopular. Critics point to rising water prices, job cuts and a lack of transparency (due to secret PPP contracts) that hinder communal democratic accountability. There is no reliable evidence that private water provision is more efficient than public provision; however due to the complexity of water provision, there is also no reliable evidence that privatisation increases water prices (Dobner, 2013, pp. 74 f.). On average water prices increased by 43% from 1992 to 2000 (Bundesministerium für Wirtschaft, 2001, p. 14).

The civic response was to found new coalitions, including new organisational forms such as the communal “water table”. The argument for “social innovation” in the sense of more innovation not just for but also by the citizens is based on the diagnosis of insufficient control of communal water services via parliamentary, representative democracy, and on this basis the call for complementary, participatory instruments such as water tables and a greater say of employees in decision-making (see in more detail the illustrative case below). A member of the Berlin Water Table puts it as follows:

“Die alleinige Kontrolle kommunaler Wasserbetriebe durch das Parlament reicht in Zeiten, da die repräsentative Demokratie nicht mehr imstande ist, der Erosion eines von Ökonomie und Lobbyismus unterminierten Gemeinwesens entgegenzutreten, nicht mehr aus. Ein breites gesellschaftliches Bündnis aus Umweltverbänden, Mietervereinen, Verbraucherschützern und Gewerkschäften hat sich angesichts einer zunehmenden Kommerzialisierung der kommunalen Wasserwirtschaft dazu geäußert, wie

20 The rough distribution of private and public ownership and management is stated by the Ministry of Economy in 2001 as follows: “Das Eigentum an den Unternehmen liegt überwiegend bei den Kommunen. Rund 85% der Wasserversorgungsunternehmen werden in öffentlich-rechtlicher Form betrieben. Auf sie entfallen 52% der Wasserabgabemenge. Bei 15% der Unternehmen handelt es sich um privatrechtliche Gesellschaften. Sie stellen 48% der Wasserabgabemenge bereit. Nur 1,6% der Unternehmen befinden sich vollständig in privatem Eigentum. Der Verbreitungsgrad unterschiedlicher Unternehmensformen ist Abb. 1 zu entnehmen.” (Bundesministerium für Wirtschaft, 2001, p. 15)

The result of this discontent with privatisation is re-communalization (in Germany for example Berlin and Potsdam, in France inter alia Paris and Bordeaux, and in Hungary Budapest, for a list of all re-communalizations see Lobina and Hall, 02.11.13, see also http://www.tni.org/briefing/here-stay-water-remunicipalization-global-trend).

Hungary
In the socialist era drinking water was provided by the state. Water was provided free of charge or at very low costs due to heavy cross-subsidies (Nunn, 1996b, p. 149; Prasad, 2008a, p. 27). However, access does not seem to have been universal: “An estimate of potable water supplies in 1990 revealed that around 800 towns and villages, 8% of the population, did not have access to water of drinking quality” (Nunn, 1996b, p. 140). Water provision also faced a challenge of water quality: “The quality of these resources highlights some country-specific conditions in addition to those inherent in all former-socialist transition economies. Surface waters are heavily polluted from four main sources: untreated or poorly treated industrial wastes, saline mine discharges, agricultural non-point-source pollution, and untreated municipal effluent” (ibid., p. 138).

In 1964, a Water Act was passed that provided the basic framework for water pollution control until the 1990s (details Nunn, 1996b, p. 141) (> cross link Sedlak Water 3.0). The Water Act set up a national water authority, twelve district water authorities (by watershed) and local councils and put them in charge of sewage collection treatment plans and drinking water supply stations, with central regulatory enforcement power at the national level. As a result, the water goals according to Nunn (1996b, p. 141) often were compromised for the pursuit of other goals such as economic development, and at any rate penalties for pollutions were set too low or were not being enforced and thus did not have a real effect. In addition, on the local level, funds accessible to authorities in order to increase waste water treatment in proportion to growing freshwater use in cities were insufficient (ibid., p. 148). Due to the unequal water supply, there also is a conflict between water quantity and quality in Hungary (an example are controversial dam projects in the Danube to increase water supply). Last but not least, this probably resulted in environmental justice issues: “Communal housing was often located close to, sometimes directly mixed with, industrial zones. This increased the social and economic costs of pollution, placing greater burdens on the economy in terms of increased health-care costs and low labour productivity” (ibid.).

In 1990, the local government act transferred responsibility for water provision to the local government. This created a highly fragmented structure with 369 companies providing drinking water and/or sewerage (Boda et al., 2008, pp. 178 f.). While overall privatisation was prohibited by law, a partial privatisation by long-term management rights was possible. (Prasad, 2008a, p. 27) In 1994 privatisation started: 40% of water is distributed by private companies/joint ventures, and about 20% of companies are privatised (Boda et al., 2008, pp. 178 f.). Privatisation implied “dramatically reduced” employment in the public sector (ibid., p. 190) but has not brought additional investment (ibid., p. 199). Local government has to
monitor the company but does not “necessarily have the capabilities to regulate” (ibid., p. 198). Investments in the Hungarian water sector are the responsibility of the municipalities (state subsidies and EU funding). (Prasad, 2008a, p. 27)

Water production costs vary very widely across Hungary (Boda et al., 2008, p. 186), and costs are not recovered via tariffs. Government compensation payment is needed to keep water affordable. In terms of policy Hungary has to balance the demands of cost recovery (demanded via the EU Water Directive) and the social demand of keeping water affordable. The main force here is the central government, which “compensates for around 8-9% of spending on water, by keeping water prices 5-90% lower than full cost recovery” (depending on the locality, ibid., p. 190).

See on this topic also the country contribution by Attila Havas below.

**Netherlands**
Three phases in the history of water and sewage works in the Netherlands can be distinguished following Juuti and Katko (2005, p. 47):

1. 1854-1920, when private companies operated the majority of the works;
2. 1921-1975, when the majority of the works were under municipal administration;
3. After 1976, when the works have been owned by municipalities and provincial governments, but have been managed quite autonomously according to commercial principles.”

The change from privately to publicly managed companies came predominantly with the extension of the water supply network to rural areas, which private companies considered to be too risky. The next step resulted from growing population as well as growing demand for water and demands by the Dutch government “to increase economies of scale” (De La Motte, Robin, 2005, p. 136 and his figure 12 on p. 137).

**Italy**
The beginnings of modern water networks in Italy in the 19th century lay in the hands of private, often foreign firms. This began to change at the end of the 19th century and continued up to the 1950s with the bigger part of the water sector becoming municipalised. The “Italian government vigorously followed the example of the UK that had pioneered the municipal management of local public services in Europe.” (Lobina, 2005b, p. 107) By the end of the 1980s, private share of the sector had diminished to 4 to 5% “as water tariffs were subject to anti-inflation policies which undermined profitability”. (ibid., p. 108)

**Debate around private sector participation (PSP) in the late 20th and early 21st century**
"On one side are the proponents who argue that since governments have failed to deliver quality water to everyone, the private sector can solve this problem by the application of market principles. In other words, the private sector can improve efficiency, extend the coverage of service, bring in more investment, and relieve governments from budget deficits. On the other side of the spectrum are those who consider that water is a common good and should not be in the hands of the private sector. They argue, that since water is a unique resource and because it is essential to life, it should not be treated like another commodity and market principles should not be applied to it. In other words, the private sector cannot apply just criteria for this merit good. In this context, access to water for everyone becomes a human right and it is the state's obligation to provide this vital resource to everyone. Finally, there is
another group which stands in between these two extreme positions. This group thinks that solutions can be found by considering water as an economic good and a human right at the same time." (Prasad, 2008a, pp. 2 f.)

For different streams of development traced by country trajectories see also http://www.watertime.net/wt_cs_cit_ncr.html, and http://www.watertime.net/wt_reports.html; For data on ownership and privatisation see here: http://www.psiru.org/

2.4 Status quo of the Social Innovation

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<td>How is/was the social innovation established today? Please describe who (e.g., public authorities, private companies, associations and cooperatives, public-private-partnership, etc.) provides which services, products, activities, etc. to whom and under which conditions?</td>
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<th>Summary of key points</th>
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<td>• Nowadays, the social innovation is well-established in European countries. Fresh water supply networks are widespread and generally accepted in European countries. They are taken for granted by most people.</td>
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<td>• Physical access to fresh water</td>
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<td>• Affordability</td>
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<td>• Health issues</td>
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<td>• Sufficient amount</td>
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<td>• Quality</td>
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<td>• Environmental impact</td>
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<td>• Participation</td>
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Access to safe and affordable (piped) drinking water is a widely recognized norm across the EU and since 2010 also formally recognized by the member countries as a human right. The trend for provision is via the municipal, i.e. public operators and public regulation (which is however strongly oriented by national and EU level regulations and directives). There are also still public-private partnerships (for an overview of ownership in EU cities see Juuti and Katko, 2005, p. 224).

Core issue today (as viewed via the lenses of the human right to water, 2010 accepted by United Nations, officially endorsed in the EU):

Physical Access to freshwater

This issue is widely considered as unproblematic in the EU (OECD, 2003)

- Universal access for urban residents achieved in the **UK** by mid-20th (Sawkins and Dickie, 2008, p. 77), at least by 1980 physical access to piped water and sewerage services near universal (see tables 78 there), but see below the issue of disconnection.

- **France**: Access, including in the country side, to piped water is near universal as of roughly 1990 (see Reynaud, 2008, table 2.1. – by 1950 less than 40% had been connected). The major challenge now is infrastructure maintenance (ibid., p. 44).

- **In Germany 99%** of the population is estimated to have access to piped freshwater.
Hungary: 99% of settlements have access to water in the sense of piped water in at least 200 m vicinity of ones’ home (Boda et al., 2008, p. 180), but some 20% of the poorest families do not have access to piped water (ibid., p. 181, according to the authors this is because the families cannot pay for physical connection), and there is a gap between rural and urban provision (ibid.)

Affordability
This remains an issue in Europe. The “tension” is between the economic principle of cost recovery and a social equity principle of affordable water pricing. OECD 2003: “Affordability” is the social aspect of water service provision that is most clearly and closely linked to pricing policies. Affordability of water services may not be distributed equally across income groups or neighbourhoods - a lower income household will inevitably pay a higher proportion of its income for water services than a higher income household does. Many social policies target affordability (benefits for those unable to pay water bills, as element of income support [introduces an element of inequality if water allowance is set at the national level but different regional water prices apply]. Often it is said that affordable water means expenditure on freshwater must not exceed 3%-5% of household income. (OECD, 2003))

• For England and Wales: a combination of rising charges and diminishing social security (in relative terms) in the 1980s turned affordability into a political issue (Sawkins and Dickie, 2008, p. 83, and tables 3.8. and 3.9., 3.10. for a statistics in relation to the 3% benchmark). An indicator for this are disconnections of households due to non-payment (which peaked in 1991/92 with 21,282 households, ibid., p. 85). Water Meters were proposed as a way for poor households to better self-regulate water consumption but also criticized as creating potentially health-problematic pressure on poor families to save water (ibid., p. 84) (see the country contribution of Daniel Edmiston below)

Huby and Bradshaw 2012 find (http://www.poverty.ac.uk/articles-water-utilities-inflation-low-income-households-editors-pick/water-poverty-set-soar) “that in 2009-10 nearly a quarter of households (23.6%) were spending more than 3 per cent of their disposable income on water. Water poverty was much higher amongst single adult and lone parent households (an average of 40%) than among couples and multi-unit households (with an average of 14%). One-adult households spend 7.2% of their income on water payments compared to 3.6% spent by other households. Water poverty rates were also much higher among households dependent on benefits: 46.6% compared with 18.8% for those not on benefits. Having a water meter reduces rates of water poverty, primarily because bills are lower (on average by £1 a week).”

• For France, affordability is met (by the 3% criterion of expenditure, Reynaud, 2008, p. 62), however, still in the early 2000s “700,000 households have asked to reschedule their water bills ... affordability of water is an important issue in France” (ibid., p. 55); this also shows in the issue of disconnection: 12,000 disconnections in 2002, of which 1,200 lasted longer than 24 hours (ibid., p. 56). Specifically vulnerable groups are single adult families and families with unemployed head of family (ibid., p. 64)

• For Germany, the OECD (2003) estimates that around 1.2% of disposable income is spend on water (0.5 on drinking water provision, 0.7 on sewage treatment); with the increase of energy and water price, however disconnections and threats of disconnection have also increased causing a discussion of ways to reduce disconnections in cities such as Bremen, Bremerhaven and Hamburg. (Schnase, 13.11.13)
• For **Hungary**: In the socialist era water was for free, and therefore even during privatisation water prices could only be gradually introduced and increased; expenditure on water is below 3% for all income groups (Boda et al., 2008, p. 182). Social policy secures the affordability by low tariffs, state subsidies and assistance on the local level (Prasad, 2008a, p. 27).

• For **Central and Eastern European countries** Fankhauser and Tepic, May 2005 find (with affordability defined as no more than 5% of household expenditure): “that on average households are able to pay their utility bills without problems. The water, heating and electricity expenditures of an average household currently account for no more than 4-10 per cent of total outgoings. **However, for low-income households the affordability ratios are much higher.**” (For country data see: Table 3 in their paper)

For country data on water pricing see OECD, 2010.

Caveat: Comparison of water prices across a region or countries is difficult because of

a) Different provision circumstances (geographical: groundwater, river water, water transported from elsewhere etc.; infrastructural: prior investment in building and maintaining the infrastructure [Dobner, 2013, p. 14 points out that relatively higher water prices in former East Germany can be explained in part by the insufficient investment in the infrastructure maintenance in the decades before]).

b) Different components of the water price: tariffs for freshwater/drinking water (typically made up of a use-independent basic charge, and a use-dependent charge per volume of use), tariffs for wastewater (greywater from households, industrial use etc., but in an extended sense also a charge for rainwater collected on a site and its disposal)

c) Different quality norms for freshwater and wastewater

d) Different social and economic policies affecting the effective expenditure on drinking water

**Safety of water and health more generally**

Waterborne diseases have largely disappeared in the EU (See data of the WHO: [http://www.euro.who.int/__data/assets/pdf_file/0009/96885/1.1.-Outbreaks-of-waterborne-diseases-EDITED_layout_V03.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0009/96885/1.1.-Outbreaks-of-waterborne-diseases-EDITED_layout_V03.pdf?ua=1)).

The health discussion has moved to more specialized and often contested topics such as medical residues in drinking water (see Keil, 2009; Sedlak, 2014) or alleged drinking water problems that are the result of companies seeking to sell filters, treated water etc. (Adler and Daschner, 2009).

Still, water quality issues remain (regulated via EU drinking water standard, compare EU drinking water directive below). For France, Reynaud reports issues with nitrate concentration levels and pathogenic micro-organisms: “water quality delivered to consumers in France may be a concern” (Reynaud, 2008, p. 46); a similar concern with nitrate levels has been raised in Germany, especially in areas with high levels of agriculture (such as some parts of the land Niedersachsen). Also, disconnection has been associated with risk of disease outbreak and especially dysentery in England in the 1990s (Robins, 1994).
Sufficient amount
The human rights provisions of sufficient amount (50 to 100 litres per day per capita) of drinking water does not seem to be an issue in the EU to the extent that the norm is access to piped drinking water, and water scarcity not a central challenge (though this may change with climate change, especially in Southern Europe).

Quality
The human right provision of acceptable drinking water (“water should be of an acceptable color, odor and taste for each personal or domestic use. [...] All water facilities and services must be culturally appropriate and sensitive to gender, lifecycle and privacy requirements”) does not seem to be an issue in the EU.

Environmental impact

Connection water supply to treatment plants:
This is a result of the EU urban waste water directive of 1991 and the norm that domestic and other waste water needs to be treated before it can be allowed back into the ecosystem.
For data: see country excel population connected to wastewater treatment plants

Participation
Participation here means the say of citizens in water management decisions. The process of concentration and privatisation has reconfigured the issue of participation and democratic accountability. Private, larger co-operations are difficult to make accountable (especially if PPP follow a secret contract clause, > see illustrative case below: Berlin Water Table).
Accordingly civic participation has emerged as an issue beyond the traditional issue of participation via the established organization of municipalities and their councils.

Summary of important challenges facing the water sector:
“The first challenge consists in maintaining the existing infrastructure, which includes reducing leakages, replacing and expanding networks. In order to achieve this, there is a need for financial autonomy, including sustainable and equitable tariffs, and efficient revenue collection. In addition, the utility company should be properly managed which consists in building managerial capacities and improving efficiency and productivity. Since water is a basic necessity, socio-political issues such as having affordable price, transparency and accountability must be considered. And finally, issues of environment and health, such as public health needs, conservation, and environmental management, must be appropriately dealt with.” (Prasad, 2008a, p. 2)
2.5 Impact of the SI

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<td>In a long-term perspective, how did the social innovation unfold its impact in its initial field of activity and beyond (e.g., did the improved sanitation and health situation also improve the situation of the target group on the labour market)?</td>
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<tr>
<td>How can the positive impact of the social innovation be described (e.g., improved access to resources, learning options, self-confidence, etc.)? At which structural levels of society did the social innovation achieve impact?</td>
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<tr>
<td>Have there also been any negative impacts in the targeted field of activity and beyond?</td>
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<th>Summary of key points</th>
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<tr>
<td><strong>Positive impacts:</strong></td>
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<td>Rise of life expectancy: Death rate sank considerably and infant mortality declined</td>
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<td>More comfort, less time consuming</td>
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<td>Better hygiene through increase in amount of available water</td>
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<td>Increase in wealth in rural areas</td>
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<td>Marginalised groups benefit – but not as fast as others.</td>
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<td>The social innovation set a new standard.</td>
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<td><strong>Negative impacts:</strong></td>
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<td>Water consumption grew: easier access, better availability, new standards in hygiene and cleanliness</td>
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<td>Path dependency is big: past decisions on infrastructure determine and limit future possibilities and decisions.</td>
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<td><strong>Obstacles:</strong> sometimes local economic interests</td>
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<td><strong>Drivers:</strong> when the political interest of the city government ran in correspondence with the promoters of the social innovation or when urgent need had been proven.</td>
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<tr>
<td>There are several positive impacts that can be attributed to the introduction of water supply in Europe.</td>
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<tr>
<td><strong>Rise of life expectancy</strong></td>
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<td>When connections to drinking water were installed extensively in the second half of the 19th century the mortality rate decreased significantly. (Bernhardt, 2005, p. 77) Spree shows the development of the mortality rate in Germany. Even though he points out that the decline cannot be attributed to better sanitation alone but also to enhanced hygiene, better nutrition, and improved working conditions it still had an impact. (Spree, 1998, pp. 38-40) For example, the mortality rate in Munich sank from 40 per mille at the beginning of the 1870s to 24 per mille in 1900. No big epidemics of typhoid fever or cholera struck Munich after the introduction of the central water supply. (Münch, 1993, p. 341) Instead life expectancy increased. According to Sedlak, about half of the increase in life expectancy can be attributed to better water quality (Sedlak, 2014, p. 56). Vögele and Koppitz are much more reluctant here and speak of only 3%. He points to the use of inorganic building materials in the water supply network and the continued surfacing of streets as one possible explanatory approach. (Vögele and Koppitz, 2006, p. 84)</td>
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<tr>
<td>William Sedgwick, biologist at the MIT in Boston, USA, had the order to find the reason for typhoid fever in Massachusetts in 1890. Allen Hazen, staff of William Sedgwick, formulated</td>
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the so-called Hazen theorem, after the researcher realised that life expectancy in communities with filtration systems for fresh water grew a lot more than was to be expected by extermination of typhoid fever alone. Respiratory diseases, childhood illnesses, and diseases of ageing were also on the decrease: “Where one death from typhoid fever has been avoided by the use of better water, a certain number of deaths, probably two or three, from other causes have been avoided.” (Quoted by Sedlak, 2014, p. 56). Still scientists were not sure what else was caught in the filtration systems.

The graphs show how much the number of deaths caused by typhoid fever receded after the introduction of sufficient water supply in the Alp region (upper graph) in correlation with Stuttgart, the capital of Württemberg (lower graph), in the last quarter-century of the 19th and the first decade of the 20th century.

![Graph showing decrease in deaths caused by typhoid fever](image)

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**Figure 2: Decrease in numbers of death caused by typhoid fever between 1872 and 1910, Alb region (Heidenheim, Geislingen, Münsingen, Urach, Blaubeuren, and Ulm) vs. Stuttgart (Source: Müller, 1995, p. 69)**

England in the 19th Century: There is a useful, brief account of the link between urbanisation, investment in clean water, and then sanitation in United Nations Development Programme, 2006, pp. 29f.

The figures show that life expectancy started to improve in England and Wales after the fresh water supply became better after 1848 (Public Health Act). Despite this infant mortality remained on a high level and after a low around 1880 increased again. When investments in sanitation also climbed shortly before the turn of the century with a peak in the period between 1901 and 1905 the number of infant deaths started to slump lasting.
As Juuti and Katko pointed out “the overall trend is that improved water supply results in somewhat reduced mortality and the impacts are bigger when sanitation is introduced. Yet, the best results will be gained if health education is also introduced.” (2005, p. 29) This means that the combination of fresh water plus drainage and sewage system plus the hygiene discourse (see below 3.4) enforced each other and yielded a result more than positive.

Important from CA perspective: Disconnect of wealth increase and human development: until late 19th century people became “wealthier but not healthier” (United Nations Development Programme, 2006, p. 30):

“Why in the midst of the vast expansion of wealth created by industrialization did child survival and life expectancy, two of the most basic indicators for the human condition, not advance? Partly because industrialization and urbanization were drawing poor rural migrants into urban slums that lacked water and sanitation infrastructure—a scenario played out today in many of the world’s poorest countries. While cities offered employment and higher incomes, they increased exposure to lethal pathogens transmitted through overflowing cesspools, sewers and drains ... Progress in water and sanitation was driven by advances in scientific knowledge, technology and - above all - by political coalitions uniting industrialists, municipalities and social reformers. But advances occurred in piecemeal fashion, with water provision fast outstripping the development of the sewers and drains needed for wastewater management. The upshot: an increase in the transmission of diseases. Towards the end of the 19th century...
governments acted to close the gap between water and sanitation. In Great Britain public investment financed an expansion of sewerage systems. Life expectancy increased in the four decades after the 1880s by an astounding 15 years, with reduced child deaths accounting for the bulk of the gain.”

More comfort, less time consuming
The introduction of water supply networks bringing piped water to pumps or fountains in the streets or even in the yard or the house made daily life a lot more comfortable. Long strolls to wells with water of a dubious quality belonged to the past. Less time was needed to fetch water and most had more and better water available than before. Especially women and children gained through the social innovation in this regard because it had been their duty to supply the family with enough water each day.

Chadwick already pointed out how much time members of labour class families could save if they would not have to walk to get clean water and stand in queue there but could get clean water close to, at or even in their houses (Chadwick, 1842, pp. 69-71). The time spend could be better used – in Chadwick’s eyes - for production, rest or moral improvement.

Historical research showed that comfort was an important point in the discussion of the clean, modern and – later on – engineered household. But findings also indicate that housewives and mothers spent the time gained on fulfilling of risen standards of hygiene, cleanliness, parenting and family care (Heßler, 2012, p. 88). Finally, the new comfort resulted in an unpredicted rise of water consumption – and of sewage. (Kalweit, 1998, p. 142. See below: negative impact)

Hygiene and health issues
Through the water grid the amount of water available increased. Thus hygiene could be improved, personal hygiene as well as washing or cleaning. (Lenger, 2012, p. 148.) All kinds of health issues were directly affected.

Status quo impact today (see also status quo 2.4. points above):
Access to improved water and sanitation source (Millenium Development Goal [MDG] frame)
UN Data on sustainable access to an improved water source by country (starting in 1990):
Urban context:
Rural context:

See Excel Sheet on access to water and sanitation, rural and urban, in development countries to focus on specific European countries.
Access to public water supply in the EU (source Eurostat, see also Excel doc of Rafael Ziegler for time series since 1990)

<table>
<thead>
<tr>
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<td>Bosnia and Herzegovina</td>
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Increase in wealth in rural areas
Data suggest that there was an increase in wealth in rural areas after the introduction of permanent water supply and reliable access to a sufficient supply of clean water. (Müller, 1995, p. 69) The following graph shows the development in the Alb, a rural, water-poor area in Southern Germany. After water was pumped from the valley to the plateau since 1871 water consumption increased but also the amount of livestock (heavy livestock as well as pigs). This suggests that with introduction of water supply people were able to keep animals more than before or at all.

Figure 4: Increase in livestock after the introduction of water supply (first phase) in the Alb region (Source: Müller, 1995, p. 69)

Marginalised people benefit – at last
In the discussions about public water supply the argument to do something for the marginalised shows up. But after the introduction of water supply well situated people got hooked up and the marginalised did not. It was too expensive for them or their landlords were

21 Translation: Wasserverbrauch = water consumption; Einwohnerzahl = number of inhabitants; Großvieh = heavy livestock; Schweine = pigs.
not willing to pay for the connection. If there was no requirement to hook up in a city the marginalised stayed out of the water supply system in the beginning. (Chadwick, 1842, pp. 64, 67)

In Edinburgh, local authorities were therefore empowered by an act in 1862 to stipulate landlords to introduce water into all of their houses. Marginalised people still lived in dwellings in the city at that time without connection to the water supply network even though the beginnings of water supply in Edinburgh date back to the early 17th century. (De La Motte, Robin and Lobina, 2005, p. 214)

In the long run, finally, society profited as a whole. However, the developed solution probably at first improved the situation of the middle classes and only later the one of the lower class. (Oldenziel and Hård, 2013, p. 69)

**New standard**

The “goal” of the social innovation changed more and more: at the beginning, it was said that the social innovation was to help the marginalised, later it was the general public, in the end the argument was hygiene and the prevention of epidemics.

The social innovation had set a new standard.

**Negative impacts**

There were several unintended and negative impacts of the introduction of central water supply:

1. **Corruption:** Huge investments required for creating and maintaining water infrastructure attracts corruption, especially with private operators (see Transparency International finding quoted in Juuti and Katko, 2005, p. 234).

2. **Environmental impact:** the development of availability of infrastructure facilitates an overall increase in water consumption across the EU, and with this also waste water issues increase. As rainwater and domestic/industrial wastewater are typically not separated, much water gets polluted, and with it also rivers and surface waters become more generally impaired. Avoiding the pollution creates costs for sewage plants or other waste water treatment. There may be a tension between the environmental-economic principle of full cost recovery of water supply and the social principle of affordable water supply.

3. **Path dependency/choice:** Due to combined flush canalization as the prevailing infrastructure, other technical solutions are marginalised and sometimes even prohibited. As a result, decentralized solutions such as “eco-sanitation” (keeping rainwater and domestic grey water separate, reusing the faecal matter/urine etc.) are difficult to try out, let alone to scale, even if from a social and environmental perspective they may be worth testing (in the light of population changes > depopulation in some areas; climate change and new drought/flood issues).

The following will illustrate the points 2 and 3 a bit more.

**Growing water consumption**

Everywhere water consumption grew after the introduction of the water supply. According to Müller consumption per day was about 15 litres per capita in the middle of the 19th century, in
1860 it was about twice as much (20-30 litres) and in 1870 consumption was 80 litres per capita per day. (Müller, 1981, p. 79) Or to put it differently: population in larger German cities grew by about 30% between 1900 and 1910 but during the same period water consumption grew be more than 50%. (Feldkamp, 2009, pp. 65 f.)

See the overviews for European different cities in Juuti and Katko, 2005, pp. 230-231.

Not everywhere grew the consumption of water in the same degree. The low consumption in Oldenburg around 1930 for instant is explained by the fact that piped water was used for drinking, cooking and sanitary needs. Water for washing, cleaning, watering of gardens and animals or for commercial purposes was still taken from wells, cisterns or the river as people were used to for centuries. These natural water resources were easy to exploit and for free (Meyer, 2011, p. 102). This impressively shows how persistent old habits were and how slowly cognitive frames were changing if the water quality allowed it.

The opposite case was the city of Magdeburg. Originally, people in Magdeburg predominantly used water from the river Elbe for fresh water supply. But as the water quality of the Elbe was bad and became worse during industrialisation and the ground water became more and more polluted, the use of wells decreased by the same amount as water from the city’s pipe network became available. Only in times when the water level of the Elbe was low and the central water supply became difficult the inhabitants of Magdeburg had to rely heavily again on hand pumps and wells. (Neumann, 2005, pp. 18-19, 44)

In the post-war era and especially during the years of the so-called economic miracle in Western Germany water consumption grew above average. In Munich for example the increase in water consumption between 1950 and 1986 was 60% (Münch, 1993, p. 344). It was not before the end of the 1970s that the development stagnated. From the early 1980s onward the demand started to decrease slowly. This was due to a strong decline of the industrial consumption while households still consumed a lot of water (1970: 135.5 litres per capita and day compared to 147.3 litres per capita and day in 1983). (Feldkamp, 2009, p. 135)

In cities in East Germany, like Magdeburg, water consumption decreased after the unification in 1990. There were several factors for this development:

- Decline of industry as a result of the change in the economic system
- Reduction of inhabitants by migration
- Assembly of water-saving installations and home appliances
- Remediation measures on the pipe network
- Increase of prices for water and sewage (Neumann, 2005, p. 45)

Water consumption grew in the Netherlands in the post-war period as well. Between 1945 and 1970, the demand almost quadrupled. (De La Motte, Robin, 2005, p. 136)

In Finland, water consumption grew during the last phase of urbanisation between 1965 and 1975. The networks were expanded to satisfy the increasing demand. The turning point came with the oil crisis of 1973 and the increase in water prices following the Wastewater Surcharge Act in 1974. Water consumption started to decrease. This “can be explained by the introduction of proper leakage control by utilities, better pipe materials, better water fixtures, and consumers’ improved awareness of water wastage and saving” (see country contribution of Jari Aro below).
Path dependency

Path dependency means that existing forms of operation or infrastructure bind future decisions. “The argument for path dependence is that a minor or fleeting advantage, or a seemingly inconsequential lead, for some technology, product or standard can have important and irreversible influences on the ultimate market allocation of resources, even in a world characterised by voluntary decisions and individuals’ maximizing behaviour. … There are three degrees of path dependence. The first one implies no inefficiency; the second leads to outcomes that are sub-optimal and costly to change; and the third and strongest degree leads to an inefficient outcome.” (Juuti and Katko, 2005, p. 22)

With regard to fresh water supply examples for path dependence are, for instance, the form of organisation since concessions given to private companies limited the possibilities for a certain time, further the decision on introduction or not-introduction of metering, on combined instead of separated sewers, on water-closets or lead pipes. All these decisions set the agenda for the future and were difficult or impossible to revise. (ibid., p. 232)

Obstacles

Not everybody was happy with the introduction of water supply and sanitation in European cities. Chadwick reports about a cholera epidemic in Paris in 1834: “In the beginning of the year 1834, when the cholera broke out, the attention of the authorities was directed to sanitary measures, and the municipality decided that the cleansing of the streets should be done by contract […]” But some groups of the population, e.g. the chiffonniers and some ‘savage’ people, rioted against the new regimentations. (Chadwick, 1842, pp. 93-94)

Also, local people whose economic interests were touched by the new infrastructure of water supply – like water suppliers, water carriers, vendors of small filters for household purposes, or home owners – opposed the social innovation or prolonged its introduction.

A further obstacle to the introduction of freshwater supply to the marginalised specifically is their relatively speaking low weight in political decision-making. Accordingly, freshwater supply first reaches the upper and middle classes, and only eventually the poor.

A similar dynamic is observable between urban and rural areas, where in addition the argument can be made that the freshwater “solution” has been conceived for urban centres, whereas for much less densely populated rural areas this approach is relatively more expensive and hence – as for example the case of France shows – dependent on political will and cross-subsidies.

Drivers

The drivers of expansions and improvements in the water supply services are intertwined and of different strength during the research period. Depending on time and region it was “the need for firefighting, the lack and/or poor quality of water, environmental concerns, public health, industrial use, or various combinations thereof.” (Prasad, 2008a, p. 6; cf. Feldkamp, 2009, p. 44)

Furthermore, when the political interest of the city government ran analogue with the promoters of the social innovation, e.g. after 1918/19, or when urgent need had been proven through epidemics or blazes (> cross-link: resilience approach and “crisis” as opportunity for reorganization and innovation), then the proof was given that the majority would profit of the innovation and political support was there. These always were periods in favour of the introduction or extension of the water supply network and service.
### Possible questions of analysis Part 2

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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<tbody>
<tr>
<td>WP 1</td>
<td>To what extent has the social innovation been incremental (adaptive change in practice, e.g. with a focus on products or services that addressed identified market failures effectively), institutional (changes in the Social Grid practice, e.g. reconfiguring existing market structures to create social value), or disruptive (radical change in practice, e.g. with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
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<tr>
<td>WP 3</td>
<td>Evaluative Space: which was/is the initial goal of the SI process? Did it change over time? Who has been/is being empowered by the SI process?</td>
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<tr>
<td>WP 4</td>
<td>Which kind of technological artefacts and infrastructures were required for the development of the SI? Which kind of novel technological artefacts (TA)(^{22}) and/or new infrastructures were involved in the development of the SI? Which kind of key techniques (TC)(^{23}) are required for the SI? Was it necessary to acquire new techniques (TC) in order to implement the SI?</td>
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<tr>
<td>WP 5</td>
<td>Can specific reoccurring developmental stages be identified for SI? Can their development be described as linear, cyclical, etc.? Are there path dependencies in SI? What drivers or obstacles fostered and hindered the social innovation? Which cognitive frames, networks and institutions did change along the lifecycle of the SI? How did the dynamics between these elements change? Did the reduction of one form of marginalisation cause another?</td>
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<td>WP 6</td>
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\(^{22}\) Technological artefacts (TA) including “hardware” (TA\(_h\)), i.e. any kind of material artefacts, and “software/Apps” (TA\(_a\)), i.e. any kind of software apps, protocols, services, blueprints,…

\(^{23}\) This can include: TC\(_s\) – Somatic techniques (e.g. swimming, singing …), TC\(_e\) – Exosomatic techniques (e.g. making fire, writing, haircutting, riding a bike or car, …), TC\(_p\) – Primary production techniques (meaning human appropriation of net primary production in agriculture and exploitation of the lithosphere), TC\(_i\) – Industrial techniques, TC\(_c\) – Communication techniques, etc.
CCS - PART 3) Influences and relevant context factors

3.1 Social problem

| Questions |
Have there been any changes, extensions, etc. in the addressed social problems or marginalized target groups, from a long-term perspective? Can different reasons be identified over time that were responsible for the rise and persistence of the social problem? Are there reoccurring patterns that repeatedly caused a need/fostered the adaptation and distribution of the social innovation?

| Summary of key points |
- Changes:
  - The social problem does not exist anymore in the same manner as in the mid-19th century.
  - The focus has shifted to other issues.
- Patterns:
  - The network was extended to new areas.
  - The water consumption increased everywhere after the introduction of central water supply. As a reaction to this the network was extended and new water resources were tapped.
  - New procedures of water treatment were implemented.
  - Requirement for house owners and landlords to hook up to the water network helped to solve the social problem faster than voluntary participation.
- The extension of the fresh water network developed in different ways depending on the legal status of the provider (being municipal or private).
- The threat of being disconnected is still there.

| Content |
Changes
To have no access to freshwater is for most people in Europe no problem anymore. This even applies to most of the marginalised. With the extension of the water and sewage network to develop even broader areas, the target group changed over time: from working class people to people in rural areas to refugees after WW II.

In Europe, according to WHO statistics more than 97% of the population in EU countries live in homes connected to the water net.
Possibly there has been a shift of the focus on major health issues (cholera, typhoid) and access in favour of
- the issue of **affordability**,  
- the issue of **participation** (in a sense of effective democratic control in the respective city) in response to centralization and privatisation tendencies of water provision,
- more **complex health questions** (for example medical residues in water, see Keil, 2009) but partly also misperceptions due to the attempt of private providers to sell products and services that are inferior to tap water from a health perspective (see Adler and Daschner, 2009),
- long-term payment and **maintenance of infrastructure** (who pays for it),
- the issue of **environmental impact** (negative impact on non-humans),
- a widening **global sensitivity** (discussion of water footprints and water grabbing impact of consumption/lifestyle in the “global North” on water use in “the global South”). In this respect, it also is proposed that in the light of the lacking evidence for improvements due to privatisation of water in Europe, privatisation effectively is a huge waste of energy and money that prevents European societies from paying attention to and acting in solidarity with a view to much more serious issues linked to water supply worldwide (Dobner, 2013).

**Pattern**  
There are several patterns that can be detected in the long-term observation of the fresh water supply in European countries:
1. When new areas of settlement or suburbs emerged, the network was extended. This was not always an automatic reaction. Sometimes, like in settlements of refugees in Germany after WW II, the extension was postponed for several years but caught up on at a later time.

2. The water consumption per capita increased everywhere after the introduction of central water supply. As the population in the cities continued to grow, the need for water increased too. As a reaction to this, the network was extended and new water resources were looked for and tapped.

3. New medical or ecological findings in many cases repeatedly lead to a revision of the fresh water network and new procedures of water treatment.

4. The social problem was resolved faster in cities where a requirement to connect to the water network existed for home owners or landlords. This was not always given, as many issues, especially details, were being decided on the local level. Therefore this factor relied on the assertiveness of local pressure groups. If there was no requirement, only those who had a wish for it and could afford it connected to the network. Often the marginalised were left outside. For them it was too expensive or their landlords refused to connect the houses to the net. In Germany, there was no general obligation to hook up to the public water network. In Munich, for example, connection was on a voluntary basis (Münch, 1993, p. 341), as it was in Oldenburg. Only those who could afford to pay for the piped water applied for connection. In the beginning there was no financial rebate for marginalised families. (The house connection cost 15 Mark, the monthly consumption rate was at least 2 Mark [7 m³ water plus rent for the water meter, overconsumption was charged with 20 Pfennig/m³]) (Meyer, 2011, p. 90).

5. Another important and recurring pattern is the importance of social policy in ensuring truly accessible and affordable freshwater supply for all. During the years after WW II, this pattern is complemented by environmental regulations that seek to integrate the freshwater use in the more general water cycle (> the waste water of one party frequently serves as drinking water of parties further downstream, and in addition this water also affects other living beings in the aquatic ecosystem).

Pricing therefore was an important question in shaping the social innovation. When municipalities took over privately-run water companies a reduction in water fees was often one of the first measures taken. This was the case in Oldenburg in 1902/03, too. The fee for the house connection was abandoned and the access line to the main pipe too was for free. Consumption fees were scaled according to the insurable value of the house in the fire insurance. (Meyer, 2011, pp. 96–97)

6. On the global level: Even though, the interlinkage between hygiene and poverty is widely recognized (see discourse on millennium development goals) hygiene remains a central social problem. The WHO estimates that in 2005, 1.6 million children below the age of 5 died from unsafe water and inadequate hygiene (Prasad, 2008a, p. 1).

Extension of the water network depending on status of provider
The extension of the fresh water network developed diversely depending on the legal status of the provider being either public or private. If the provider was a private company, normally the network was not extended consistently. Economical thoughts were at the fore. Areas where the number of customers that could be expected was not high enough were not developed. In the case of municipal providers, some parts of the profits were usually invested
in the extension of the fresh water net. Political decision determined which areas were to be developed and the city government kept the scope when setting up prices, e.g. following social criteria. Thus, “from the middle of the nineteenth century, private monopolies were replaced by public monopolies because the private companies were unwilling to extent coverage to poor neighbour hoods, improve quality, or reduce excessive charges.” (Prasad, 2008a, pp. 19 f.)

One of the reasons Oldenburg municipalised the water works was the slow development of connections. In 1903, only 1,293 houses were connected in a city of 36,000 inhabitants. In many streets and in the suburbs of the city there still were no water pipes, the grid extension was insufficient. Now the city administration took over the task. On average 178 new water connections per year were established between 1902 and 1912. In 1912, 2,918 houses were connected and, in 1914 more than 50% of the houses had a connection to the water supply grid. The investment necessary for this was financed by an operating surplus. (Meyer, 2011, pp. 96–97)

A possible solution to this split between private economic interests and public social interests was a respective clause in the concession. Some city governments successfully included obligations like grid extension to the concession given to a private provider.

Therefore
"... although historically the initial construction of the water supply network was often initiated by the private sector, water supply improvements did not take place until the state took full responsibility (increasing public investment and assuming control from the private operators). The main concern of the public authorities was to make access universal, to reduce the incidence of water-borne diseases, and to provide water for fire fighting. Public investment increased as governments recognized the importance of economic, social and political benefits of providing clean, safe and reliable water.” (Prasad, 2008a, p. 19)

Disconnection
“In many countries, disconnection is not allowed since it is very likely that those who are unable to pay regular water bills are poor. Such policies exist, for example, in the United Kingdom. In certain countries that have involved the private sector in providing water services, social policies such as tariff structures and increasing coverage rates especially to the poorer households are incorporated in the contractual obligations. This has been the case in most developed countries where the private service provider is committed to implement social policy objectives.” (Prasad, 2008a, p. 19)

The threat of being disconnected from the water network is imminent in countries with private provision of fresh water. In Germany, provision with cold water is covered by subsidies following the Hartz IV laws. Therefore although still existing the threat is not as big. In 2012, 128 disconnections were documented in Bremerhaven and 561 in Bremen. (Schnase, 13.11.13)

See also above in 2.3 and 2.4, below in 3.5 as well as the country contribution of Daniel Edmiston.
### Possible questions of analysis chapter 3.1

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<th>WP</th>
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<td>WP 1</td>
<td>Did reasons for marginalisation change over time?</td>
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<td>WP 3</td>
<td>How did empowerment in one dimension cross-fertilize empowerment in other dimensions?</td>
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<td>Which complementarities among context- and actor-characteristics were crucial?</td>
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<td>WP 4</td>
<td>Did the lack of access to new technological artefacts (TA) and infrastructures (TI) have an impact on the marginalisation?</td>
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<td>Did the lack of access to training to acquire relevant techniques (TC) have an impact on the marginalisation?</td>
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<td>WP 5</td>
<td>Did the social innovation solve or mitigate social problems?</td>
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<td>Did the social innovation (usually) meet the needs of different target groups?</td>
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### 3.2 Solution approach

#### Questions
Did the concrete activities of how the social innovation approached the social problem change and renew over time (including new forms of organisations, resources, or communication)? Describe the most relevant activities to prevent, mitigate or solve the marginalization (e.g., service provision, lobbying, advocacy, etc.)?

#### Summary of key points
- Change in activities.
- The service provision was expanded.
- Cognitive frames changed.
- This change was not always linear.
- The social innovation was incremental and institutional.
- The approach was solid.
- Education and training helped in the distribution of a new standard of hygiene and need of water.

#### Content

The point in time and the way that communities reacted on the problem of lacking or dirty drinking water widely differed. It depended on the concrete need and situation, on the political situation, the possible solutions at hand and not least on the geological or natural situation (i.e. what water resources were available, how could they be tapped).

The solution approach and the demand to implement it came from members of the civil society (physicians, social reformers, engineers, public health activists, etc.). Because the immense need of the marginalised in particular but also of society as a whole was visible and stressed by the social conditions and frequent epidemics, the claims were soon acknowledged. In some cases it still was a long way of debates and discussions until fresh water supply was really functioning.
In some cases the form of organisation changed several times, from private to public and back to private. In other cases the form remained consistent from the beginning.

The service provision was expanded by developing ever new areas and using new procedures of network extension and water treatment. New water resources were tapped.

Cognitive frames changed with regard to hygiene and prevention of epidemics as well as with regard to marginalised people. This change was not always linear. The attitude towards the marginalised seems to be dependent on the political majorities. Therefore this change developed in a more cyclical or fluctuant way.

Where water provision companies remained in one hand, be it municipal or private, the development of the social innovation was rather linear.

The social innovation itself was incremental and institutional, maybe even disruptive.

The solution approach was solid. After implementation started it developed independently of promoters as it was taken over by companies, corporations or administrations. This was accompanied by a change of rules and laws. However, the implementation of the social innovation remained dependent on external circumstances like economic crises or wars.

Education and training helped for the distribution of a new standard of hygiene (sanitary movement, public discourse, school, military, etc.) and in satisfying the growing need of fresh water (technical improvements, new methods of water treatment and supply).

See 2.2. as well as 3.4. and 3.7.

Possible questions of analysis chapter 3.2

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>Which cognitive frames, networks and institutions did change during the course of the lifecycle of the SI?</td>
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<tr>
<td></td>
<td>To what extent has the social innovation been incremental (with a focus on products or services that addressed identified market failures effectively), institutional (reconfiguring existing market structures to create social value), or disruptive (with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
</tr>
<tr>
<td>WP 3</td>
<td>How stable were the social innovation solution approaches? How dependent were the solution approaches to contingencies (individual characteristics of promoter/inventor, contextual circumstances)?</td>
</tr>
<tr>
<td>WP 4</td>
<td>How did education/training contribute to the diffusion of the social innovation?</td>
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<tr>
<td></td>
<td>Did the solution involve support in acquiring the relevant technological artefacts (TA)?</td>
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<tr>
<td></td>
<td>Did the solution involve support in access to the relevant infrastructure (TI)?</td>
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<tr>
<td>WP 5</td>
<td>Can the development of cognitive frames, networks and institutions be described as linear, cyclical, etc.? Are there path dependencies in SI?</td>
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<td>WP 6</td>
<td>…</td>
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3.3 Actors and networks

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<th>Questions</th>
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<tr>
<td>Can specific networks or individual actors be identified as key players in the idea generation, invention phase, the innovation phase and the diffusion phase of the social innovation? Are there also typical “adapters” that did not necessarily develop the social innovation (incremental innovation), but adapted it to their context and accordingly contributed to the diffusion of the social innovation? Can they be located in a specific societal sector (civil society, market, public)? Did networks play a role in the adaptation process? Were relevant actors or members of networks personally affected by the social problem addressed? Was or is the target group involved in the value creation process? Did the target group members take any collective action? Which networks or other actors were important as catalysts, multipliers, or adapters? (e.g., sponsors, public authorities, politicians pushing for beneficial changes in legal frameworks, celebrities that increased public attention, etc.)? Where those actors particularly powerful? Why? Did those actors and networks influence legislation, education curricula, or other institutions? Which influence did these actors and networks exert on narratives and public discourses regarding the social problem/social innovation? Please indicate if typical networks or other actors were present when a social innovation was invented or adapted. If so, did these different network and actor constellations change across different phases of the social innovation? Were these constellations influenced by the general framework conditions (e.g., the political welfare regime)?</td>
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<table>
<thead>
<tr>
<th>Summary of key points</th>
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<tr>
<td>• Networks: sanitary school (city as an organism), hygiene movement</td>
</tr>
<tr>
<td>• Europe-wide discourse of experts: travel reports, conferences, practitioners</td>
</tr>
<tr>
<td>• Groups of actors: demographers, physicians, social reformers, hygienic movement, teachers and educators, engineers</td>
</tr>
</tbody>
</table>
| • Individual actors:  
  o Edwin Chadwick  
  o John Snow  
  o William Lindley  
  o Georg Varrentrapp  
  o Max von Pettenkofer  
  o Rudolf Virchow  
  o Robert Koch |
| • Example of city hygiene movement and network: *Deutscher Verein für öffentliche Gesundheitspflege* (German Association for Public Health - DVöG) |
| • Motives: not only benevolence but also self-interest |
| • The marginalised can often not be heard in the discussions of the experts. |
| • City administrations and city councils |
| • In the second half of the 20th century new actors entered the arena: UN, WHO, World Bank, and EU. |
| • Another type of actors were citizen’s initiatives carried by private persons. |
Early networks and hygiene movements

In the 19th century: “New technologies and finance made universal access to clean water possible. But the crucial change was political. Social reformers, physicians, municipal leaders and industrialists formed powerful coalitions that elevated water and sanitation to the top of the agenda. They forced government to acknowledge that curing disease caused by unsafe water was inefficient and wasteful: prevention through clean water and sanitation was the better cure” (United Nations Development Programme, 2006, p. 28, see role of British social reformers as illustrative case).

Already at the beginning of the 19th century a first phase of hygienisation can be detected in France. Driven by the fear of miasma and epidemics, demographers, physicians and hygienists worked closely together. In 1794, first chairs on public hygiene were established in Paris and Strasbourg. The first chair on Public Health in England followed in 1807. (Bernhardt, 2005, p. 72; Grüntzig and Mehlhorn, 2010, p. 185)

Edwin Chadwick in his report on the sanitary conditions describes in 1842 that only a few people – e.g. medical officers and police officers – noticed and cared about the situation of the poor people. For example, the city administration of the time took no measures to repair the defect drainages. Among physicians and other citizens occupied with the situation of the poor there was a feeling that something should be done, but usually no specific institution was named in the reports to the Poor Law Commission. (Chadwick, 1842, pp. 26-37) Chadwick considered sanitation to be the answer to the problem, along with fresh water supply.

The sanitary school developed after the reports of Edwin Chadwick in the 1840s. It took the city as an organism with the water cycle depicting the blood of the complex body. Fresh water should be brought from the outskirts to the city centre. From there a pump, like the heart, would distribute the water through a distribution grid to all households. Exiting the households by the water closet and taking the faeces with it, water would flow into the canalization which in turn led the sewage back to the outskirts where it could be used to fertilise the soil. The ideas of the sanitary school spread during the first international congress on hygiene in Brussels in 1852 but also through the activities of individuals like Edwin Chadwick or William Lindley. (Schott and Skroblies, 1987, p. 83 fn. 37, p. 84; Simson, 1983, pp. 22-25) Following the British example, branches of the hygienic movement evolved in other European countries too. Physicians, engineers, demographers, social reformers, teachers and educators as well as social politicians worked together.

In contrast to England where an administrative reform went hand in hand with the start of the sanitary school, the German hygiene movement was further carried out by the influential urban middle-classes. In analogy to the middle-class value of cleanliness, which was influential in the area of private hygiene since the Enlightenment, public space should be shaped accordingly. (Hardy, 2005a, p. 375)

The epistemic-professional communities of engineers and health professionals/researchers early on were crucial to properly understand the health-water link and to provide the expertise to build the water infrastructures: the engineers, at least in the beginning, did not seem to have been specifically trained water engineers but rather more general civil engineers assigned with setting up public infrastructure (for comparison of the short biography on William Lindley and the illustrative case Berlin see below). “Construction and hydraulic engineers began to apply their expertise to secure higher health standards and provide clean water and better
housing. Often, these professionals became leading figures in various movements of social reform (…)"). (Hård and Jamison, 2005, p. 226)

Some of its representatives like Edwin Chadwick, Rudolf Virchow, and Max von Pettenkofer will be presented as exemplary actors below. Networks like Deutscher Verein für öffentliche Gesundheitspflege (DVöG) were founded. Among its members were physicians, local politicians, civil servants, and engineers. (Meyer, 2011, p. 45) It thus offered the possibility of exchange and discussion between theory and practice.

**Europe-wide discourse of experts: travel reports, conferences, practitioners**

The problems of water supply and sewage were discussed in a transnational, European context. The relevant and most advanced knowledge was disseminated by visitors of congresses on the subject, by engineering journals as well as by journals on hygienic questions, by participants of study tours or by the relevant engineers and engineering companies which were active in many different European countries. (Lenger, 2012, p. 147; Neumann, 2005, pp. 35–36)

An early example of a travel report from the first half of the 19th century is the book which the Frankfurter physician Georg Varrentrapp wrote after his medical journey to the Netherlands, Great Britain, Ireland and Belgium. (Varrentrapp, 1839) Friedrich Eduard Wiebe, an engineer, travelled on behalf of the city of Berlin to inspect sewage systems and water treatment plants in other cities (like Hamburg and Paris) and countries and to discuss matters of hygiene with foreign experts. (Wiebe, 1861) Ernst Grahn, a water expert from Essen, about 15 years later was on tour from Hamburg to Paris and London to get latest insights into the progress other countries made in the field of water questions. (Grahn and Meyer, 1877) The head of the municipal works of Rotterdam, W. A. Scholten, travelled to Hamburg, London, Berlin, and Milan in the late 1850s to inspect the sewage and water systems there and incorporate these experiences into his plan for Rotterdam. (De La Motte, Robin, 2005, p. 140) These examples are just to name but a few.

The travel reports these special representatives or complete expert commissions wrote about their journeys, findings, discussions and insights were on the one hand an important decision support for city governments and administrations and on the other hand inspired the national discussion among experts on the subject.

Early congresses on hygiene and public health helped to spread the word and to distribute ideas. A first Hygiene Congress took place in Brussels in 1852. It was a full success. Participants had made decisions on working class housing and public baths, drawn rules for canalisation and water supply of cities, the ventilation of housings, the building of hospitals, the nourishment of children and their work in factories. (Hardy, 2005b, p. 96) Growing interest of public authorities on public health led to a second hygiene congress during the Paris World Exposition in 1878. A third one followed in Turin in 1880. Further congresses took place in Geneva in 1882, in The Hague in 1884, in Vienna in 1887, in London in 1891, in Budapest in 1894, in Madrid in 1898, and in Paris in 1900. (Caltana, 2011, pp. 32, 35-37)

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For possible source material see:
Transactions of the ... International Congress on Hygiene and Demography (Published/proven
Individual actors
Some English and German actors are introduced in more detail with short biographies in the following section in order to demonstrate the connection between Great Britain and continental Europe. For other actors, like for example Jacob van Lennep in Amsterdam, see the country contributions of Martijn van der Linden and others below.

Edwin Chadwick
Edwin Chadwick was born in Longsight, England on 24 January 1800 as the son of a business man. Chadwick’s father held progressive political views and encouraged his son to read Tom Paine and Joseph Priestley. While Chadwick studied in London to become a lawyer his interest in political and social reform arose. He joined the Utilitarian Society where he met Jeremy Bentham, James Mill, John Stuart Mill and others.

In 1832, he was asked to serve on a royal commission to investigate the effectiveness of the Poor Laws which were a kind of social security system established in 1601. While Chadwick was only appointed to be one of the assistant commissioners, it soon became apparent that he was one of the most important members of the investigation. Almost 1/3 of the report published in 1834 was written by him. The same year, the Poor Laws Amendment Act was passed incorporating recommendations of the royal commission. Chadwick became secretary of the commission of the Poor Laws (1834-1846).

During his investigations he became interested in the problem of sanitation. After several epidemics swept the country, the government asked Chadwick for a new enquiry into sanitation at the end of the 1830s. This investigation of the living conditions of the lower classes was published in 1842 under the title “The Sanitary Conditions of the Labouring Population”. By using quantitative methods Chadwick was able to show a direct link between poor living conditions, diseases and life expectancy (see Table 2).

Table 2: Edwin Chadwick, The Sanitary Conditions of the Labouring Population (1842): Average Age of Death

<table>
<thead>
<tr>
<th>Place</th>
<th>Professional/Gentry</th>
<th>Tradesmen</th>
<th>Labourers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethnal Green</td>
<td>45</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>Bolton</td>
<td>34</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Derby</td>
<td>49</td>
<td>38</td>
<td>21</td>
</tr>
<tr>
<td>Kendal</td>
<td>45</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td>Leeds</td>
<td>44</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Liverpool</td>
<td>35</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>Manchester</td>
<td>38</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Wiltshire</td>
<td>50</td>
<td>48</td>
<td>33</td>
</tr>
</tbody>
</table>

Compiled by John Simkin (Source: http://spartacus-educational.com/PHchadwick.htm)

As a result of this research Edwin Chadwick developed a concept of water supply and sewage systems with four pillars: central supply of fresh clean water, water closets in all houses, canalisation, and sewage farms outside of the city. He suggested introducing water-closets and drainage in the houses of the poor as it had been done in wealthy and newly-built districts. He supported this idea with an economical argument: “It is most applicable to the poorer districts, because really the most economical, when they are properly sewered and supplied with water. The cost of cheap and appropriate apparatus, and of water for cleansing, it will be proved is a reduction of the mere cost of cleansing in the old method (…).” (Chadwick, 1842, p. 48)
The findings of Chadwick’s investigation led to the passage of the Public Health Act in 1848. The newly founded general Board of Health was headed by him as Sanitation Commissioner (1848-1854).

Chadwick was a convinced believer in miasma theory according to which spoiled water, strong stench, and crowded housing conditions caused diseases. He therefore recommended active measures such as cleaning, drainage and ventilation to fight epidemics and improve the living conditions of the people. He argued economically as seen above that these measures would make people healthier and as a consequence less dependent on welfare. All his findings showed a desperate need of public health reform. The Public Health Act of 1848 designed local boards to oversee street cleansing, refuse collection, water supply and sewerage systems. Public health should be administered locally to encourage people to take part in their own protection.

Edwin Chadwick was not a diplomatic man. He had made so many enemies that in 1854 he was forced to retire from public office. Danger was that if he remained in charge of the board of health the public health issues would suffer. Amongst others, landlords and water companies successfully resisted the public health reforms and tried to maintain the old system because of their vested interests.

During his life Edwin Chadwick had become one of the most important public health activists of the 19th century. Even after retirement Chadwick continued his work and followed his interests. In acknowledgement of his work he was knighted in 1889. The British lawyer and social reformer who had devoted his life to sanitary reform in Britain died on 6 July 1890 in East Sheen, England.

Sources and further readings on Edwin Chadwick
Chadwick, 1842
Richardson, 1887a
Richardson, 1887b
Brundage, 1988
Finer, 1980 (repr. 1952)

John Snow
John Snow was a physician and epidemiologists. Born in York, England on 15 March 1813 as the son of a labour class family he was nevertheless able to go to school, study in London and eventually become a physician in 1844. During a cholera epidemic in London ranging from 1853 to 1855 he was able to prove that cholera spread because of contaminated drinking water. He had examined where the people lived who became sick and carted the cases in a map (see (Snow, 1965), between pp. 44 and 45). By doing so he was able to show that all these people got their water from one pump at Brown St. or had eaten things which were prepared with that water. John Snow did not only make suggestions on how to stop the epidemic and to prevent a new outbreak. He also convinced the authorities to take the handle
off the contaminated pump in Brown St. to prevent people from fetching their water there. (See for details on the epidemic: Johnson, 2006, especially pp. 160-162)

While he could not explain what caused the disease he could point out water as the transmitter. He therefore did not believe in cholera spreading by miasma as many of his contemporaries did but instead made responsible germs which was to become a discussion for decades. In his “Grand Experiment” in 1854 (Hempel, 2007, pp. 170-174), he was able to show that in two almost socially identical neighbourhoods in London people to a different amount suffered from cholera. The two neighbourhoods were provided with water from two different companies. While the one of them took its water from the upper River Thames, the other withdrew it from the Thames within London where it was contaminated with sewage.

Besides his researches on cholera, Snow had a medical practice in the Soho neighbourhood of London and after 1846 gained a reputation for his knowledge and successful application of ether and chloroform. He was even asked to anaesthetise Queen Victoria when she gave birth in 1853 and as well as to Princess Beatrice in 1857. John Snow died from a stroke at the age of 45 in London, England on 16 June 1858.

Sources and further readings on John Snow
http://www.ph.ucla.edu/epi/snow.html, accessed 10 Febr. 2015
Snow, 1965
Johnson, 2006
Hempel, 2007
Hardy, 2005a, pp. 275-279.

Edwin Chadwick and John Snow were recognised only little in Great Britain in the beginning. On the continent, however, it looked quite different. While Snow here too was rather marginal Chadwick’s findings and insights were spread by, amongst others, his friend and disciple William Lindley. (Hardy, 2005a, pp. 278-279; Meyer, 2011, pp. 42 f.)

William Lindley
The direct connection of the sanitary reform movement in Britain and the one in Germany - if not to say in continental Europe - was William Lindley. Born on 7 September 1808 in London, England, he for the first time came to Hamburg at the age of 16. He spend 10 month with relatives to learn German and establish contacts with the society. After returning to London he started training at a London bank, which he however quit and became an engineer instead. He studied at the leading engineering offices in London at that time, with Marc Isambard Brunel and Francis Giles. In the early 1830s he returned to Hamburg where he had been recommended to plan and to build a railroad. The completion took from 1838 to 1842. He was engineer in chief to the Hamburg-Bergedorf railway, settled in Hamburg and married the daughter of a Hamburger merchant in 1852.

His visionary mega-project was ten years on the way by then. It started with the Great Fire in Hamburg which raged from 5 – 8 May 1842. In the end, 1/3 of the city had burned to ashes, 1,750 houses were destroyed and about 20,000 people became homeless. William Lindley had successfully recommended the demolition of houses to fight the fire, including blowing up the
town hall, to call a halt to the blaze. He had been asked earlier for planning a sewage system for the port city. But now, he was entrusted with the plan for the complete rebuilding of the burned down part of Hamburg. On 31 August 1842 he became the consulting engineer of the city. Ideas of social reform run through his blueprint like a common thread. It provided broad streets with pavements and gas lights, a system of sewers for sewage and rain water, the building of waterworks and a central public water supply to all households - instead of private wells -, gasworks as well as public baths and washhouses.

Before presenting his plans to the Hamburg government he travelled back to London in November 1842 to discuss the London sewage system, which he took as an example for Hamburg together with William Chadwell Mylne, chief engineer of the New River Waterworks, and Edwin Chadwick. Lindley was a “disciple and acquaintance of the great English sanitary reformer” (Evans, 1987, p. 118) who wrote also public letters of support for Lindley. (ibid., p. 133)

His plans once presented were heavily discussed and met local resistance because of the associated costs. Nevertheless in the end he succeeded to convince the city government and realise his vision. The sewage system was built between 1842 and 1845, the water works from 1844 to 1848, and in the same year the gasworks went into operation. The sewage system and the water supply system were expanded step by step during the following decades. Convincing arguments for the city council were the availability of enough water for firefighting throughout the city and the prevention of further social uproar by better living conditions for all people in Hamburg. The rationale which could be read in the Journal für Gasbeleuchtung und Wasserversorgung (journal on gas lightning and water supply) was that it had proven to be difficult and expensive to support and to govern an unhealthy and unmoral population. A city therefore would enjoy great advantages for all inhabitants even though the lowest class would profit the most. This class needed the advancement in health, convenience and well-being desperately and was unable to get it by itself. (Quoted in Steuer, 1912, pp. 18 ff.)

The modernization of Hamburg established Lindley’s reputation as great hydraulic engineer and helped to carry the idea of the sanitary city further. He obtained orders for water supply and sewage systems from Kiel, Stettin, Leipzig, and Stralsund between 1850 and 1860. He was consulted on the improvement of the water supply system in London in 1851. He was tireless networking and managing his business with letters and dispatches as well as with trips of inspection to different sites by train. Since 1841, he was a member of the Royal Geological Society, since 1842 of the Institution of Civil Engineers and since 1844 of the Society of Smetonian Engineers.

In 1860, William Lindley finally left Hamburg after being heavily criticised for his influential position in urban development without being a civil servant. He opened an own engineering office in London in 1862 where he educated and trained his three sons William, Robert and Joseph, who all became engineers too. From 1863 to 1878, he planned and supervised the building of a sewage system in Frankfurt/Main following the Hamburg example. Parallel to this, between 1865 to 1879 William Lindley worked in many cities as consulting engineer, e.g. Altona and Berlin. Further orders came from Chemnitz, Krefeld, Düsseldorf, Elberfeld,
Wuppertal, Basel, Galati, Budapest, St. Petersburg, Moscow and Warsaw among others. Bit by bit his sons supervised many of the construction sites all over Europe.\textsuperscript{24}

William Lindley retired in 1879 and moved back to London. His sons continued the engineering office. When a great cholera epidemic swept Hamburg in 1892 despite its central water supply this was the result of the missing sand filtration of the water at the water works Rothenburgsort before it was pumped through the pipes. To the city council of Hamburg this had seemed to cause unnecessary costs. The cholera pathogen thus came to the people through pipes and taps. Not so in Altona, some kilometres down the Elbe river, where the responsible people had listened more closely to Lindley’s recommendation of sand filtration and no victims had to be bemoaned.


<table>
<thead>
<tr>
<th>Sources and further readings on William Lindley</th>
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<tr>
<td>Lerner, 1985</td>
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<td>Pelc and Grötz, 2008</td>
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<tr>
<td>Albrecht, 20.04.09</td>
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<td>Hamburg Wasser, 19.02.15</td>
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<tr>
<td>Evans, 1987</td>
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\textit{Georg Varrentrapp}

Johann Georg Varrentrapp was born on 20 March 1809 in Frankfurt/Main. Following the example of his father who was a physician at the Hospital zum heiligen Geist (Hospital of the Holy Spirit) in Frankfurt, he started to study medicine in Heidelberg in 1827. After participating in student protests in 1828 he was punished by exclusion from the university and the ban to study at any German university. He therefore continued his education in Paris and Strasbourg. After his father had intervened at the German Bundestag, he was allowed to finish his studies in Wurzburg, where he obtained his doctorate in 1831. From 1831 on, he was the assistant of his father at the Hospital of the Holy Spirit and from 1842-1872 his successor as senior physician. In 1834 he co-founded a hospital for poor people (Armenklinik) which at first provided ambulant, later stationary consultation and medicine for free to the poor. He was a social reformer early on and occupied himself with social questions, especially with prison reform. His interest in questions of hygiene and public health resulted from his daily work and was further enhanced by his scholarly travels to different countries. In 1832, Varrentrapp visited different German countries, in 1838 Holland, England, Ireland, Scotland and Belgium. New insights, especially with regard to city cleaning, he gained from his second trip to England in 1847 and a third one in 1852, after visiting the first congress on hygiene in Belgium. In England he inspected the advanced sanitary facilities.

From 1842-1884 he was a member of the city parliament of Frankfurt where he was a committed and successful advocate for the canalisation and gained the reputation of a

\textsuperscript{24} For an overview of the engineering projects of the Lindley family in the 19\textsuperscript{th} and 20\textsuperscript{th} century see Pelc and Grötz (2008), pp. 318-324.
“canalisation fanatic” (Alexander Spieß in his obituary). His most important book was published in 1868 “Über Entwässerung der Städte” (On the drainage of cities). As a local politician and physician he was involved in many activities of social reform in Frankfurt and Prussia.

Varrentrapp successfully networked on the local as well as on the national and international level. He was board member of many associations in Frankfurt and an ordinary member in even more. Besides other roles, he was founder and chairman of the Frankfurt non-profit building society (Frankfurter Gemeinnützige Baugesellschaft) from 1860 until his death in 1886. Since 1870 he was a member of the council on health advising the Frankfurt magistrate on all questions of public health, in 1871 he was vested with the title of “Geheimer Sanitätsrat” and nine years later he was appointed an associate member of the Health Office of the German Reich (Reichsgesundheitsamt).

Most successfully he agitated for issues of public health and the distribution of insights and findings. Together with Gustav Adolf Spieß he persuaded the association of natural scientists and physicians during their meeting in Frankfurt in 1867 to establish a section on questions of hygiene resp. public health. In 1868/69, the new quarterly journal „Deutsche Vierteljahresschrift für öffentliche Gesundheitspflege“ was founded. Varrentrapp was its co-publisher and editor from its beginnings until 1884. The journal is the oldest one in Germany focusing on hygiene and public health and brought together physicians, engineers and administrative officers. Together with Max von Pettenkofer and others, Georg Varrentrapp was a founding member in 1873 of the „Deutsche Verein für öffentliche Gesundheitspflege“ (German Association for Public Health Care). Frankfurt colleagues published a jubilee publication in 1881 at the occasion of the 50th anniversary of Varrentrapp’s doctorate called „Frankfurt in seinen hygienischen Verhältnissen und Einrichtungen“. Georg Varrentrapp died on 15 March 1886 in Frankfurt/Main.

| Sources and further readings on Georg Varrentrapp |
| Varrentrapp, 1839 |
| Varrentrapp, 1868, dedicated to Max von Pettenkofer, William Lindley and Eduard Wiebe |

Max von Pettenkofer
Max von Pettenkofer was hygienist, physiologist, and epidemiologist. He was an important actor in Germany as well as internationally and part of a multi-faceted network. Born on 3 December 1818 in Lichtenheim close to Neuburg/Danube, Germany, as the fifth of eight children of a farmer’s family he grew up under poor circumstances. At the age of eight he was sent to his uncle in Munich to get an education in 1827. Ten years later, after he had finished academic high school, he started to study natural sciences and pharmacy and two years later began to work as an apprentice in the court pharmacy of his uncle. He specialized on medicine and chemistry after 1841 and received his license to practice as pharmacist as well as his doctoral degree in medicine, surgery and obstetrics two years later.
Still Pettenkofer continued his studies further in Wurzburg with Johann Josef Scherer and in Gießen with Justus v. Liebig who had lasting influence on Pettenkofer. The young man returned to Munich in 1845 and took up a position at the royal Bavarian mint where he worked on different subjects.

His procedure to make purple glass, which was highly valued by King Ludwig I., was decisive for his appointment to the newly created chair on medical chemistry of the Munich University. At the beginning of his career, chemistry and physics were his favourite research areas. Later his scholarly interest changed to questions of canalisation, ventilation, heating, clothing and housing. He laid the foundation for the special area of hygiene in Germany. Pettenkofer’s lectures were announced in the beginning as “dietetic-physiologic chemistry” and “public health”, after his appointment as first professor on hygiene in Germany in 1865 as “lectures on hygiene”. In the following years he earned a reputation nationally and internationally as leading hygienist.

As professor and court pharmacist in Munich he made a number of important research findings that gained him academic attention. After the death of his uncle in 1850, Pettenkofer took over the direction of the court pharmacy, parallel to his university obligations. While being rector of the university in 1864/65, Pettenkofer convinced the Bavarian king Ludwig II. to set up chairs on hygiene at all three Bavarian universities. In 1865, he founded the journal „Zeitschrift für Biologie“, and in 1883, the journal „Archiv für Hygiene“. He declined a call to a chair at the University of Vienna, and subsequently received means for the establishment of an Institute of Hygiene in Munich, which opened in 1879. The researches he there conducted brought him international reputation and helped to establish this field of research world-wide.

To adopt his findings into practice, Pettenkofer worked closely together in Munich with First Mayor Alois von Erhard, a founding members of the DVoG (Deutscher Verein für öffentliche Gesundheitspflege - German Association for Public Health) like Pettenkofer himself, and the head of the municipal planning and building control office Arnold Zenetti (Münch, 1993, p. 341) between 1867 and 1883. The hygienic sanitation of Munich by setting up a water supply system which was exemplary for whole Europe as well as an efficient sewage system (flume water sewerage), led to a decrease in general mortality by 25% (1870-1890) and reduced the mortality of typhoid fever by 80% (1880-1898).

Since 1846, Pettenkofer was member of the Bavarian Academy of Science and served as its president from 1890 to 1899. He was highly distinguished both publically and academically, among others he received the Order of Merit of the Bavarian Crown in 1865, became honorary citizen of Munich in 1872, served as chairman of the Imperial Commission on Cholera in 1873, and was appointed privy councillor in 1876. Six years later, he was elevated to Bavarian nobility, in 1897, he received the Harben Medal of the Royal Institute of Public Health, England and became both an honorary member of the German Chemical Society and received its Gold medal in 1899.

In the research area of hygiene Pettenkofer worked on multiple subjects, amongst others on the impact of climate, clothing, combustibles, ventilation, ground water and soil on the spread of diseases, the hygiene of potable water and foods, hygiene of sewage and faeces, the
disinfection and the hygiene in public institutions as well as statistics of medicine and biology. Epidemiologically, Pettenkofer was especially interested in cholera and typhoid fever. He believed that evaporations of the soil and the ground water (miasmas) were responsible for the epidemics. Thus, he was a firm follower of the miasma theory like Edwin Chadwick and many others of his contemporaries. (Münch, 1993, p. 341) Even though he assumed already in 1869 that these diseases could be caused by specific microorganisms and environmental factors his hypothesis on ground water started from the premise that besides infectious germs a sunk ground water level was absolutely necessary for contagion. Pettenkofer advanced the so-called localistic or soil theory. He clearly saw a coherence between soil, sewage, contaminated water, and epidemics and therefore demanded to refurbish the diseased (‘siechhaft’) soil. However, he denied any connection between potable water and the emergence of epidemics. (Feldkamp, 2009, p. 42)

About the reasons for cholera and typhoid fever a scientific controversy developed which was carried on by supporters (“contagionists”) and opponents (“miasmatics”) of Pettenkofer’s hypothesis. In 1883, Robert Koch discovered *vibrio cholerae* as the cholera pathogen and laid the foundation for bacteriology. Pettenkofer opposed this theory and hold onto his own research results. He finally accepted *vibrio* as the cholera pathogen. He however was so convinced of his own hypothesis that micro-organisms alone would not be able to cause a disease that he made a spectacular self-experiment in 1892: he drank a highly infectious vibrio culture without becoming sick. As Robert Koch explained in 1904, he had given Pettenkofer the oldest and least poisonous culture of his collection because he anticipated what Pettenkofer planned. This discussion continued into the early 20th century and was still virulent at the trial after the Gelsenkirchen typhoid epidemic in 1904. (Grüntzig and Mehlhorn, 2010, pp. 193-194)

More and more, Pettenkofer was pushed to the scholarly periphery. In 1894, he retired and, two years later, quit his function at the court pharmacy, too. At the age of 82, suffering from chronic pains and depressions, he committed suicide in Munich on 10 February 1901.

| Sources and further readings on Max von Pettenkofer |
| Wormer, 2001 |
| VL People |
| Hardy, 2005a, pp. 120-128 |
| Pettenkofer, 1882 |
| Pettenkofer, 1891 |

*Rudolf Virchow*
Rudolf Ludwig Karl Virchow saw politics as a ‘medicine on a larger scale’. The physician and politician was born in Schivelbein, Germany (today Swidin, Poland) on 13 October 1821 as the child of the master butcher Carl Virchow and his wife Johanna. Rudolf Virchow first went to school in Schivelbein, later he visited the academic high school in Köslin (Koszalin). As the family only had limited financial resources, Virchow continued his education in 1839 at the Friedrich-Wilhelm Institute (the “Pépinière”) in Berlin, where talented students could get a military fellowship to study medicine. After two and a half years of theoretical studies at

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25 On the different explanatory approaches of miasmas and bacteriology see below in 3.4.
the institute he concluded his studies in the summer of 1843 with an internship at the Charité Hospital in Berlin. The same year he received his medical degree from the University of Berlin with his doctoral dissertation and became company surgeon at the Charité Hospital.

Three years later he passed his licensure examination, followed in 1847 by his habilitation treatise and started to teach pathological anatomy at the University of Berlin. Also in 1847, he became prosector at the Charité Hospital and together with his friend Benno Reinhardt founded the medical journal *Archiv für pathologische Anatomie und Physiologie und für die klinische Medizin* (since 1902 called *Virchows Archiv*) which he edited until his death in 1902.

On behalf of the Prussian government he investigated in 1848 an epidemic of typhus in Upper Silesia. With previously unknown sharpness in his report Virchow criticized failures of the government with respect to a certain region and its population and claimed full and unlimited democracy without which prosperity and health would not be possible. Virchow participated in the uprisings in Berlin in March of 1848. He became politically active and was a member of the Berlin Democratic Congress in October. From 1848 until its forced end in 1849 he was the editor of the social political weekly *Die medizinische Reform*. Because of his political activities, Virchow was suspended from his academic position as prosector at Charité Hospital in 1849. In reaction to this he went to Wurzburg where he became chair of the pathological anatomy at the university after he had confirmed in writing that he would withhold himself from any radical-political endeavours.

During his time at Wurzburg, in 1850 he married Rose Mayer, daughter of a Privy Medical Councillor. On behalf of the government of Württemberg he in 1852 investigated the health condition of the population in the settlements of the Spessart. Again Virchow claimed education, prosperity and freedom as prerequisites for health maintenance and cure of affected people.

After seven years at Wurzburg, Virchow returned to Berlin in 1856 as professor of pathological anatomy and director of the newly created Pathological Institute. From then he was in charge of the institute for almost five decades. During this time he not only gained a worldwide reputation as a physician but also was involved politically: for 43 years he was active in the Berliner city council assembly, for 51 years at the Prussian Landtag and for 13 years at the German Reichstag. In 1861, he became co-founder of the liberal party *Deutsche Fortschrittspartei* and from 1884 on he represented the liberal party *Freisinnige Partei*.

Virchow amongst others championed the construction of municipal hospitals and the expansion of public welfare. He advised the city administration of Berlin on drainage and the setting up of a central water supply and sewage system. (Kalweit, 1998, p. 143) Following the motto “politics were nothing else but medicine on a large scale” (Quoted in (Bauer, 2004), p. 17) Rudolf Virchow pronounced himself for an improvement of the living conditions of the Berlin population. In 1859, he stated:

“in the lives of nations, so in the lives of individuals the state of health of the whole is determined by the well-being and close interrelation of the individual parts; disease appears when individual members begin to sink into a state of inactivity disadvantageous to the commonwealth, or to lead a parasitic existence at the expense of the whole” (Quoted in Hacking, 1990, p. 190)
This was not without consequences: after a heavy battle of words during a budget debate with the Prussian governor at the time, Otto von Bismarck, Bismarck challenged Virchow to duel. Virchow declined the demand convinced that weapons could not be a solution for political questions. After intervention of the Minister of war, Bismarck drew back his challenge. Virchow continued to play a key role in the budgetary matters of the Reichstag throughout the 1880's and as chairman of the finance committee until his death.

Besides all this, Rudolf Virchow was a pioneer in anthropology, ethnology and pre-historical research. He participated in and financed (with the help of the Rudolf Virchow foundation after 1881) and archaeological digs, as a passionate collector built up three collections of anthropological, pre-historical and pathologic-anatomic objects and was instrumental in founding the Berlin Ethnological Museum in 1886 and the Museum of German Folklore in 1888.

Virchow was honoured in many ways. He was honorary doctor of several foreign universities and became honorary citizen of Berlin in 1891.

On 5 September 1902, Rudolf Virchow died in Berlin as a result of a fracture of the femur neck which he had incurred at the beginning of January 1902 when getting off the tram.

Sources and further readings on Rudolf Virchow
Hardy, 2005a, pp. 107-120
Stiftung Deutsches Historisches Museum
www.agmb.de/mbi/2005_1/bauerA.pdf
http://web.archive.org/web/20061207003258/http://www.charite.de/cover/de/article/rv_0.html
VL People

Robert Koch
Robert Heinrich Hermann Koch was born on 11 December 1843 in Clausthal, Germany. He was a German physician, hygienist and one of the founders of bacteriology. Among other things Koch discovered the anthrax disease cycle (1876) and the bacteria responsible for tuberculosis (1882) and cholera (1883). For his discoveries on tuberculosis he received the Nobel Prize for Physiology or Medicine in 1905.

Being the son of a mining engineer, five year old Koch astounded his parents by telling them that he had taught himself to read with the help of the newspaper. He attended the local academic high school and there showed an interest in biology and a strong urge to travel.

In 1862, Koch took up his studies at the University of Gottingen, where he studied medicine. His professor of anatomy was Friedrich Gustav Jacob Henle who had published in 1840 a theory that infectious diseases were caused by living, microscopic organisms. Robert Koch was without doubt influenced by Henle's view. In his sixth term (1865) Koch received together with another candidate a prize of the medical faculty, another study of him was published in the same year. Thanks to the study he had delivered to win the prize he was made exempt from writing a thesis and received his M.D. at the beginning of 1866.

Afterwards, Koch went to Berlin for six months of chemical study and there came into the sphere of influence of Rudolf Virchow. He then became a physician in various provincial towns. After serving briefly as a field surgeon during the Franco-Prussian War of 1870–71, he became district surgeon in Wollstein, where he built a small laboratory and began his study of algae, switching later to pathogenic organisms. He found and presented convincing proof of the anthrax disease cycle and demonstrated the causal relation of a particular microorganism
to a particular disease. Even though Koch immediately became famous with these findings, he continued to work at Wollstein for a further four years. During this period he improved his methods of fixing, staining and photographing bacteria and further did important work on the study of diseases caused by bacterial infections of wounds. In this work he provided a practical and scientific basis for the control of these infections.

In 1878, Koch obtained a position in Berlin in the Imperial Health Office, where he set up a laboratory in bacteriology. There he continued to refine the bacteriological methods. He also developed procedures for the discovery of germs and disinfection methods to destroy them. With his collaborators, he devised new research methods to isolate pathogenic bacteria. Koch determined guidelines to prove that a disease is being caused by a specific organism (so-called Koch’s postulates).

Koch concentrated his efforts on the study of tuberculosis, with the aim of isolating its cause. Although it was suspected that tuberculosis was caused by an infectious agent, the organism had not yet been isolated and identified. By modifying the method of staining, Koch discovered the tubercle bacillus and established its presence in the tissues of animals and humans suffering from the disease. In 1882, he published his work on this bacillus. The following year Koch was sent for nine months to Egypt as leader of the German Cholera Commission to investigate an outbreak of cholera. He discovered the vibrio that causes cholera and brought back pure cultures of it to Germany. He also studied cholera in India where he could identify both the organism responsible for the disease and its transmission via potable water, foods, and clothing.

Robert Koch became Prussian State Councillor in 1884. The following year, he was appointed Professor of Hygiene and Director of the newly established Institute of Hygiene at the University of Berlin. The same year he founded the journal on hygiene (Zeitschrift für Hygiene) which he published with Carl Flügge. In 1890, Koch was appointed Surgeon General Class I and honorary citizen of the City of Berlin. One year later, he became an Honorary Professor of the Medical Faculty of Berlin and Director of the new Institute for Infectious Diseases. Koch undertook numerous journeys investigating epidemics and diseases all over the world. In June 1904, Koch declined from the direction of the Institute for Infectious Diseases.

During the cholera epidemic in Hamburg in 1892/93, Koch guided the measurements to stop the disease. He showed the connection between drinking water taken from the Elbe river and cholera. Moreover, he was able to provide evidence that the bacillus was released by germ carriers and that it was able to multiply and distribute in water. (Meyer, 2011, p. 53) Koch formulated rules for the control of epidemics of cholera which were approved by the Great Powers in Dresden in 1893 and formed the basis of the methods of control still in use today. His work on cholera also had an important influence on plans for the conservation of water supplies.

Koch’s research was of immediate influence on the discussion about miasmas and contagions which was still going on at the time.\textsuperscript{26} Counting proof was found for the hypothesis that the...

\textsuperscript{26} See below in 3.4.
source of most infectious diseases was a contagium, maybe alive, which could be transferred by direct contact. But the old conviction of miasmas still had its supporters believing that epidemics were caused indirectly by infectious evaporations in the air or the soil without a direct infection by sick persons. The discovery of the germs of tuberculosis and cholera helped establish the bacteriological idea in science and public.

Koch was the recipient of many prizes and medals, honorary doctorates of the Universities of Heidelberg and Bologna, honorary citizenships of Berlin, Wollstein and Clausthal, and honorary memberships of learned societies and academies in Berlin, Vienna, Posen, Perugia, Naples and New York. He was awarded the German Order of the Crown, the Order Pour le mérite on science and arts, the Grand Cross of the German Order of the Red Eagle, and Orders from Russia and Turkey. In 1902, the French academy of science elected him as successor of Rudolf Virchow as foreign member. Three years later, on 12 December 1905, Robert Koch was awarded the Nobel Prize for Physiology or Medicine for his research on tuberculosis.

Koch died on 27 May 1910 in Baden-Baden, Germany.

Sources and further readings on Robert Koch
Grüntzig and Mehlhorn, 2010

Deutscher Verein für öffentliche Gesundheitspflege (DVöG)
This section presents the Deutsche Verein für öffentliche Gesundheitspflege (DVöG – German Association for Public Health Care) as an example of a network of practice to illustrate how findings were distributed, cognitive frames were affected, and the discourse was driven forward.

In 1869, associations for public health care (Vereine für öffentliche Gesundheitspflege) were founded in many parts of Germany. The associations defined themselves as societal counterpart to the public administration. Their aim was to prepare academically important political decisions on the development of German cities. (Jellinghaus, 2006, pp. 88–89) Furthermore, they claimed better hygienic conditions in cities by pointing out that epidemics threatened the productivity of the labourers and also spread to the quarters of the wealthy. (Schott and Skrobilies, 1987, p. 95) The associations and the later founded umbrella organization (Deutscher Verein für öffentliche Gesundheitspflege – DVöG) became more and more an important forum for the discussion of the pressing problems of the process of urbanisation. They tried to control this process by resolutions and legislative proposals as well as to soften its effects with the introduction of hygienic standards. (Jellinghaus, 2006, p. 90)

The foundations were implemented in parallel to the dissolution of the medicinal police in Germany and the cholera epidemics in 1866. The establishment marked the transition to a pluralistic state of interests and associations of the civil society. The associations on public health care were part of a wide range of associations at this time that were founded to face the challenges of the modern cities. (ibid., pp. 88-89)
Subsequent to the cholera conference in Weimar in 1867, organized by the medical scientists Max von Pettenkofer, Wilhelm Griesinger und Karl Wunderlich, local associations for public health care were established in many regions of Germany by participants of the conference. The goal was to prepare consistent fundamentals for the local control of cholera. (ibid.)

In the beginning the conference of natural researchers and physicians (Versammlung der Naturforscher und Ärzte) provided a national platform for the representatives of public health care and their objectives. At the conference in Frankfurt in 1867 a separate section for public health care was established. This new forum was used to discuss important practical questions and to go public with resolutions. Also, the quarterly journal for public health care (Vierteljahresschrift für öffentliche Gesundheitspflege) was founded by this section. It was used to report about consultations and was a much-noticed medium for all kind of important questions regarding health care issues. (ibid., pp. 89-90) However, amongst the members of the conference of natural researchers and physicians opposition grew against the political claims of public health care activists. Hence, to become independent and to open up for other disciplines the German Association for Public Health Care was founded in 1873. The new association replaced the conference of natural researchers and physicians as the central player for public health care after a very short time (ibid., p. 90).

One crucial point for the dominant position of the Association for Public Health Care at the time was the composition of its members. No other institution discussed in an equally intensive manner and with a comparable professional competence about the urban expansion of infrastructure. Leading exponents of the discipline of hygiene were represented in the association, being for example physicians, engineers, chemists and politicians (Hardy, 2005a, p. 209). The number of membership was growing constantly. In 1889, about 1,200 members belonged to the association. (Hardy, 2005b, p. 107) Thus the special advantage of the association was the tight combination of science and politics. In contrast to the ‘association of social politics’ which concentrated on the state as the actor of modernization and was founded at the same time, the ‘association for public health care’ focused on a municipal alternative to the welfare state. According to them, the social question and the hygienic question should be resolved by different actors. Apart from that, both tried to solve the problems of the rising industrial society with academic expertise (Jellinghaus, 2006, p. 93-95; Münch, 1993, p. 339).

Because of the tight cooperation of the Association for Public Health Care with community politics, it had great opportunities to implement its scientific claims into practice. By means of the mayors and other important local politicians, since 1870 many projects were successfully initiated without any conflicts in nearly all major cities of Germany. Especially, a central water supply network was implemented in an increasing number of cities since 1860. The willingness of the communities to implement the demands of the hygiene movement was very strong. (Jellinghaus, 2006, pp. 99–100)

27 To name just a few: physicians: Max von Pettenkofer, August Hirsch, Hermann Richter, Carl Reclam, Georg Varrentrapp, Alexander Spiess; engineers: James Hobrecht, Rudolf Baumeister, Josef Stübben; chemists: August Wilhelm Hofmann; local politicians: Leopold von Winter (First Mayor of Danzig), Hermann Becker (First Mayor of Cologne), Alois von Erhardt (First Mayor of Munich), Arthur Hobrecht (First Mayor of Berlin).
The association legitimized its political claim of validity by the background of its members as belonging to the bourgeois elite, with high professional qualifications and social engagement. The point was to improve society as a whole and especially the situation of the lower classes. Their liberal self-understanding was associated with strong social commitment. They felt the obligation to engage as members of the bourgeois class for the general public and also held the belief that they were especially qualified to make right and nonpartisan decisions. They felt superior to the particular interests of the society and thus believed to be allowed to take matter into their hands and to press the state in its radius of action. Important social issues were the prohibition of child labour and night shifts, health protection of labourers, special protection for female workers, protection for women in childbirth, prohibition of Sunday labour, supervision of factories, and a restriction of the weekly working time. Also, some other socio-political purposes were initiated by members of the association, like the delegation of poor children to holiday colonies, the gratuitous treatment of the poor in charity hospitals and the foundation of a charitable housing association. (ibid., pp. 96-97)

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<th>Sources and further readings on Deutscher Verein für öffentliche Gesundheitspflege</th>
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<td>Jellinghaus, 2006</td>
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*Other networks:*
Deutscher Verein für das Gas- und Wasserfach

Founded in Frankfurt a.M. in 1859
In 2013, the association had 13,763 members (utility companies, gas fitters and installers, authorities, institutions and organisations as well as individual members)


*Motives*

As long as local politics was made by home and land owners the misery of the marginalised was no subject on the agenda. They were convinced that with the end of the feudal society and by the help of the on-going progress the problem would solve itself. Until then, it was the duty of the city administration to take care of it with state-of-the-art measures. (Schott and Skroblies, 1987, p. 93) However, many of these stakeholders were reluctant to vote in favour of projects that would cost their money but would not directly benefit them.

Thus, pressure had to originate either from outside city parliaments: from people of the hygiene movement, members of the labour movement or trade unions, from city administration itself or from the state; or from inside when left wing liberals, social-democrats, socialists or communists belonged to the members of city parliaments. When reading proposals, rationales or publications it is therefore difficult to tell if the wording, e.g. macroeconomic arguments in favour of fresh water supply, is lip-service or rhetoric or deep conviction.

The following quote is an example taken from Chadwicks Sanitary Report (1842):

“The more closely the subject of the evils affecting the sanitary condition of the labouring population is investigated the more widely do their effects appear to be ramified. The pecuniary cost of noxious agencies is measured by data within the province of the actuary, by the charges attendant on the reduced duration of life, and the reduction of the periods of working ability of production by sickness; the cost would include also much of the public charge of attendant vice and crime which come within
Sanitation, it could be argued, was a persuasive way to reduce public expenses in the long run.

During the second half of the 19th century consciousness of the middle and upper classes grew that by supporting the cleanliness of the lower classes they would profit themselves. One reason was the experience that epidemics would not stop at invisible social borders but sweep into the wealthier boroughs of a town too. The other, very tangible observation was that domestic servants of the lower classes cooked in the kitchens of the better-off and fostered their children but themselves did not observe basic hygienic rules. (Spieker, 1996, p. 114) Thus, “benevolence toward other groups in society” was not the only driver in the fight for fresh water and public health, but also self-interests: “If the members of the proletariat did not learn the elementary rules of hygiene, one middle-class observer wrote at the turn of the century, then not only they were at peril but also ‘we and our children’.” (Hård and Jamison, 2005, p. 233)

The Marginalised as Marginalised Actors

In the beginning phase of central water supply in the second half of the 19th century suffrage in European countries was not democratic. Therefore, the marginalised had no voice in the political committees when those discussed and decided on need and basis of the water infrastructure. (Juuti and Katko, 2005, p. 40) Different rules applied in different countries, regions and towns. Generally speaking, suffrage on the local level was granted on the basis of gender, age, occupation and income or property. This means that if an adult male belonged to the right group of occupations, paid a certain amount of tax or owned a house he was allowed to vote. By upward mobility of members of the labour movement the impact of these restrictions slowly watered down since the beginning of the 20th century. After the revolution of 1918 when suffrage was granted to most adults in European countries – even though different criteria regarding age and gender were applied – the fundamental decisions on water supply were already made in many cities.

Where it was difficult or impossible for individual marginalised to participate in the political decision making process, members of the labour movement or of socialist or social-democratic parties took a stand for the interests of the marginalised. Also, trade union members acted for potable water on behalf of the lower classes. Trade unionist Ruf, for instance, wrote a letter to the editor of the *Oldenburger Presse* on behalf of the glass makers located in Oldenburg’s industrial suburb Osternburg. In the entire workers’ settlement comprising 60 tenements there was no well of clean drinking water. As a reaction to this letter, the glass factory bore a new well – but the result was not satisfying. The factory therefore recommended to use only boiled water or to fetch water from the well of the glass factory. (Meyer, 2011, p. 54)

One last point needs to be considered: the intentions of hygienists, social reformers and other benevolent people of the middle or upper-classes not always were in line with those of the marginalised. During a cholera epidemic in London a journalist was offended when he was inspecting the settlements of poor people in Soho. He was considered being an official classifying which housings should be closed down because of unhygienic conditions. The poor could not afford another place to go to. (Hempel, 2007, pp. 205-206) Discussions on the use of piped water point in a similar direction. When water from the tap cost money but water from the river or the well was for free why spent money? Not only to marginalised people the
idea to pay for water like for any other good was something rather new. (Steuer, 1912, p. 20)
In many cases, the threat lurking in the water was invisible to the naked eye. Chadwick already argued that the money spent on clean water could be gained by expenditures on medicine that then would not be needed: “At the highest of the water companies’ charges it would be good economy for the health of the labourer’s family to pay for water being laid on the house, to reduce the expense of medicines and loss of work in the family, as indicated by any of the tables of sickness” (Chadwick, 1842, p. 71)

Town/municipalities; City administrations and city councils
Local governments were/are key actors to regulate and control the set-up and maintenance of a high quality water infrastructure for all. Often water provision was/is also organized by local water providers.

In the 19th and early 20th century, municipal committees often consisted of voluntary middle-class members (=> expert knowledge, expertise, e.g. with regard to our topic commission on poor relief or commission on public health or commission on civil engineering).

In the beginning of the 21st century, in response to privatisation and centralisation of water provision, local civil society plays a role in demanding democratic accountability and social as well as ecological standards of freshwater provision (see the example of the Berlin water table and its actors below)

Actors in the context of the 20th century public-private water supply controversies:

Global and international level
World Bank and IMF: The Dublin Principles in 1992 define “Freshwater as a finite and vulnerable resource” but they also define “water [as having] an economic value in all its competing uses and should be recognized as an economic good” (Conca, 2006, pp. 141 ff.). This is generally seen as an important articulation of the water privatisation wave in the 1990s. World Bank and IMF are a main driving force (ibid., pp. 221-222), which promote a discourse for privatisation during the last two decades of the 20th century: 1) charge people/customers for water with a view to full cost recovery. 2) create revenue for the government/towns via sales, 3) promote economic efficiency on the assumption that private actors are more efficient, 4) promote market liberalization and introduce competition, again to make freshwater provision more efficient. The focus first is primarily on possibilities of privatisation in the so-called developing world, although there however is a turn to North America and EU and old markets, not least in the light of difficulties encountered there as well as due to the effective failure to expand water provision and make it more efficient (compare Dobner, 2013 and the account of John Briscoe’s World Bank Delegation visit to Germany in 1994).

Yet at the same time economic discourse with a perspective on freshwater supply suggests a “natural monopoly” (very high fixed costs & low marginal costs, therefore no competition realistically possible) and a case for state ownership, especially if other social and economic objectives are taken into account (social security, human rights). These “inner economic” difficulties of the case for privatisation may also from an economic perspective explain the difficulty of privatising freshwater. From an economic development perspective, according to Prasad the discourse on the role of government in creating infrastructure for development additionally gains ground at least since the early 2000s: “Infrastructure development
(transportation, telecommunication, energy, water) are prerequisites for social and economic development.” (Prasad, 2008a, p. 1)

**Multi-national cooperation** such as Veolia and Suez with an interest in increasing their market share. The World Water Forum is the biggest event, hosted by the multi-national corporations in cooperation with many other partners, and serving as a forum influential to discuss and influence discourse and policy.

**The global water justice movement** (see Conca, 2006, pp. 249 ff., Barlow, 2013) is the key coalition builder of civil society fighting privatisation of freshwater supply, and acts as advocate for the human right to water. There are many overlaps to the green movement and its concern with environmental impact (frequently coupled with an endorsement of local democracy).

Chronology of international water network building see: Conca, 2006, Tab. 5.1, pp. 134-139.

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**The nation state (and later the EU) level**

- Legislators who write and pass social policies and health norms.
- Government authorities, which implement and control their observance (for example health authorities in charge of checking compliance with drinking water norm).

There are also emerging pan-European networks that co-ordinate activities:

- Public sector perspective: Aqua Publica Europea (APE), founded in 2008, to “promote public water management at European and international level” as an international, not-for-profit association under Belgian law with publicly owned water and sanitation services as members. It seeks to 1) facilitate knowledge exchange and joint projects, 2) influence policy-making, 3) act as “catalyst, supporting the development of the international water community by promoting a dialogue between public water operators, the business sector, the academic world, and institutions.” [http://www.aquapublica.eu/?About-APE-8&lang=en](http://www.aquapublica.eu/?About-APE-8&lang=en). The network’s values are water as a human right and common good that needs to be protected with excellence and from a global perspective ([http://www.aquapublica.eu/?Our-Values-62](http://www.aquapublica.eu/?Our-Values-62)).
- Civil society perspective: The European Movement for Water defines itself “as an open, inclusive and pluralistic network of movements, social organizations, committees, unions whose goal is to reinforce the recognition of water as a commons and as a fundamental universal right, an essential element for all living beings.” It aims “to construct a public and communal management of water, founded on the democratic participation of citizens and of workers” ([http://europeanwater.org/about-the-european-water-movement](http://europeanwater.org/about-the-european-water-movement)). Its action mainly focuses on the human right to water and the protest against the privatisation of water. Its membership base so far, however, is mainly coming from Western and Southern Europe (not Eastern Europe and Scandinavia).
- Water professionals: The European Water Association (EWA) was founded on 22 June 1981 as the European Water Pollution Control Association. The scope of the Association was enlarged in 1999 and name changed to European Water Association. The aim is to provide a forum for the discussion of key technical and policy issues affecting the European region. It is an independent non-governmental and non-profit making organisation consisting of national associations of water professionals and dealing with the management and improvement of the water environment.
3.3 Possible questions of analysis chapter 3.3

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3.4 Narratives and discourses

**Questions**

Please, indicate which narratives or discourses accompanied / were relevant for the addressed social problem and the social innovation. How did these change over time? Did they inhibit or foster social innovations?

In which social domains can these discourses and narratives be located (media, parliament/city council, civil society/community)? What were the instruments of the discourse (reports, petitions, opinion leaders, media campaigns, letters to the editor etc.)?

Who was involved in these discourses (e.g., the beneficiaries)? Can any parties be identified that dominated these discourses or narratives? Why could they do so (e.g., power, knowledge)?

Did those narratives influence the perception and acceptance of legislation, education curricula, or other institutions?

Did they affect the perception and acceptance of any social networks?

**Summary of key points**

- General narratives and discourses on societal development: working class people would become better citizens if they had access to clean water. (Chadwick, Tabberner, Lindley et al.)
- Belief in self-purification of water
- Change of medical knowledge and understanding: Miasma theory vs. bacteriology
- Debates on hygiene in the second half of the 19th and the early 20th century
- Change of cultural norms and regulation by habitual and mental changes.
  - Many procedures which took place in public and were carried out collectively before the introduction of central water provision became private and were individualised (bringing water, washing, doing the laundry, personal hygiene).
New standards developed.
- Environmental consciousness since the 1970s
- Neoliberalism
- General economic discourse on water
- Debate on water as public good: common vs. commodity
- Human Right of Water

| Content |

General narratives and discourses on societal development

The main discourse during the 19th century drew a direct connection between water, cleanliness and morals. Therefore, it was stressed by committed members of the middle class, by people involved with the sanitary movement in general and physicians and educators in particular that working class people would become better citizens if they had access to clean water. Thus, the conclusion was to be, clean water would be a way out of a social crisis and a measure to prevent social uproar.

John Loud Tabberner published in 1850 four letters he had earlier written to the Daily News. In these letters he argued for better water supply and municipal water works and criticized the current situation in the London area.

"That the means of cleanliness - an unintermittent supply of water, the first element of physical improvement, and the strongest bulwark against disease – is the very fulcrum of all sanitary ameliorations must be, and is, universally admitted; and as such, therefore, it should be a subject of the first consideration in contemplating effective and substantial sanitary improvements.” (Tabberner, 1850, p.4)

The following quotes and extracts are taken from Chadwick, 1842:

- “No education as yet commonly given appears to have availed against such demoralizing circumstances as those described; but the cases of moral improvement of a population, by cleansing, draining, and the improvement of internal and external conditions of the dwellings, of which instances will be presented, are more numerous and decided, though there still occur instances of persons in whom the love of ardent spirits has gained such entire possession as to have withstood all such means of retrieving them.” (p. 134)
- Education and the adherence of the Christian moral norms were considered important for the health and cleansing of the poor population.
- The household income and employment relationships were not important for the cleanliness of the house. (pp. 138-142)
- “If you wish to have robust and healthy people, you must have a care for their physical education, their houses, and their modes of living.” (p. 152)
- “The facts indicated will suffice to show the importance of the moral and political considerations, viz., that the noxious physical agencies depress the health and bodily condition of the population, and act as obstacles to education and to moral culture; that in abridging the duration of the adult life of the working classes they check the growth of productive skill, and abridge the amount of social experience and steady moral habits in the community” (p. 203)
- “That the formation of all habits of cleanliness is obstructed by defective supplies of water.” (p. 369)
• “That the annual loss of life from filth and bad ventilation are greater than the loss from death or wounds in any wars in which the country has been engaged in modern times.” (ibid.)
• “That the public loss from the premature deaths of the heads of families is greater than can be represented by any enumeration of the pecuniary burdens consequent upon their sickness and death” (ibid.)
• “That the younger population, bred up under noxious physical agencies, is inferior in physical organization and general health to a population preserved from the presence of such agencies” (p. 370)
• “That the population so exposed is less susceptible of moral influence, and the effects of education are more transient than with a healthy population” (ibid.)
• “That these adverse circumstances tend to produce an adult population short-lived, improvident, reckless, and intemperate, and with habitual avidity for sensual gratification” (ibid.)
• “That these habits lead to the abandonment of all the conveniences and decencies of life, and especially lead to the overcrowding of their homes, which is destructive to the morality as well as the health of large classes of both sexes” (ibid.)
• “That defective town cleansing fosters habits of the most abject degradation and tends to the demoralization of large numbers of human beings” (ibid.)
• “And that the removal of noxious physical circumstances, and the promotion of civic, household, and personal cleanliness, are necessary to the improvement of the moral condition of the population; for the sound morality and refinement in manner and health are not long found co-existent with filthy habits amongst any class of the community.” (pp. 371 f.)

The engineer William Lindley stated the connection between cleanliness and morals as well as the side costs of this in 1851:

“Lack of bodily cleanliness soon leads to lack of self-respect, roughness, and vice. Experience demonstrates that those who have dirty clothing avoid respectable places and therefore have the lowest kind of public house as their haunts. If they can employ an hour or so of their leisure time in taking a bath, then in most cases this will put them off going to the pub (…) An unclean population will suffer comparatively high rates of sickness and death, and since the poorer inhabitants of the city will be thrown onto the state finances to cover the costs in all such cases, this tax burden will for the most correspond to the cleanliness of the population. A dirty population degenerates and so commits all the more offences against the laws of the state, thus contributing to the continued need and expansion of our costly prisons (…) Lack of cleanliness makes the population all the more receptive to devastating epidemics such as cholera, smallpox, fever, etc., and encourages such diseases to become endemic or to return again. Experience shows that when these epidemics have reached a certain degree of severity they also reach the dwellings of the well-off.” (Quoted in Evans, 1987, pp. 118-119)

This belief was widespread among members of the European middle-class. Workers had no sense for cleanliness, lived in bad and humid housings and were in need of potable water – in that order. See for example the report of the physician Dr. Kelp to the municipal authorities of Oldenburg in Northern Germany about cases of typhoid fever in 1890: “The inhabitants of
this district are almost all industrial workers with little sense for cleanliness; the apartments are badly ventilated and humid, and besides this a lack in good drinking water is to emphasise. There are only a few wells and their water is not suitable for general use [...]”

Most of them therefore used contaminated water from the river. (Quoted in: Meyer, 2011; own translation)

**Water purifies itself**

Another discourse up to the second half of the 19th century dealt with the self-cleaning power of water. Scientists (e.g. Charles F. Chandler, chemist and president of the New York Board of Health (1873), or Max von Pettenkofer, chemists and influential hygienist in Munich29) believed that water could purify and regenerate itself just by flowing. Downstream settlements did not have to be protected from sewage of up riparian settlements as the flowing river would remove all pollution. This belief in the past had led to a common practice of using the rivers as open sewers just anywhere, and all kind of garbage and sewage was thrown into the rivers. But as scientific research showed, this was not true; especially not for germs of infectious diseases. (Sedlak, 2014, p. 45; Hirschfelder and Winterberg, 2009, p. 121)

**Miasma vs. bacteriology**

As in the case of the self-cleaning power of rivers described above, scientific research led to the end of another cognitive frame at the end of the 19th and beginning of 20th century: the explanatory approach of miasma as causing diseases made way for the insights of bacteriology.

Since classical Greek times the conviction of people of all classes was the one that evaporations of the soil and the ground water, so-called miasmas, were responsible for all kind of epidemics. Judging from what they could see with the naked eye, epidemics were caused by stench in the air or coming from evil-smelling waters or similar sources without a direct infection by sick persons or animals. For Edwin Chadwick30, spoiled water, strong stench, and crowded housing conditions were the cause of diseases. (> lacking understanding of waterborne disease transmission)

As Bernhard points out, ventilation and improved water cycles became the guiding principle of physicians and engineers working under the impression of the growing number of malaria and cholera epidemics and in fear of the deathly miasma. (Bernhardt, 2005, p. 72) During a cholera epidemic in London in 1831, about 3,000 people died. Not knowing yet, that cholera is waterborne caused by contaminated water or food carrying the bacterium *vibrio cholerae*, cleaning of the streets seemed to be the highest priority. This measure however had no effect as it went into the wrong direction. (Sedlak, 2014, pp. 30–31) During another cholera outburst

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28 „Die Bewohner dieses Bezirks sind fast sämmtlich (sic!) Fabrikarbeiter, welche für Reinlichkeit wenig Sinn haben; die Wohnungen sind schlecht ventiliert und feucht, und außerdem ist noch der Mangel an gutem Trinkwasser hervorzuheben; Brunnen sind nur wenige vorhanden und ist das Wasser derselben zum Gebrauche nicht geeignet …”

29 See the article: Pettenkofer (1891).

30 See above 3.3.
in 1848, John Snow\textsuperscript{31} was able to demonstrate that many victims had drunk water from the same well. While at that time he did not know about germs, he clearly saw a connection between cholera and water. For him, miasma worked not any longer as an explanatory approach.

Before 1850, very few water providers used water treatment systems and if they did so it was less because of hygienic considerations but „to improve the appearance and taste of the water.” (Sedlak, 2014, p. 32) This became better during the next decades when it became clear that customers of those water works using filtration, particularly sand filtration, were better off in times of epidemics as compared to their contemporaries who had to do without filtration.

Following the findings of Robert Koch\textsuperscript{32} and other researchers, the miasma theory was finally considered outdated and no longer applied.

\textit{19th century hygiene discourse}

Until the sanitation reform movement started in the second half of the 19\textsuperscript{th} century “ideas of cleanliness and hygiene“ were already existing (Oldenziel and Hård, 2013, p. 67). The science discourse nevertheless was important for enabling investment in freshwater supply. “Public authorities started to pay more attention to water supply once the association between diseases (such as cholera, typhoid and diarrhoea) and water (sanitation) was established in the mid-nineteenth century, through progress in research and bacteriology” (Prasad, 2008a, p. 7, see for England especially the Chadwick report of 1842 above: correlation between unhygienic housing conditions, poverty and disease).

Frevert points out that since the 1850s hygiene was considered the key to solve social problems, to integrate social outsiders and to reform social conditions. Hygiene therefore meant a set of rules which aimed at the conservation of the individual as well as social health, the morality, the prevention of causes of disease and the human improvement in physical and moral regards. (Frevert, 1985, p. 421) Hygiene can therefore be considered a social programme since the turn from the 19\textsuperscript{th} to the 20\textsuperscript{th} century which was supported essentially by the pillars of order and discipline. Little by little, the discourse of health and cleanliness expanded from the public to the private area and was an essential factor in the transition from a decentralised water supply system of wells and cisterns to a centralised water supply. (Spieker, 1996, pp. 113 f.; Hirschfelder and Winterberg, 2009, p. 123)

Hygiene as a ‘cultural paradigm’ (Bernhardt, 2005, p. 71) was asserted during the 19\textsuperscript{th} century in three phases:

1. the ‘extensive planation, drainage and sealing of the urban relief’ (to fight miasmas as well as to prepare for water pipes and canalization),
2. the ‘canalisation of water circulations’ (fresh water supply as well as sewerage),
3. the ‘habitual internalisation of the new hygienic standards’: “To be effective, urban infrastructure requires that citizens adjust their behavior and patterns of life to the

\textsuperscript{31} See above 3.3.
\textsuperscript{32} See above 3.3.
demands of the system.” (Hård and Jamison, 2005, p. 223) Consumption patterns had to be adapted to central water supply, cultural norms changed according to the bourgeois model from public to private, from being carried out collectively to individually (bathing and washing for instance were moved from the public space to private premises and later from outside the house into the house). (Bernhardt, 2005, pp. 79-80; Hård and Jamison, 2005, pp. 236-237)

Especially the lower classes were at the focus of educational programmes by the communities and the state. (Bernhardt, 2005, pp. 79-80; Frevert, 1985, p. 421) But: „The working and rural classes did not immediately climb on the bandwagon of personal hygiene. (…) frustrated sanitarians even went so far as to discuss the possibility not only of using ‘the strong authority of education’ but also of forcing the members of the lower classes to keep themselves clean. Thereby, they had two powerful institutions at their disposal: the school and the military.” (Hård and Jamison, 2005, p. 233) This highlights the ambiguity of the discourse on hygiene and its consequences, which were socio-political on the one hand and repressive on the other. (Bernhardt, 2005, p. 77)

“Not only were the proponents of hygiene driven by feelings of benevolence toward other groups in society but also, in their endeavor to improve public health, they also followed their own interests. If the members of the proletariat did not learn the elementary rules of hygiene, one middle-class observer wrote at the turn of the century, then not only they were at peril but also ‘we and our children’. The sudden and indiscriminate outbreaks of epidemics in many urban centers had made it clear that they did not follow class lines. In their fight against miasmas and bacteria, medical doctors and nurses entered schools and other institutions with a triple mission: to force their patrons to undergo certain health programs, to teach them proper behavior, and to make sure that assigned norms were followed.” (Hård and Jamison, 2005, p. 233)

Physicians and educators were the most important actors in the communication of the new values of hygiene. (Hård and Jamison, 2005, p. 229) Middle-class women on their mission to teach hygiene to their proletarian sisters, women’s associations and women who had worked as servants in middle-class households until their marriage to a skilled worker and who were interested in new values of hygiene served as cultural mediators (Frevert, 1985, pp. 421, 429, 446).

Social domains and instruments of the discourse
The discourse(s) on water and water supply were/are carried out in city councils and parliaments, in the civil societies, the media and the education system (school, military). Ideas were distributed by expert talks and publications, during congresses and political debates. The instruments of the discourse were manifold: reports, petitions, newspaper articles/letters to the editors, conferences with their lectures and proceedings, school books and instructions. (see e.g. Frevert, 1985, p. 434)

When the centralization of water supply started in the second half of the 19th century the discussion was led openly, mostly in newspapers. (See the letters Tabberner wrote to the Daily News in 1850) One of the main arguments was that water supply was a measure of necessary poor relief. Most of the time, the debaters were representatives of the middle-classes. But sometimes, there were also participants belonging to the lower classes: In Oldenburg, e.g., a trade unionist wrote a letter to the editor of the Oldenburger Presse on behalf of the glass makers in Oldenburg’s industrial suburb Osternburg. (See above 3.3;
Meyer, 2011, p. 54). However, most of the time the discussion was led by the wealthier who also had the advantage of the new system. They had the education, the knowledge, the networks and influence necessary. The target group was talked about, but not talked with. Deprived areas and rural communities were not part of regional supply systems sometimes up to the 1930s or later. (Hirschfelder and Winterberg, 2009, p. 124)

The citizens of Magdeburg in 1893 turned to a petition in their fight for better protection of their ground water and consequently better drinking water. In March 1893, they sent a petition of 45,000 signatures to the royal state ministry to ask for better protection against pollution of the Elbe water. Reports went to the district president. First Mayor Friedrich Bötticher convoked a conference of physicians and medical officers. However, the industry threatened with the reduction of jobs if the discussed measures would be taken. Therefore, new resources of ground water were looked for and the point of water withdrawal was transferred to the other, less polluted bank of the river. (Neumann, 2005, pp. 50–51)

The following year, the DVöG held its annual meeting in Magdeburg and took a stance to the situation in its Festschrift:

"Die Verunreinigung des Wassers, eines der größten Ströme Deutschlands, der Elbe, durch die salinischem Abwasser der Kali- und Soda fabriken an der Bode und der Saale, sowie durch die ebenfalls stark salzhaltigen Grubenwässer der Mansfelder Kupferschiefer bauenden Gewerkschaft drängt zur Lösung der Frage, ob Magdeburg, welches durch seine Lage an der Elbe groß geworden ist, welches seit Jahrhunderten sich mit gutem Wasser aus der Elbe versah, welches weder in der Stadt noch in der Nähe derselben einen brauchbaren Ersatz für das verdorbene Elbwasser sich verschaffen konnte, genötigt ist, zu Gunsten der Industrie auf das Elbwasser zu verzichten, ob es überhaupt darauf verzichten kann, in welcher Weise es sich die nötigen Mengen brauchbaren Trink- und Wirtschaftswassers aus weiter Ferne herbeischaffen kann und entweder auf seine Kosten oder auf Kosten der beteiligten Industrie herbeischaffen muß." (Quoted in Neumann, 2005, p. 50)

The people of Cardiff presented a petition to the General Board of Health in 1849 when almost 400 people died during a cholera outbreak. As it was stated, people were fetching water from the River Taff and the Glamorganshire Canal which both were contaminated with sewage. Local businessmen founded the Cardiff Waterworks Company in response to this petition in December 1849 and got permission to start the water supply in the following year. (De La Motte, Robin and Lobina, 2005, p. 211)

**Environmental consciousness**

Rise of *green discourse and green movement* in the post WW II period and the environmental debates starting in the 1970s: the earth is seen as a fragile “blue planet” with limited resources and limited sinks for absorbing waste and pollution. These debates made new social needs visible (Münch, 1993, p. 339). “Sustainable development” and “sustainability” become international norms discussed at all levels of governance. From this perspective, freshwater is one of the resources we need to better protect for current and future generations. New directives – in Europe especially the water framework directive and the waste water treatment directive – put pressure on more ecologically improved ways of water management. In some countries such as Germany, this discourse is linked to discourse on “water saving” (and effectively water consumption has fallen in Europe over the last decades due to more efficient appliances - washing machines, dishwashers, toilets etc.). Critics however diagnose that this water saving discourse can “flip” into a perception that water has
to be “cheap” and this risk is being fuelled by the appliances industry which wants to sell new products even if saving potentials are almost at their limit by now (Dobner, 2013, pp. 18 ff.).

On “saving water” as a shared cognitive frame see below the country contribution of Nadia vonJacobi and Margherita Fabbri on Italy.

Since the 1970s, first protest and marches of the public against public utility companies and waste management service providers in the neighbourhood took place. Until then protest and resistance occurred only rarely and isolated. (Münch, 1993, p. 344)

Hård and Jamison argue that there are similarities between the sanitation discourse of the 19th and the discourse on environmentalism in the 20th century:

“Concepts such as ‘natural’, ‘clean’, and ‘sound’ played central roles in both discourses. The sanitarians’ ultimate goal was to improve the level of health in the population by means of a more harmonious relationship between nature and human society. In filthy and disorderly surroundings, human beings would not fare well. If society was brought closer to nature - for example, by letting sunlight and fresh air into dark apartments - then citizens would not constantly be sick. Similarly, ‘purity’ was an ideal in the sanitary movement, as it is in environmentalism.” (Hård and Jamison, 2005, p. 226)

The similarities extend further towards the social background of members and actors:

“Both were primarily made up by members of the urban middle class. And initially, the hygiene ideas, like the environmentalism of our time, were largely articulated by established members of society. The most active proponents of the sanitary gospel were medical doctors, teachers, engineers, and professors. Because the members of these professions belonged to the same social circles as the city fathers, they found it comparatively easy to amass public support for progressive action.” (Hård and Jamison, 2005, p. 226)

Neoliberalism

Starting in the 1970s and partly in response to Neo-Keynesianism and the problems it faced (big government but persistent unemployment), neoliberalism gained ground as an utopian ideology of unconstrained markets – and as a practice, by a coalition with conservatives, who under the label of “security” advanced interests of their country (> cross link Mann, 2013: discussion of ideological, political and military sources of power in his volume 4). Due to this goal, privatisation of publicly owned companies became a major target on various levels (ideological: turns citizens into capitalists and customers; political: weaken trade unions and redistribute wealth). Along with public transportation, housing and energy, freshwater was one of the targets. With respect to social impact, neoliberalism is an elite discourse that aims at redistribution to elites/the wealthy and holds little space in its ideology for the marginalised (> on the organizational level pressure on water providers to increase water prices or to cut off the connection where people are unable to pay, and more generally view themselves as profit oriented entities rather than primarily as organizations with a complex communal responsibility).
General economic discourse on water

Global Water Discourse in Relation to SI (according to Langford and Winkler, 2014)
1936 Report League of Nations Health Organization: first manifestation of international concern with water supply and treatment
1972 Stockholm Declaration > water supply becomes a regular concern of international conferences
1977 Mar del Plata UN Water Conference: States set a target of universal provision by 1990 [not achieved]

Then period of “normative regression” (ibid., p. 249). Dublin Principle 1992 establishes prior focus on water as an economic value in all its uses (initiating the neo-liberal period in the water sector).

Is water a common or a commodity?

Juuti and Katko found indications in their study for something we could tentatively call a possible meta cognitive frame concerning the question if water is to be considered a common or a commodity (Juuti and Katko, 2005, p. 237). While in German speaking and Nordic countries water is regarded as “a natural resource which should ideally be supplied unpolluted and untreated, when possible” and therefore publicly-run water works are maintained, other countries like France or Great Britain are more likely to regard potable water “as a ‘manufactured good’ which regularly needs treatment before consumption.” Here seems to be preferred to point in the direction of privately owned water utilities. (ibid.)

This discussion, public vs. private, commodity vs. common, has been going on since the 19th century:

John Loude Tabberner, 1850:

“I know many are opposed to me in the views I have formed as to water not being a commercial, but on the other hand being a public property, and hold the diametrically opposite opinion, viz.: that it ought to be supplies to the public by trading bodies, under what they denominate the wholesome and equitable influence of commercial competition. In my past advocacy of the view I entertain, all motives, excepting fair and just ones, have been attributed to me by my adversaries. They say that I am about to establish an eight-headed monopoly, a long-armed centralization, a jobbing government control, and an irresponsible commission, and many other equally absurd and misnomered intentions they charge me with, and also those who hold similar views to myself; notwithstanding I stand by the views I published in 1847, an no one opponent has yet successfully advanced one reasonable argument against them.” (Tabberner, 1850, pp. 8-9)

“I then contended, as I now do, that water is a first element of life, and as such should be, with light and air, municipally considered and provided in all densely populated communities. These three elements of life are first attributes of man’s subsistence, without which it is impossible he can live. They are primary components which, [...] are ordained as means of vital power in sustaining animals and vegetable life, and to such beneficent ends they should be duly, abundantly, and freely applied; and not made the means of sordid, commercial, and national tribute, to the circumscription, indeed to the destruction of the poor man’s domestic comforts and health, and consequently his moral and industrial usefulness.” (ibid., p. 9)

“The absolute production of air, light, and water, does not require the labour, skill, and care of man. They are, a I have before said, first attributes of man’s subsistence, and
stand alone as the production of divine arrangements for the sustenance of animal and vegetable vitality. On the contrary, all other necessaries for man’s subsistence requires his own labour and skill to produce them, and as his labour and skill are his natural means whereby he is enabled to provide for all his natural and artificial requirements, and as the amount and quality of both the labour and skill of every individual vary, one producing more and another less, all articles, whether of food or otherwise, first dependent upon that labour and skill, should, under such commercial codes as should neither stultify the vigour nor destroy the buoyancy of industry, nor oppress social or political freedom, be subjected to that wholesome competition which legitimate demand and supply alone ought to regulate; consequently, I contend that it is the duty of all governments to provide such social arrangements as shall afford to man in due amount those first elements of subsistence, - air, light, and water – for the support of his life and health; and, on the other hand to provide such equitable national and commercial laws as shall best create and protect a mode and market of exchange for the disposition of all those surplus products which accrue beyond the first and natural wants of man, from the industrial application of his life and health. (ibid., pp. 9-10)

In their recommendations, Juuti and Katko condense their findings: “In the historical context, we have evidence that water services cannot be considered merely managing an economic good. Instead, all the requirements of water based on political, economic, socio-cultural, technological, environmental and legislative dimensions have to be taken into account in a balanced way. History is full of warning examples of the so-called ‘opening up’ of markets to international operators in the case of WSS (= water supply and sanitation, GCS) services, or failed one-fits-all solutions”. (2005, pp. 242-243)

The importance of this theme is also recognized in the European Water Framework Directive (2000), which starts as follows: “Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such.” (http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32000L0060&from=EN)

See also in 2.3, 3.5 and 3.9.

| Further references |
| Water: Common good or commodity? |
| See: Barlow, 2013, especially pp. 74-77 |

On the interaction and cultivation of common goods
See: Ostrom, 1990; Stollorz, 2011

From providing urban livelihood to the Human Right of Water
With industrialisation and consequent urbanisation, governments on the municipal and national level took on increasing responsibility (not just “police order” but also various social functions: education, housing, basic needs – “Leistungsverwaltung” and “Daseinsvorsorge” in Germany, see below 3.5). Accordingly, the regulation of water supply operations should be complemented by social policies explicitly pursued by the state (Prasad, 2008a, p. 5). From an ethical perspective, this reflects the disruptive effects of industrialisation on social order and the increased interdependence of citizens in industrial urban centres. The discourse on second generation human rights, in addition to the classic liberties of the first generation, suggests the
governments’ duty to respect and promote these economic and social needs as a new class of rights (see Universal Declaration of Human Rights 1948 and the International Covenant on Economic, Social and Cultural Rights 1966 > cross-link capabilities approach and justification of “positive freedoms”). Universal access to safe, sufficient and affordable water first was interpreted as implied by these rights (Barlow, 2008). In 2010, the UN General Assembly officially recognized the UN right to water as a right on its own and not just as an implied right. In 2013, the implementation of the UN right to water became the topic of the so far largest transnational referendum in the EU (see Barlow, 2013). In parallel, due to the emergence of these social norms and discourses, there is a large increase in government expenditure, partly fuelled by Keynesianism (> crosslink Mann, 2013, development of modern nation states).

Millenium Development Goal 2000: half the proportion of people without sustainable access to safe drinking water (See: http://www.un.org/millenniumgoals/environ.shtml)

“Target 7.C: Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation

- The world has met the target of halving the proportion of people without access to improved sources of water, five years ahead of schedule.
- Between 1990 and 2012, 2.3 billion people gained access to improved drinking water sources.
- Over a quarter of the world’s population has gained access to improved sanitation since 1990, yet one billion people still resort to open defecation.
- The vast majority – 82 per cent – of people practicing open defecation now live in middle-income, populous countries.
- In 2012, 748 million people remained without access to an improved source of drinking water.
- Despite progress, 2.5 billion in developing countries still lack access to improved sanitation facilities.” (Source: http://www.un.org/millenniumgoals/environ.shtml)

MDG critics (see Langford and Winkler, 2014, pp. 250 ff.):

- Universalism dropped
- Affordability is not included, although this factor is of special importance for the poor because water is highly price inelastic, and accordingly must be purchased regardless of expenditure consequence
  - Empirical analysis, including of Eastern European countries: Fankhauser and Tepic, May 2005
- Waste water issues are not included
- Inequality and unequal access are to be considered: for disabled, slum dwellers, ethnic minorities
  - JMP reports that 84% of population without access to water live in rural areas, (Langford and Winkler, 2014, p. 254)
- Short term investments: included hand pumps rather than infrastructure (ibid.)
- Causal influence of norm:
Overall aid commitment for water and sanitation doubled in absolute terms between 1997 and 2008, but only few donors targeted for basic water and sanitation systems with a significant proportion (ibid., p. 252)

### Possible questions of analysis chapter 3.4

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<td>What was the role of cognitive frames in social innovations? How did they relate to institutions and social networks?</td>
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### 3.5 Rules, norms, and policies

#### Questions

Were there any policies (in the thematic field or generally) that contributed to the social problem? Were there any legal / constitutional triggers or framework conditions that contributed to the social problem? Were there any other rules or norms that contributed to the social problem?

Were there any policies (within the relevant thematic field or elsewhere) that fostered or inhibited the social innovation, e.g. by altering its capacity and function to tackle marginalisation? Were there any legal / constitutional triggers or framework conditions that fostered or inhibited the social innovation? Were there any other rules or norms that fostered or inhibited the social innovation?

To what extent have rules, norms and policies contributed towards systemic change through social innovation in this field of study?

Is ‘tackling marginalisation’ (either via poverty reduction, social inclusion, etc.) a central, explicit objective or outcome of policies or other rules and norms? Why/Why not?

Did the social innovation build on or recombine existing policies, norms and rules?

Were relevant policies located on a regional, national or international (EU) level? Can different influences of different policies be detected across different regions?

At what stage of the development process did supporting policies become most relevant?

What are the diffuse and unintended effects of policies and/or other rules and norms in this field of study?

Did existing policies change as a consequence of the social innovation? Did other rules and norms change as a consequence of the social innovation? How was this achieved, and by whom? Were those particularly powerful?

How did policies or other rules and norms relate to social networks relevant for the social innovation?

How did policies or other rules and norms represent or relate to public discourses and narratives? How was policy making influenced by them? Vice versa, how did policies and other rules and norms influence public discourse?
Summary of key points

- Policies on public health and, later, environmental protection guided and accompanied the process.
- There were/are different regulations in each country. Many aspects were dealt with on the local level.
- German concept of *Daseinsvorsorge*
- Social Policy in the water sector
- Since the 1960s: international cooperation
- Since the 1970s: EC/EU principles and regulations on water

Content

National Level

Rules, norms and laws concerning fresh water and its distribution to the people were dealt with within the national frame even though it not necessarily was laws of the nation state which were applied. This changed slowly since the 1960s when international cooperation and – still later – EC/EU regulation started.

Germany

Due to the historical development, the principle of federalism and a strong principle of subsidiarity, water policy in Germany is a matter of the Länder (states). Therefore, each German state had its own regulation until after WW II.

Different German monarchs established laws on water in general or on material used for water supply (e.g. lead pipes). Carl Eugen, duke of Württemberg and Teck, already in 1790 issued a law requiring that pipes leading from sources to wells had to be made of iron or ceramics to avoid the danger arising from lead pipes to the health of people or animals. (Müller, 1981, p. 73)

Württemberg was also the first German state where a Royal Building Authority on Water Supply was created and a civil servant engineer (‘Staatstechniker’) for public water supply was recruited in 1869. He was responsible for the technical advice of communities and corporations. This step was trend-setting as for the first time a state signaled that it was willing to support smaller communities financially and ready to consult them in fulfilling their municipal self-government responsibility. Bavaria followed this path in 1878. (Feldkamp, 2009, p. 28)

By contrast, the state Baden took another path in 1876 when it supported the building of cooperatives and entrusted the already existing water and cultural inspection with the supervision of the water supply two years later. (ibid.)

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33 If soft water is running through lead pipes it becomes contaminated. The consequences are raised infant mortality, a higher degree of premature births and chronic plumbism. (Sedlak, 2014, pp.105-107. On lead pipes see also: Juuti and Katko, 2005, p. 38).
According to Blackbourn (2006), water laws were revised in all German states at the end of
the 19th and the beginning of 20th century:
- Baden 1899, 1908
- Württemberg 1900
- Bavaria 1908
- Saxony 1908
- Prussia 1913

By the Prussian Law on local rates (Kommunalabgabengesetz) of 1893 the requirement to
hook up was established in Prussia. All properties had to be connected to the public supply
and disposal networks. Everybody had to take her/his potable water from the network and
dispose it through the network. This created a community of almost egalitarian customers,
helped the authorities to sanitaze the city, and ensured the profitability of the system.
(Bernhardt, 2009, pp. 91-93)

Around the turn of the century, national rules were prescribed concerning water supply
utilities (Witzler, 1995, p. 67 fn. 48):
- 13.01.1899: Principles on the cleaning of surface water by sand filtration
- 16.06.1906: Instruction on the set-up, the operation and the surveillance of public
water supply utilities which are not serving solely technical purposes

Water Laws in the GDR (Neumann, 2005, pp. 21, 64):
- 28.8.1952: Ordinance on new forms of organisation in the water economy -> many
organisations on water or territory were dissolved
- 1965: Law on the indemnity of water (Wassersicherstellungsgesetz) (WasSG)
  Accompanying ordinance (Regelwerk) (RW WasSG)

1957/1960 Federal Water Act: harmonised the different regional water laws dating from
imperial times. Up to 1962 it was supplemented by laws of the Länder to adjust to regional
distinctions. From then on water supply became a task of municipal self-subsistence. It can be
delivered by the municipality or obtained from third parties. (Feldkamp, 2009, p. 130)

Drinking water ordinance in Germany 1975/76, 2001/03, revised in 2013
The drinking water ordinance has been revised several times to implement the stricter EC/EU
Directives (e.g. 2000: Water Framework Directive): In 1975, demands of the legislation on
epidemics were incorporated. Water reached the status of food which has to be delivered
germ-free. Therefore, critical values and benchmarks for germs and chemical substances were
declared. (Feldkamp, 2009, p. 137)

http://www.dvgw.de/wasser/recht-trinkwasserverordnung/ (DVGW e.V.):
Overview on:
- Drinking water ordinance
- National law
- Federal law
- European law

Water Management Act, Amendment 2010:
See: Knopp, 2010
Great Britain

“The corruption of the water is an offence at common law, and was early the subject of a statutory provision. In the earlier periods the power of legislature was directly exercised for the abatement of nuisance.” (Chadwick, 1842, p. 291)

- Public Health Act of 1848: local authorities got the power to improve water supply; it became compulsory to set up a Local Board of Health when mortality was higher than 23 per mille. (De La Motte, Robin and Lobina, 2005, p. 205)
- Metropolis Water Act of 1871: potable water in London had to be analysed with regularity (Feldkamp, 2009, p. 43)
- The Public Health Act of 1875 made municipalisation easier. (De La Motte, Robin and Lobina, 2005, p. 206)
- 1963: “Act creating River [basin] Authorities” (ibid.)
- Water Act of 1973 created ten Regional Water Authorities, responsible for all uses of water in England and Wales
- 2003: Water Act: reforming the regulatory structure and providing an independent consumer body (De La Motte, Robin and Lobina, 2005, p. 206)
- 2010: Flood and Water Management Act: tariff structure should be adapted so that social tariffs for low-income households could be cross-subsidised by tariffs paid by better-off customers.

(See above 2.3 and country contribution of Daniel Edmiston)

France

- Public Health Act of 1902
- Law of 2005 prohibits disconnections of water customers due to unpaid bills
- Water Law 1772 from 2006: all users should benefit from water at acceptable costs

(See above 2.3)

Finland

- Two laws by the Finish Government enable the setting-up and organisation of water supply in Finland. These were the Local Government Act of 1876 and the Health Decree of 1879. The Local Government Act made the local municipalities independent governments which had possibilities and resources to organise infrastructure services based on municipal ownership. Both laws together pushed the cities to plan and later to implement water and sewerage systems. (On these and the other laws see in more details the country contribution of Jari Aro below)
- Modern water pollution control started with the Water Act in 1962. Communities and industries were forced to apply for a permit to discharge their wastewaters. These permits became stricter parallel to the development of technology.
- The Wastewater Surcharge Act enacted in 1974 led to a more thorough treatment of wastewater. The costs of providing sewerage services by water and sewage works were covered earlier largely by municipal taxes. Now, the act allowed the utilities to make more use of their customers to cover the costs. This resulted in an increase of the price of water services.
- The Water Services Act in 2001 wanted to improve the economic efficiency and planning of Finnish water services. Therefore, it imposed that water utilities had to use
As a consequence, water services have been separated from the municipal organisation and transformed into autonomous municipally-owned companies or joint-stock companies.

**Hungary**
- The Act on Water in 1885 prohibited to contaminate water. (Péter, 2005, p. 93)
- In 1964, a Water Act was passed that provided the basic framework for water pollution control until the 1990s (details Nunn, 1996b, p. 141). (See above 2.3 and below the country contribution of Attila Havas.)

**Netherlands**
- In 1901, state supervision of public health, including the supply with potable water, was regulated by the *Gezondhetswet*, a public health law. (De La Motte, Robin, 2005, p. 144)
- The *Wet tot de beschikbaarheid van gelden voor den aanleg van drinkwaterleidingen* (Act on making funds available for creating drinking water supplies) was enacted in 1919. “Central government granted loans (at a maximum of 4.5% interest) to provinces and municipalities to create (regional) water companies.” (van der Meer, 2005, p. 59)
- In 1957, the Water Supply Act (*Waterleidingswet*) was enacted which regulated the fresh water supply and the supervision of waterworks companies, e.g. it granted provincial authorities the power to induce changes in waterworks companies and “required the establishment of larger companies”. (Juuti and Katko, 2005, p. 47; see below the country contribution of Martijn van der Linden on water supply in the Netherlands)

**Italy**
On Italian laws and policies see below the country contribution of Nadia von Jacobi and Margherita Fabbri.

**The concept of “Daseinsvorsorge” in Germany**
Industrialisation and urbanisation led to a tremendous increase in the scope of municipal duties and a change in the self-understanding of municipalities (Blotevogel, 1990, p. XIII). The period from the end of the 19th century to the end of Weimar republic can be considered as the time of origin and heyday of communal public services and service-oriented city administration carried out by a strong municipal self-government (Reulecke, 1995b, p. 17). Because of social and hygienic aspects, some branches of service-oriented city administration developed earlier or changed drastically, for example the supply with water and electricity, the disposal of sewage and garbage, the expansion of health care and the municipal regulation of the housing and labour market (cf. Fischer, 1995; Krabbe, 1990; Reulecke, 1990; Witzler, 1995; Kuhn, 1998; Zimmermann, 1991).

Since the mid-19th century to the end of WW I, the scope of municipal duties expanded to a great extent and a modern administration developed. The emerging modern service-oriented city administration took care of a public welfare of broad understanding, furthered the expansion of urban techniques (supply of water and energy, sewage systems, public transport etc.) and took first steps to organise the labour and housing market. Often starting as a reaction on heavy problems, e.g. with the extension of canalisation as a means to prevent

The term municipal socialism was created to describe the growing number of such facilities under the direction of the municipality. The manifestation of this term varied heavily from city to city, but as a catchphrase it describes the economic and social objectives of them. Running these facilities under municipal direction entrance requirements and tariffs could be determined, which allowed broad strata and finally the whole urban population to participate on public services. This applies for tariffs on water and electricity as well as for entrance fees for municipal museums. (Kühl, 2001, pp. 15 f., 20)

“In their endeavor to improve public health, medical doctors and teachers successfully enrolled city authorities. Engineers did the same within the area of public works. From the middle of the 19th century onward, the growing dependence on technical systems for urban life was in many cities accompanied what used to be called ‘municipal socialism’, a centralization of power and competence into the hands of the city fathers and their staff. In this process (...) more and more tasks were delegated from the individual citizen to local authorities, a process that generally went further in Europe than in the United States.” (Hård and Jamison, 2005, p. 222)

Besides hygienic and profit considerations Stremmel points out that these measures were meant to integrate the lower classes into the social order of the German Empire. (Stremmel, 1994, p. 244)

Gustav Beutler, mayor of Dresden, stated at the first conference of German cities in 1903: “Until now … ‘municipal socialism’ has been mainly limited in Germany to providing water, gas, and more recently electricity, and this limited intervention has hardly been perceived as socialism, because everyone gradually accepted as self-evident the fact that such indispensable necessities of life, which could in addition only be provided with the aid of public land and facilities, would be delivered by the city itself.” (Quoted in Lenger, 2012, p. 185)

In addition, first standards of a municipal provision with basic supplies emerged which became an expression of urban life. These were not only claimed by the inhabitants of the city but also formulated to distinguish the city from rural areas. Institutions of the emerging modern service-oriented city administration therefore represented an offer available to an increasing number of urban inhabitants, especially after 1871. (Matzerath, 1990, p. 11; Langewiesche, 1989, p. 634)

34 Fischer (1995) gives an insight into the discussions on the municipalisation of gas and water supply as well as litter service.

35 For the development of this process in the cultural sphere and its effects there see Schimpf (2007).
WW I led to a further expansion of the service-oriented city administration, especially to satisfying vital, basic needs such as food, clothing, combustibles and housing, by municipal offices established for these purposes. Basic needs which earlier used to be market driven now fell under the full competence of the city administration (Rudloff, 1998, p. 971).

In the 1990s, institutions of *Daseinsvorsorge* became heavily debated in Germany and many communities turned to privatisation of former municipal companies. (See on this process in the case of water management and especially the privatisation of the *Wasserbetriebe* Berlin: Hüesker, 2011)

**Social Policy: access and affordability**

Social policy plays a major role in providing universal and affordable access to freshwater.

- For example, cross-subsidies have been used already in 19th century London to invest in the infrastructure and make water available for the poor (Prasad, 2008a, p. 18).
- The frequent picture: the poor cannot pay, the rich are unwilling to invest, and therefore social policy becomes important to deal with access and affordability
- Social policies include: income support, tariff adjustments for the poor (OECD, 2003).
- An important side topic here is cross-subsidy from the urban to the rural domains

Social policy can be made an objective for the provider, no matter of the ownership being private, public, or mixed. However, this possibility depends on strong government and regulation, and therefore typically does not work where government is (relatively) weak, dependent on foreign investment etc. (Example Cochabamba Crisis following a 200% water price increase by private water provider Suez)

“Most of the developed economies have introduced some sort of social policies in order to deal with the problem of affordability. The most widespread forms of such social policies are income support (housing benefits, funds, charities, tariff rebate, flexible payments, vouchers) and tariff adjustment (increasing block tariffs [IBT], cross-subsidies, special tariffs for low-income households).” (Prasad, 2008a, p. 18)

While water in the socialist era in Hungary most of the time was free of charge, the country now, according to Prasad, pursues a universal social policy where rich and poor profit from low tariffs. (Prasad, 2008a, p. 27) See on this in more detail the country contribution by Attila Havas.

**EU level**
The quality of drinking water is regulated on a national (drinking water ordinance) and EU-level.

European Declaration on Water, 6 May 1968: the Council of Europe adopted the declaration in October 1967, and formally issued it in Strasbourg on 6 May 1968. It was a declaration of principles for the proper management of water, set forth in 12 articles.

Standards for side products of chlorination of drinking water were set with this directive. (Sedlak, 2014, p. 104)


Just recently, from 23-24 March 2015, the 4th European Water Conference convened in Brussels to discuss and to evaluate the implementation of the Water Framework and Floods Directives.


Drinking water norms and health/safety
The EU-Drinking water directive (see above) has to be implemented at the country level via national drinking water directives: these regulate the minimum quality that urban water providers have to meet. Via effective drinking water norms, the health aspect of drinking water provision is protected (>crosslink: health as a capability).

The German drinking water norm (Trinkwasserverordnung) from 2001 sets limiting values (“Grenzwert”) of chemical or biological elements that are allowed for drinking water. The adherence of these limiting values is regularly tested, and in this way a high drinking water quality is ensured. The responsibility of the urban water provider ends at the connection to the house, meaning that health aspect of the drinking water is fully ensured only if also in the house itself health conducive infrastructure exists (for example no lead pipes). (>cross-link social housing).

Via the national drinking water norms, a central concern of the 19th century social reformers in relation to urban freshwater supply is ensured and protected.

In Italy, the European Water Framework Directive from the year 2000 has been implemented by means of a national law from 2006 (decreto legislativo 3.04.2006, n. 152). Since then, data on the composition of public water sources has been issued and made accessible for the public by the ideographic district. Therefore transparency as to the quality of public water has improved.

Arguably, “piped access to water” has become an implicit norm, enforced by drinking water norms nationally, and globally by the MDG discourse (“improved sources” of drinking water, see below, also Langford and Winkler, 2014, p. 256)

For information and statistics on Water, WISE - The Water Information System for Europe – may be a starting point. It is a partnership between the European Commission (DG Environment, Joint Research Centre and Eurostat) and the European Environment Agency.
International Level
International commission for the protection of the Rhine

- Convention on the International Commission for the Protection of the Rhine against Pollution (Berne, 29 April 1963)
- Convention on the Protection of the Rhine against Chemical Pollution (Bonn, 3 December 1976)
- Convention on the Protection of the Rhine against Pollution with Chlorides (Bonn, 3 December 1976)
- Additional Agreement concerning the Convention on the International Commission for the Protection of the Rhine against Pollution signed in Berne on 29 April 1963 (Bonn, 3 December 1976)
- Additional Protocol to the Chlorides Convention (25 September 1991)

In 1976, the EU/EC joined the Rhine Water treaty of 1963 (Raadschelders, 2005, p. 20).

Note: for rivers crossing national borders, the European Water Framework Directive, based on the principle of river basin management, requires the set-up of transboundary river commissions, for example also for the Danube.

Global level/United Nations
Human Right to Water, and - preceding this - the emergence of the idea of a government’s obligation to meet freshwater supply for its citizens (“Daseinsvorsorge”, see above).

Trade agreements (if they do not include an exemption clause for drinking water provision as a service under national protection outside of the trade agreement and associated liberalization demands > see current EU-US negotiations).

In 2010, United Nations by resolution 64-292 declared a human right to safe and clean water and sanitation. While this right seems to be self-evident considering biological needs, the question is what this means socially. At the time of the declaration, 884 million people lacked access to safe drinking water. However, this is to be considered an already improved situation after the United Nations had declared the years 1980 to 1989 the International Drinking Water Supply and Sanitation Decade. 2003 was the International Year of Fresh Water. While the International Decade for Action “Water for Life” lasts from 2005 to 2015 some progress can already be reported:

Millenium Development Goals of the United Nations (see also above in 3.4)

“Target 7.C: Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation
- The world has met the target of halving the proportion of people without access to improved sources of water, five years ahead of schedule.
- Between 1990 and 2012, 2.3 billion people gained access to improved drinking water sources.
- Over a quarter of the world’s population has gained access to improved sanitation since 1990, yet one billion people still resort to open defecation.
- The vast majority – 82 per cent – of people practicing open defecation now live in middle-income, populous countries.
- In 2012, 748 million people remained without access to an improved source of drinking water.
- Despite progress, 2.5 billion in developing countries still lack access to improved sanitation facilities.”


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3.6 Resources

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Please describe and compare different forms of funding that were used to finance the social innovation (e.g., own assets of target group, donations, membership fees, grants, social investments, regular loans, public funds, etc.)? For what purposes were these resources deployed (e.g., machinery, commodities, advisory, etc.)? Were other forms of resources (voluntary work, social networks, natural resources, etc.) relevant for the social innovation? Please describe their role. Did those resources change during different phases of the diffusion process or different background conditions?

<table>
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<th>Summary of key points</th>
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- Water is an investment challenge: especially, where does the capital needed for infrastructure creation come from?
- Once a freshwater infrastructure is in place, it is in principle a highly profitable “blue gold” and hence attracts both public and private interests with a view to extracting profits.
- Different financing possibilities were applied.
- Resources were deployed for construction, extension and maintenance of the infrastructure, acquisition, maintenance and modernization of machines and plants.
- Water as a natural resource is core element of the social innovation.

| Content |
Financial resources were and still are an important factor in the introduction and maintenance of the fresh water supply, as water infrastructure set up and maintenance is costly. Regardless of this, many cities in Europe took up the task by themselves and had to take out loans to finance the undertaking. Political discussions and economical questions therefore were accompanying the set-up of waterworks in many cities and communities. (Lanz, 2005, pp. 80-81; Hård and Jamison, 2005, p. 240) The literature, however, is rather reluctant to further go into detail on the subject. (For a rather detailed contemporary account see Steuer, 1912, pp. 63-97)

Loans or public funding
Normally the investments were financed by regular loans or public funds. The difference lies mainly in the status of the provider, being private or municipal. Municipalities would also be able to issue bonds to get enough money for the projects. (Steuer, 1912, p. 83) Cities were often willing to run into debt for the setting up of the water supply and sewerage infrastructure (see Brown, 2000, especially the graphs and tables pp. 253-257). The healthiness of the citizens would increase their efficiency for their own as well as for public affairs, stated Dr. Erich Richter, medical officer of health at Dessau in Saxony-Anhalt in
1901. In his opinion, the capital spent on behalf of public health would bring in high interest.  
(Quoted in Stippak, 2010, p. 163)

Also, insurance companies helped to get together the funding – either be lending money or by paying contributions (see below). When the water network was set up, user charges were collected for connecting to the net and the water price could be regulated to bring in new funds. That city administrations often included the costs for underground civil engineering for water supply and sewage systems in their budget for public health, demonstrates the meaning and importance of the subject to contemporaries. (Witzler, 1995, p. 77) To lower the costs some communities possessing large forests carried out an extraordinary logging to increase their own capital. Others required the inhabitants to do labour service to decrease the labour costs. (Steuer, 1912, p. 94)

Other resources for water supply investments come from taxes and to some extent from private sector investment as well as foreign aid (especially in a developing country context). Private sector investment in the water sector worldwide:


“Today, in the industrialized countries, public investment is important in building and maintaining infrastructure. For example, America has set up a revolving fund for municipalities to borrow from, 33 per cent of capital investment costs in Germany are financed by the central government, even in England and Wales, with its fully privatized firms, 9 per cent of capital investment comes from government subsidies, and in France private companies are subsided through a general taxation on consumers.” (Prasad, 2008a, p. 20)

Cooperatives
Water cooperatives relied on their own assets or tried to receive loans. Prices had to cover the costs.
The water cooperatives which developed in Finland after 1901 depended on prices covering the costs till 1950. They usually were consumer-managed and received no financial support from the government. This changed after 1950 when municipalities and the government started to support water supply by granting loans and subsidies. Nowadays, public financial support varies heavily as municipalities follow quite different policies in this matter. (see the country contribution of Jari Aro below)

The Nederlandse Waterschapsbank
Since the 12th century water boards have existed in the Netherlands. These cooperatives consisting of elected representatives had to deal with water management, especially with flood protection and drainage. What is interesting in this respect is the fact that they are allowed to raise taxes to finance their tasks. (Kirchner, 2015)

36 „[j]e gesünder die Bürger einer Stadt sind, desto größere Leistungsfähigkeit haben sie für ihre eigenen und die öffentlichen Angelegenheiten. Das Kapital, das im Interesse der öffentlichen Gesundheit aufgewendet wird, bringt reiche Zinsen.“
In 1954, the Nederlandse Waterschapsbank (NWB Bank since 2009) was founded by the Dutch water boards. Discussions on the need for such a bank started already in 1939. Major investments were required and the water boards thought of pooling their resources and possibilities. The decision was finally taken in 1952, the bank went into operation in 1954 and “significant capital transactions were soon effected.” (NWB Bank, 22.04.14) In the beginning, the bank raised money for the water boards (flood defence and waste water treatment). Today the bank is operating on the international capital markets and financing “municipal authorities, housing corporations and healthcare institutions” (NWB Bank, 22.04.14). See also the country contribution of Martijn van der Linden below.

Insurance companies
Finnish fire insurance companies financed the building of waterworks with advantageous loans in the second half of the 19th century. The traditionally wooden houses in Finland easily caught fire. High-pressure waterworks were a possibility to provide the sufficient amount of water for fire fighting. Therefore, the insurance companies had an interest in helping to finance the setting-up and expansion of water works and networks. (see the country contribution of Jari Aro below)

Bavaria set up a fund from which poorer communities could receive up to 25% of the building costs for their water supply. This fund was fed by contributions of the fire insurance companies. (Steuer, 1912, pp. 29 f.) A similar solution was found in some parts of Prussia. (ibid., pp. 36-37, 39)

Support of rural areas
The development of water supply in rural areas often was delayed as it was difficult for small communities to handle the costs of the project to begin with, knowing that the water works would probably not be able to break even.
Württemberg was the first German state that supportively intervened in the water supply sector. First plans were made in the late 1860s, especially with regard to rural development, and a Royal Building Authority on Water Supply in Württemberg was erected. In the 1870s, the Württembergian state supported rural communities financially in building water supply services. (ibid., p. 27) Bavaria followed the organisational example but set up a fund from which poorer communities could receive up to 25% of the building costs. This fund was fed by contributions of the fire insurance companies. (ibid., pp. 29-30) A similar solution was found in some parts of Prussia. (ibid., pp. 36-37, 39)

In France, cross subsidies from urban to rural areas helped to finance the net extension to the countryside. “Traditionally the French state provided subsidies to the ‘syndicat d’eau’ to construct water systems, especially in rural areas. These subsidies were accorded with the framework of the Law on Public Health of 1902. They arranged between 50 and 80 per cent of total investment and the rate of subsidy was a function of the total cost of the construction and operation and the number of population. For example, in 1939, access to piped water was almost universal in urban areas, but it was only 25 per cent in rural areas. Consequently, a special fund was created in 1954 aimed at increasing access to water in the rural areas (Fonds National pour le Développement des Adductions d’Eau). Public fountains were cross-subsidized by individuals who wanted to have water connected in their residences and also by the industries. It should be remembered that around 50 per cent of the total water networks in France were constructed in the period 1965-80.” (Prasad, 2008a, p. 18)
In the Netherlands, the central government granted loans at a maximum of 4.5% interest to provinces and municipalities between 1919 and 1923 to create regional water companies. (van der Meer, 2005, p. 59)

**Water tariffs between municipal budget and social policy**

City authorities in the late 19th and early 20th century learned that building up and running of supply systems would not only create costs but could also become a way of making profit. This was a contradiction to the argumentation that in many cities had led to municipal infrastructure in the first place. Thus, representatives of public health like Georg Varrentrapp did not stop to advert to water to be a public good, which should be available to all people like the air. Only via the free supply of water would the lower classes have enough access to water and stay clean. (Jellinghaus, 2006, p. 236)\(^{37}\)

When municipalities took over the water works or set them up in communal hand, from the beginning tariffs which covered the costs for the supply on the one hand (costs were/are very different depending on the local situation) and were adapted to the socioeconomic situation of the customers on the other hand had to be developed. (Steuer, 1912, p. 98) But since the end of the 19th century the tendency to charge more on water grew in order to generate revenues for further extension and maintenance of the water grid, for example to cross finance drainage, canalisation and water treatment which were always deficient (Schott and Skroblies, 1987, p. 84) or to serve other budget items (Steuer, 1912, pp. 129 f. with examples).

Meyer points out in her study on the city of Oldenburg that the municipalisation of the former private infrastructure utilities in Oldenburg resulted in a financial surplus, which was used for depreciation and new investments on the one side, but on the other side were sometimes paid to the city treasury and were available for other projects. (Meyer, 2011, p. 329)

The following

\(^{37}\) On Varrentrapp see above 3.3.
Table 3 and Table 4 show comparisons between expenditures and proceeds in German cities and rural communities in 1912. In all cities the proceeds were higher than the expenditures, mostly double or threefold however in some of the cities the difference was the tenfold and more.
Table 3: Comparison of the total expenditure per m³ with the proceeds per m³ paid water (in pfennig) (in German cities in 1912)

<table>
<thead>
<tr>
<th>Cities</th>
<th>Total expenditure (in Pfennig)</th>
<th>Proceeds per m³ paid water (in Pfennig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erfurt</td>
<td>9,8</td>
<td>16,2</td>
</tr>
<tr>
<td>Mainz</td>
<td>9,3</td>
<td>20,6</td>
</tr>
<tr>
<td>Spandau</td>
<td>7,5</td>
<td>16,5</td>
</tr>
<tr>
<td>Kiel</td>
<td>6,8</td>
<td>19,3</td>
</tr>
<tr>
<td>Leipzig</td>
<td>3,5</td>
<td>13,9</td>
</tr>
<tr>
<td>Stuttgart</td>
<td>3,5</td>
<td>16,9</td>
</tr>
<tr>
<td>Plauen</td>
<td>3,4</td>
<td>16,5</td>
</tr>
<tr>
<td>Brunswick</td>
<td>3,4</td>
<td>10,7</td>
</tr>
<tr>
<td>Essen</td>
<td>3,3</td>
<td>6,6</td>
</tr>
<tr>
<td>Freiburg i. Br.</td>
<td>0,8</td>
<td>8,9</td>
</tr>
<tr>
<td>Munich</td>
<td>0,8</td>
<td>4,7</td>
</tr>
<tr>
<td>Augsburg</td>
<td>0,7</td>
<td>3,3</td>
</tr>
<tr>
<td>Mannheim</td>
<td>3,0</td>
<td>19,3</td>
</tr>
<tr>
<td>Hanover</td>
<td>2,9</td>
<td>16,9</td>
</tr>
<tr>
<td>Breslau (Wrocław)</td>
<td>2,7</td>
<td>14,5</td>
</tr>
<tr>
<td>Strasburg</td>
<td>1,7</td>
<td>13,5</td>
</tr>
</tbody>
</table>

Source: Steuer, 1912, p. 98

In rural communities on the contrary (see table below), the proceeds were lower than the production costs. Steuer explains this by the low local appreciation of fresh water and the meagre financial means of the majority of the population. The difference was to be compensated by other proceeds of the community or by shares in the costs. (Steuer, 1912, p. 99) However, the table shows also, that productions costs were a lot higher (sometimes more than tenfold) in rural than in urban areas. The set-up of the infrastructure was much more expensive there than in densely populated areas and the overheads had to be paid by a lower number of households.

Table 4: Comparison of the total expenditure per m³ with the proceeds per m³ paid water (in pfennig) (in rural communities of Germany in 1912)

<table>
<thead>
<tr>
<th>Rural communities</th>
<th>Production costs (in Pfennig)</th>
<th>Proceeds per m³ paid water (in Pfennig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zornheim</td>
<td>71</td>
<td>43</td>
</tr>
<tr>
<td>Nierstein</td>
<td>67</td>
<td>49</td>
</tr>
<tr>
<td>Oberolm</td>
<td>66</td>
<td>39</td>
</tr>
<tr>
<td>Essenheim</td>
<td>65</td>
<td>41</td>
</tr>
<tr>
<td>Selzen</td>
<td>53</td>
<td>37</td>
</tr>
<tr>
<td>Wallertheim</td>
<td>44</td>
<td>32</td>
</tr>
<tr>
<td>Gau-Heppenheim</td>
<td>38</td>
<td>30</td>
</tr>
<tr>
<td>Wolfsheim</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Flonheim</td>
<td>35</td>
<td>18</td>
</tr>
<tr>
<td>Eppelsheim</td>
<td>31</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Steuer, 1912, p. 99
The trend to use municipal utilities to make profits for the city treasury in Germany continued during the years of the Weimar republic and the Nazi era. (Münch, 1993, p. 343) After WW II, the need for investments in the water sector was high. Because of the Great Depression, the years of war and the subsequent post-war era pipes had hardly been replaced. (Feldkamp, 2009, p. 131) Financing requirements were high and coverage difficult. The DVGW (Deutscher Verein für das Gas- und Wasserfach) published a study in 1954, which estimated the need at around 6 billion DM. The law on investment assistance, inured in 1951, had not made things easier. (Feldkamp, 2009, p. 103)

There were different ways to set up tariffs for the water consumed. Usually a distinction was made between the amount of water consumed by households and by industry. The way in which consumption was taken as a basis varied too. Possibilities included estimation, daily maximum or the use of water meters. (Steuer, 1912, p. 104)

Based on this different kinds of tariffs were developed:

- **Flat rate**: all customers or all inhabitants (water tax) paid for the consumed water. This was mostly usual in rural areas where water was billed per connection or per tap per year. (ibid., pp. 106-107) It was possible to socially pattern this tariff if it was calculated on the basis of earnings. (ibid., pp. 109-110) Also, it could be connected to the rental value of the apartment or property, to the number of rooms or the floor expanse. (ibid., pp. 117-121)

- **Schedule of fees**: constant costs were allocated according to presumed consumption (fixed charge) and the variable costs according to real consumption (volumetric charge). This tariff, too, had many possibilities of elaboration as it could be connected with the number of properties or rooms within the property, the diameter of the water meter, the value of the fire insurance or the rental value of the apartment. (ibid., pp. 123-125)

- **Water metering fees**: each m³ was billed with a fixed price. More often the fees were staggered by borough or amount, sometimes in favour of large consumption (e.g. Hamburg). (ibid., pp. 110-111, 122)

The following example of Magdeburg shows the application of different tariffs which resulted in different costs.

<table>
<thead>
<tr>
<th>Year</th>
<th>Assessment basis</th>
<th>costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1859</td>
<td>Rooms inhabited</td>
<td>22.5 silver groschen per room</td>
</tr>
<tr>
<td>1878</td>
<td>Introduction of water meters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Up to 80 m³</td>
<td>24 Mark/quarter of the year</td>
</tr>
<tr>
<td></td>
<td>80-200 m³</td>
<td>0.30 Mark/m³/quarter of the year</td>
</tr>
<tr>
<td></td>
<td>More than 200 m³</td>
<td>0.15 Mark/m³</td>
</tr>
<tr>
<td></td>
<td>Plus, depending on the diameter, rent for the meter</td>
<td>2-10 Mark/quarter of the year</td>
</tr>
</tbody>
</table>

Source: Neumann, 2005, p. 48

Ernst Grahn of the DVGW in the mid of the 1870s demanded the use of a norm tariff. Water should not become an object of speculation. The ideal way, in his opinion, would have been to deliver water to households for free and, following the principle of subsidiary, cover the costs by the delivery for commercial purposes and have the costs for operation and interests paid for by the wealthy population. (Feldkamp, 2009, p. 27)
The general usage of water meters was criticised by the socialist Hugo Lindemann at the beginning of the 20th century: in his eyes, mostly the landlords were paying the fee in the cities and charged their tenants accordingly. They therefore would have the monopoly of water supply and Lindemann expected that the landlords would not distribute the charges in a fair manner but abuse their position for their personal profit. (Lindemann, 1906, p. 262) If the poorest part of the population would be exempted from paying water charges, less water meters would be necessary. (ibid., p. 263)

Over time, water prices increased, depending on economic and political circumstances. The development of water tariffs in the East German city of Magdeburg can serve as a historical example (1879-2005):

<table>
<thead>
<tr>
<th>Year</th>
<th>Price per m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>1879</td>
<td>11 to 15 Pfennig depending on consumption</td>
</tr>
<tr>
<td>1910</td>
<td>15 Pfennig</td>
</tr>
<tr>
<td>1919</td>
<td>27 Pfennig</td>
</tr>
<tr>
<td>1921</td>
<td>1.25 Mark</td>
</tr>
<tr>
<td>1922</td>
<td>220 Mark</td>
</tr>
<tr>
<td>1923</td>
<td>175.000.000.000 Paper Marks (during hyperinflation)</td>
</tr>
<tr>
<td>1924</td>
<td>0.22 Goldmark</td>
</tr>
<tr>
<td>1925</td>
<td>0.25 Goldmark</td>
</tr>
<tr>
<td>1931</td>
<td>0.30 Mark</td>
</tr>
<tr>
<td>1933-1989</td>
<td>0.36 Mark</td>
</tr>
<tr>
<td>1990</td>
<td>1.51 DM (after unification)</td>
</tr>
<tr>
<td>1993</td>
<td>1.95 DM</td>
</tr>
<tr>
<td>1995</td>
<td>2.40 DM</td>
</tr>
<tr>
<td>1996</td>
<td>3.30 DM</td>
</tr>
<tr>
<td>2005</td>
<td>1.81 Euro (~ 3.45 DM)</td>
</tr>
</tbody>
</table>

**Cross subsidy in tariff structure**

Already in the early 19th century, the London-bridge Waterworks Company practised some kind of cross-subsidy in its tariff structure. An extra charge had to be paid by water intensive enterprises like brewers, stable-keepers, and tradesmen. Obviously, this was a response to worries of public authorities that the poor could otherwise not afford this kind of service. (Prasad, 2008a, p. 18)

**Those people responsible are deterred by the costs of possible solutions to infrastructure problems**

High expenditures for maintenance and even more for the implementation of alternative strategies would create costs, which would have to be financed by increases in charge or tax. This blocks, so the argument of Sedlak, the search for solutions and their realisation. (Sedlak,
2014, pp. 120ff.) One example is the problem with combined instead of separate sewers. As there is only one system that discharges water and treats the wastewater no difference can be made in treating rainwater with less efforts than black water (with human waste) (Sedlak, 2014, pp. 115-117; Prechtel, 03.12.14). However, also maintenance costs are high. If we consider that a pipe made of metal or concrete usually lasts for 75-120 years large parts of our supply infrastructure already have been or pretty soon need to be completely refurbished. (Sedlak, 2014, p. 173) Maintenance costs are therefore also typically a controversial aspect of public-private partnerships, as for supplier it is relatively easy to reduce investments in maintenance for a relatively long-time (i.e. more than a decade) so as to increase profits.

Because of the costs of investment in building the infrastructure following the social innovation approach, the social innovation could only be realised top-down.

Cognitive resources
The 19th century development made it clear that linking the monetary wealth created by industrialisation to human development in a sense of improved health and life expectancy, co-dependent on knowledge and more specifically a better understanding of hygiene (waterborne diseases etc.).

With a view to WP1 Question: The implementation of the centralized infrastructure for freshwater and wastewater positively affects the endowments of the marginalised in cities: in principle they have access to safe and affordable water – and socially important – this access is universally shared with all citizens. In practice, there are of course many social struggles about how exactly and to what extent this access is affordable and safe.

With a view to WP4 Question: There seems to be a relatively clear pattern that privatisation of functioning infrastructure puts pressure on water providers to increase profits rather than meet social goals (safe and affordable access to water for all; decent wages within the water companies). Norms on drinking water and social polices play a crucial regulatory role to ensure access for the marginalised on both public and private management of the water supply.

With a view to WP5, last question: Setting up a water infrastructure requires financial capital. Maintenance of the infrastructure in the long run is only possible if the infrastructure is integrated into the water cycle and hence only with water as a natural capital (see Sedlak Water 4.0 innovation below).

<table>
<thead>
<tr>
<th>Possible questions of analysis chapter 3.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
</tr>
<tr>
<td>WP 3</td>
</tr>
</tbody>
</table>

38 Combined sewers are most common internationally since the beginning of the 20th century. (Simson (1983), p. 172)
How did eventual complementarities come about?  
Who had/has access to the crucial resources and on what did/does accessibility depend upon?  

WP 4  Did the nationalization / privatization of relevant infrastructures impact on the access to social innovations?  

WP 5  Are there recurring dynamic patterns during the course of the diffusion of a SI?  
Do different forms of financing contribute to the same diffusion results?  
Can the role of capital forms (social, cultural, ecological, etc.) for social innovations be specified?  

WP 6 …

3.7 Social and technological innovation

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the social innovation fostered by or related to technological innovations like</td>
</tr>
<tr>
<td>- a new general purpose technology (e.g., information and communication technologies) and/or by scientific advances?</td>
</tr>
<tr>
<td>- a new artefact (e.g. mobile phone)?</td>
</tr>
<tr>
<td>Was the social innovation fostered by or related to a new infrastructure (e.g. Internet)? Was the social innovation fostered by the emergence of new techniques?</td>
</tr>
<tr>
<td>How did technological innovation contribute to the social innovation, or vice versa? Did technological innovation help to distribute the social innovation or even improve it?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary of key points</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Four water innovations in history</td>
</tr>
<tr>
<td>- Technological innovations and improvements opened new possibilities to treat and to transport water.</td>
</tr>
<tr>
<td>- Social innovation needed a new infrastructure.</td>
</tr>
<tr>
<td>- Technological innovation helped to distribute the social innovation and improve it over time.</td>
</tr>
<tr>
<td>- Path dependency: existing infrastructure binds future decisions</td>
</tr>
<tr>
<td>- Cultural relevance of social innovation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Content</th>
</tr>
</thead>
</table>

Water innovations  
The story as told by a water engineer (Sedlak, 2014), i.e. as a series of four water innovations, but here with some commentary added reflecting our specific interests:

Antecedent to our focus:

Water 1.0 The Romans built piped water systems and sewers for their cities; this idea is replicated in many European cities. With the growth of populations and cities in the context of industrialisation, the demand for domestic and freshwater supply also increases. With the wealth and expertise brought about by industrialisation, the financial capital and engineering know-how for creating and expanding urban water systems is also available.
In terms of more general innovation research, we can situate this development vis-à-vis the first two Kondratiev cycles (roughly 1787-1842, and 1843-97). The first cycle is associated with the boom in textiles, the construction of infrastructure (such as canals), the invention of the steam engine to be used in factories with Great Britain as the lead country; the second cycle is associated with transportation (trains and steamers) and the associated infrastructure (railroads, further expansion of water streets), again the lead country is Great Britain (Hämäläinen, 2007; Steuer, 1912, p. 18). Viewed this way, an infrastructure innovation emerging from Great Britain can be seen as part of a larger transformation process, and we would therefore also expect continental Europe (especially France and Germany) as well as later the USA to be the places to quickly adapt and expand the innovation (> discussion patterns).

Very important for the social innovation is, however, a further epistemic breakthrough linked to health. Wastewater flows out of the sewers and into the rivers, causing cholera and typhoid fever. This was a main problem for the rapidly growing 18th and 19th century city. The causal link between cholera and contaminated drinking water was established in 1848 by John Snow in London. This discovery (and the subsequent in-depth analysis of the link by researchers across Europe and the U.S.A.) provided a key legitimation for the social reform’s demand to provide clean drinking water to every household as a matter of municipal/governmental responsibility (compare Chadwick report). A central element of the social innovation is therefore a change in cognitive frame, and more specifically the way the relation between water supply and health is understood.

**Water 2.0 Drinking water treatment:** water filtration and chlorine disinfection at the end of the water distribution system make it possible to drink otherwise unsafe water (compare Sedlak, 2014, chapter 5). However, this “end of pipe technology” does not deal with the problem of water discharge from households and industry going into the sewers, and hence eventually into the rivers/aquatic system. This especially became a concern when human waste was no longer used for agricultural purposes (> invention of fertilizer, distribution of water-closets, Sedlak, 2014, p. 115)

**Water 3.0** (throughout 20th century Sedlak, 2014, p. 88): Sewage treatment plants become a standard for urban water systems (compare waste water directive above). A major engineering challenge was to deal with the unequal flow into the sewage system, only waste water on some days, waste water plus rainwater on other (and hence a lot more water on these days). This challenge is made more urgent by climate change and a higher frequency of extreme weather events. Retention spaces for rainy days underground or potentially in the river are one solution (> see proposal by engineer Ralf Steeg: Prechtel, 03.12.14). Another “solution”, the one most commonly practiced, is to let the water overflow into the rivers on rainy days. The problem here is not so much linked to health - as drinking water is treated anyway and as dangers for swimmers are relatively minor (Sedlak, 2014, pp. 119 f.) - but rather to the new regulatory environment (> Water Framework Directive, Waste Water Directive) and a new public cognitive frame that no longer supports such systems that directly pollute the environment even though a technical fix is available (as an interpretative matter, this suggests the extension of public sensibility to a new marginalised population: living beings in aquatic

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39 On Snow see above 3.3.
systems or even these aquatic systems themselves). Shift in cognitive frame: water as a precious natural element and “heritage” (see the Water Framework Directive of 2000).

Due to the large investments required for urban water systems 1.0 to 3.0, path-dependency is very strong: there is little incentive to change the technical system as such as long as there is no major crisis (Sedlak, 2014, p. 275 > link resilience and social change). Nevertheless, independently of this circumstance, there is a large socio-technical challenge to maintain the urban system in a way that meets the now established norms (human right to water, and more specifically drinking water directive, also environmental norms) in a democratic and participatory way (> see illustrative case Berlin Water Table).

**Water 4.0** (sensu Sedlak) is more a diagnosed need/emerging reality, which a) responds to more severe rains and droughts, not least as a result of climate change, and b) which responds to high maintenance costs and problems with incremental fixing. In Sedlak’s presentation it is a collection of different, mostly decentralized, options such as potable reuse systems, greywater recycling, rainwater harvesting, and water saving appliances that have to be selected in a context-specific way at city level (Sedlak, 2014, pp. 245 f., chapter 12). Notably, it is also linked to a demand for participation of the public (ibid., p. 280) – a demand that also arises in relation to the maintenance of Water 1.0. to Water 3.0.

**New technologies to transport and store water**
Basic principles of a modern water supply in the 19th century consisted of the delivery and centrally organised distribution of water by engine-driven pumping stations and water towers. (Witzler, 1995, p. 69) Pumping stations already existed since the middle ages but the new steam engines coming up in the 19th century opened new and better possibilities. Later, the water pumps were driven by gas or diesel engines. (Müller, 1981, pp. 53, 85, 89; Steuer, 1912, p. 17)

Water works benefited from the fast developments in engineering industry and construction: new machines, pumps and pipes for water works and canalization became available as the social innovation progressed and demand grew. (Feldkamp, 2009, p. 38) Münch in his study on Munich sees the accumulation of technological know-how which made the realization of the projects feasible as a key variable in the all in all development process. (Münch, 1993, p. 340)

The spread of knowledge by travelling experts, congresses, publications or engineering offices as outlined above took effect here, too. Thus, for example, were the Chelsea water works in London the model for using steam driven pumps and sand filtration. (Feldkamp, 2009, p. 25)

To store water, to keep up a steady and sufficient pressure throughout the entire water supply system and to have a reliable amount of water at disposal in case of fire: these tasks had to be fulfilled by water towers in the 19th and 20th century. Water columns had been known since Roman times but these were not sufficient to fulfill the new requirements. Foremost in flat areas, water towers became more and more important as the development progressed. These structures, too, benefitted from technological progress in construction. Cast iron, concrete, and later on ferro-concrete opened new possibilities for magnitude and design of water towers. (Baur, 1985, pp. 30, 47; Feldkamp, 2009, pp. 38, 73; Brasser and van der Veen, 2005, p. 8. See writing on Otto Intze as leading engineer in this field: Gockel, 1985)
Figure 7: So-called Sternschanzenturm in Hamburg. The water tower was built in 1910 and is operated as a hotel today as many water towers are not in use anymore in the 21st century.

New materials and new ways to transport water over large distances and even uphill enabled water supply by means of long distance water supply networks throughout the year as well as distribution even into areas which had no abundant water resources themselves. Precursors of long distance water supply were Roman cities, but we have seen London’s and Paris’ attempt to bring clean water to the inhabitants of the cities as well. Vienna had two pipelines for source water built in the 19th century, one opening in 1873 (Drenning, 1973; Drenning, 1988). Also other big cities like Munich or Frankfurt/Main relied on the transport of source water to the agglomeration. (Feldkamp, 2009, p. 40)

Long distance water supply networks often spread out further than 100 km and are operated – at least in Germany - by special purpose associations (Zweckverband), e.g. Zweckverband Bodensee-Wasserversorgung, Bergische Trinkwasser-Verbund-GmbH, Wasserverband Aabach-Talsperre, Zweckverband Wasserversorgung Fränkischer Wirtschaftsraum. (Feldkamp, 2009, p. 133) In 1954, the Bodenseewasserversorgung, the largest long distance water supply in Germany, was established, securing fresh water supply even during the summer months in Southern Germany. Today, about 4 million people in 320 cities and communities of Southern Germany are connected to the extensive grid (Bodensee-Wasserversorgung, 2013, p. 30. See map below.)
Figure 8: Map: Distribution network of the Bodensee-Wasserversorgung in 2013 (Source: Bodensee-Wasserversorgung, 2013, p. 31)
New technological findings and materials further made it possible to build dams for the recovery of drinking water in large reservoirs. Ancient knowledge was taken up and got developed further by French, American and German engineers. Water collected with these dams was surface water from rain which was collected in untilled and uninhabited areas. (Steuer, 1912, pp. 24 f.) Decisive for the German projects was Otto Intze. (See on Intze in detail Blackbourn, 2006, pp. 191-196. Contemporary maps and graphs can be found in Intze, 1906.)

In 1890, the construction of the first German dam started in Remscheid. Increasingly it had become clear that this was an important measure to ensure the water supply for the Ruhr area and other built-up areas. (Feldkamp, 2009, p. 41; Blackbourn, 2006, pp. 190-191) Eight years later, the Ruhrtalsperrenverein (association for dams in the Ruhr valley) was founded. Its aim was to subsidize the building of dams planned by different water cooperatives. (Blackbourn, 2006, pp. 200-201. See Steuer, 1912, p. 43 for the dams built by this association and the overview ibid., p. 45 on other associations founded with the same purpose) Within a few years, eight dams had been raised and more were planned. However, the demand on water further increased and in years of drought, like 1904 or 1911, the water works came under immense pressure. In 1904, the water coming from the dams did not suffice to keep the river banks mud-free and to allow recovering water from bank filtrate. During the drought of 1911, 92 water works within the German Empire experienced supply bottle necks, 37 had serious supply problems. (Feldkamp, 2009, pp. 63 f.) The dams were increased but the dry years of 1920 and 1921 demonstrated again that the dams were not sufficient even though they in the meantime had gained a capacity of more than 10 million m$^3$. (ibid., p. 74)

The same development can be seen in Saxony and Thuringia which became more and more reliant on reservoir drinking water in the first half of the 20th century. (Blackbourn, 2006, p. 191) New dams were built in the 1930s, e.g. the Söse valley dam, the Ecker valley dam and the Bode valley dam, all situated in the Harz Mountains. (Feldkamp, 2009, pp. p. 89)

Especially in Southern Europe, we can expect further freshwater shortage in relation to climate change, and hence likely an increase in the use of desalination techniques (i.e. converting seawater into potable water, compare Sedlak, 2014).

These examples show that technological innovation helped to distribute the social innovation.

**New ways to measure water**

With the introduction of water supply systems and increasing wealth, water consumption grew everywhere. Water closets and bath tubes became more common and the increasing standards of hygiene made a larger amount of water necessary, too. Already by the 1860s, water meters were used in Germany. However, their application was not extensively as they were still imprecise in measuring and the device as such still was expensive. (Feldkamp, 2009, p. 39; Steuer, 1912, p. 104) With the water meter developed by Siemens in 1873 the application became more common. (Neumann, 2005, pp. 48–49)

Growing water consumption resulted in a wider distribution of water meters which as a result led to a reduction in water consumption. (Steuer, 1912, p. 104) Because of the costs water meters were not recommended for rural areas and for small water works. (ibid., p. 105) To reduce consumption, water metering was introduced in Grenoble in the late 1880s. In 1930, it “became compulsory for all buildings worth more than 1,500 francs”. (Lobina, 2005a, p. 75)
While water meters in Hungary today are considered to be of positive effect for the marginalised as the meters are expected to help to reduce their water bills, in Great Britain concerns are voiced that water meters could cause an under-consumption of poor households. (See on this question the country contributions of Attila Havas and Daniel Edmiston.)

New technologies to treat water
If cities had built a fresh water supply this did not always mean that clean and healthy water would run through their supply system. The water of rivers many cities relied on got polluted and its quality deteriorated, ground water became contaminated by sewage from cesspits and cities which collected sewage as fertiliser on sewage farms, like Paris or Berlin, and thus they ran into another problem. While sewage farms could serve as a “primitive type of sewage treatment system”, the ground passage of the water could not filter out microbes or viruses. (Sedlak, 2014, pp. 39–40) This problem increased as synthetic fertiliser became available at the end of the 19th century. The market for products of sewage farms or fertilisers made of faeces collapsed. Sewage was drained into the rivers as the cheapest way to get rid of it. (ibid., p. 63) With the findings of bacteriology pointing to contaminated drinking water or food as cause for typhoid fever or cholera the connection between sewage and potable water became clear. Cities therefore turned to new, more distant water resources or built water treatment or waste water treatment units respectively, where water was filtered and sometimes treated further. (ibid., pp. 44-45, 63)

Filtration alone was no solution as the case of the cholera epidemic in Hamburg showed. Sand filtration as practiced in London or Altona was much more efficient. However, with growing cities and growing consumption sand filtration became too slow or the basins needed too much space to meet the requirements. Therefore, rapid sand filtration was introduced. If alum, iron chloride or lime were added to the water the rate of flow became higher. (ibid., pp. 48-54) “Filtration and disinfection revolutionized urban water.” (ibid., p. 62)

New filtration techniques and water treatment methods were developed and applied. Water was ventilated, and iron and manganese were extracted from the water. At the world exhibition in Paris in 1900, a method to disinfect water with ozone was presented. Ultraviolet irradiation was introduced in France in 1911. (Feldkamp, 2009, pp. 43, 66 f.)

In Germany, reluctance was high to apply chemicals in water treatment as this was considered denaturation. Merely treatment procedures which were considered nearly natural such as ventilation, filtration and sedimentation were allowed. (Feldkamp, 2009, p. 43) This points to a cognitive frame according to which water is pure by nature and this should not be changed by humans. Unfortunately, humans already had changed the natural state of water and it was not pure and clean anymore when it came to the settlements of other humans. Professor Salomon at the annual meeting of the DVGW in Berlin in 1912 said: “In times of surrogates and the omnipresent obtrusion of chemical ‘brightening and revitalisation’ of our foods one
should not want to also improve the water chemically and try to turn the water works into water pharmacies or witches’ kitchen.” (Quoted in Feldkamp, 2009, p. 67; own translation)

Chlorination to disinfect water had for the first time been applied at naval bases of the Austro-Hungarian monarchy at the Adriatic Sea and in Maidstone (England) during cholera outbreaks in 1896 and 1897. (Sedlak, 2014, p. 58) In 1910/1915, use of chlorination became common where the more classic water treatment methods failed. (Feldkamp, 2009, pp. 66 f.) Even in Germany, the new procedure proved popular. In 1922 alone, 25 water works of the Ruhr area had chosen this method. (ibid., p. 74)

Magdeburg introduced chlorination of the drinking water in 1923. However, together with phenols in the Elbe water this connection developed an unpleasant taste. In 1937, activated carbon filters were finally installed to improve the situation. (Neumann, 2005, pp. 38–39) The city had to return to chlorination of the drinking water again during winter 1963. During a strong frost period the water level of the Elbe became extremely low and the fresh water which the water work in Buckau received from the river became inadequate for consumption. However, the chlorination which was seen as a solution to the problem made the water smell distasteful; hence leaving people of Magdeburg considering the water to be inadequate for consumption in turn. An emergency supply by water tanker vehicles had to be established. At the same time the pipe network of the city was separated into two: one for drinking water (ground water), one for process water (Elbe water). This separation lastingly improved the water quality. (ibid., pp. 19, 40)

Only much later, analysis of potable water in Rotterdam in the 1970s revealed unintended results of chlorination: chlorination leads to an increase in cancer rates. (Sedlak, 2014, pp. 94f.)

Other possibilities to disinfect water are ozonisation and activated carbon. Ozonisation is used since WW II in France, Germany and Switzerland as people had complained about the chlorine flavour of drinking water. (Sedlak, 2014, p. 109) Activated carbon has been applied since the 1920s to remove taste and smell. Together ozonisation and activated carbon can reduce critical compounds by about 50%. (ibid., pp. 161-162)

Sedlak points out that in Europe, especially in Northern Europe, it might be possible to do without chlorination as biofilm grows more slowly in cold water. Also, the duration that water remains in the water pipes is shorter than in the U.S.A. since European cities are built more compactly. (Sedlak, 2014, p. 109) These points might however be subject to change due to climate change and further migration to the cities. The same holds true for the willingness to invest in the maintenance of water distribution systems which Sedlak detected to be higher in European countries. (ibid.) With the on-going economic crisis this willingness might decrease – which would not remain without consequences.

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40 „In der Zeit der Surrogate und der überall sich aufdrängenden chemischen 'Schönung und Auffrischung' unserer Speisen soll man nicht auch noch das Wasser chemisch verbessern wollen und die Wasserwerke zu Wasserapotheken und Hexenküchen machen.“
(See Sedlak, 2014, chapter 5 for a discussion of various technical options; for the more recent issue of medical residues in drinking water see Keil, 2009, pp. 248 f.; regarding the demand to separate water/waste water from industry and toilets from water used for cooking and washing; and secondly the need for new types of filters to deal with these residues in waste water treatment.)

The development of water treatment shows that technological innovation improved the social innovation.
See in more detail: Wiesmann et al., 2006, chapter 1.

**Modern technology helps to save water**
- Water saving appliances to make domestic water consumption for washing, cleaning etc. more efficient
- ICT used in modern freshwater supply systems inter alia to anticipate and deal with extreme events (heavy rain; the toilet break between two intervals of a big soccer game ...)

**Cultural relevance of the social innovation**
If the relevance of the new infrastructure technology is considered to be a social innovation the scope of the technical network of the urban environment becomes clear. It called for adaptive performances of the urban population, led to growing dependence which improved social integration as well as control of the population and to the emergence of new socially accepted standards of hygiene and cleanliness. (Schott and Skroblies, 1987, p. 80)

The sanitation of the cities in the late 19th and early 20th century turned out to be of big cultural relevance. The sanitation not only was an expression of a growing public consciousness for hygiene and cleanliness but also reinforced itself while it evolved. To the same extent that the works advanced, and streets, for example, became cleaner and more comfortable, people’s perception of which amount of dirt and lack of hygiene would just yet be acceptable changed. The sanitation resulted in a further sensitisation. (Schott and Skroblies, 1987, p. 85)

On path-dependency see above 2.5 and below 3.9

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3.8 Social impact measurement

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<td>Have there been any attempts to measure the impact of the social innovation (on the level of a specific intervention, a national level by public authorities, etc.)? Did these measurements influence the development of the social innovation?</td>
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<th>Summary of key points</th>
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<td>• On social impact measurement, nothing is known so far. It however may play a role in future development of water supply services.</td>
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<tr>
<td>Social impact measurement in the sense related to social impact investment so far plays no role for urban water management and the large infrastructure investments it is associated with. Possibly, there is some role for social impact measurement and investment in water 4.0 (for example resilient cities and adaption to climate change in Southern Europe).</td>
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Clearly, whatever will be meant here by “social impact measurement” in such a complex and far-reaching social innovation such as freshwater supply, it is not “the innovator” or the “organization” that could track the manifold impacts. Rather, we have to think of social impact tracking in terms of a differentiated responsibility. This point is very closely related to the emergence of new drinking water norms with the social innovation, and hence regulatory requirements. For example, freshwater supplies are (partly on a daily basis) controlled by health authorities with a view to quality assurance (does the freshwater meet the minimum biological and chemical requirements). Also, regulators and freshwater supplier have to conduct a hazard analysis (“Gefährdungsanalyse”) so as to anticipate possibly detrimental health impacts (see also here [http://ec.europa.eu/environment/water/water-drink/regulation_en.html](http://ec.europa.eu/environment/water/water-drink/regulation_en.html)). Clearly such regulatory requirements are very close to “social impact” (here with a view to health). |

For impact as such, see the impact section above 2.5.

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3.9 Further obstacles and drivers of the diffusion of the SI

| Questions |
What further contextual factors can be identified that fostered or inhibited the diffusion of the SI over time (e.g., legal framework conditions, economic/political situation or crisis, dominant welfare regime, ecological situation, power structures, cognitive frames, religious constellations, demographic developments, etc.)
What further factors can be identified on the level of the innovative agents that fostered or inhibited the diffusion (e.g., organisational capacity of the inventor, resources, resistance of employees, value set or skills of the leaders)?
Can different patterns of drivers and obstacles be identified, like for bottom-up vs. top-down adaptations of the innovations or related to different context conditions?
If the innovations were adapted across different regions or national borders, were there specific obstacles?

| Summary of key points |
- Discourse on privatisation
- Path dependency
- Climate change
- Demographic change

| Content |
An obstacle to meeting the needs of the most marginalised: privatisation discourse with a view to freshwater can be classified as an obstacle in the sense that there is no reliable evidence that privatisation improves access to freshwater to the most marginalised (on the contrary: the picture is more one of failure if we turn to the most marginalised on a global level, see Prasad, 2008b).

But there is reason to think that privatisation
a) as a discourse puts private and public providers under pressure to increase profits, even if this is at the cost of pursuing social (or environmental) goals and associated longer-term investments in the maintenance of the infrastructure.
b) tends to make democratic accountability more difficult (due to secret contracts when public-private partnerships are entered into > see illustrative case of Rafael Ziegler below)
c) fosters the cognitive image of water as a commodity, resulting in citizens buying bottled water even though the relative price is much higher than tap water and the quality standards lower than for tap water. (See below the country contribution of Nadia von Jacobi and Margherita Fabbri on Italy.)

Obstacle to future adaptation: The path-dependency of urban water infrastructure may prove to be an obstacle to adaptation to climate change, especially in Southern Europe where extreme weather events can be expected to have a strong effect on the urban environment. In the background of this there is climate change as an external obstacle, itself being driven by economic growth of a fossil-fuel based industrialisation.

Present and future obstacles: demographic change and the difficulty of maintaining a water infrastructure in face of a different population density (as happening in some parts of central and Eastern Europe with high migration of population so that water infrastructure developed
for a specific population density as well as consumption level no longer fits the current requirements and hence also becomes more costly to maintain).

### Possible questions of analysis chapter 3.9

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<td>WP 3</td>
<td>Which contexts did matter? In particular, which definition/level of context did matter? (e.g., geographical surrounding, political/economic situation at the macro or global level, belonging to professional groups, etc.)</td>
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<td>How do different influential factors in the diffusion process of SI interrelate? What are the different obstacles for different kinds of SI (e.g., bottom-up vs. top-down)?</td>
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CCS - PART 4) Discussion and key lessons

Based on the findings throughout the template, what are the key lessons for …

- Policy makers?
- Investors (resource structure)?
- Inventors / investees?

Urban freshwater supply is generally speaking a success story with massive benefits to the marginalised as well as everyone else. A key point to be highlighted and discussed further: history matters – also for social innovation. Here we should not forget that the current infrastructure is something that has developed over time (and may fall apart) even if it is now taken for granted (compare United Nations Development Programme, 2006). In concrete terms, this means to closely focus on the maintenance and further adaption of a social innovation that contributes to meeting central capabilities and human rights.

An intriguing feature of the case discussed is the co-evolution of norms and rights along the evolution of infrastructure, in particular the rise of second generation human rights and the human right to water, and on the more specific levels the norms on drinking water and waste water as well as social policies. These norms and policies are a crucial feature of the “social” institutionalisation and maintenance of the infrastructure.

There also are various links to Mann’s sources of power:
1) the development of urban freshwater supply suggests that a primary focus on the nation state is prima facie too simplistic as it pays insufficient attention to the municipal level as well as the regional EU-level, which arguably via directives by now plays a considerable role in maintaining of the infrastructure socially and environmentally.
2) governance (centralism vs. federalism), military power and the consequences of war may partly explain different country trajectories (e.g. decentralized structure in Germany)
3) economic power – in terms of the permanent struggle over ownership and management of the infrastructure – is a central element of the case

Further, more future-oriented features:

a) the rise of novel forms of participation in response to the concentration and privatisation tendencies in freshwater supply. Arguably at this stage of the “evolution” of the freshwater innovation case, the innovation exhibits the features associated with current social innovation discourse: innovation for and with citizens (compare illustrative case Berlin Water Table and the focus on complementary direct democracy which the citizens in this case stress; for the general link between human right to water implementation and civil society participation see Koenigs 2012).

b) the rise of an environmental consciousness throughout Europe, articulated in various EU Directives specifically devoted to water, forces a slow process of integrating the satisfaction of social needs (healthy drinking water provision as a key requirement of 19th century industrialisation) with environmental requirements (here: integrating the freshwater supply into river basin management more generally).

With regard to the European history of this social innovation a potential policy recommendation is that European countries in their development cooperation should consider the built up of such infrastructures in countries of the “global South” as an element of aid worthwhile considering, especially if it is possible in a form preserving public governance (see civil society demand for “public-public partnerships”, meaning knowledge exchange amongst cities Barlow 2008, see also goals of Aqua Publica network of municipalities; for the
more general water-related implications of world-wide rapid urbanisation see Mauser, 2007, p. 139 ff.).

Transferability to current discussions on the set-up and extension of the internet and the access to the digital world might also be an interesting issue. If we claim a right to information and education could we then claim also that everybody should have access to broadband internet (like to the freshwater supply network)? There are several parallels between the set-up of technical infrastructure and the introduction of information technology (Schott and Skroblies, 1987, pp. 74–76):

1. Phenomenon of networks: like the set-up of systems of supply and disposal created the ‘original network’ of the city in the 19th and early 20th century, a spatially inclusive and comprehensive network of broadband cables is the decisive infrastructural prerequisite for the spreading of new information and communication technologies.

2. Acceleration: the ‘original network’ led to a big potential of rationalisation and acceleration. Time saving through new information technologies and global connectedness in trade and economy, research and development, in communication and mobility by databases, e-mail and social media offer similar possibilities and risks.

The freshwater case could therefore serve as model when looking at the extension of the internet, the connecting of rural areas, creating access for the marginalised, the administrative and costs structures, as well as for questions of authority and management (public vs. private) etc.
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CCS – ILLUSTRATIVE EXAMPLES [subunits of analysis]
Berlin Water Table – illustrative case

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University of Greifswald, Germany

Historical context
In Berlin a central water supply system was established in 1852; prior to this, a system of wells was used that could not offer the growing city protection from cholera. To provide a centralised drinking water supply the British engineers and entrepreneurs Sir Charles Fox and Sir Thomas Russel Crampton established the Berlin Waterworks Company based on a concession contract for the water supply tubes and a pumping station, with a 25-year duration and a 15% maximum of profit. However, the cooperation between the city and this private company soon became problematic and the contract ended in 1873. The fresh water supply only reached a minority of citizens and with a growing city population cholera-contaminated water and resulting outbreaks of the disease remained a problem (a cholera epidemic in 1866). Under the direction of Rudolph Virchow the construction of a wastewater system began in 1866. Gradually the Berlin Water Works evolved to provide water supply for all Berliners (Berliner Städtische Wasserwerke AG founded in 1924). The current organisational form, Berliner Wasserbetriebe (BWB), was founded in 1992 after the German unification as an ‘Anstalt des öffentlichen Rechts’ and is in charge of drinking water and wastewater. In 1999 a public-private partnership (PPP) between the city of Berlin and Veolia and RWE was established that gave these private companies a 49% share in the BWB and made it the biggest municipal PPP project in Germany. The PPP has to be seen in the context of a more general dynamic. After the unification the city of Berlin received less federal subsidies and this further increased the already large debt of the city. One response to this was to fully or partly privatise the gas, electricity, and water supply and to sell about 200,000 flats owned by the city (however, these measures were not effective: the public debt of the capital increased from approximately 35 billion euros in 1999, when the PPP was launched, to more than 61 billion euros in 2013, see http://www.haushaltssteuerung.de/verschuldung-land-berlin.html, accessed 2/3/15).

Mission of the Water Table
In May 2006 the Berliner Wassertisch (Berlin Water Table) was founded as a citizens’ initiative aiming at improving the awareness and at building a coalition of concerned citizens with the goal to re-communalise the Berliner Wasserbetriebe (Source: http://berliner-wassertisch.net/assets/pdf/Gruendung/2006-05-23_Gruendungstreffen.pdf, accessed 23/2/15). Gerlinde Schermer, a tax consultant, member of the economy committee of the Berlin’s state parliament and one of the founders of the Berlin water table, heard of the PPP and its specific arrangement. Schermer exercised her right as a member of parliament to read the PPP contract that was kept secret from the public. She learnt that the partnership was set for the next 30 years with a guaranteed (i.e. performance-independent) profit margin for RWE and Veolia over the whole period and that the private actors only owned 49% of the company but had obtained 100% of the management rights, including the power to set prices with a view to increase profits (Interview Härlin, 23/2/15). These details as well as the secret nature of the deal were an affront to democratic sensibilities of some citizens, which resulted in an

41 On Virchow see above in 3.3.
initiative against the privatisation of water in Berlin. Affirming the human right to water as a basic human right, the table specifically focuses on the principle ‘water in the hand of citizens’ in the sense of a publicly provided, democratically controlled water supply, including participatory budgeting on the company level (Berliner Wassertisch, 2010, accessed 23/2/15).

**Foundation and organisational form**
The initiative in Berlin was initiated by the local branch of ATTAC, an alternative globalisation movement, and was co-organised by the (retired) teacher Dorothea Härlin in cooperation with Gerlinde Schermer and other interested citizens of Berlin. The foundation of the Berlin water table was inspired by water tables in Venezuela that co-founder Dorothea Härlin visited in the context of the World Social Forum in January 2006 in Caracas, where water privatisation in Latin and South America was one of the discussed topics. This experience inspired the foundation of a water table as an open forum for discussion. The successful anti-privatisation water movement in Cochabamba, Bolivia, encouraged the Berlin water table founders: ‘If the indigenous people can throw out Bechtel from Bolivia, we must be able to get rid of RWE and Veolia in Berlin’ (Härlin, written comment 1/3/15).

The Berlin water table understands itself as an initiative of individuals and not as a coalition of organisations. The citizens of Berlin contribute on their own personal initiative questions, and competencies and utter concerns (Interview Härlin, 23/2/15). Thus, the participants are not delegates of organisations who represent organisational interests but in the first place citizens who speak for themselves and bring in their own competencies: Schermer, for instance, is very knowledgeable about public and private budgets; Härlin and the people from ATTAC are experienced in ‘scandalising’ an issue, another members may know how to make posters and puppets or how to conduct a choir during a public action, etc. To date, the initiative has mainly attracted Berliners from a middle-class background. According to Härlin, the initiative also seeks to protect the rights of marginalised citizens; however, it has not been successful so far in attracting such citizens as co-organisers (Interview Härlin, 23/2/15. Here we can see similarities to the movement in the 19th and early 20th century.). As to financial resources, the initiative depends on donations and for labour force on volunteers. There is no permanent staff.

The initiative seeks to make its decisions based on consensus. Discussions can therefore take a long time. Disagreements provoked the withdrawal of some active members who then founded a second Berlin water table. In Berlin, the initiative has inspired further thematic initiatives: the Berliner Energietisch (Berlin Energy Table) aiming at re-communalising the energy supply and the citizens’ initiative ’100% Tempelhof’ which won a referendum in 2014. In Härlin’s view, the Berlin water table moved the political action in the capital in a direction of a more direct democracy.

According to Härlin, to date there are no water tables in other European cities; however, there is the network European Water Movement with a coordinator in Brussels coordinating the European water activism (http://europeanwater.org/, accessed 23/2/15). In addition, the members of the Berlin water table actively support initiatives abroad by means of lectures and consulting; for example, one member supported the anti-privatisation water cooperative movement in Thessaloniki.
Achievements and impact

In Berlin, the water table successfully initiated a referendum. This requires successfully passing three steps. In a first step, a minimum of 20,000 signatures has to be collected in support of the public issue. In a second step, 7% (or roughly 175,000) of the citizens of Berlin have to support the case for a referendum if the city has not by this time already accepted the demand of the citizens. The initiative successfully passed this hurdle as well. In the final step, i.e. the actual referendum as a tool of directly democratic legislative power, a minimum of 25% of Berlin citizens have to vote by majority for the case. On 13 February 2011 678,507 Berliners, i.e. 27.5% of the electorate, voted with 98.2% in favour of the water table proposal to make the contract public (https://www.wahlen-berlin.de/Abstimmungen/VE2011_Wasser/ErgebnisUeberblick.asp?sel1=6051&sel2=0650, accessed 2/3/15).

In October 2012 the city bought back the RWE shares and in November 2013 the Veolia shares. However, there is still a controversial debate around the legitimate price of these shares and the further organisation of the Berliner Wasserbetriebe.

Water prices have fallen to a pre-privatisation level. However, this is mainly due to an initiative by the Berlin senator for economic affairs H. Wolff who had asked the Bundeskartellamt to investigate Berlin drinking water tariffs. This authority judged the tariffs as too high and ordered reduction of 18%.

Status quo

Since the referendum and re-communalisation the water table has received less attention and it is difficult to find volunteers (Interview Härlin, 23/2/15). However, the water table continues its work because in its view the re-communalisation has not been implemented properly, as the Berlin government still primarily seeks to make profit from water and structures and staff were absorbed from the private organisations into the new public organisation. Therefore, the table has co-initiated a Berlin Water Council (“Berliner Wasserrat”) that seeks to gain a wide number of partners and launch a Berlin Water Charter that could provide guidance for the Berliner Wasserbetriebe so that it becomes ‘transparent, socially just, and ecologically sustainable’ (see Berliner Wassertisch, 27.02.14). It is partly inspired by the Vienna Water Charter. The charter is still in its initial phase and seeks partners as well as a good connection to the trade unions which hold that the demand for lower water prices is putting jobs at risk and which therefore traditionally view the water table with skepticism, even though the water table emphasises that it never aimed at a reduction of their status quo (Interview Härlin 23/2/15).

42 This problem was also encountered by municipalities in the 19th century when they wanted to take over private water supply companies. Especially in the case of Berlin, it was argued that the municipality had to pay an exorbitant price: twice the investment. (Lanz (2005), p. 84)
Figure 9: Presentation Berliner Wassercharta (Berlin Water Charter) by Schermer and Härlin, 22 March 2015 (“Day of Water”), Brandenburg Gate, Berlin

References


Fresh water supply: Hungary

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1 Overview
The first law on water supply in Hungary was the Act on Water Right 1885 (XXIII), which created the legal framework for the water sector.\(^{43}\) (Hegedüs et al., 2010) The water networks and water companies were nationalised in 1948 and run by the municipalities (at times at local and then again at county level). Information on needs was collected at the level of municipalities, with a decisive role played by the local bodies of the ruling party. Investment decisions were made by the Planning Office, in consultation with the Ministry of Finance, and the respective (national, regional, and local) bodies of the ruling party.

Water used to be provided free of charge before 1990 in flats (dwellings) rented from municipalities: water supply had been included in the rent, which had in turn artificially been kept low as a compensation for low salaries. No one took ownership responsibilities, and thus the infrastructure – including the dwellings themselves as well as the various networks of electricity, gas, water, sewerage and telephone – had become obsolete in terms of technical quality and reliability. Further, they became insufficient in terms of geographical coverage. People living in their own flats or houses always had to pay for water supply. Even though the rates used to be heavily subsidised these people often had to contribute to the investment costs, which incurred when the network was being extended to reach their dwellings.

A factor of marginalisation was living in those dwellings, which were not connected to the public water supply network, or living in settlements with poor or no public water supply. In the latter case, people were using water from fountains.

Avoiding health-related risks is a serious subject in the Hungarian water supply. Water was contaminated with arsenic in nearly 350 settlements (of the total 3,200) even in 2011, above 250 in 2012, and nearly 160 in 2013. Taking into account other hazardous ingredients, too, water quality was below the EU standards in 365 settlements in 2012.

\(^{43}\) For a summary of major developments in the governance system of the water sector (organisational and ownership structures, regulation, distribution of responsibilities) from the late 19\(^{th}\) century up to 1990 see e.g. Hegedüs et al. (2010), pp. 1-3.
In 2010 around 1.5 million people lived in 364 settlements effected by the problem of arsenic contamination. Various steps were taken in these settlements to supply healthy water at least for drinking and cooking. For example, the settlements were supplied healthy water by tank vehicles or bottles, and/or various types of filtering equipment were installed or distributed to households. To meet the EU standards, a national programme was launched and resulted in a decrease in the number of affected people by 2013. (Figure 11)

Due to geological factors, the affected settlements are concentrated in the South-East part of Hungary. (Figure 12)

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44 http://zipp.hu/belfold/2010/02/22/arzenes_ivoviz_az_antsz_szerint_masfel_millio_ember_erintett
Access to public water supply has improved to a noteworthy extent in Hungary since 1990: 79.2% of all settlements were supplied with public water in 1990, 99.4% in 1998, and 99.9% in 2000. As for dwellings, this ratio increased from 70.1% in 1990 to 90.8% in 2013. There has been some difference between dwellings in towns and villages. As for the former, the share of dwellings supplied with public water in towns increased from 84.9% in 1990 to 95.0% in 2009; and then slightly decreased by 2013. The respective figures for the latter (dwellings in villages) are as follows: 93.9% in 1990; 96.7% in 2009; and 95.8% in 2013. The length of the public network has been extended by nearly 24%. (Table 7)
<table>
<thead>
<tr>
<th>Year</th>
<th>Settlements supplied with public water</th>
<th>Dwellings</th>
<th>Length of the public water network, km</th>
<th>Per capita water consumption, m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>numbe</td>
<td>% of all settlements</td>
<td>number</td>
<td>% of all dwellings in total</td>
</tr>
<tr>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td>towns</td>
</tr>
<tr>
<td>1990</td>
<td>2,431</td>
<td>79.2</td>
<td>3,302,930</td>
<td>84.9</td>
</tr>
<tr>
<td>1991</td>
<td>2,585</td>
<td>84.1</td>
<td>3,385,451</td>
<td>86.4</td>
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<tr>
<td>1992</td>
<td>2,717</td>
<td>87.9</td>
<td>3,445,566</td>
<td>87.5</td>
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<tr>
<td>1993</td>
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<td>3,483,240</td>
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<td>1994</td>
<td>2,880</td>
<td>92.5</td>
<td>3,524,560</td>
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<tr>
<td>1995</td>
<td>3,047</td>
<td>97.5</td>
<td>3,590,924</td>
<td>90.0</td>
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<tr>
<td>1996</td>
<td>3,084</td>
<td>98.7</td>
<td>3,627,996</td>
<td>90.5</td>
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<tr>
<td>1997</td>
<td>3,098</td>
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<td>3,653,750</td>
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<tr>
<td>1998</td>
<td>3,113</td>
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<td>3,686,983</td>
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<td>3,124</td>
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<td>3,710,042</td>
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<tr>
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<td>3,131</td>
<td>99.9</td>
<td>3,751,770</td>
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<td>2001</td>
<td>3,132</td>
<td>99.9</td>
<td>3,774,273</td>
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<tr>
<td>2002</td>
<td>3,132</td>
<td>99.9</td>
<td>3,814,868</td>
<td>93.0</td>
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<tr>
<td>2003</td>
<td>3,144</td>
<td>99.9</td>
<td>3,854,511</td>
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<td>3,144</td>
<td>99.9</td>
<td>3,909,916</td>
<td>93.7</td>
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<tr>
<td>2005</td>
<td>3,144</td>
<td>99.9</td>
<td>3,956,168</td>
<td>94.0</td>
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<tr>
<td>2006</td>
<td>3,144</td>
<td>99.9</td>
<td>3,996,223</td>
<td>94.3</td>
</tr>
<tr>
<td>2007</td>
<td>3,152</td>
<td>100.0</td>
<td>4,045,007</td>
<td>94.7</td>
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<tr>
<td>2008</td>
<td>3,152</td>
<td>100.0</td>
<td>4,083,630</td>
<td>94.9</td>
</tr>
<tr>
<td>2009</td>
<td>3,152</td>
<td>100.0</td>
<td>4,114,652</td>
<td>95.0</td>
</tr>
<tr>
<td>2010</td>
<td>3,152</td>
<td>100.0</td>
<td>4,127,155</td>
<td>94.9</td>
</tr>
<tr>
<td>2011</td>
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<td>4,126,075</td>
<td>94.7</td>
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<tr>
<td>2012</td>
<td>3,154</td>
<td>100.0</td>
<td>4,150,484</td>
<td>94.3</td>
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<tr>
<td>2013</td>
<td>3,154</td>
<td>100.0</td>
<td>4,161,147</td>
<td>94.4</td>
</tr>
</tbody>
</table>


Per capita consumption, in the meantime, has decreased considerably: from 55.8 m³ in 1990 to 33.5 m³ in 2013. This change has been fairly quick. The bulk of this decrease had already occurred by 1997. Comparing this year’s level to that of 1990, a drop by 33.8% is to be noted (or 84.5% of the fall observed in 2013 as compared to 1990). Experts have identified several reasons for this drastic contraction: (a) people have become price sensitive and thus have reduced their water consumption and/or turned to taking water from (legal or illegal) fountains; (b) better off people began drinking bottled water; and (c) the waste of water (leakage) might have been reduced by the modernisation of infrastructure.

45 As already mentioned, water used to be provided free of charge before 1990 in flats (dwellings) that were rented from municipalities. The costs for water supply used to be included in the rent.

46 Water used by businesses is not accounted for in this figure.
Nearly all dwellings in Budapest were connected to the public water utilities in 1990 already, while the national average was just below 85%, reaching 94.4% by the end of 2013. Regional data (by counties) indicate quite a wide gap: in Nógrád county a mere 63.2% of dwellings were connected to the public water utilities in 1990, in Pest 70.1%, and Borsod-Abaúj-Zemplén 71.4%. At the end of 2013 the respective ratios were 87.9%, 90.8%, and 88.9% (Table 11).

Act LXV on Local Governments, passed in 1990, stipulated water provision and sewage management to become functions of the local government. The operation was organised in different ways. While the water supply services are (or for a certain period were) run by a public-private partnership in several cities, in other municipalities these services remained in public hands (e.g. Debrecen). Overall, these issues have mainly been discussed in closed sessions by politicians and experts, with hardly any involvement of the public. The discussions and decisions had of course been reported on by the media. The main considerations were financial in their nature and focused on topics such as the funds that would be needed to modernise and extend the infrastructure of public water supply.

Maintaining a vast – and, in many cases, ‘aging’ – network is quite a costly endeavour on its own, let alone the pressing need for extension and modernisation. Publicly owned companies did not have sufficient funds to finance these tasks in the early 1990s. Thus privatisation seemed inevitable in many cases and indeed began in 1994. (Boda et al., 2008; Hegedüs et al., 2010) One of the important issues was the question of what to sell as in whether this should include the management rights only or beyond that the assets (the pipelines and equipment) as well.

As an overall assessment, privatisation has improved the efficiency of waterworks. (Boda et al., 2008) Yet, FIDESZ – the dominant government party since 2010, also governs Budapest since 2010, and used to be in majority in Szeged in 1998-2002 – boasts a populist, ‘freedom fighter’, anti-capital, and nationalistic, at some points even xenophobic stance is against foreign capita in general, and thus has made all the efforts to reverse privatisation in this sector. Further, sectoral taxes like those on pipelines have been introduced to increase the financial burden of investors, thereby driving them out of Hungary. The case of the Pécs Waterworks is an extreme example of these developments. In the night of October 5, 2009 a security firm, commissioned by the municipality, occupied the headquarters of the waterworks in order to physically prevent the company from continuing its services. This resulted in the launch of court cases by the dozen (!) with the foreign investors and the municipality suing each other.

47 “Through the 1980s the companies had to face increasing financial difficulties because of the depressed fees and decreasing subsidies. By the nineties the sector ended up in a very difficult financial situation: the revenues from the collected user charges did not even cover the operational costs, while significant investments were needed both in the water and the sewerage sectors.” (Hegedüs et al., 2010, p. 3)
48 Hungarian and foreign dailies and weeklies have published thousands of articles on these issues. For a more academic, comprehensive, summary, see, e.g. Kornai (2015).
49 For further details on this case, covering the developments up to 2009, see e.g. Hegedüs et al., 2010: Box 1).
Privatisation did not have any direct effect on the marginalised since prices always had been and remained to be set by the municipalities instead of the privatised waterworks. The price formula is specified usually in the concession contract and contains operational costs (taking into account inflation and exchange rate fluctuation), plus a management fee.

For other reasons, however, access to piped water has been uneven by income groups. In 1992 75.5% of households in the lowest income decile of the population had access to piped water, while that ratio was 97.6% for the households in the highest decile. That gap has been narrowed by 2003: 80.7% vs. 99.4%. (Table 8)

Boda et al. (2008, p. 181) claim that this inequality has not been caused by physical and spatial marginalisation of social groups (or regions). Rather, it is due to the limited financial capacities of people to pay for the costs of connection. “In other words, connection charges hamper access and not necessarily the consumption bills.”

Table 8: Proportion of dwellings supplied with piped water by income groups (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>75.5</td>
<td>82.3</td>
<td>86.1</td>
<td>88.0</td>
<td>89.7</td>
<td>90.7</td>
<td>93.2</td>
<td>93.6</td>
<td>96.8</td>
<td>97.6</td>
<td>89.3</td>
</tr>
<tr>
<td>1993</td>
<td>73.4</td>
<td>82.8</td>
<td>85.9</td>
<td>88.2</td>
<td>88.7</td>
<td>89.7</td>
<td>92.9</td>
<td>95.5</td>
<td>96.6</td>
<td>98.3</td>
<td>90.2</td>
</tr>
<tr>
<td>1994</td>
<td>79.0</td>
<td>85.3</td>
<td>86.6</td>
<td>88.9</td>
<td>91.0</td>
<td>89.9</td>
<td>92.2</td>
<td>94.4</td>
<td>96.6</td>
<td>98.3</td>
<td>91.0</td>
</tr>
<tr>
<td>1995</td>
<td>75.6</td>
<td>84.9</td>
<td>86.8</td>
<td>87.0</td>
<td>89.8</td>
<td>93.0</td>
<td>93.3</td>
<td>93.9</td>
<td>97.3</td>
<td>97.9</td>
<td>91.0</td>
</tr>
<tr>
<td>1996</td>
<td>76.6</td>
<td>86.5</td>
<td>90.3</td>
<td>91.5</td>
<td>90.6</td>
<td>91.7</td>
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<td>95.6</td>
<td>96.8</td>
<td>98.1</td>
<td>92.1</td>
</tr>
<tr>
<td>1997</td>
<td>73.3</td>
<td>86.1</td>
<td>90.5</td>
<td>90.1</td>
<td>90.7</td>
<td>91.4</td>
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<td>95.9</td>
<td>97.7</td>
<td>98.7</td>
<td>91.8</td>
</tr>
<tr>
<td>1998</td>
<td>79.1</td>
<td>87.5</td>
<td>90.3</td>
<td>89.8</td>
<td>91.9</td>
<td>93.9</td>
<td>94.1</td>
<td>94.7</td>
<td>96.7</td>
<td>98.6</td>
<td>92.6</td>
</tr>
<tr>
<td>1999</td>
<td>77.6</td>
<td>85.9</td>
<td>89.2</td>
<td>90.7</td>
<td>92.6</td>
<td>93.7</td>
<td>94.1</td>
<td>96.6</td>
<td>97.3</td>
<td>98.9</td>
<td>92.8</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>1st decile</th>
<th>1st quintile</th>
<th>2nd decile</th>
<th>2nd quintile</th>
<th>3rd decile</th>
<th>3rd quintile</th>
<th>4th decile</th>
<th>4th quintile</th>
<th>5th decile</th>
<th>5th quintile</th>
<th>10th decile</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>80.7</td>
<td>85.7</td>
<td>92.0</td>
<td>93.9</td>
<td>97.2</td>
<td>99.0</td>
<td>99.4</td>
<td>94.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>77.8</td>
<td>84.2</td>
<td>93.8</td>
<td>95.9</td>
<td>98.0</td>
<td>99.4</td>
<td>99.4</td>
<td>95.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>79.1</td>
<td>90.8</td>
<td>92.5</td>
<td>94.5</td>
<td>95.5</td>
<td>96.8</td>
<td>97.0</td>
<td>98.5</td>
<td>98.5</td>
<td>99.3</td>
<td>95.2</td>
</tr>
<tr>
<td>2003</td>
<td>80.7</td>
<td>91.0</td>
<td>92.7</td>
<td>95.8</td>
<td>95.2</td>
<td>96.7</td>
<td>97.3</td>
<td>98.6</td>
<td>98.5</td>
<td>99.4</td>
<td>95.5</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office (Table 7.1 in Boda et al., 2008)

2 Water supply in Budapest
After the privatisation on 1 January 1994, the water supply services of Budapest (Fővárosi Vízművek Zrt.; or Budapest Waterworks) was run by a joint venture until 29 June 2012. The joint venture was owned by the municipality and two private investors, that is, SUEZ Environnement S.A. and RWE Aqua GmbH. (Table 9) The municipality retained majority ownership, but operation was the duty of the private investors who hence held the
management rights. For instance, the Board of Directors was chaired by a French director until 29 June 2012 and there was a German member in the Board. Yet, there were six Hungarian members, too. Until 29 June 2012 the general manager was a Hungarian (who became a deputy general manager for finance on 30 June 2012) while the two deputy general managers for operations and technical affairs and for finance were foreigners.

Table 9: The ownership structure of Budapest Waterworks, 1 January 1994 – 29 June 2012

<table>
<thead>
<tr>
<th>Shareholders</th>
<th>Ownership (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budapest City Council</td>
<td>73.60</td>
</tr>
<tr>
<td>Hungáriavíz Zrt.*</td>
<td>23.65</td>
</tr>
<tr>
<td>SUEZ Environnement S.A.</td>
<td>0.87</td>
</tr>
<tr>
<td>RWE Aqua GmbH</td>
<td>0.84</td>
</tr>
<tr>
<td>Budakeszi Municipality</td>
<td>0.24</td>
</tr>
<tr>
<td>Budáörs Municipality</td>
<td>0.57</td>
</tr>
<tr>
<td>Halásztelek Municipality</td>
<td>0.11</td>
</tr>
<tr>
<td>Szigetmonostor Municipality</td>
<td>0.09</td>
</tr>
<tr>
<td>Szigetszentmiklós Municipality</td>
<td>0.03</td>
</tr>
</tbody>
</table>

* Hungáriavíz Zrt. was owned by SUEZ Environnement S.A. and RWE Aqua GmbH.

Source: Budapest Waterworks, Annual Report, 2012

The foreign investors divested their investments on 29 June 2012, and since then the company is in the hands of domestic (and public) owners. (Table 10)

Table 10: The ownership structure of Budapest Waterworks since 29 June 2012

<table>
<thead>
<tr>
<th>Shareholders</th>
<th>Ownership (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budapest City Council</td>
<td>78.02</td>
</tr>
<tr>
<td>Budapest Waterworks</td>
<td>20.94</td>
</tr>
<tr>
<td>Budakeszi Municipality</td>
<td>0.263</td>
</tr>
<tr>
<td>Budáörs Municipality</td>
<td>0.637</td>
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<td>Halásztelek Municipality</td>
<td>0.123</td>
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<tr>
<td>Szigetmonostor Municipality</td>
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<tr>
<td>Szigetszentmiklós Municipality</td>
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<td>Pócsmegyer Municipality</td>
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<tr>
<td>Biatorbágy Municipality</td>
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<tr>
<td>Tőköl Municipality</td>
<td>0.002</td>
</tr>
<tr>
<td>Szigethalom Municipality</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Source: http://vizmuvek.hu/hu/fovarosi-vizmuvek/tarsasagi-informaciok/fovarosi_vizmuvek/tulajdonosi-szerkezet; accessed on 13 March 2015

50 Annual Report, 2012. In 2011, too, there were six Hungarian members of the 8-strong Board. (Annual Report, 2011) In contrast, Hegedüs et al. (2010), p. 9, claim that the foreign investors had a permanent majority on the board, i.e. 4 out of 7 seats. A possible explanation is that the foreign owner nominated Hungarian members to the Board.
An interview conducted with a former employee suggests that the foreign investors had introduced modern management techniques, upgraded the infrastructure and regularly retrained the employees. Study tours abroad had become significantly more frequent than before, and since 2012 (when the foreign investors left) have become far less frequent again. Further, annual bonuses are not being paid any more and other additional forms of remuneration (e.g. via cafeteria) have been cut back too.

The situation of the marginalised has not been affected directly either by the privatisation or the change of the ownership structure in 2012. They, however, suffer from a combination of several factors. Usually they live in run-down blocks of flats where the water pipes are outdated, and thus leakages are ‘normal’. What is worse, in many cases water meters cannot be installed, and thus consumption cannot be measured by flats, given the technical condition of the pipes. Replacing the pipes is rather costly and can be done only gradually, at best. As a consequence, insufficient attention is paid to control consumption or notice and stop waste. Thus, tenants in these houses are prone to pay a higher water bill going along with thus increased costs for sewage. Further, toilets are shared facilities in many of these houses (not installed inside flats). Again, not enough – if any – attention is being paid to maintain them, to control water consumption and stop leakages. The bill for (unnecessarily) high(er) water consumption is to be paid by all tenants, regardless of their actual use of the toilets and individual water consumption.

In sum, several – in many cases interrelated – factors are at play influencing the situation of the marginalised. Namely they are: housing, the quality of infrastructure, access to various services (water, electricity, gas, heating, etc.), job opportunities (i.e. the ability to earn regular, sufficient income and thus pay the bills), education, social policies and so on. In other words, it would not be sound to analyse access to water in isolation from these other factors.

3 Water supply in Szeged

In 1994, the operation of the water supply services was privatised. This agreement was renegotiated in 2001. The municipality demanded to start these negotiations. As a result of heated discussions, during which e.g. legal actions were also used as weapons, several major points of the original contract were amended. First, the foreign investor now is not entitled a management fee anymore. Second, the foreign investor lost its formerly exclusive rights to perform maintenance, reconstruction and other building (investment) activities via a separate company. Third, the company was transformed from a limited liability company (Ltd.) into a joint stock company and the municipality also increased its influence in the board. The managing director is still appointed by the foreign investor, but he now is a Hungarian citizen at the time of writing.

51 These capacities were ‘internalised’, i.e. employees of that separate company are now employed by the Szeged Waterworks. (Horváth and Péteri (2012)) From a different angle, now there is no incentive to ‘externalise’ profits by making contracts with a separate firm at inflated prices.

52 These three elements are mentioned in a written reply by Szeged Waterworks, provided in Hungarian. (24 March 2015)
Several Hungarian accounts, co-authored by Gábor Péteri, have presented this case as a success story, due to mutual learning. (Hegedüs et al., 2013; Horváth and Péteri, 2012) Hungarian political weeklies, in contrast, tend to emphasise conflicts over appropriating those elements of profits that stem from investment activities (i.e. not from the basic service provision). These tensions are partially disguised, partially motivated by party political motivations. (e.g. Magyar Narancs, a series on Szeged, October – December 2000)

4 Water supply in Debrecen
In 1923, a lighting company took over the operation of the water supply in the city given the electricity needed for pumping water. This was a municipal company.\textsuperscript{53}

\textsuperscript{53} Interview with the managing director of Debrecen Waterworks; see also Gy (1976), pp. 171-172, 210-212.
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Source: Central Statistical Office. [http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/5_zrk005.html](http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/5_zrk005.html)
References


Comparison of main development stages in Finland with Central Europe

Jari Aro
University of Tampere, Finland

Introduction

The building of water works started in Finland a few decades later than in some other European countries such as Sweden, Germany, and the UK. This is due to the late start of modernisation of the Finnish society in the 19th century.

Finland was an autonomous grand duchy and a part of the Russian Empire from 1809 to 1917. The country gained its full independence in 1917. During the 1860s and 1870s an economic liberalisation took place and the local administration was reformed. Finnish cities started to grow rapidly in the 1880s; by 1920 the capital city Helsinki had almost 200,000 inhabitants. Still, in Finland the industrialisation and urbanisation happened relatively late. Until the beginning of the 1960s the majority of the population lived in rural municipalities.

The development of water services in Finland has taken two different paths. In cities the waterworks were municipal public utilities. In rural municipalities, however, waterworks were often established as local and relatively small private cooperatives. Later on some of these cooperatives have developed into larger public utilities or companies.

According to Katko and Juuti (2005, p. 61) the development of water supply and sewerage services in Finland can be divided into the following key periods:

1. Until 1880: early discussions and proposals for private concessions;
2. From 1880 to 1917: establishment of the first water supply and sewerage systems in the biggest cities as municipal departments and works;
3. From 1920 to 1940: expansion of the systems and establishment of new ones;
4. From 1950 to 1980: after the Second World War the reconstruction period was followed by a major expansion of systems, including stronger water pollution control measures;
5. After 1980: increasing autonomy, inter-municipal cooperation and outsourcing of non-core operations.

Establishment of water supply and sewerage systems in cities

Water service systems were first built in big densely populated cities. Before the First World War seventeen Finnish towns had constructed waterworks. In most cases water and sewerage systems were built simultaneously. (Juuti and Katko, 2005, p. 62)

The first initiatives to build water works came from the government. The Local Government Act from 1876 and the Health Decree from 1879 caused the cities to plan and later implement water and sewerage systems. The Local Government Act was important because it turned the local municipalities into independent governments which had possibilities and resources to organise infrastructure services based on municipal ownership. Compared with the UK and continental Europe a related debate on ‘municipal socialism’ in Finland cannot be discerned. The issue of water and sewerage services was probably considered more as a practical than ideological question. While the health legislation seems to originate from the English and later Swedish tradition, municipal legislation is closer to the German tradition. (Juuti et al., 2006)
Ideas and innovations in the water and the healthcare sector were adopted from other European countries. The spread of innovations happened quickly because Finnish civil engineers and physicians were well networked with domestic and foreign experts. Civil servants went on numerous fact-finding travels abroad, usually to Sweden, the UK, and Germany. Many cities also hired specialists from abroad to plan the waterworks and sewerage systems. (Katko, 2013, pp. 39–42)

In Finland the urban water supply and sewerage were publicly owned utilities. During the early stage, in Tampere and in Helsinki there were discussions on and proposals for private concessions. In Tampere the city authorities rejected a proposal by a local industrialist and decided in favour of municipal works in 1865, because the conditions in the proposal were disadvantageous to the city. In Helsinki a private company started to construct the waterworks in 1876, however, on account of the Europe-wide recession the project was not completed within the agreed time. After long negotiations the city bought back the concessions and later in the 1880s the City of Helsinki assumed the operational responsibility for the system. (Katko et al., 2002; Juuti et al., 2006)

Two concerns explain the necessity to build water supply systems in towns: the first one was combating fires. Houses in Finnish cities and towns were traditionally built of timber and thus easily caught fire. Already in the 1850s the Senate gave orders and instructions to cities concerning town planning and organising the fire service. Fire insurance companies financed the building of waterworks with advantageous loans. Only high-pressure waterworks could provide sufficient amount of water for combating fires. The waterworks were excellently suited for this purpose and there were no greater fires in the cities after the waterworks and fire departments were founded. (Katko and Juuti, 2005, p. 61; Juuti and Mäki, 2008, pp. 120–121)

The other concern was the need for safe drinking water and the improvement of health conditions. Traditionally water services were based on the use of private and public wells and springs. On account of the population growth in cities, the water production was insufficient for satisfying the growing consumption of water. Well water was also often polluted. In 1890, for example, in the city of Helsinki only six wells out of 82 had drinkable water (Katko, 2013, p. 25). Typhoid fever epidemics were common in Finnish cities at the end of the 19th century. The building of water supply systems and sewerage considerably increased hygienic conditions in the cities and morbidity rates decreased rapidly. Infant mortality began to fall fast after the 1880s. (Katko, 1996, pp. 17–18)

Between 1920 and 1950 also smaller towns (less than 10,000 inhabitants) built waterworks. Big cities grew in connection with the consolidation of neighbouring municipalities and their water and sewerage systems gradually expanded.

**Rural water supply**

In sparsely populated areas water supply is usually provided by the property owner. In Finland the evolution of rural water supply was largely based on cattle farming and on the need to transport water to cow houses. Later the dairy industry required milk of high quality, which accelerated the building of water pipes. The adoption of technological infrastructure followed a pattern where electricity was introduced to the farmhouses and then a water pipe
was installed in the cowshed; subsequently the house was provided with a sewer and finally a water pipe was laid to the house. (Katko, 2004, p. 22)

In rural areas the building of water supply systems started rather late. At the beginning of the 1950s only 7% of the houses in the countryside had a water pipe. In rural households water supply was traditionally within the responsibility of women. It was estimated that Finnish women walked 400,000 kilometres each day carrying water from wells to cowsheds and houses. The role of women in the daily household work was pointed out by a Parliamentary Committee for Rationalising of Households. Based on its work, the Finnish government started to support rural water supply through a financial support act in 1951. (Katko, 2004, p. 23; Juuti and Rajala, 2011, p. 122)

Small private water associations are a unique Finnish solution to water supply, especially in rural areas. These associations can be partnerships, water cooperatives, or joint-stock companies. Some water cooperatives have become merged into larger systems, while at the same time new ones were established, especially in dispersed rural areas. (Katko, 2004, p. 30)

Currently there are about 1,400 water cooperatives in Finland. The development of private water associations and water cooperatives has been connected with changes in legislation and forms of public funding. In Finland water cooperatives started after 1901 when the law on cooperatives became effective. The first generation of water cooperatives emerged in the period between 1900 and 1950. Usually consumer-managed water cooperatives were established in small rural villages and neighbouring areas to larger cities and they operated without financial support from the government. After 1950 municipalities and the government started to support water supply by granting loans and subsidies. After the 1970s water cooperatives have lost some of their character as independent and consumer-managed cooperatives; members of the cooperatives are less active and members’ ownership has become weaker. Since the 1990s the tightening legislation concerning wastewater treatment has increased the establishment of water cooperatives in rural areas. There is also a group of relatively large water cooperatives that take care of water supply in small towns and population centres. Most of these have been established in the 1950s. There has been great variation in the public financial support to water cooperatives because municipalities have quite different policies in this matter. (Katko, 2013, pp. 230–231).

The largest expansion of water supply services and start of modern pollution control

The Water Act that was enacted in 1962 marked the beginning of modern water pollution control in Finland. The act obliged communities and industries to apply for a permit to discharge their wastewater and with time these permits became stricter along with the technological development. In the 1960s and 1970s the construction of wastewater treatment plants was very rapid, and by the 1980s practically all communities had wastewater treatment
plants. From the mid-1980s the total number of wastewater treatment plants in cities started to decline, when larger wastewater treatment plants were constructed and smaller ones were taken out of use or converted into pumping stations. Smaller communities and townships introduced wastewater treatment first, and the biggest cities often last. (Katko et al., 2008, p. 104)

The treatment of wastewater was further promoted by the introduction of a special Wastewater Surcharge Act in 1974. This act allowed water and sewage works to cover the costs of providing sewerage services which were earlier covered largely by municipal taxes. In other words, the price of water services rose significantly. The oil crisis of 1973 and the Wastewater Surcharge Act marked a turning point after which water consumption (litres per person per day) started to decrease in Finland. The decrease can be explained by the introduction of proper leakage control by utilities, better pipe materials, better water fixtures, and an improved awareness of consumers as to water wastage and saving. (Katko, 2004, p. 26).

Industry is of course a significant consumer of water. Forest industries emerged in Finland at the end of the 19th century. Most of these plants were established along inland waterways because of the transportation of raw materials, finished products, and the water needed for related processes. At the same time, the water bodies started to gradually deteriorate. The situation was at its worst at the end of the 1960s. Water pollution loads from forest industries started to decrease in the 1970s, whereas biological-chemical treatment was not implemented before the mid-1980s. On the whole, the water pollution load from forest industries has continuously decreased since 1970, although the total production increased until the 2000s. Forest industries started to treat their wastewaters with biological and chemical methods some 15 to 20 years later than the municipalities. (Katko, 2004, p. 28)

Organisational changes in water services since the 1990s

In Finland municipalities have the responsibility to organise, advance, and supervise the water management in their respective areas. Municipalities can arrange water services in various ways as municipal public utilities or by buying services from private companies or from water cooperatives.


During the past two decades the municipal water services has been reorganised. Water services are separated from the municipal organisation and transformed into autonomous municipally-owned companies or joint-stock companies. The reason for this change was the Water Services Act in 2001 which requires that water utilities use net budgeting. The aim was to improve the economic efficiency and planning of these units. Especially big and old
companies in large cities have become autonomous and made good profit. Also the cash flow from the companies to the cities has been considerable. In some cases the income from water service companies to the city can be considered as a ‘hidden’ municipal tax, because the profit has not been invested to the maintenance of the existing system. On the other hand, almost all water service companies in younger cities and in large rural municipalities have not succeeded in making profit, and waterworks in small rural municipalities have usually made losses. (Katko, 2013, pp. 251–253)

Intermunicipal systems have a long tradition in the Finnish water management structure. The first ones were established in the 1950s. Since the 1970s, joint-stock wholesale companies have been established. The number of these organisations has recently increased and in 2010 there were in total 38 intermunicipal organisations. Local geographical circumstances can explain the establishment of these systems, for example in some areas suitable groundwater sources are limited. Another reason for the increasing intermunicipal cooperation is the increase in environmental and technical standards and the need to renovate old plants and systems. Especially small municipalities do not have financial resources for such investments.

References


"Interplay of social policy and technical innovations for freshwater supply for the marginalised”

In England and Wales, a household is deemed to be in ‘water poverty’ when water utility bills cost more than 3% of net household income after housing costs (DEFRA, 2004). This definition is widely accepted by regulators, consumer groups and the water industry more broadly. In 2002 an estimated 17% of households in England and Wales were considered to be in water poverty. Typical expenditure on fresh water supply stood at 1% overall and at 3% for the poorest third of households (Fitch and Prices, 2002). According to a more recent investigation, around a quarter of all households currently experience water poverty (Bradshaw and Huby, 2013). Typical expenditure on water and sewerage bills in England and Wales is now 1.6% of household income and by contrast, the poorest third of households now spend on average 3.7% of their income on fresh water supply (OFWAT, 2011). In addition, almost 12% of households in England and Wales are spending more than 5% of their income on fresh water supply (Bradshaw and Huby, 2013).

Since the privatisation of water companies, there has been a sustained increase in the average water and sewerage bills incurred by households alongside an increase in water poverty. As Table 12 illustrates, bills for fresh water supply have risen much faster than overall consumer prices. If water prices continue to rise above the current rate of inflation (CPI) and average earnings, water poverty is set to become an increasingly prevalent problem – particularly for low-income households reliant on benefits.


The extent of water poverty varies across households (Levell and Oldfield, 2011). Single adult households spend an average of 7.2% of their income on water bills. As such, water poverty rates are much higher amongst these households compared to multiple occupancy households (40% compared to 14%). Households in receipt of direct cash benefits are also more likely to experience water poverty than households that are not in receipt of benefits (46.6% compared to 18.8%). According to one calculation, households receiving benefits are three times more likely to experience water poverty compared to households not receiving
benefits (Bradshaw and Huby, 2013). This is due, in large part, to the fact that water poverty is defined as the cost of fresh water supply relative to income. Low-income and/or benefit dependent households are more likely to spend a higher proportion of their income on most goods, services and utilities and as such are more likely to experience water poverty.

In 2014, the Consumer Council for Water commissioned a body of qualitative research on the lived experience of water poverty in England and Wales (Creative Research, 2014). The research found that:

- households tended to prioritize essential items when paying for bills. Water was considered a high priority by some, but not all. For those not considering water a high priority, there was a belief that water companies are more flexible when negotiating payment schedules and water supply cannot be disconnected due to non-payment;
- to avoid falling into debt with utility providers, households drew upon a range of short-term strategies such as going without or buying lower quality or less products;
- debt tended to be caused by major lifestyle changes and was managed through the use of payday loans and credit cards; and
- those experiencing debt expressed feelings of isolation, helplessness, anger, anxiety and fear.

The Walker Review and a cross-party committee of MPs advocated for the widespread introduction of water meters to improve the fairness and transparency of access to fresh water supply (Walker, 2009). Water meters measure the amount of water a household actually uses and based on this information, households are subsequently charged by their water supplier. There is currently a ’mixed system’ where an estimated 50% of all households in England and Wales pay for their fresh water supply via this method. That is, these households are charged for the volume of water they actually use. Unmetered households are charged for fresh water supply according to the rateable value band of their home. Designed as a socially progressive measure, a strong correlation is assumed between the value band of a household and that household’s income. However, rateable value bands were last assessed in 1973 and no longer reliably reflect a consumer’s capacity to pay their water bill. According to research undertaken for the Walker Review, it is estimated that ‘only about 30% of the help accorded to the lowest rateable value band is going to the poorest households’. (Walker, 2009, p. 2).

Water meters have been cited as a technical solution to overcome the problem of the rateable value band system and water poverty. Research suggests that having a water meter halves a household’s probability of being water-poor (Bradshaw and Huby, 2013). In 2013-14, the average household bills for water and sewerage varied significantly across the regions but there were also substantial differences between metered and unmetered households: £355 and £417 respectively (in 2013-2014) (OFWAT, 2014). By 2030, it is anticipated that up to 80% of all households in England and Wales will pay for water and sewerage via the metering system (FoT, 2011).

Other methods designed to directly charge for fresh water supply according to consumption include pre-payment meters where a household has to pay in advance for a certain number of units of water. Pre-payment meters have never been particularly common or widely used in England and Wales, however, since 1998, pre-payment meters have been made illegal.

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54 Other methods designed to directly charge for fresh water supply according to consumption include pre-payment meters where a household has to pay in advance for a certain number of units of water. Pre-payment meters have never been particularly common or widely used in England and Wales, however, since 1998, pre-payment meters have been made illegal.
It is widely claimed that metering encourages more sustainable levels of consumption (FoT, 2011). However, contrary to this claim, there is little evidence to suggest that high meter penetration significantly reduces overall consumption (Staddon, 2010). Trials suggest that up to 40% of the minor reduction in water consumption is caused by better leak detection rather than constrained consumption (ibid.). Nonetheless, there is still a concern that water meters lead to under-consumption amongst lower-income households.

There is also some concern that low income households may suffer a ‘poverty premium’ whereby they pay a greater unit cost for their water than wealthier households (Hirsch, 2013). The Consumer Council for Water has explored the potential of reforms to the tax and benefit system to alleviate water poverty and strengthen the position of ‘vulnerable customers’ (Snell and Bradshaw, 2009). However, the Conservative-Liberal Democrat coalition government has recently called for private water companies to introduce social tariffs for customers based on their ability to pay. Beyond the costs associated with state intervention, this is perhaps due to the minimal capacity for tax and benefit reforms to target households currently experiencing water poverty. Mean-tested benefits would have a minimal effect on households experiencing water poverty as the majority are not currently receiving means-tested benefits (Snell and Bradshaw, 2009). In addition, the recent uprating of benefits using the Consumer Price Index rather than the Retail Price Index has resulted in a real term reduction in the amount of social security received by low-income households. Given that water bills are exceeding consumer prices, this poses a particular limitation for any state intervention tackling water poverty via means testing.

There is a clear tension between the public health and social policy issues raised by water poverty and the private interests and concerns raised by private water companies (Prasad, 2007b). In an attempt to arbitrate between these concerns, the Department for Work and Pensions (DWP) has established the Water Direct Scheme, which is essentially a third party deduction scheme between private water companies, customers in arrears and DWP. Those receiving Employment and Support Allowance (ESA), Job Seekers Allowance, Income Support, Pension Credit or Universal Credit can apply to have a portion of their social security payments paid directly to water companies. More importantly, the WaterSure scheme is specifically designed for low-income households with a water meter. Participating water companies offering the scheme cap water bills for eligible households at the average household bill. To be eligible for the scheme, applicants need to be in receipt of certain passport benefits and either have three or more children under age of 19 living in their household or have a medical condition that requires substantial water use. The scheme is designed to avoid under-consumption amongst lower-income households who normally, by virtue of their circumstance, use a greater amount of water.

Looking for a more comprehensive approach to water affordability, the Flood and Water Management Act received royal assent in 2010 and required government to develop ministerial guidance on tariffs for water to support ‘vulnerable customers’. Section 44 of the Act enables water and sewerage companies to implement social tariffs based on a customer’s ability to pay by charging more to some customers in order to charge lower tariffs to low-income customers (cross-subsidy). Cited benefits of social tariffs and cross-subsidies include avoiding bad debt and increasing water affordability for low-income households (DEFRA, 2012). If developing social tariffs, water companies are required to specify how this will address issues of water affordability. Whilst water companies are encouraged to introduce social tariffs, they are not legally obliged to. This ‘soft touch’ regulation leaves ‘vulnerable’ customers susceptible to an underling profit motive.
Essentially, water privatisation has transformed fresh water supply from a public and social good to a private market commodity. Alongside this, the social policy issues of water affordability, access and sustainability have been transferred from the public to the private domain and are dealt with accordingly (Drakeford, 1997). This poses a particular challenge for identifying who is responsible and thus accountable when basic human needs are not fulfilled or met (Johnson and Handmer, 2002).

“Water prices and water privatisation”

Between the late 1800s and late 1980s, fresh water supply was largely delivered and managed through local authorities or organisations controlled by local authorities. For the few remaining private water companies, profit ratios were capped. As political pressure mounted and public finances became increasingly constrained in the 1980s, the case was made for water privatisation. It was claimed private sector water companies would be more efficient, create competition, and provide crucial capital investment in modernization and water supply infrastructures (Prasad, 2007b). Lobina and Hall (2001) argue that these claims were unsubstantiated by the evidence. In spite of this, the government attempted to privatise regional water authorities in 1984. However, due to widespread public opposition to the proposal, the government abandoned the project for fear that it might harm their political performance in the 1987 general election. Subsequent to the election, the government sold the 10 regional water authorities in England and Wales by issuing shares on the London Stock Exchange. Public corporations retained control of water supply in Scotland and Northern Ireland.

Shortly afterwards, there was a public backlash against the conservative political administration and the private water companies. In spite of its promises, water privatisation had led to rising prices and profit ratios for private water companies as well as under-investment in fresh water supply infrastructure. As observed by the House of Commons Select Committee on the Environment:

‘After privatization, profits started to soar in real terms – between 1990/91 and 1997/98 the pre-tax profits of the ten water and sewerage companies increased by 147 per cent at a time when customers faced continual price rises. Water and sewerage prices rose respectively by 36 per cent and 42 per cent from 1988-1998 (in real terms) with the bulk of the increase occurring in the period up to 1994-1995. The industry faced a public outcry in relation to high levels of director’s pay and profits...’ (HOCSCE, 2000).

Public consciousness surrounding water privatisation peaked during the early 1990s when there was a particularly high rate of disconnections leaving some households without water and sewerage services. In 1991-92, disconnections peaked at 23,673 and gradually fell thereafter (Downing and Richards, 1998). Shortly after New Labour came to power, the 1998 Water Act made it illegal to disconnect customers for non-payment. Within this, the Act also made it illegal to install prepayment meters or ‘trickle valves’ as a means by which to recover water debt.

In recent years private gas and electricity utility companies have come under increasing scrutiny for rising energy costs, under-performance and profit ratios. Rising energy prices have been much more volatile compared to rising water prices (Levell and Oldfield, 2011).
As a result, ‘fuel poverty’ has also been firmly placed on the political and policy agenda. By and large households tend to spend a much greater proportion of their income on energy (circa 10%) than they do water: average energy bills are three times higher than water bills (OFWAT, 2011).

This perhaps comes some way to explain greater public resistance to energy privatisation and the relative lack of attention paid to water privatisation. Despite water prices also surpassing rates of inflation (CPI), this has received less political and public attention (OFWAT, 2014). Amongst the general public, water prices tend to be perceived as affordable whereas outgoings on goods such as energy and food are thought to have become less affordable (Creative Research, 2014). The media plays a particularly crucial role in this regard, raising public awareness of rises in utility prices but neglecting to report on rises in water prices commensurately. Another potential explanation is that public consciousness surrounding water as a natural resource is relatively low, compared to other natural resources and environments in Great Britain (Curry et al., 2005).

Finally, a recently muted response to the privatisation of fresh water supply may be explained by the influence of sustainability and environmental discourses and policy priorities. Arguably, these have led to a processes of re-‘regulation’ and limited level of mutualism being introduced into the fresh water supply sector (Bakker, 2003; 2005).

References

Water boards and fresh water supply in the Netherlands

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Water management
In the Netherlands water management has started in the 11th century. Verkerk and van Buren distinguish two main periods of water management: the first period from the 11th to the 18th century was characterised by efforts to fight water by means of, i.a., large-scale land reclamations and the construction of a canal system. In the second period starting at the end of the 18th century the Dutch approach changed into an approach that aimed to control water (Lintsen, 2002; Verkerk and van Buren, 2013). Robin de la Motte argues that ‘The Dutch have a long and unique tradition of managing water through water boards at the local level. This concerns both the way that the board is organised as well as the way that it is financed. Historically, there has been a strong connection between the organisation and financing of regional water management in the Netherlands’ (De La Motte, Robin, January 2005, p. 56).

Background water boards and water supply
In the Netherlands water boards (waterschappen) have played a key role in water management, i.e. ‘in limiting the encroachment of the sea, protecting against river flooding, and land reclamation’ (De La Motte, Robin, January 2005 (DeLaMotte,Robin,JanuaryÈ, p. 57). From the 11th century onwards there was a ‘growing insight that the construction of dikes and water drainage were matters that went beyond the realm of a village’ (Ministry of Infrastructure and Environment and Directorate-General Water, 2011, p. 20). The first official water board, which still exists today, was established in 1232 by count Willem II of Holland, the Hoogheemraadschap van Rijnland. In the following decades more Dutch people established local water management cooperatives. ‘Their cooperation not only involved working together, it also implied participation in governance, which makes the water boards the oldest form of democratic government in the Netherlands’ (Ministry of Infrastructure and Environment and Directorate-General Water, 2011, p. 20).

In 1798 a central organisation was established: the Agency for Water Management (Bureau voor den Waterstaat, later Rijkswaterstaat). This agency became responsible for national water management issues, and despite a task division this central organisation undermined the position of the water boards (Lintsen, 2002; Verkerk and van Buren, 2013). In the Dutch Constitution of 1848 the tasks of local municipalities and water boards were officially split, including the responsibility to prevent local municipalities from shifting their water problems to neighbouring municipalities. In the past there have been several hundred water boards; in the last century their number has reduced to 26 (Ministry of Infrastructure and Environment and Directorate-General Water, 2011, p. 20). Although most people in the 19th century used surface water as drinking water, the water boards did not do much to improve its deteriorating quality. Mainly in the large cities fresh water problems arose and caused epidemics. (Raadschelders and Toonen, 1993, p. 59). In short, the role of water boards in the development of the provision of fresh water seems to be limited.

Fresh water supply in Amsterdam
In the 19th century fresh water supply problems had arisen in cities, since canals and ditches were increasingly used as open sewers. Private individuals started taking action because of the resulting diseases. The Dutch writer and politician Jacob van Lennep (1802 – 1868), who
lived in Amsterdam, played an important role in the construction of the first water pipe. According to online sources, van Lennep had the idea to construct a water pipe to improve the water quality in his hometown when his wife gave him a glass of fresh water in the dunes near Heemstede in or around 1845. At that time the citizens of Amsterdam used canal water, rainwater, and water transported by boat from the river de Vecht to the city. This transport was expensive and in the winters the river was sometimes frozen; therefore, there was frequently a lack of fresh water in Amsterdam.

In the 1830s and 1840s different plans for water pipes were developed; most of them proposed constructing a pipe from de Vecht to Amsterdam. In 1845 the engineer and retired major Christiaan Vaillant proposed a plan to transport groundwater from the dunes to Amsterdam. In the beginning this idea was ridiculed but after the minister of Interior Affairs (Binnenlandse Zaken) had given Vaillant the permission to realise his proposal in 1847, a couple of well-known Amsterdam citizens formed a committee for the implementation of the first water pipe. Van Lennep became chairman of this committee, probably because of his multidisciplinary skills.

Van Lennep knew that London had already a water pipe and contacted English engineers to elaborate the plan. For many years the committee tried to find investors in the Netherlands and in particular in Amsterdam to fund the estimated 2.5 million guilders, however, they were not successful. Finally, in 1851, with the financial support of English investors the Amsterdamse Duinwater Maatschappij was founded and van Lennep became the first chairman. The construction of the first water pipe started in November 1851 and was finished in 1853; the pipe transported water over 23 kilometres from the dunes near Heemstede to the city centre of Amsterdam. Jacob van Lennep and one of his family members, Samuel van Lennep, first donated and later sold land in the dunes for the construction. The first tap was opened at the Haarlemmerpoort in Amsterdam on Monday, December 12, 1853. The price of 1 bucket of water was 1 guilder cent. The sales of the water company increased rapidly in the first week from 4,450 buckets on Monday to 10,575 buckets on Friday (Groen, 1978). In the following years more private initiatives evolved; the number of waterworks, taps, and of subscriptions to fresh water increased. In short, the water pipe network expanded rapidly. In 1896 the municipality of Amsterdam took over the Amsterdamse Duinwater Maatschappij. Also in other cities municipalities increasingly organised the supply of fresh water and the drain of wastewater.

**Vereniging van Waterleidingbedrijven**

In 1951 the Association of Waterworks (Vereniging van Waterleidingbedrijven) was established. The number of waterworks has decreased from 198 in 1951 to 10 in 2012.

**Nederlandse Waterschapsbank**

One year after the North Sea flood (Watersnoodramp) in 1953, the union of water boards founded the Nederlandse Waterschapsbank (NWB Bank since 2009). The bank was

specialising in providing loans for the flood defence and wastewater treatment; nowadays it also funds other public and local government institutions.

**Water Supply Act**
The Water Supply Act (*Waterleidingswet*) of 1957 regulates the fresh water supply and the supervision of waterworks companies, e.g. it grants provincial authorities the power to induce changes in waterworks companies.

**References**
Fresh water supply in the early 20th century - municipal enterprises (aziende municipalizzate)

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'Municipalisation': the Legge Giolitti
In 1903 the law ‘Giolitti’ and, later in 1925, the complementary ‘Testo Unico’ were issued because there was a common understanding that it was necessary to regulate the water sector. The main driver for the ‘market failure’ that led to a state intervention were industrialisation and the fast and rather uncontrolled urbanisation taking place throughout the country, particularly in the North, at the end of the 19th century. The urgency to regulate what was perceived as an emerging wide-spread need led to the convergence of rather different - and partially opposing - interests. It is a relevant fact that the pressure on the state to act was reinforced by some cases in which municipalities had autonomously started to become active, either by constituting new regulating entities or by simply buying private concessions in order to take a lead in solving the social need. The urge to act was not particularly ideological but basically driven by concrete needs: on the one hand, the provision of public utilities represented a viable option to fill up the municipal reserves, on the other hand, rapid urbanisation in a context of reduced hygiene was posing a serious threat. Between 1891 and 1901 Italian cities increased by 54% (Rome), 43% (Milan), 32% (Turin), 27% (Palermo), and 14% (Naples). Further, given their positive externalities, the availability and efficiency of grid-based services (such as water or electricity) was deemed to be a crucial asset for local competitiveness in the ‘rush’ to attract promising industries. Those rather first ‘industrialising’ municipalities were indeed the first to pro-actively promote the delivery of public utilities, predominantly governed by moderate and liberal majorities. While public utilities were very rare in Italy before 1870, they spread in terms of aqueducts (Spoleto, Udine, Terni, Vercelli), urban transport, and electricity in the 1890s.

The first attempt to achieve a state-level regulation took place in 1889 (Pelloux government), which constituted an ad-hoc parliamentary commission, the so-called ‘Commissione Lucchini’. The commission was asked to draft a law that would facilitate the entry of public entities into the service delivery: from scratch, where it did not exist, and through taking over from private actors where they already had concessions. The proposal faced resistance from the more conservative segments in the parliament, which were mainly formed by industrialists. These were predominantly managing the natural monopolies of utilities and did not want to lose their economic privilege. A second attempt took place in 1902 and at that point the power constellation had already changed: a ‘social bloc’ had formed, comprising some entrepreneurial groups, labour unions, and a reform-oriented segment of the socialist left. The quest for public utilities was connected with the broader political agenda of decentralisation that was deemed necessary as a response to the rapid urbanisation processes. The main motivations were to facilitate further industrialisation processes and to broaden the popular consensus with the modern state through life quality-enhancing services. Different political factions contributed to the general debate: interestingly, most of them were in favour of a ‘publicisation’ of services, no matter whether they were liberal, socialist, or catholic. For some it was the ‘market failure’ that had to be addressed (linked to the natural monopoly principle), while for others it was the improvement of living conditions of the working class or the prospect of improved public finance at the municipal level. The resulting law (Legge 103 del 29.03.1903) reflected all these different interpretations of the problem (and of the solution). In particular the law tried to appease all the different parties, including the
opposition. Municipalisation remained optional for the individual municipalities; but after being selected, a series of standards and standardised procedures had to be implemented. The law explicitly listed all utilities to which municipalisation could be applied; it thus served as a limit to later potential expansions (also resulting from the controlling entities’ attitude towards implementation). The legal status of the new managing entities was awkward, because they did not constitute juridical personalities. Therefore, legal ownership or holding assets was not possible for these entities. This clearly reduced their autonomy and efficacy from the very beginning. The municipalisation system was strictly controlled by local entities and by the government. The ‘municipalizzazione’, as designed in 1903 and integrated by the TU in 1925, characterised a whole century of public service delivery in Italy. Within the framework of the resulting model administrative and service boundaries tended to coincide, just as regulating, controlling, and managing authorities tended to converge. The type of the delivered services was predominantly mono service\(^{56}\) and was highly integrated into the public administration, while remaining functionally separate in order to exploit the technocratic connotation resulting from its management structures. The phenomenon of municipalisation had its peak in the period after the implementation of the Legge Giolitti and lasted until the outbreak of World War I; in 1915-16 there were about 170 municipalised entities: 127 were newly constituted and 42 had overtaken previously private concessions. The fascism in Italy brought a slight return of private actors in the utilities scene. Further, the Testo Unico 2578 of 1925 implied some simplification in the procedures and provided greater autonomy to local administrative units: the result was a shift from a strictly public service delivery to more contract-based service delivery.

**WW1, WW2, and the 70s**
In line with other European countries, investment into public provision of water has received particular attention in Italy during WW1, when the provision of public water was a key component of modernisation, of sustained economic growth (in the Keynesian view) and of social appeasement. This last function was principally achieved through subsidies that kept the prices of utilities (not only of water) low. This general model was applied until approximately the 70s, when the crisis brought the public sector to relax subsidies on utilities (not only on the consumer side but also on the investment side) and to actively look for greater partnership with the private sector. In Italy, water was mainly provided by means of municipal aqueducts; therefore, the service provision was highly fragmented (about 10,000 different providers in 1994) and no clear or homogeneous system of water quality control and management was possible.

**The 90s: the Legge Galli**
In 1994, a new law (Legge n.36 del 1994; ‘Legge Galli’) required municipalities and regions to reorganise the service provision, mainly through the introduction of a new management level, the so called ‘Optimal Territorial Environments’ (Ambiti Territoriali Ottimali, A.T.O). These were traced in line with the hydrological, natural articulation of the water sources. Some management guidelines were introduced, in particular:

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\(^{56}\) Mono service describes a situation in which the public service delivery is organised around a single utility, so there is no joint delivery of services or joint planning and organisation of how to supply the services. This changed after the 90s.
1. the integration between territorial and industrial planning,
2. the separation between programming (attributed to the local authorities), management (single operator), and ownership of infrastructures,
3. full coverage of operational and investment costs,
4. the productivity and efficiency of the service became compulsory.

1995: the Legge 549

The Legge 549 introduced a three-year period of tax exemption for entities regulated by public law - including water provision services that were already ‘municipalised’ - that decided to become privatised. The law should be seen as a cumulative outcome of previous law-making efforts, (e.g. the Law 142/1990 promoted during the Andreotti government). The main crucial change in this transformation has to do with the overall scope of the entity delivering water. While societies ruled by public law are by definition no-profit organisms that deliver universal, efficient, and transparent services to the collectivity, private companies tend to respond to profit maximisation principles.

The law resembles a top-down proposal for the privatisation of public utilities. The tax exemption was expected to free resources for better investment and productivity gains. At the end of the foreseen three years an EC decision confirmed that Italy was not expected to further prolong any tax exemption as this was against the principles of the free market.

While privatisation seems to have led to some improvements, perverse effects could also be observed, such as the leveraging activities which see privatised firms interested in sustaining a high debt ratio in order to profit from public investment subsidies. Further, greater profitability of firms seems to have occurred mainly through an increase in utility fees, which have led to a situation in which Italian utility prices are amongst the highest in Europe, despite of a rather opposite trend in purchasing power (due to stagnant incomes). In the meantime, investment rates in the water sector have decreased and are far below the expectations before the privatisation wave.

Recent situation (ISTAT /statistiche focus, 21/3/12)

The ISTAT report 2012 reveals that about 9.3% of families in Italy report irregularities as regards their potable water. 17.4% of these families live in the southern part of Italy, particularly in Calabria (31.7%) and Sicily (27.3%). Trust in the quality of drinking water available at home is also reduced: about 30% of families report that at least one member of the family refuses to drink water from the tap. The cognitive frame ‘not to trust public water’ is therefore still quite prevalent in Italy, which leads to increased purchases of mineral water, with an average spending of about 10 euros per month per family in 2010. In 2010, about 62% of families were still buying their drinking water in supermarkets (mainly in plastic bottles). (ISTAT, 21.03.12)

Efforts to achieve a greater transparency as to the quality of public water date back to a European Directive from the year 2000, the Direttiva Quadro sulle Acque (2000/60/CE),

57 The incidence of desalinised sea water in the public water mix is particularly high in Sicily, reaching 92.5% (Figures of 2008, given in ISTAT 21.03.12).
which has been implemented by means of a national law from 2006 (decreto legislativo 3.04.2006, n. 152). Since then, data on the composition of public water sources has been issued and made accessible for the public by the ideographic district. Figures referring to 2008 show that about 85.6% of water sources in Italy are underground but the amount of water coming from springs has been declining in the last decades and more and more superficial sources are used (which tend to be more polluted and require greater expenditure for achieving potable standard). Only about 0.1% of the drinking water comes from sea water. In Italy the desalinisation process necessary for obtaining potable water is definitely the most costly and complex one. Therefore, it is still an exception.

According to ISTAT computations, in Italy tap water is predominantly used at home: 82.1% of the water is consumed by households, 16.5% in industrial settings, and only 1.4% in an agricultural context. Industrial shares are higher in the north and northeast (the more industrialised regions of Italy), reaching 37% of the total water consumption. The average water consumption in 2008 was about 199.7 litres a day per person, however, these estimates are thought to be unreliable, as different water consumption measurements coexist and tourism is not directly captured through the observation of ‘formal residents’. Despite of this, the average number of litres per resident has been steadily (yet very slowly) decreasing in the last 10 years, which shows that ‘saving water’ and avoiding its waste have increasingly become shared values.

**New challenges**
According to the law 21/2010, in Italy the provinces represent the institutional level responsible for the ‘integrated hydrological cycle’ (Osculati, 2015). However, the provinces have formally been abolished in order to cut the ‘costs of politics’. Some disorder regarding the transition of responsibilities to another institutional unit can be expected.

**Local public-private partnerships, the ‘Partecipate Locali’**
The current situation of the ‘Partecipate locali’ is ambivalent and highly context-specific. Despite the media attention focusing on the financial difficulties that PPPs (and especially those with greater public share) face, a series of best practices is worth mentioning, such as the public transport agency ATM in Milan or the Abc Napoli (Azienda Speciale dell’Acqua) which has a solid fiscal balance. Further, the Acquedotto pugliese (Apulia aqueduct) also emerges as best practice, since it has achieved, despite of the local water scarcity, considerable improvements in water supply and in management criteria (Osculati, 2015).

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**Some background on article 13 in Law 103/1903**
In the second half of the 19th century water supply in Italy was mainly in the hands of private companies. Beginning in the 1880s, first municipal enterprises (aziende municipalizzate) have been established, but as there was no related law, their legal status remained undefined. This changed in 1903 when a law “allowed but not required municipal authorities to resort to ‘aziende municipalizzate’ to ensure the provision of public services.” This law “required an extremely elaborated process prior to setting up an ‘azienda municipalizzata’, including a
number of opinions and approvals by a range of public authorities as well as the necessary approval by the citizens concerned in the form of a popular referendum (ATAM SpA Arezzo). It was only in 1922, under the fascist regime, that the law TU n. 2578/1925 provided for the reduction of the preliminary opinions to the approval of municipalisation proposals, through the abolition of an ad hoc Royal Commission, and eliminated the prior requirement for a popular referendum. Referenda subjecting proposals for establishing any ‘azienda municipalizzata’ would have had to be held only if at least a twentieth of the electorate or a third of city councillors expressed their disapproval of the plans.” (Lobina, 2005b, pp.107-108)

What was the idea behind this? Why was the procedure changed in the fascist period? The following paragraphs provide some background information on this process.

The understanding of the rationale behind the introduction of article 13 in Law 103/1903 cannot disregard the process that brought about the creation of the law itself. As shown by the related parliamentary proceedings, Law 103/1903 was introduced with the aim of responding to a number of social instigations, since there was an apparent need to ‘pursue, through the municipalisation of public services an effective response to the growing intensification of urban life in Italy’, which was ‘due not only to the gradual expansion of the city, but also to the multiplication of collective needs requiring a specific satisfaction through social means’. On the other hand, the law was also meant to dampen the action of some municipalities, whose orientation was in favour of the indiscriminate allocation of plants and of the management of municipal services to private entrepreneurs. Such political decisions were, in part, unavoidable because of the massive investments which the provision of these services required in terms of organisation and management (hardly affordable to municipalities, especially in large cities), but they also inevitably resulted in the transfer of the costs of the whole process to the beneficiaries of the provided services.

In addition to this, Law 103/1903 had another ‘authoritarian’ political objective; its aim was to strengthen the state control of the municipalisation process. In fact, a growing number of municipalities had already started to establish a ‘hidden’ system of municipalisation, building on some existing legislative provisions which allowed a municipal provision of services for a number of specific sectors. The situation in which more and more municipalities were de facto becoming providers of some public services, with no possibility of judicial and political control, accelerated the intervention of the legislator, whose detailed regulations were intended to achieve two objectives: to respond to the growing socio-economic needs and to introduce a complex system capable of containing and controlling the confused and inconsistent development of this process.

The state, in an attempt to streamline and harmonise the provision of public services, made a considerable financial effort to eliminate private management in this sector and to progressively transfer it to municipalities. This strategy was supported by the idea of the

58 In fact, in 1901, the Italian municipalities were already managing a number of electric furnaces, funeral parlours, services related to the evacuation of cesspools, as well as 151 aqueducts, 15 gasometers, 24 power plants, and one electric tramway (Fazioli et al., May 1999).
Minister of the Interior, Giovanni Giolitti, that through the ‘municipalizzate’ the management would finally represent ‘a desired source of fair profits, and a relief for taxpayers’ – in accordance with a tested practice that had already produced good results in the UK. However, the actual nature of Giolitti’s political agenda was more conservative than it seems and his main objective was eventually the enlargement of the social consensus, which he tried to pursue by addressing some specific social needs expressed by political parties. (Fazioli et al., May 1999)

In contrast, critics of municipalisation argued that public companies were unlikely to be managed according to the same criteria and with the same effectiveness as private enterprises. However, even the sceptics had to agree that the growing demand for services had made the implementation of a holistic and specific public intervention an urgent issue. In fact, many economists and philosophers – such as Stuart Mill and Vilfredo Pareto, whose thinking was not at all characterised by a collectivist view – were supporting the idea that municipal undertakings would have benefitted at the same time the lower and the bourgeois classes. (Fazioli et al., May 1999)

In this context, article 13 of Law 103/1903 resulted in the introduction of a historic rule, i.e. the adoption of an embryonic form of the institution of the referendum in Italy, even though the term ‘referendum’ was per se never mentioned in the wording of the law. The article established that: ‘Following the favourable opinion of the Commission, the resolution of the Municipal Council is submitted to the voters of the Municipality, convened 15 days before the summoning by publications of placards. The voter can vote ‘Yes’ or ‘Not’ about the allocation of the provision of public services to municipalities. In case the results of the ballot shows a disagreement with the resolution of the Municipal Council, no proposals for the allocation of the provision of public services to municipalities can be made before three years, except in the case where a quarter of the voters expressly asks for it, in accordance with the provision of the regulation and, however, no earlier than one year after the last ballot’.

In order to better understand the debates preceding the adoption of article 13, it can be useful to have a further look to the corresponding parliamentary proceedings, which show the existence of an actual interest of some parties to empower local – and often marginalised – stakeholders. During the ordinary senate session of February 9, 1903, the liberal senator Edoardo Ginistrelli declared to be against the introduction of the institution of the referendum; he believed it would have ‘modified the representative system of the country’, as with ‘this same argument, the French Ministry fought the referendum and the French Chamber rejected it’ and ‘neither the French Government nor the French Parliament can be accused of illiberalism’. Therefore, he wished that ‘the Senate, an organism eminently

59 Municipal undertakings.
60 In the UK, in 1900 80% of the existing electricity companies and about 50% of the aqueducts and gas companies were municipalised thanks to a legislation which came into effect 30 years earlier (Fazioli et al., May 1999).
conservative, shall not introduce such institute in the Italian representative system’. On the other hand, according to the republican senator Gaspare Finali, ‘the object of the article 13 is pretty simple and (...) its opponents have exaggerated’. In fact, even if ‘it’s been said that the popular vote is irreconcilable with the fundamental principles of our constitutional system (...), neither the Statuto⁶², nor the royal or the legislative power will be damaged by the introduction of such article’, since ‘it exclusively concerns administrative subjects’. As to the ‘incapacity of the electoral body’, Finali also added that ‘no one could be more competent than the citizens of a given municipality in judging the interests of the municipality itself’.

(ibid., p. 581)

The discussion shows that the Italian parliament was split in two opposing factions. However, in the end the government’s orientation was clearly explained by the Minister of the Interior; during his speech Giovanni Giolitti replied to those, who were basically afraid that the adoption of the article 13 may have opened the way to the institutionalisation of the referendum in Italy, that in the first place no one was actually discussing the introduction of the referendum in the Italian legal system. In the second place he said that even if it was the case of some sort of ‘hidden’ attempt of introducing it, there would have been nothing wrong with this. In fact, the approval or the rejection of this measure would have been in any case an expression of the Parliament’s will.

Moreover, Giolitti clearly said to the parliament what supporters of the article had reiterated during the debate: ‘The more competent judge in the subject is represented by those people to whom the public service is directed, and it is good – especially for rural population – that they are directly involved in matters that concern their own interests’. (ibid., p. 583)

Therefore, it seems that – in spite of the presence of many critics, who did not wish to leave any room to the direct expression of people’s will – the adoption of article 13 was in fact meant to foster the development of an embryonic form of popular consultation, incorporating the requests of the socialists and the Catholics. While such provision can be seen as an additional regulating instrument for the on-going process of the municipalisation of services, in line with Giolitti’s political project, it is undeniable that it has, at the same time, the characteristics of an unprecedented progressive push. Similarly, it is difficult to imagine that Giolitti was ingenuously unaware of the democratic innovation – potentially disruptive for the existing monarchical regime – that this measure could have brought about (especially at a time when the instauration of the fascist dictatorship was not expected). In fact, it is not surprising that a few years later the fascist regime made efforts to impede this evolution, even though it must be acknowledged that the ‘municipalizzate’ were not hampered by the fascist regime, since they were seen as an important tool for the effective control of local areas and of the social consensus which is necessarily connected to with them. (Fazioli et al., May 1999).

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⁶² The ‘Albertine Statute’ became the constitution of the unified Kingdom of Italy and remained in force, with changes, until 1948.
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Template development (Task 2.1)

WP 2: Integrated Case Studies (Qualitative)

CSI, Heidelberg University, October 2014

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METHODOLOGICAL REMARKS AND INSTRUCTIONS

Purpose of case studies: Empirical data provision for analysis and theory building

WP2 serves as a case collection and database for the other WPs in the project, especially work packages 3 (measurement), 4 (social vs. technological analysis), 5 (life cycles) and 6 (policy analysis). It also allows for the testing of the theoretical framework developed in WP 1. Accordingly, the purpose of the case studies is to collect empirical data that can be analysed through the different theory lenses of the project in the different work packages. Therefore the basic versions of the case studies (particularly comprehensive cases) will be rather descriptive and “analytically neutral” and provide the ground for pluralistic theoretical analysis within the different work packages.

Units of analysis

The idea of the comprehensive case study is to take a long term perspective on “basic” social innovations such as social housing or fresh water supply that have become mainstream in most parts of Europe over time. It follows the logic of an embedded single case study, which means that it focuses on a single phenomenon, yet attention is also given to different subunits (Yin, 2003:39ff). This means it does not examine, for example, social housing in a certain town, nor the activities of one specific organisation or social movement. It rather aims to understand the neuralgic points and crucial components in the diffusion process of the social innovation, at least since the 19th century, including the variety in adaptations across different contexts and backgrounds such as different welfare regimes or economic and political crises. Nevertheless, the most important and illustrative implementations of the social innovation will be analysed in more detail as subunits of analysis according to the categories of the template. This logic is illustrated in a simplified way in Fig.1.

![Figure 1: Scope of analysis in comprehensive case studies](image)

Accordingly, the comprehensive cases will describe the historical development of the social innovation and focus specifically not only on the invention, but also largely on the diffusion process (Fagerberg, 2003; Westley et al., 2007). For illustration, we added a case study on the social context of bicycles as a technological innovation from the long-established research field of sociological technology studies (Bijker, 1995). Although it follows a slightly different
template and contains some theoretical perspectives, its scope is comparable to a comprehensive case study as aspirated for in our context. Moreover, it shows that technological and social innovation have been jointly analysed before. The other example we included is a conference paper on the life cycle of the intelligence test (McGowan/Westley, 2013). It illustrates what a life cycle analysis in WP 5 could look like.

The individual case studies on the other hand will focus on one specific organisation, movement or initiative, such as, a micro credit initiative for Roma population in Hungary (“Way out” programme). It takes the approach of a holistic single case study that largely builds on a single unit of analysis (Yin 2003: 40). Moreover, they mostly focus on the present and examine innovations that are beyond invention, yet still in a diffusion process. Different aspects of this one specific case are examined, while the macro perspective plays a subordinate role here.

There are little differences in the template designs to account for these different approaches in the units of analysis. Both templates depart from the social problem that is addressed by the social innovation. Since the template for the comprehensive cases puts a strong emphasis on the development process, different streams, and changes over time (CCS – Part 2), this part comes next here. This perspective is less prominent in the individual case studies (ICS – Part 3), since the scope and observation period is substantially narrower. Influences and context factors are important in both case types and contain more or less the same questions. Both templates close with discussions and key lessons.

Table 1: Structures of comprehensive and individual case studies

<table>
<thead>
<tr>
<th>Comprehensive Case Study</th>
<th>Individual Case Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Social problem</td>
<td>I. Social problem</td>
</tr>
<tr>
<td>II. Solution, development, and impact</td>
<td>II. Solution, influences, and context factors</td>
</tr>
<tr>
<td>III. Influences and context factors</td>
<td>III. Development and impact</td>
</tr>
<tr>
<td>VI. Discussion and key lessons</td>
<td>VI. Discussion and key lessons</td>
</tr>
</tbody>
</table>

Data collection

WP 2 tells the story of different social innovations. Its task is to collect sources, data and other material as a basis for the future WPs. Both case studies should build on different types of sources for data triangulation.

The comprehensive case studies provide a historical perspective of a certain social innovation from a macro level. The results will especially be of interest for the life cycle analysis in WP 5. The partners should do desktop research, if necessary also archival research, looking for historical, political, economic, legal, etc. secondary sources or data and figures (also quantitative) which help to clear the history of the social innovation. If actors involved in the development or distribution of the social innovation can be accessed (housing companies, cooperatives, etc.) an interview could be considered with a representative to get his/her interpretation of the development.

→ Country perspectives in comprehensive cases: The partners who are not directly responsible for the cases will be asked to add their national perspective later in the process. More specific instructions will follow here.
The individual case studies concentrate more on the organisational level. They offer more possibilities for primary data collection, particularly interviews, but also for other data sources for triangulation. The historical perspective is not as important here as for the comprehensive case studies. But if partners run into evidence, which seems to be relevant for the life cycle analysis in WP 5, it would be a nice bonus.

**Suggestion for length**

- Comprehensive case studies: about 80 – 100 pages (including country perspectives)
- Individual case studies: about 30 – 40 pages

Given the comprehensiveness of the template and the fact that data might not be available to the same amount for all different parts, it is obvious that some sections of the template can be filled in in less detail than others. However, regardless of whether the case is comprehensive or individual, the collected data may be of interest for the partners in other WPs during the research process, so information for all questions in the template should be provided if possible.

**References**


I. TEMPLATE Comprehensive case studies

CCS - PART 1) Social problem addressed

1.1 Field(s) of problem
In which field(s) of activity did the targeted social problem originally arise (e.g., health, care, economic development, work integration)? Are there also any interrelated effects in other fields?

1.2 Targeted beneficiary group(s)
Who were/are the targeted beneficiaries? What specific characteristics did/do they have that might be relevant for or a symptom of their marginalisation (e.g., economic vulnerability, physical handicaps, migration status, lack of access to the education system, etc.)?

1.3 Problem background
Please describe the context conditions that were/are relevant for the emergence of the social problem or the marginalisation of the target group. This could be the general economic situation, political situation, welfare policy, a poor education system, religious constellations, demographical or technological development, etc. and/or more specific problems such as market power abuse, discrimination, corruption, etc.

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>Which individual (or collective) capabilities of marginalised people were deprived? Which functioning could not be achieved?</td>
</tr>
<tr>
<td></td>
<td>How were conversion rates affected by the context conditions and how did they contribute to marginalisation?</td>
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<tr>
<td></td>
<td>Can specific networks (actor constellations), cognitive frames or institutions be identified that were relevant for the problem situation?</td>
</tr>
<tr>
<td></td>
<td>Can power structures, according to Mann’s adapted framework, be identified that were relevant for the problem situation?</td>
</tr>
<tr>
<td></td>
<td>Is there a specific field (Fligstein) where the social innovation occurs?</td>
</tr>
<tr>
<td>WP 3</td>
<td>Is there a clear beneficiary that is being targeted?</td>
</tr>
<tr>
<td></td>
<td>Was the social problem addressed individual-specific or group-specific or context-specific?</td>
</tr>
<tr>
<td></td>
<td>How did contextual conditions that were/are relevant relate to each other? (e.g. complementarities, co-evolution, etc..)</td>
</tr>
<tr>
<td>WP 4</td>
<td>Did technological innovation cause marginalisation or make existing marginalisation worse?</td>
</tr>
<tr>
<td></td>
<td>Did technological innovation pave the way for social innovation?</td>
</tr>
<tr>
<td>WP 5</td>
<td>Did social problems addressed by social innovation emerge in certain context conditions?</td>
</tr>
<tr>
<td>WP 6</td>
<td>Which policies/political constellations did contribute to the social problem?</td>
</tr>
</tbody>
</table>

¹ All questions in the boxes do not have to be explicitly addressed within the case study, but the collected data should allow the analysis of these questions within the work packages.
## CCS - PART 2) Social innovation solution, development and impact

### 2.1 Antecedents and invention of the SI solution approach

When can the first activities of the social innovation be detected? How did they address the social problem, and how did these activities relate to previous solution approaches (if any) for the problems constellation?

How did they provide novelty in terms of goods, services or processes (including new forms of organisations, resources, or communication)?

### 2.2 Phases of development of the SI

How did the social innovation develop over time and across different contexts? Can different phases or crucial incidents be identified in the development of the social innovation towards a broadly adapted standard? What were the relevant societal levels of action?

### 2.3 Streams of development of the SI

Were there also different “streams” of the social innovation, i.e., different forms and adaptations in the implementation of the basic idea? Did these streams converge or diverge over time?

### 2.4 Status quo of the SI

How is/was the social innovation established today? Please describe who (e.g., public authorities, private companies, associations and cooperatives, public-private-partnership, etc.) provides which services, products, activities, etc. to whom and under which conditions?

### 2.5 Impact of the SI

In a long-term perspective, how did the social innovation unfold its impact in its initial field of activity and beyond (e.g., did the improved sanitation and health situation also improve the situation of the target group on the labour market)?

How can the positive impact of the social innovation be described (e.g., improved access to resources, learning options, self-confidence, etc.)? At which structural levels of society did the social innovation achieve impact?

Have there also been any negative impacts in the targeted field of activity and beyond?

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>To what extent has the social innovation been incremental (adaptive change in practice, e.g. with a focus on products or services that addressed identified market failures effectively), institutional (changes in the Social Grid practice, e.g. reconfiguring existing market structures to create social value), or disruptive (radical change in practice, e.g. with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
</tr>
<tr>
<td>WP 3</td>
<td>Evaluative Space: which was/is the initial goal of the SI process? Did it change over time?</td>
</tr>
<tr>
<td></td>
<td>Who has been/is being empowered by the SI process?</td>
</tr>
</tbody>
</table>
### WP 4
Which kind of technological artefacts and infrastructures were required for the development of the SI? Which kind of novel technological artefacts (TA)\(^2\) and/or new infrastructures were involved in the development of the SI?

Which kind of key techniques (TC)\(^3\) are required for the SI? Was it necessary to acquire new techniques (TC) in order to implement the SI?

WP 5
Can specific reoccurring developmental stages be identified for SI?

Can their development be described as linear, cyclical, etc.? Are there path dependencies in SI?

What drivers or obstacles fostered and hindered the social innovation?

Which cognitive frames, networks and institutions did change along the lifecycle of the SI? How did the dynamics between these elements change?

Did the reduction of one form of marginalisation cause another?

WP 6
…

### CCS - PART 3) Influences and relevant context factors

#### 3.1 Social problem

Have there been any changes, extensions, etc. in the addressed social problems or marginalised target groups, from a long-term perspective? Can different reasons be identified over time that were responsible for the rise and persistence of the social problem? Are there reoccurring patterns that repeatedly caused a need/fostered the adaptation and distribution of the social innovation?

### WP Possible questions of analysis (addressed within work packages)

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>Did reasons for marginalisation change over time?</td>
</tr>
<tr>
<td>WP 3</td>
<td>How did empowerment in one dimension cross-fertilize empowerment in other dimensions?</td>
</tr>
<tr>
<td></td>
<td>Which complementarities among context- and actor-characteristics were crucial?</td>
</tr>
<tr>
<td>WP 4</td>
<td>Did the lack of access to new technological artefacts (TA) and infrastructures (TI) have an impact on the marginalisation?</td>
</tr>
<tr>
<td></td>
<td>Did the lack of access to training to acquire relevant techniques (TC) have an impact on the marginalisation?</td>
</tr>
<tr>
<td>WP 5</td>
<td>Did the social innovation solve or mitigate social problems?</td>
</tr>
<tr>
<td></td>
<td>Did the social innovation (usually) meet the needs of different target groups?</td>
</tr>
<tr>
<td>WP 6</td>
<td>…</td>
</tr>
</tbody>
</table>

---

\(^2\)Technological artefacts (TA) including “hardware” (TA\(_h\)), i.e. any kind of material artefacts, and “software/Apps” (TA\(_a\)), i.e. any kind of software apps, protocols, services, blueprints….

\(^3\)This can include: TC\(_s\) – Somatic techniques (e.g. swimming, singing …), TC\(_e\) – Exosomatic techniques (e.g. making fire, writing, haircutting, riding a bike or car, …), TC\(_p\) – Primary production techniques (meaning human appropriation of net primary production in agriculture and exploitation of the lithosphere), TC\(_i\) – Industrial techniques, TC\(_c\) – Communication techniques, etc.
3.2 Solution approach

Did the concrete activities of how the social innovation approached the social problem change and renew over time (including new forms of organisations, resources, or communication)? Describe the most relevant activities to prevent, mitigate or solve the marginalisation (e.g., service provision, lobbying, advocacy, etc.)?

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>Which cognitive frames, networks and institutions did change during the course of the lifecycle of the SI?</td>
</tr>
<tr>
<td></td>
<td>To what extent has the social innovation been incremental (with a focus on products or services that addressed identified market failures effectively), institutional (reconfiguring existing market structures to create social value), or disruptive (with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
</tr>
<tr>
<td>WP 3</td>
<td>How stable were the social innovation solution approaches? How dependent were the solution approaches to contingencies (individual characteristics of promoter/inventor, contextual circumstances)?</td>
</tr>
<tr>
<td>WP 4</td>
<td>How did education/training contribute to the diffusion of the social innovation?</td>
</tr>
<tr>
<td></td>
<td>Did the solution involve support in acquiring the relevant technological artefacts (TA)?</td>
</tr>
<tr>
<td></td>
<td>Did the solution involve support in access to the relevant infrastructure (TI)?</td>
</tr>
<tr>
<td>WP 5</td>
<td>Can the development of cognitive frames, networks and institutions be described as linear, cyclical, etc.? Are there path dependencies in SI?</td>
</tr>
<tr>
<td>WP 6</td>
<td>…</td>
</tr>
</tbody>
</table>

3.3 Actors and networks

Can specific networks or individual actors be identified as key players in the idea generation, invention phase, the innovation phase and the diffusion phase of the social innovation?

Are there also typical “adapters” that did not necessarily develop the social innovation (incremental innovation), but adapted it to their context and accordingly contributed to the diffusion of the social innovation? Can they be located in a specific societal sector (civil society, market, public)? Did networks play a role in the adaptation process?

Were relevant actors or members of networks personally affected by the social problem addressed? Was or is the target group involved in the value creation process? Did the target group members take any collective action?

Which networks or other actors were important as catalysers, multipliers, or adapters? (e.g., sponsors, public authorities, politicians pushing for beneficial changes in legal frameworks, celebrities that increased public attention, etc.)? Where those actors particularly powerful? Why?

Did those actors and networks influence legislation, education curricula, or other institutions?

Which influence did these actors and networks exert on narratives and public discourses regarding the social problem/social innovation?
Please indicate if typical networks or other actors were present when a social innovation was invented or adapted. If so, did these different network and actor constellations change across different phases of the social innovation? Were these constellations influenced by the general framework conditions (e.g., the political welfare regime)?

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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<tbody>
<tr>
<td>WP 1</td>
<td>How did networks contribute to the social innovation over time?</td>
</tr>
<tr>
<td></td>
<td>How did networks relate to institutions and cognitive frames? Which dynamics of change did occur?</td>
</tr>
<tr>
<td>WP 3</td>
<td>Distributive aspect: which actors had access to the SI process? Which barriers can be identified at different levels (e.g. geographical distance, knowledge gaps, etc.)?</td>
</tr>
<tr>
<td>WP 4</td>
<td>Which scientific networks (e.g. disciplines) contributed to the success of the SI?</td>
</tr>
<tr>
<td></td>
<td>Which industrial actors contributed to the success of the SI?</td>
</tr>
<tr>
<td>WP 5</td>
<td>What actor constellations were present during important developmental stages of the SI?</td>
</tr>
<tr>
<td></td>
<td>Did different societal spheres (e.g., civil society incl. philanthropy, private markets, and public authorities) contribute at different points of dissemination to the SI?</td>
</tr>
<tr>
<td>WP 6</td>
<td>How were policies driven by actors and network constellations?</td>
</tr>
</tbody>
</table>

### 3.4 Narratives and discourses

Please, indicate which narratives or discourses accompanied / were relevant for the addressed social problem and the social innovation. How did these change over time? Did they inhibit or foster social innovations?

In which social domains can these discourses and narratives be located (media, parliament/city council, civil society/community)? What were the instruments of the discourse (reports, petitions, opinion leaders, media campaigns, letters to the editor etc.)?

Who was involved in these discourses (e.g., the beneficiaries)? Can any parties be identified that dominated these discourses or narratives? Why could they do so (e.g., power, knowledge)?

Did those narratives influence the perception and acceptance of legislation, education curricula, or other institutions?

Did they affect the perception and acceptance of any social networks?

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<td>How can cognitive frames possibly be measured? What is the evaluative space here?</td>
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<td>WP 4</td>
<td>Which technological visions and scientific advances were used in the discourse?</td>
</tr>
</tbody>
</table>
### 3.5 Rules, norms, and policies

Were there any policies (in the thematic field or generally) that contributed to the social problem? Were there any legal / constitutional triggers or framework conditions that contributed to the social problem? Were there any other rules or norms that contributed to the social problem?

Were there any policies (within the relevant thematic field or elsewhere) that fostered or inhibited the social innovation, e.g. by altering its capacity and function to tackle marginalisation? Were there any legal / constitutional triggers or framework conditions that fostered or inhibited the social innovation? Were there any other rules or norms that fostered or inhibited the social innovation?

To what extent have rules, norms and policies contributed towards systemic change through social innovation in this field of study?

Is ‘tackling marginalisation’ (either via poverty reduction, social inclusion, etc.) a central, explicit objective or outcome of policies or other rules and norms? Why/Why not?

Did the social innovation build on or recombine existing policies, norms and rules?

Were relevant policies located on a regional, national or international (EU) level? Can different influences of different policies be detected across different regions?

At what stage of the development process did supporting policies become most relevant?

What are the diffuse and unintended effects of policies and/or other rules and norms in this field of study?

Did existing policies change as a consequence of the social innovation? Did other rules and norms change as a consequence of the social innovation? How was this achieved, and by whom? Were those particularly powerful?

How did policies or other rules and norms relate to social networks relevant for the social innovation?

How did policies or other rules and norms represent or relate to public discourses and narratives? How was policy making influenced by them? Vice versa, how did policies and other rules and norms influence public discourse?

<table>
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<tr>
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<th>Possible questions of analysis (addressed within work packages)</th>
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<tbody>
<tr>
<td>WP 5</td>
<td>Did changes in cognitive frames represent specific phases in social innovation lifecycles?</td>
</tr>
<tr>
<td>WP 6</td>
<td>How were policies driven by cognitive frames?</td>
</tr>
<tr>
<td>WP 3</td>
<td>Which networks/links were shared by social innovators and policy makers?</td>
</tr>
<tr>
<td>WP 4</td>
<td>What was the role of research, technology and innovation policy during social innovation?</td>
</tr>
</tbody>
</table>
innovation process?

What was the role of education (and life-long learning) policy during social innovation process?

Did technological norms and standards play a role?

WP 5 What was the role of policy makers during the social innovation process?

WP 6 Which (social) innovation policies have been successful in the past? In which contexts?

Which role did policies play in ecosystems fostering social innovation in the past?

How do policies relate to cognitive frames and social networks?

3.6 Resources

Please describe and compare different forms of funding that were used to finance the social innovation (e.g., own assets of target group, donations, membership fees, grants, social investments, regular loans, public funds, etc.)? For what purposes were these resources deployed (e.g., machinery, commodities, advisory, etc.)?

Were other forms of resources (voluntary work, social networks, natural resources, etc.) relevant for the social innovation? Please describe their role.

Did those resources change during different phases of the diffusion process or different background conditions?

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>How did power structures affect the resource endowments of the marginalised over time?</td>
</tr>
<tr>
<td>WP 3</td>
<td>How relevant was the combination of different resources (complementarities vs. substitutes)? How did eventual complementarities come about? Who had/has access to the crucial resources and on what did/does accessibility depend upon?</td>
</tr>
<tr>
<td>WP 4</td>
<td>Did the nationalization / privatization of relevant infrastructures impact on the access to social innovations?</td>
</tr>
<tr>
<td>WP 5</td>
<td>Are there recurring dynamic patterns during the course of the diffusion of a SI? Do different forms of financing contribute to the same diffusion results? Can the role of capital forms (social, cultural, ecological, etc.) for social innovations be specified?</td>
</tr>
<tr>
<td>WP 6</td>
<td>…</td>
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</tbody>
</table>

3.7 Social and technological innovation

Was the social innovation fostered by or related to technological innovations like
- a new general purpose technology (e.g., information and communication technologies) and/or by scientific advances?
- a new artefact (e.g. mobile phone)?

Was the social innovation fostered by or related to a new infrastructure (e.g. Internet)? Was the social innovation fostered by the emergence of new techniques?
How did technological innovation contribute to the social innovation, or vice versa? Did technological innovation help to distribute the social innovation or even improve it?

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<tr>
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<tbody>
<tr>
<td>WP 1</td>
<td>…</td>
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<tr>
<td>WP 3</td>
<td>Can patterns of sequencing be observed?</td>
</tr>
<tr>
<td>WP 4</td>
<td>Can recurring patterns on the interplay of social and technological innovation be specified?</td>
</tr>
<tr>
<td></td>
<td>To which step in the social innovation and diffusion process do technological innovations contribute? (idea generation, invention, innovation, diffusion process incl. adaptation, etc.)</td>
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<td>WP 5</td>
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<td>WP 6</td>
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</table>

### 3.8 Social impact measurement

Have there been any attempts to measure the impact of the social innovation (on the level of a specific intervention, a national level by public authorities, etc.)? Did these measurements influence the development of the social innovation?

<table>
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<tr>
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<tbody>
<tr>
<td>WP 1</td>
<td>…</td>
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<tr>
<td>WP 3</td>
<td>What dimensions and approaches for impact measurement have previously been used? How did they contribute to the development of the SI?</td>
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<tr>
<td></td>
<td>Were there any discussions about the impact of the SI, its measurement or the meaning of measured results?</td>
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<td>Which actors/groups/beneficiaries were considered in previous impact measurement attempts?</td>
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<td>WP 4</td>
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<tr>
<td>WP 5</td>
<td>…</td>
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<tr>
<td>WP 6</td>
<td>Where there any evidence-based policies during the SI lifecycle?</td>
</tr>
</tbody>
</table>

### 3.9 Further obstacles and drivers of the diffusion of the SI

What further contextual factors can be identified that fostered or inhibited the diffusion of the SI over time (e.g., legal framework conditions, economic/political situation or crisis, dominant welfare regime, ecological situation, power structures, cognitive frames, religious constellations, demographic developments, etc.)

What further factors can be identified on the level of the innovative agents that fostered or inhibited the diffusion (e.g., organisational capacity of the inventor, resources, resistance of employees, value set or skills of the leaders)?

Can different patterns of drivers and obstacles be identified, like for bottom-up vs. top-down adaptations of the innovations or related to different context conditions?

If the innovations were adapted across different regions or national borders, were there specific obstacles?
WP | Possible questions of analysis (addressed within work packages)
--- | ---
WP 1 | …
WP 3 | Which contexts did matter? In particular, which definition/level of context did matter? (e.g., geographical surrounding, political/economic situation at the macro or global level, belonging to professional groups, etc.)
WP 4 | …
WP 5 | How do different influential factors in the diffusion process of SI interrelate? What are the different obstacles for different kinds of SI (e.g., bottom-up vs. top-down)?
WP 6 | …

**CCS - PART 4) Discussion and key lessons**

Based on the findings throughout the template, what are the key lessons for …
- Policy makers?
- Investors (resource structure)?
- Inventors / investees?

**CCS – ILLUSTRATIVE EXAMPLES [subunits of analysis]**

The descriptions in the comprehensive case studies, particularly in parts 2 and 3, should be illustrated with a small range of examples, i.e., subunits of analysis. In addition to the information relevant for illustrating a specific argument, please also provide the following data specifically for these examples (cf. also ICS part 2):

- **Solution approach**: main activities and novelty in context
- **Actor constellations**: inventors, adaptors, other relevant actors, involvement of target group
- **Resources**: financial and others
- **Social vs. technological innovation**: interrelations
- **Social (innovation) policy**: support through a certain policy, impact of SI on legislation
- **Social impact measurement**: application and relevance
- **Further drivers and barriers for the diffusion of the SI**: economic/political situation or crisis, dominant welfare regime, ecological situation, religious constellations, demographic developments, etc.)
- **Impact**: positive and potentially negative
II. TEMPLATE Individual case studies

ICS - PART 1) Social problem addressed

1.1 Problem area
In which field(s) of activity does the targeted social problem arise (e.g., health, care, economic development, work integration)? Are there also any interrelated effects in other fields?

1.2 Targeted beneficiary group(s)
Who are the targeted beneficiaries? What specific characteristics do they have that might be relevant for or a symptom of their marginalisation (e.g., economic vulnerability, physical handicaps, migration status, lack of access to the education system, etc.)?

1.3 Problem background
Please describe the context conditions that are relevant for the emergence of the social problem or the marginalisation of the target group. This could be the general economic situation, political situation, welfare policy, a poor education system, religious constellations, demographical development, technological development, etc. and/or more specific problems such as market power abuse, discrimination, corruption, etc.

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<tbody>
<tr>
<td>WP 1</td>
<td>Which individual (or collective) capabilities of marginalised people are deprived? Which functioning could not be achieved?</td>
</tr>
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<td></td>
<td>How are conversion rates affected by the context conditions and how do they contribute to marginalisation?</td>
</tr>
<tr>
<td></td>
<td>Can power structures be identified according to Mann’s adapted framework that are relevant for the problem situation?</td>
</tr>
<tr>
<td>WP 3</td>
<td>Is there a clear beneficiary that is being targeted?</td>
</tr>
<tr>
<td></td>
<td>Is the social problem addressed individual-specific or group-specific or context-specific?</td>
</tr>
<tr>
<td></td>
<td>How do contextual conditions that were/are relevant relate to each other? (e.g., complementarities, co-evolution, etc.)</td>
</tr>
<tr>
<td>WP 4</td>
<td>Did technological innovation cause marginalisation or make existing marginalisation worse?</td>
</tr>
<tr>
<td></td>
<td>Did technological innovation pave the way for social innovation?</td>
</tr>
<tr>
<td>WP 5</td>
<td>Can specific networks (actor constellations), cognitive frames or institutions be identified that are relevant for the problem situation?</td>
</tr>
<tr>
<td></td>
<td>Do social problems addressed by SI emerge in certain context conditions?</td>
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<tr>
<td>WP 6</td>
<td>Which policies/political constellations did/do contribute to the social problem?</td>
</tr>
</tbody>
</table>
ICS - PART 2) Solution, influences and relevant context factors

2.1 Solution approach

How does the social innovation approach address the social problem? Describe the most relevant activities to prevent, mitigate or solve marginalisation (e.g., services provision, lobbying, advocacy, etc.)?

What is the novelty in terms of goods, services or processes (including new forms of organisations, resources, or communication)?

<table>
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<tr>
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<th>Possible questions of analysis (addressed within work packages)</th>
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</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>Which cognitive frames, networks and institutions are addressed by the SI?</td>
</tr>
<tr>
<td></td>
<td>To what extent has the social innovation been incremental (adaptive change in practice, e.g. with a focus on products or services that address(ed) identified market failures effectively), institutional (changes in the Social Grid practice, e.g. reconfiguring existing market structures to create social value), or disruptive (radical change in practice, e.g. with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
</tr>
<tr>
<td>WP 3</td>
<td>How stable are social innovation solution approaches? How dependent are solution approaches to contingencies (individual characteristics of promoter/inventor, contextual circumstances)?</td>
</tr>
<tr>
<td>WP 4</td>
<td>Which kind of technological artefacts and infrastructures are required for the development of the SI? Which kind of novel technological artefacts (TA) and/or new infrastructures are involved in the development of the SI?</td>
</tr>
<tr>
<td></td>
<td>Which kind of key techniques (TC) are required for the SI? Is it necessary to acquire new techniques (TC) in order to implement the SI?</td>
</tr>
<tr>
<td></td>
<td>How does education/training contribute to diffusion of the social innovation? Does the solution involve support in acquiring the relevant technological artefacts (TA)? Does the solution involve support in access to the relevant infrastructure (TI)?</td>
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</table>

2.2 Actors and networks

Can specific networks or individual actors be identified as key players in the idea generation, invention phase, the innovation phase and the diffusion phase of the social innovation? Are relevant actors or members of networks personally affected by the social problem addressed? Is the target group involved in the value creation process? Do members of the target group take any collective action?

---

4 Technological artefacts (TA) including “hardware” (TA_h), i.e. any kind of material artefacts, and “software/Apps” (TA_a), i.e. any kind of software apps, protocols, services, blueprints …

5 This can include: TC_s – Somatic techniques (e.g. swimming, singing …), TC_e – Exosomatic techniques (e.g. making fire, writing, haircutting, riding a bike or car …), TC_p – Primary production techniques (meaning human appropriation of net primary production in agriculture and exploitation of the lithosphere), TC_i – Industrial techniques, TC_c – Communication techniques, etc.
Which networks or other actors were/are important as catalysers, multipliers, or adapters (e.g., sponsors, public authorities, politicians pushing for beneficial changes in legal frameworks, celebrities that increased public attention, etc.)? Where those actors particularly powerful? Why?

Did/do those actors and networks influence legislation, education curricula, or other institutions?

Which influence did/do these actors and networks exert on narratives and public discourses regarding the social problem/social innovation?

Are there also typical “adapters” that did not necessarily develop the social innovation (incremental innovation), but adapted it to their context and accordingly contribute(d) to the diffusion of the social innovation? Can they be located in a specific societal sector (civil society, market, public)? Did/do networks play a role in the adaptation process?

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<td>How did/do networks relate to institutions and cognitive frames? Which dynamics of change did/do occur?</td>
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<tr>
<td>WP 3</td>
<td>Which complementary actors needed to be involved contemporarily?</td>
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<td></td>
<td>Distributive aspect: which actors have access to the SI process? Which barriers can be identified at different levels (e.g., geographical distance, knowledge gaps, etc.)?</td>
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<td>Which scientific networks (e.g. disciplines) contribute(d) to the success of the SI?</td>
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<td>Which industrial actors contribute(d) to the success of the SI?</td>
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<td>WP 5</td>
<td>How do different societal spheres (e.g., civil society incl. philanthropy, private markets, public authorities, etc.) contribute at different points of dissemination of the SI? How do they interact?</td>
</tr>
<tr>
<td></td>
<td>How do marginalised groups contribute to different forms of social innovation?</td>
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<td>WP 6</td>
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</tbody>
</table>

**2.3 Narratives and discourses**

Please, indicate which narratives or discourses accompany / are relevant for the addressed social problem and the social innovation. Do they inhibit or foster social innovations? Can already any changes be detected?

In which social domains can these discourses and narratives be located (media, parliament/city council, civil society/community)? What are the instruments of the discourse (reports, petitions, opinion leaders, media campaigns, letters to the editor etc.)?

Who is involved in these discourses (e.g. the beneficiaries)? Can any parties be identified that dominate these discourses or narratives? Why can they do so (e.g., power, knowledge)?

Do those narratives influence the perception and acceptance of legislation, education curricula, or other institutions?

Do they affect the perception and acceptance of any networks?
WP Possible questions of analysis (addressed within work packages)

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<td>Which technological visions and scientific advances were used in the discourse?</td>
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<td>Do changes in cognitive frames represent specific phases in social innovation lifecycles?</td>
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<tr>
<td>WP 6</td>
<td>How are policies driven by cognitive frames?</td>
</tr>
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</table>

2.4 Rules, norms, and policies

Were/are there any policies (in the thematic field or generally) that contribute(d) to the social problem addressed? Were/are there any legal / constitutional triggers or framework conditions that contributed to the social problem? Were/are there any other rules or norms that contribute(d) to the social problem?

Are there any policies (within the relevant thematic field or elsewhere) that foster or inhibit the social innovation, e.g. by altering its capacity and function to tackle marginalisation? Are there any legal / constitutional triggers or framework conditions that fostered or inhibited the social innovation? Are there any other rules or norms that fostered or inhibited the social innovation?

To what extent do rules, norms and policies contribute towards systemic change through social innovation in this field of study?

Is ‘tackling marginalisation’ (either via poverty reduction, social inclusion, etc.) a central, explicit objective or outcome of policies or other rules and norms? Why/Why not?

Does the social innovation build on or recombine existing policies, norms and rules?

Do relevant policies exist on a regional, national or international (EU) level? Can different influences of different policies be detected across different regions?

At what stage of the development process did/do supporting policies become most relevant?

Have existing policies been changed as a consequence of the social innovation? Did other rules and norms change as a consequence of the social innovation? How was/is this achieved, and by whom? Are those actors particularly powerful?

How do policies or other rules and norms relate to social networks relevant for the social innovation?

How do policies or other rules and norms represent or relate to public discourses and narratives? How is policy making influenced by them? Vice versa, how do policies and other rules and norms influence public discourses?

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<td>What is the role of institutions in social innovations? How do they relate to cognitive frames and networks?</td>
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<tr>
<td>WP 3</td>
<td>Which networks/links were shared by social innovators and policy makers?</td>
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<td>WP</td>
<td>Possible questions of analysis (addressed within work packages)</td>
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<tr>
<td>WP 1</td>
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<tr>
<td>WP 3</td>
<td>How is the distribution and accessibility to these resources?</td>
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<tr>
<td>WP 4</td>
<td>Does the nationalization / privatization of relevant infrastructures impact on the access to social innovations?</td>
</tr>
<tr>
<td>WP 5</td>
<td>What role do financial resources play for SI (invention, diffusion, etc.)?</td>
</tr>
<tr>
<td>WP 6</td>
<td>Can the role of the type of capital (social, cultural, ecological, etc.) for social innovations be specified?</td>
</tr>
</tbody>
</table>

2.5 Resources

What type of financial resources are used to finance relevant activities of the social innovation (e.g., own assets of target group, donations, membership fees, grants, social investments, regular loans, public funds, etc.), and for what purposes are these resources deployed (e.g., machinery, commodities, advisory, etc.)?

What other types of resources (voluntary work, social networks, natural resources, etc.) were/are relevant for the social innovation? Please describe the role of the different resources.

2.6 Social and technological innovation

Is the social innovation fostered by or related to technological innovations like
- a new general purpose technology (e.g., information and communication technologies) and/or by scientific advances?
- a new artefact (e.g. mobile phone)?

Is the social innovation fostered by or related to a new infrastructure (e.g. Internet)? Is the social innovation fostered by the emergence of new techniques?

How did/do technological innovation contribute to the social innovation, or vice versa?

Did/does technological innovation help in the diffusion of the social innovation or even improve it?
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<tr>
<td>WP 3</td>
<td>How is the distribution and accessibility to technology and its use?</td>
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<td></td>
<td>Whose perception on the use of the technology matters / is being promoted/diffused?</td>
</tr>
<tr>
<td>WP 4</td>
<td>To which step in the social innovation and diffusion process do technological innovations contribute? (idea generation, invention, innovation, diffusion process incl. adaptation, etc.)</td>
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<tr>
<td>WP 5</td>
<td>Which patterns do emerge in the interplay of social and technological innovations?</td>
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</table>

### 2.7 Social impact measurement

Have there been any attempts to measure the impact of the social innovation (on the level of a specific intervention or organisation or a national level, etc.)?

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<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
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<tbody>
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<td>WP 1</td>
<td>…</td>
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<tr>
<td>WP 3</td>
<td>What dimensions and approaches for impact measurement are currently used?</td>
</tr>
<tr>
<td></td>
<td>(How) do they contribute to the development of the SI?</td>
</tr>
<tr>
<td></td>
<td>What is the chosen evaluative space?</td>
</tr>
<tr>
<td>WP 4</td>
<td>…</td>
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<tr>
<td>WP 5</td>
<td>…</td>
</tr>
<tr>
<td>WP 6</td>
<td>…</td>
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</tbody>
</table>

### 2.8 Further drivers and obstacles for the diffusion of the SI

What further contextual factors can be identified that fostere(d) or inhibite(d) the diffusion of the social innovation (e. g., legal framework conditions, economic/political situation or crisis, dominant welfare regime, ecological situation, power structures, cognitive frames, religious constellations, demographic developments, etc.)?

What further factors can be identified on the level of the innovative agents that fostered or inhibited the diffusion (e.g., organisational capacity of the inventor, resources, resistance of employees, value set or skills of the leaders)?

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>…</td>
</tr>
<tr>
<td>WP 3</td>
<td>How can actors be ‘nested’ into contexts? Do different networks overlap? If yes, how do they overlap? Which actors are taking part in more than one network?</td>
</tr>
<tr>
<td>WP 4</td>
<td>…</td>
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<tr>
<td>WP 5</td>
<td>How do different influential factors in the diffusion process of SI interrelate?</td>
</tr>
<tr>
<td></td>
<td>What are different barriers for different kinds of SI (e.g. bottom-up vs. top-down)?</td>
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<tr>
<td>WP 6</td>
<td>…</td>
</tr>
</tbody>
</table>
ICS - PART 3) Social innovation development and impact

3.1 Development of the SI

Can different phases and crucial events in the development of the SI be identified today? Are there perhaps different “streams” within the social innovation?

<table>
<thead>
<tr>
<th>WP</th>
<th>Possible questions of analysis (addressed within work packages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP 1</td>
<td>How does the development of SI relate to changes in relevant cognitive frames, institutions and social networks?</td>
</tr>
<tr>
<td></td>
<td>How can the innovation be located in Mann’s framework of power sources/fields of innovation?</td>
</tr>
<tr>
<td>WP 2</td>
<td>To what extent has the social innovation been incremental (with a focus on products or services that address(ed) identified market failures effectively), institutional (reconfiguring existing market structures to create social value), or disruptive (with a focus on politics and social movements, changing the cognitive frames around markets and social systems/structures) across its diffusion process?</td>
</tr>
<tr>
<td>WP 3</td>
<td>Do any new actors/relevant groups get involved? (especially marginalised groups with previously little voice)</td>
</tr>
<tr>
<td>WP 4</td>
<td>…</td>
</tr>
<tr>
<td>WP 5</td>
<td>Can specific recurring developmental stages be identified for SI?</td>
</tr>
<tr>
<td></td>
<td>What actor constellations were present during important developmental stages of the SI?</td>
</tr>
<tr>
<td>WP 6</td>
<td>…</td>
</tr>
</tbody>
</table>

3.2 Impact of the SI

What kind of impact can be attached to the social innovation today (e.g., improved access to resources, learning options, self-confidence, etc.)? Does the social innovation also unfold its impact beyond the initial field of activity (e.g. effects on the labour market)?

How can the positive impact of the social innovation be described? Are there also potentially negative impacts in the targeted field of activity and beyond?

<table>
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<td>WP 1</td>
<td>…</td>
</tr>
<tr>
<td>WP 3</td>
<td>What was/is the evaluative space for assessing that the impact of the SI process is positive or negative?</td>
</tr>
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<td>WP 4</td>
<td>…</td>
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<tr>
<td>WP 5</td>
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<td>WP 6</td>
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</tbody>
</table>

ICS - PART 4) Discussion and key lessons

Based on the findings throughout the template, what are the key lessons for …
- Social innovators?
- Policy makers?
- Investors and funders (resource structure)?
The CRESSI project explores the economic underpinnings of social innovation with a particular focus on how policy and practice can enhance the lives of the most marginalized and disempowered citizens in society.

“Creating Economic Space for Social Innovation” (CRESSI) has received funding from the European Union’s Seventh Framework Programme for research, technological development and demonstration under grant agreement no 613261. CRESSI is a collaboration between eight European institutions led by the University of Oxford and will run from 2014-2018.

This paper reflects the authors’ views and the European Union is not liable for any use that may be made of the information contained here within.

Contact person-Project Manager: cressi@sbs.ox.ac.uk