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.
Authors

Dr Susanne Giesecke, Gunnar Glänzel, Dr Lara Maestripieri, Dr Georg Mildenberger, Dr György Molnár, Thomas Scheuerle, Dr Gudrun-Christine Schimpf & Dr Rafael Ziegler

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Editorial
Gudrun-Christine Schimpf / Thomas Scheuerle

Introduction
This report is part of CrESSI work package 5, “Social Innovation Life Cycles”. The purpose of the work package (WP) is to study the lifecycle of social innovations (SI) and draw practical lessons in terms of the drivers of and barriers to social innovation in different institutional settings. To fulfil this overall task, WP 5 has to determine the general conditions which facilitate SI and to find out if these are similar to or distinct from those of technological ones. Also, it aims to explore the lifecycles of SI and the types of actors that are relevant during the lifecycle of a SI. It will further examine the economic underpinnings of SI within ecosystems. Finally, by uncovering the resources, actor strategies, barriers and conditions underpinning SI, it aims to lay the foundation for policies to support SI in various contexts and according to different levels of social innovation.

Our specific task was to analyse the ecosystems and lifecycles of SI using the extended social grid model (ESGM) (Nicholls and Ziegler, 2014). Besides that we were looking for relevant actor constellations and in the end we tried to develop a typology of types of social innovation. Therefore, the case studies produced in WP 2 were analysed with a special focus on the different actors and actor constellations involved within an innovation ecosystem. Factors like economic development, policy development, nation building processes, welfare regimes, human resource flows into social innovations, value changes, moments of societal crisis, and discourses were considered in the analyses. An additional focus lies on identifying relevant power relations within the SI lifecycle.

The motivation for taking a long-term perspective on social innovations was to understand the relevant constellations and dynamics around SI in the long run, and to learn about the boundaries of social innovation (eco)systems. The report strongly relies on data collected in WP 2 but also draws on findings from WP 1 and WP 4. The deeper meaning of the data collection in WP 2 was to identify through an empirical lens the relevant social forces, the power structures, and (effects on) the beneficiaries’ capabilities (as those concepts were underlying the common template developed for this scope). WP 5 now aims to lift these findings back to the theoretical level and analyse the change dynamics, system boundaries, etc. in a more abstract way. The guiding framework for this was primarily the ESGM, but other analysis tools such as the multi-level perspective (MLP) (e.g. Geels and Schot, 2007) were also applied.

The term “lifecycle” is used in a rather metaphoric manner when analysing the material. Experiences acquired while collecting the material early on suggested that idealised lifecycle concepts of the Young Foundation’s kind (Murray et al., 2010) or Frances Wesley (2008) do not satisfy the rather chaotic nature of SI which depends on a myriad of coincidences. Therefore, after analysing the dynamics according to the ESGM, we also discuss our findings against additional existing concepts on ecosystems and lifecycle models that stem from innovation research. This links the analysis of SI
To find out about lifecycles of SI we checked for crucial developments and critical points in time over the lifespan of a social innovation. We carried out analyses following Beckert’s social grid (institutions, networks, cognitive frames) (2010) at critical points in time and used Mann’s dimensions (1986), as extended by Heiskala (2014) as categories to analyse properties of the three social forces. The capability approach (CA) was applied to give a rough estimate of the consequences or impacts of social innovations on marginalised populations.

Special attention was paid to the interrelation of social forces and how they contribute towards ordering processes in social structure: i.e. what changes appeared especially in the social grid through social innovations, but also how the social forces contributed towards the maintenance of certain socio-structural dynamics.

**Structure of the report**

This report consists of four parts by different partners of the CrESSI consortium.

- **Part 1:** Three major social innovations as viewed through the lens of the extended social grid model (UHEI, EMAUG)
- **Part 2:** Community Housing in the City of Vienna – 100 years of social transformation – a Case Study for the Social Grid Approach (AIT)
- **Part 3:** Analysis of individual case Kiútprogram (‘Way out’ programme) for microcredit and self-employment using the extended social grid framework (CERS-HAS)
- **Part 4:** Individual Case Study: Solidarity Purchasing Groups (UNIPV)

**Part 1: Three major social innovations as viewed through the lens of the extended social grid model**

In part I, the three long-term case studies of social innovations from WP 2 are analysed by researchers from the universities of Heidelberg (Gudrun-Christine Schimpf, Thomas Scheuerle, Gunnar Glänzel, Georg Mildenberger) and Greifswald (Rafael Ziegler). In the introduction, the background, purpose and methodological approach are outlined. This is followed by a brief review of the ESGM. The model was then applied to the material and the findings on topics of social housing, fresh water supply and financing access to education. The analysis of the case studies offers a longitudinal section through the phases of development of three social innovations for a period of more than 150 years.

The key findings of this endeavour are divided into two parts: first, the summary of the relevant dimensions deals with the mission and the mechanism of SI, second, based on the empirical findings,
the authors come up with propositions on lifecycles and ecosystems on the one hand and propositions on agency and impact on the other. The concluding discussion reflects on the explanatory power and consistency of the ESGM as well as the applicability of SI ecosystem theories and lifecycle models with the data. It concludes with recommendations concerning social innovation policy, stating that cultivating social innovation in niches can be understood as a reservoir of ideas to be adapted by the regime level when certain social needs rise in scale or major changes in the landscape challenge the mainstream approach.

### Part 2: Community Housing in the City of Vienna – 100 years of social transformation – a Case Study for the Social Grid Approach

In part II of this report, Susanne Giesecke of AIT Vienna provides an analysis of the trajectory of social housing in Vienna from the 19th to the 21st century. After sketching the historical context from the late 19th to the early 21st century, the author gives an overview of the four phases of the case study. In a theoretical excursion she introduces the multi-layer perspective (MLP) from transition studies and explores possibilities of how it could enhance the ESGM. Applying both, MLP and ESGM, to the developments in one country and especially in one specific city results in a consistent account of four transitions, being the period of the settler’s movement, the superblock’s period, the era of corporatist housing policies and finally the time during neo-liberal economisation. The author closes with an outlook on social housing in Vienna today and gives a short assessment of the impact that the SI had up to now.

In her conclusion, Giesecke points out the shortcomings of both the MLP and the ESGM. While the latter is not able to explain sufficiently where change in the social grid comes from, the first does not differentiate the different types of changes of SI. The combination of these two approaches allows answering these questions, as in the case of the Vienna case study.

### Part 3: Analysis of individual case Kiútprogram (‘Way out’ programme) for microcredit and self-employment using the extended social grid framework

In part III, György Molnár from the Institute of Economics, CERS, Hungarian Academy of Sciences in Budapest contributes an analysis of the material collected in the individual case study about the Kiútprogram (‘Way out’ programme) for microcredit and self-employment. He applies the ESGM to the situation of the Hungarian Roma and demonstrates how different aspects of the social grid reinforce each other and reproduce marginalisation.

The author points out that the concept of the cognitive frame is too narrow to describe the continuing spiral of disregard for and lack of knowledge within certain social groups. Also, it proved to be difficult to classify social ties and knowledge according to Michael Mann’s power resources. One important finding of the analysis is that SI must target all three social forces of the ESGM to prevent
the reproduction of marginalisation.

Molnàr concludes by recommending the further consideration of the points made, with special attention on configurations of programmes supporting SI on the EU or national level.

**Part 4: Individual Case Study: Solidarity Purchasing Groups**

In part IV, finally, Lara Maestripieri from the University of Pavia collected material on solidarity purchasing groups using the common template from WP 2. This individual case study on the one hand gives an illustrative example of how the material in WP 2 was collected and made available to the research consortium and what the common template looked like. On the other hand, data was gathered, among others by means of interviews, to allow for a more profound analysis of the case study on solidarity purchasing groups in WP 7 which was not part of WP 2.

The data collected is structured according to the common template. Therefore, after introducing what a GAS (solidarity purchasing group) is, the author turns to the social problem addressed and stresses the importance of solidarity, critical consumption, and collective as well as political power. Completing the template, the study deals with the beneficiaries, with actors and networks and reflects on changes initiated by and in consequence of the economic crisis. The data collection implies that the SI developed in different phases influenced by the national economic cycle and the diffusion of ICT. The SI might be part of a growing trend and might expand the access to the market for the beneficiaries.

**Concluding Remarks**

This report collects case studies from different EU-countries covering different time periods. All analyses rely on the ESGM as theoretical foundation and the data collected in WP 2, and deal with the questions of ecosystems and lifecycles of SI. The case studies all revealed shortcomings of the ESGM in explaining the trajectory of SI. While it was a very helpful tool in understanding different perspectives and long-term developments, several aspects are not considered sufficiently so far. Among these are: the importance of individual actors, the meaning of the organisational level, or the question of change. The authors took different directions to supplement the model accordingly. A good approach might be to incorporate ideas of the MLP into the ESGM.
References


PART 1
Three major social innovations as viewed through the lens of the extended social grid model

Thomas Scheuerle, Gudrun-Christine Schimpf, Gunnar Glänzel, Georg Mildenberger\textsuperscript{a} & Rafael Ziegler\textsuperscript{b}

\textsuperscript{a} All four: Center of Social Investments, University of Heidelberg.
\textsuperscript{b} University of Greifswald.
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1. Introduction

1.1 Background and purpose of the study

Social innovations have made numerous fundamental contributions to the development of our society. Although awareness of social innovation through civil society, academia, policy makers and other societal actors has risen considerably in recent years, this is not a new phenomenon. On the contrary, new ideas to improve the well-being and capabilities of human beings in social needs have most likely accompanied humankind at all times (The Times, 1869). In the CrESSI project, we understand SI as (CrESSI Consortium, 2013, p. 3):

“The development and delivery of new ideas and solutions (products, services, models, markets, processes) at different socio-structural levels that intentionally seek to change power relations and improve human capabilities, as well as the processes via which these solutions are carried out.”

This deliverable undertakes the endeavour to analyse the material collected in work package (WP) 2 with specific respect to social innovation (eco)systems and lifecycles. Along this endeavour, it applies and tests the extended social grid model (ESGM) (Nicholls and Ziegler, 2015) and discusses the fit of relevant innovation literature models as introduced in D 4.1 for social innovations. This includes a reflection on the relation between social and other types of innovation, such as technological, administrative, or organisational innovations (cf. Budde et al., 2016c). Accordingly, the analysis has two intertwined dimensions, an empirical and a theoretical one.

Empirical long-term perspective

The first dimension is an empirical one: we pursue a long-term perspective to better understand the developments of social innovations (SI). Many social problems seem to never be entirely solved. They re-emerge in different contexts and manifestations according to changing social needs, sometimes with eleviating expectations after a previous solution was reached. Thus, there is a continuous need for adaptation and improvement, i.e. for continuous innovation by various actors. SI research, however, so far usually focuses on single initiatives, organisations and entrepreneurs over a limited time frame. The interrelations and interactions of different building blocks and actors within a major SI during the diffusion and adaptation of these single building blocks in new contexts usually remain overlooked. However, for SI to engender a major impact on society, the question of how different single initiatives converge and co-evolve is crucial.

Deviating from most common approaches in studying SI (Westley et al., 2007; Murray et al., 2010; Mulgan et al., 2007; Rüede and Lurtz, 2012), we therefore do not only look at specific innovative activities of single persons, organisations or movements. Instead, through
comprehensive case studies (CCS) we cover ‘basic’ social innovations as a joint endeavour of a variety of actors in an aggregated perspective over time. Accordingly, it is not only organisations that are the point of origin of innovation, but indeed society as a whole. To provide a comprehensive picture and understand how the innovations have become mainstream over time, the CCSs cover more than 150 years from the 19th century and beyond until today and look at different European countries.

The areas covered are:

- **Social housing** as a social innovation that initially addressed the urban poor during industrialisation and has undergone several phases on its way to mainstream after WWII and afterwards, often drawing on market-based solutions with public subsidies and being provided by a variety of different societal actors. Also due to recent EU legislation, in many countries in Europe social housing is only accessible for (more or less) marginalised populations.

- **Fresh water supply** which started more or less under the same circumstances as social housing, but developed to a very centralised and often solely municipally provided good, mostly due to the strong path dependency in one of its core elements, the physical infrastructure. This also means that almost everybody in society is linked to the supply system, not least most of the marginalised.

- **Financing access to education** can be seen as a social innovation affecting the whole of society and being shaped by it at the same time. Different countries in line with their different historical developments display distinct approaches, but a common circumstance is emerging clearly. It is the challenge to the generalisation of education represented by state-funding being conditional upon a state curriculum, on the one hand, and by marketization, on the other. As it is the case for the first two innovations, this development in so far is pan-European or probably even universal.

These brief descriptions already show that we chose those SI that have some complementary characteristics regarding their governance structure, business models, or targeted beneficiaries. How relevant and dynamic these innovations are this very day is for example currently illustrated by the refugee crisis that puts a strong tension on the already heavily stressed housing market in Germany, or also the fact that only in 2010, universal access to safe, sufficient and affordable water was declared a human right by the UN convention.

Our approach to “study examples of social innovation in depth, from a long-term perspective in different domains and different contexts” (CrESSI Consortium, 2013, p. 5) accordingly offers three advantages:

1. As many SI of our days do not have a long history to look back upon one might search through history and learn from SI of the past.
2. Also, many individual case studies are done in SI research, but often they do not account for long-term developments, neglect the interplay between different inventions and miss a solid theoretical grounding.

3. Further, with a longer time span examined, it is also more likely to describe and examine potentially negative outcomes of SI, which so far have not been in the centre of SI research or innovation research in general (cf. Havas, 2016)

It is important to state however what the limitations of such an analytical approach are. It is beyond the scope of such an analysis to provide a detailed account on the innovation development factors from a single actor’s perspective, such as for example in Van de Ven et al.’s seminal work on innovation journeys of enterprises (Van de Ven, Andrew H. et al., 2008). Nevertheless, we do complement the more aggregated macro perspective with a closer analysis of specifically chosen developments in certain towns, countries, or periods of time in order to zoom into crucial aspects in the course of a SI history. We are confident that this different angle is helpful to uncover important influences from socio-economic structures on innovation processes that cannot be seen from an actor-centric perspective in shorter time frames.

Our CCS revealed various important aspects. Many actors engaged in developing and implementing SI. The actors did so in quite different contexts and under a large variety of outside conditions, which each could be described as a specific ecosystem. On different levels, different groups and social networks were active and tried—in a constant interplay with institutions and prevalent cognitive frames—to best advance their respective SI. In addition, it became obvious that SI experience different developmental steps or phases. These could be framed as a lifecycle of SI. Starting from a social need and initial random ideas how to address it, discourses and different approaches developed. By implementing and later scaling a SI, the social need could be moderated or even eliminated (at least for a certain time). This rather was a tendency not a linear process and it was (and is) not always a success story.

**Evaluation of theoretical concepts**

The second dimension of this deliverable is to test the value of theoretical concepts to explain SI from a long-term perspective. To do so, we will first test the conceptual components of the ESGM (Nicholls and Ziegler, 2015) by applying it to the empirical data. The ESGM framework links and extends three strands of theoretical concepts in economic sociology for

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3 We are not the first who think taking the long view is insightful in research on SI and social ventures. Richard Blundel and Fergus Lyon examined in 2014 “how historically informed research might enhance our understanding of growth processes” Blundel and Lyon (2014, p. 80) and came up with interesting insights on periodisation and continuity but even more on profound discontinuities which resulted in strategic changes.
this purpose:

- The **social grid model** of Beckert (2010) which argues that change on markets can be explained through three irreducible social forces (cognitive frames, social networks, institutions) that together determine the power positions and resources of different actors;

- The historical approach of **power sources for social change** of Mann (1986) who argues that power as the ability to pursue and attain goals through mastery of one’s environment emerges from and within various societal contexts.

- The **capability approach** (CA) which focuses on the opportunities of marginalised populations to act and achieve certain ‘functionings’ (Sen, 1999; Nussbaum, 2006).

Accordingly, the elements of the ESGM span across the macro and the micro perspective, mainly by examining how the socio-structural context determines *marginalisation* on the one hand and identifying preconditions to change marginalisation (as an aspect of *agency*) on the other hand. Further, whilst *economic underpinnings* provide a key focus for the analysis, the model also acknowledges that there are further sources of SI to be studied (Nicholls and Ziegler, 2015, p. 3).

Additionally, we will discuss *innovation (eco)system* and *lifecycle models* from social, technical and other types of innovation as introduced and discussed in WP 4 in the light of our empirical data. In particular, based on our empirical results for SI, we will provide some findings on the particular strengths and weaknesses of models such as *social construction of technology* (SCOT) (Bijker et al., 1987), the *multi-level perspective* (MLP) on transition processes (Geels, 2005; Geels and Kemp, 2007) (cf. Budde et al., 2016a), *innovation journey* (Van de Ven, Andrew H. et al., 2008) or different *innovation system* approaches (cf. Havas, 2016) for the analysis of SI. Also social innovation lifecycle models such as the *SI spiral* (Murray et al., 2010, p. 11) or the *infinite loop* (Westley, 2008, p. 3) shall be discussed through the lens of the empirical data. A crucial element of this discussion is further the reflection upon the relation between social, technological and other types of innovations\(^4\). Our analysis generally supports the claim raised in WP 4 (and in most of the mentioned models) that the often-suggested dichotomic relationship between social and technological innovations falls short. Technological innovations are not only inherently social, but also usually play an important role in the development of SI. In general, it seems difficult to demarcate social innovations from other types of innovations as for their normative purposes SI comprise a wide range of other types of innovations (technical, administrative, business etc.).

\(^4\) For example, Van de Ven et al. (1999, p. 9) suggest administrative innovations (new procedures, policies, and organisational forms) as counterparts to technological innovations (new technologies, products, and services), and Havas (2016) distinguishes business (profit-oriented) innovations from social innovations.
1.2 Methodological approach

“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 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 was 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.”

Michael Harloe, The People’s Home (Harloe, 1995, pp. 15f)

General research design

As the quote of Harloe shows, historical analysis of social phenomena provides several challenges that need to be considered throughout the analysis. However, as stated above, it also provides the potential to shift perspective and gain new and important insights for SI research. Bearing this in mind, the study applies a qualitative case study approach, following the logic of an embedded single case study (Yin, 2003, pp. 39ff). This means that the case studies focus on a single phenomenon (i.e. the social innovation), yet also give more detailed attention to different specific subunits of this phenomenon. Accordingly, from an ecosystem perspective, there is a wide overlap with different innovation system approaches, such as national, regional, sectoral or technical systems. All these approaches, to different extents, refer to different actors, relevant knowledge bases, technological paradigms and trajectories, institutions, and sub-systems such as policy makers, financial services etc. (cf. Havas, 2016) and emphasise the co-evolution of these elements and their relevance for system dynamics. However, these approaches tend to be centred towards innovative companies, while we assume that at any level, relevant innovative agency can contribute to the general development of the SI.

Further, the case studies aim to understand the neuralgic points and crucial components in the diffusion process of the SI in general since its first appearances, including the variety in

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5 Embedded single case studies are suitable for research questions on causal explanations (“how” or “why”), particularly when there is little opportunity to influence or control the context Yin (2003, p. 1).
adaptations across different contexts and backgrounds such as different welfare regimes or economic and political crises. This is a perspective oriented towards dynamic life cycle approaches. Given our macro long-term perspective, we approach the subject basically in the sense of a non-linear, but *multi-channel interactive learning model of innovation* that stresses the important role of many different types of actors and their interaction and knowledge exchange (Caraça *et al.*, 2008; cf. Havas, 2016). Social innovation activities in a certain town, of one specific organisation, or a certain social movement serve only to illustrate specific aspects of this more general development stream.

**Data collection following a common template**

The data collection for the case studies was conducted in WP 2, following a common template that was discussed with the partners of the CrESSI consortium (Scheuerle *et al.*, 2015). This data collection was purposefully held descriptive and “analytically neutral” to provide ground for a pluralistic theoretical analysis in this and other work packages. However, the categories of the template were clearly built on the different elements of the extended social grid model (e.g. “Narratives and discourses” targeted cognitive frames, “Rules, norms and policies” as institutions). The template structure comprised problem backgrounds and different solution approaches, affected marginalised groups/beneficiaries and actors/actor constellations, stages as well as phases of the SI and its impact, (legal, social, cultural) rules and norms, discourses, resources, or relevant technological developments. Data was usually secondary data, such as historical literature, statistical data, or desktop research about policies and interest or provider organisations. Beyond the major narrative of the respective social innovations in Europe, various *spotlights* were included that zoom into specific individual developments along the course of the SI. Moreover, the partners of the CrESSI consortium prepared different country-specific reports. Given the breadth and complexity of the social innovations chosen, these endeavours were by no means comprehensive. Yet the approach illustrates some specific local developments that complement the macro perspective of the major narrative, and thus should enrich the analysis.

**Data analysis**

Data analysis was conducted in several steps according to the different research interests. *First*, for testing the *ESGM consistency and explanatory power*, the case studies were analysed through the lens of the model. As claimed by Beckert (Beckert, 2010, p. 606), during the analysis the different social forces were not considered separately in single chapters, but interrelatedly. Also, *economic underpinnings* and *marginalisation* were examined as cross cut topics and not analysed separately. Instead, we used a set of key issues that helped to structure

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6 We thank our CrESSI partners Jari Aro, Enrica Chiappero-Martinetti, Daniel Edmiston, Margherita Fabbri, Susanne Giesecke, Attila Havas, Christopher Houghton Budd, Justus Lodemann, György Molnár, Martijn van der Linden, and Nadia von Jacobi for their cooperation and contribution.
the material:

- **Societal responsibility and governance of the solution:** Which roles were assigned to different societal actors (public, market, civil society etc.) in the provision of solutions to the problem? Who took the initiative, and what constellations emerged?

- **Design of the solution:** How were the solutions shaped, e.g. regarding quality standards, applied technological solutions, extent of integrated or linked services, business models, organisational models, involvement of beneficiaries etc.?

- **Targeted beneficiaries:** Who was accepted as needy people and able to enjoy the benefits of the solutions?

Along this process, the role of the social forces was critically reflected. Afterwards, the effects on the capabilities of the beneficiaries were discussed where feasible. As far as possible, different types of sources were used for data triangulation. However, given the broad scope of the study subject and the limited scope to this report, the analysis within these constraints can only be illustrative. From this analysis, in the next steps a synopsis of relevant SI dimensions was inductively derived, as well as a list of propositions on the ecosystems and lifecycles as well as agency and impact of SI. Finally, the ESGM and a set of other social (innovation) models (see above) were critically reflected regarding their fit with the empirical data.

The construction of the report is as follows: In chapter 2, we will briefly review the extended social grid model (ESGM) as conceptual basis of our analysis. Chapter 3 to 5 will then provide the main findings from the comprehensive case studies and discuss them through the lens of the ESGM. Based on the results, we will discuss our key findings in chapter 6 by providing a synopsis or relevant SI dimensions as a precursor of an SI typology (6.1) and formulate propositions on key findings regarding SI lifecycles and ecosystems as well as agency and impact (6.2). Chapter 7 will then finally provide a discussion of the explanatory power and consistency of the ESGM in the light of our data (7.1), discuss the relevance of models for (social) innovation (eco)systems (7.2.) and lifecycles from literature (7.3.) and conclude with some recommendations for promoting SI (7.4).

### 2. A brief review of the extended social grid model

The conceptual foundation for the CrESSI project is the *extended social grid model* (ESGM) (Nicholls and Ziegler, 2015). The ESGM combines three theoretical strands in economic and historic sociology (for the following paragraphs cf. Nicholls and Ziegler, 2015, pp. 2ff) that are linked through the constructs of *power*, or more specifically, *capabilities* (see below). The first stream draws upon Jens Beckert’s (2010) work on exchange theory in markets in which he identifies three irreducible “social forces” work on exchange theory in markets in which he identifies three irreducible “social forces” which constitute “social grids” which influence the power positions and thus the resources of different actors and accordingly shape the formation of and change processes on markets (Beckert, 2010, p. 606). Those social forces are:
- **Social networks**: the structures of social relations and relational patterns in society
- **Institutions**: the constraining rules and norms of a given society
- **Cognitive frames**: commonly shared meanings and interpretive material by which to make sense of society and its actions

Beckert argues that only an integrated analysis of these forces and their dynamic interrelations can provide comprehensive explanations, and criticises that established approaches tend to focus exclusively on one explanatory theory alone (Beckert, 2010). The ESGM adopts this approach, but extends it beyond market issues. This is theoretically legitimised because Beckert grounds his model on the theory of “fields” (Powell and DiMaggio, 1991; Bourdieu, 2005; Fligstein, 2001, pp. 67ff), of which markets are just one example. What is more, in practice it is apparent that “the structures of marginalisation are not only a matter of market factors. They include many non-market variables such as cultural effects as well as access to non-market goods such as education or healthcare” (Nicholls and Ziegler, 2015, p. 4).

Different societal sources of power are the core argument and main interest of the second research strand on power mechanisms within social change, which is used to systematically extend the perspective beyond markets to other functional orientations. Fundamental here is the work of Michael Mann, who understands power as the ability to pursue and attain goals through mastery of one’s environment. Power is social when it is exercised over other people (Mann, 2013, p. 1), and it has two intertwined aspects: its distributive aspect refers to one party’s power over another and its collective aspect lies in the ability of all parties involved to enhance joint power over third parties or over nature. While Mann’s model identifies four social sources of power (economic, ideological, military, and political) in his IEMP model (Mann, 1986, p. 22) (for a short description see also Nicholls and Ziegler, 2015, p. 5), the ESGM again extends these dimensions, based on the work of Heiskala (2014). The first additional dimension is nature (cf. Heiskala, 2014), which can be understood in different ways. Floods or droughts caused by climate change impressively show that nature has the capacity to get others to do things that otherwise they would not, merely due to its quality as a physical force and structure. However, nature can also be interpreted in terms of a social category which deals with our relation to nature, such as the capability to live in awareness and concern for nature (Nussbaum, 2006, p. 77) or power issues in negotiations about how society should deal with nature in general (environmental power). Further, artefactual power is included as a category that includes “science as an institution but also tools, technologies and other artefacts as well as infrastructures” (Heiskala, 2014). Also corresponding to a central human capability (education; Nussbaum, 2006, p. 76) artefactual power can actually be seen as unfolding from the physical presence, but, in a more constructivist sense, also from the perception and application of artefacts as a social category. What is more, it is important

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7 It is important to note that in CrESSI, we understand economic power broadly in terms of the transformation, distribution and consumption of the produce of nature, and that exchange relations in markets are one especially dynamic part of this power, but they do no exhaust economic power Nicholls and Ziegler (2015, p. 5).
to state that power and shaping historical development usually is not growing from just one category or being exerted within one, but, as Mann puts it, there are “multiple overlapping and intersecting socio-spatial networks of power” (Mann, 1986, p. 1). The flip coin of this argument is what Mann calls “functional promiscuity” (Mann, 1986, p. 17) as a further methodological implication, meaning that for example neither the administration of a nation state is purely focused on politics nor is the administration of a corporation purely focused on business. Although certain entities are located within one category of power sources, they are likely to embody a variety of ends and means: political and economic, but also ideological etc. (ibid).

The third strand of the ESGM is the Capabilities Approach (CA) to human development and empowerment, mostly known for the work of Amartya Sen and Martha Nussbaum, to explore the effects of (changes) in prevalent socio-economic structures on the marginalised population’s opportunities to act (Sen, 1999; Nussbaum, 2006). Within the ESGM, the approach serves for the evaluation of process and impact of the change induced by the social innovations. Fitting well with a multi-level and multi-dimensional understanding of marginalisation processes and SI as introduced up to here, the CA will offer a micro-level focus serving to enhance the conceptual framework. Human capabilities are a form of power as well, since they describe the real opportunity to do (e.g. participate politically) and to be (e.g. being healthy) what one has reason to value. In practice, they depend on distributive and collective power as shaped by social grids within and across different power categories (see above). In CA terminology, these factors are “external conversion factors” which are complemented by “internal conversion factors” (personal traits, sex etc.) of the individual. They determine the “capability set” of a person, and, depending on their free choice, different “functionings” can be achieved. The ESGM shall help to develop a differentiated understanding of how socio-environmental macro factors constrain individual capabilities and functionings and accordingly cause disadvantage by marginalising individuals. Disadvantage in this basic sense is frequently associated with exclusion from political decision-making in addition to disadvantages in terms of income, health, education, access to financial services etc. Accordingly, we study marginalisation as a “social process through which personal traits are transformed into potential factors of disadvantage” (Chiappero-Martinetti and Jacobi, 2014b, p. 9).

What is more, the focus on human capabilities adds a dynamic perspective of agency for change to the model. First, we ought to think of citizens not just as “patients” that are benefited by the innovator but also as “agents” who co-shape the innovation process by participating in the improvement of capabilities (health, education etc.). The relation between power structures and individual agency is bi-directional, and power structure not only influences the individual conversion of patients. The enactment of capabilities by agents – as individuals and groups – includes drawing on initiating changes in networks, institutions and cognitive frames vice versa (Nicholls and Ziegler, 2015). This participatory conjecture is thus
hypothesised to provide a distinct approach to agency in shaping and changing institutional structures, discourses, and networks, which is usually discussed as institutional entrepreneurship (DiMaggio, 1988; Scheuerle et al., 2014). In the ESGM, such agency occurs either in terms of actors that introduce SI for the marginalised, or as marginalised acting as change agents of their own circumstances. The dynamic version of the extended social grid model makes it possible to track these processes in a two-fold way:

![Extended Social Grid Model and Social Innovation (dynamic version)](image)

Figure 1: The Extended Social Grid Model and Social Innovation (dynamic version) (Nicholls and Ziegler, 2015, p. 11)

Finally, coming to economic underpinnings, the ESGM model also shows that even if the economic domain can be understood as an important source of SI, further sources of SI are to be studied. The model thus also hypothesises that social innovations will impact on and involve the social forces in different, interrelated sources of power. This corresponds with Sen’s argument taken from an individual capabilities perspective (1999), stating that human development depends on the complementarity and mutual strengthening of various societal and individual level objectives, and that the “purist” economic-growth-first-everything-else-later argument is false both conceptually and empirically.
3. Social housing

“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.” Levy-Vroleant et al. (2008, p. 43)

3.1 Conceptual foundations

3.1.1 Definition(s) and general relevance of social housing in Europe

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 (WHO, 2012, pp. 22ff; Pittini and Laino, 2011). This makes it an on-going social problem affecting the most marginalised, but also other members of society.

What is referred to as social housing varies across different countries and – as the historical perspective shows – over time. A recent report developed for the European Parliament's Committee on Employment and Social Affairs shows that there is no common definition of the term “social housing” in the EU member states (IZA, 2013). The report also indicates (IZA, 2013, p. 9) that 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 to show that there are three common elements across EU Member States in defining social housing (IZA, 2013, p. 9):

1. A mission of general interest;

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We thankfully acknowledge that the basis of this analysis is material (data, literature etc.) which was collected in WP 2 of the CrESSI project in 2015 by Jari Aro, Enrica Chiappero-Martinetti, Daniel Edmiston, Margherita Fabbri, Susanne Giesecke, Gunnar Glänzel, György Molnár, Thomas Scheuerle, and Martijn van der Linden. The responsibility for the analysis rests on the authors.
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.

### 3.1.2 Phases of development

The development course of social housing from the mid of the 19th century until today was not a linear story but influenced by a variety of factors and incidents. While for sure certain path dependencies can be identified, the most important developments often represent a complete break from historical tradition (Levy-Vroelant *et al.*, 2008). This also implies that each development was not necessarily superior to the previous, but the changes often were caused by political decisions (Adam, 2004). Five historical phases of social housing can be distinguished according to the literature⁹, at least for countries with capitalistic societies such as Austria, Britain, Denmark, France, (the former West) Germany, and the Netherlands. A sixth phase might be dawning at the moment, resulting from the financial and economic crisis starting at the end of the last decade, which is now being accelerated through the migration crisis in Europe. Deviations from these key phases were caused for example by a delayed industrialisation, such as in Finland¹⁰ or socialism, as present until 1990 in most Eastern European countries such as Hungary¹¹. The phases (the first five according to Levy-Vroeleant *et al.* 2008) that are drawn upon to structure this report are:

1. The origins: housing reshaped by utopia, philanthropy and industry
   \[
   \rightarrow \text{Mid of 19th century to beginning of WWI}
   \]

2. The period of municipal commitment to social housing
   \[
   \rightarrow \text{End of WWI to world economic crisis in 1929}
   \]

3. The great depression and its effects on social housing
   \[
   \rightarrow \text{World economic crisis of 1929 until WWII}
   \]

4. The mainstreaming of social housing after World War II
   \[
   \rightarrow \text{Post WWII until 1970s}
   \]

5. Individualisation and fragmentation at the turn of the 21st century
   \[
   \rightarrow \text{From the mid-1970s onwards until the 2008}
   \]

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⁹ Some only mention four Harloe (1995), as they do not view the beginnings as a distinct phase.

¹⁰ In the case of Finland, there was a delayed migration and urbanisation that did not begin until the 1960s, and therefore until the 1950s social housing concerned both rural and urban population. The so-called agrarian question – a conflict between tenant framers and landowners 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 20th century Peltonen (1992).

¹¹ In Hungary, the socialist housing system, defined by Hegedűs and Tosics (1996) as the *Eastern European Housing Model* (EEHM), did not correspond at all to Western social housing models (→ cf. Molnár (2015)).
6. Economic and migration crisis

→ From 2008 until today

3.1.3 Streams of development

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, but also regions and cities. As Harloe (1995, p. 17) states, there 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. Based on four core dimensions that help to characterise and differentiate social housing models and policies (the tenure, the provider of the housing service, the beneficiaries and the funding arrangements) Pittini and Laino, 2011, p. 22; IZA, 2013, pp. 10ff.), a general distinction of universal and targeted social housing models¹² (IZA, 2013; Ghékière, 2007) can be derived. The following explanations are adopted from IZA (2013, pp. 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) 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 generally had been directed at workers and middle-income groups. The residual sub-model allocates housing to the most vulnerable

¹² Regardings such models, Harloe states: “such models are analytical constructs of a meta-theoretical nature. They are aids to the analysis of, and theorising 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)
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 criteria for potential beneficiaries are much more restricted and typically correspond to extremely vulnerable households relying on a variety of welfare state benefits (such as for unemployment, disability, elderly, lone parents).

3.2 The initial social problem

3.2.1 Overview of developments

The housing crisis was one core issue in a wider range of social problems that emerged on a large scale until the mid of the 19th century in most European countries. The term “social question” was coined around 1830 for the social problems and grievances resulting from this development. The 19th century industrialisation 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. Levy-Vroelant et al., 2008; Kastroff-Viehmann, 1979). The population in European metropolitan areas steeply increased and even quadrupled in some areas over the second half of the 19th century. Under the previous (feudal) organisation of society, which had been dominated by small (craft) businesses or agricultural farmyards, houses were a place of living and working of several generations, including domestic workers and servants (Kastroff-Viehmann, 1979). Through industrialisation, living and working place became 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 dwellings with extremely poor conditions were the severe consequences, such as in Berlin or Vienna, where during the Wilhelminian era about 300,000 people were homeless. An oversupply of middle and large size dwellings was seen alongside a scarcity of small flats, and people separated rooms through chalk lines (Fuhrmann et al., 2008). According to the 1869 census, 10 to 20 per cent of the population had access to a bed only during a couple of hours (Levy-Vroelant et al., 2008, p. 33). In Britain, common lodging-houses (also “flohphouses”) 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, like in Paris, where expelled workers lived in self-built shacks in suburban shanty towns without any urban infrastructure and high commuting efforts (lotissements; Harloe, 1995, p. 45). Moreover, speculators, factory owners, and private investors responded to the situation by building high-density estates (e.g. barrack-style Mietkaseren (tenements) in Berlin (Kastroff-Viehmann, 1979) with if at all poor

13 Rural areas were also affected by housing problems, however, this will not be under the scope of this data collection.
heating and sanitary provision to house the newcomers (Levy-Vroelant et al., 2008). In Amsterdam, 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 upright (Acker et al., 2008). With high rents accounting for up to 20-30 per cent of the family income for instance in Berlin (Kastroff-Viehmann, 1979), this often was rather profitable. However, the social problem addressed by social housing went way beyond the housing market. Along with other factors, it made up the reasons for and symptoms of a mass impoverishment of low-skilled industrial workers (“social question”). Most notably, those included catastrophic hygienic and sanitary conditions because of overcrowding, missing or defect sewerage systems in houses and streets, or animals and litter in the houses (Chadwick, 1842, pp. 7–25), leading to the spread of diseases like typhus, tuberculosis and cholera in various European countries (Levy-Vroelant et al., 2008; Curtis, 2007). Since inhabitants often were migrants, such as the Jewish in Lemberg or the Slovenes in Trieste, they also often faced ethnical or religious resentments by local populations (Saldern, 2006).

3.2.2 The problem situation through the ESGM

From the mid of the 19th century onwards, industrialisation caused tensions at various points of the existing social grid, resulting in a problematic situation for the marginalised workers that came to the towns. The prevalent social forces did not provide an adequate response to the new situation in many respects and even reinforced the social problems of the time.

3.2.2.1 Social forces enabling industrialisation

The transition from agricultural and rural societies to urban and industrialised ones in leading occidental countries was crucial for the problems to be addressed with social housing. The causes of the phenomenon were manifold (Hobsbawm, 1977, 1989, 1996). The change from the feudal society and serfdom to more liberal national states meant a change of very general cognitive frames, institutions and social networks that span across different societal domains structures (political, economic, cultural) and power structures. Issues included the general way of how a society is organised, the question of what is the predominant economic model, who is the relevant main authority, or who is tied together by economic interest or enforcement (serfdom). Specific institutions, cognitive frames, and social networks existed around all these issues, and almost all of them underwent a dynamic change. The developments here illustrate a variety of spill over effects between different categories. For example, changes in the dominant economic production mode also had considerable cultural effects. In small craftsmen' businesses for example (as dominant institutions on markets), apprentices and masters also formed social networks in an economic and cultural sense, since they usually lived and worked under one roof in a patriarchal, but mutually beneficial
constellation (Ehmer, 1979). This generally accepted model (cognitive frame) eroded during industrialisation, which shows that the changing social grid around the predominant economic model also had effects within the cultural sphere where for workers it became common to live on rent in urban dwellings. Altogether, their (distributive) power in comparison to their employees and landlords remained very limited. Another example for spill overs is the increasing openness to scientific progress (cognitive frames in the artefactual domain), fostering formal education that disseminates a constantly increasing scientific knowledge base at least amongst certain parts of society (institutions), or new constellations of technological pioneers partnering with investors and entrepreneurs (social networks across the economic and artefactual domain). The latter developed decisive innovations such as the steam engine and later the railway, or, more generally, increased (collective) societal power over production goods and limitations. These illustrations also exemplify that a groundbreaking development such as the industrialisation does not come as an exogenous shock, but can be explained out of the development of the social forces. Further, it shows that major developments usually cannot be located in only one societal domain.

3.2.2.2 Social forces reinforcing the problem and marginalising specific groups

Beyond the catalysing role of developments in the social grid for structurally caused pauperism and existential insecurity among both rural and urban population during industrialisation (Brakelmann, 1962; Tocqueville, 2007), there is also evidence that the prevalent social forces even increased marginalisation. When during the 19th century the problems on the housing markets arose, the problem was not really acknowledged, or the causes became subject to controversial discussion in which some understood it as a cyclical problem and others even neglected its existence. The “Wohnungsfrage” (“housing question”) only slowly came up on the public agenda, and housing was perceived as an individual responsibility. A strong belief in liberal and free markets across Europe (as one of the most important achievements in the abolishment of feudalism) led to the promotion of free-market-based solutions through many groups for the housing situation (cognitive frames in the political and economic domain). This, however, caused the unhampered exploitation of the situation by many landlords (Fuhrmann et al., 2008). Accordingly, institutions such as formal responsivities, rent controls and enforceable hygiene standards were hardly existing or relatively weak, and infrastructure improvements were not undertaken (Chadwick, 1842, pp. five). Contemporary construction laws even paved the way for the creation of poor quality tenements. For example, 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 and built dwellings with five or more storeys, courtyards with only 5.3 m², and chambers that only received light and air
through shafts ("Mietkaseren", cf. Kastroff-Viehmann, 1979). Another problem in many cities was the obligation to build walls within the city. This put additional stress on the often already dense urban areas. Also, the ties (social networks) of the affected working classes with societal decision makers in the political and economic domain were relatively weak. This shows that also very fundamental cognitive frames, such as the liberal free-market-paradigm, have an effect on more specific social forces around a certain issue. Further, an analysis of the situation shows that marginalisation results from an interrelation of developments across different power categories. First, the situation was also caused by a lack of collective power in the artefactual domain: science had not yet understood the importance of hygiene, and Miasma theory was still present at the time and impeded the development of larger drainage systems to cart away polluted water (Curtis, 2007) (see also the case on Fresh Water Supply). Also, missing legal protection laws (economic institutions) for workers and the result of children flooding labour markets, wage dumping with work days of 12 or even up to 18 hours, no Sunday rest, or no work safety measures (1845, p. 128), (Brakelmann, 1962) caused a high fluctuation in factories and therefore also dwellings (Fuhrmann et al., 2008). Together with the absence of a functioning wider education system (as an artefactual institution), achieving some upward social mobility was hardly possible. What is more, with the demise of feudal arrangements the bourgeoisie started to manifest in Central Europe Gosewinkel, 2010; Gabor, 2010. These societal groups were in sharp contrast to the emerging working classes, and their adapted norms and values decreased the social recognition of the latter. Besides the free pursuit of business and private ownership, they put high emphasis on privacy, status, and conservative family values (cognitive frames and institutions in the cultural and economic sphere), which was fundamentally opposite to the housing misery of the marginalised workers (Gestrich, 2013; Kocka, 1987; Reulecke, 1997). Some workers tried to cover up their misery through furniture and equipment even in the smallest flats, such as sofas, armchairs, mirrors and portraits to hold up a “living room illusion” (Schomerus, 1979). However, a further relevant finding is that the marginalised themselves are not only constrained by social forces or stand outside the social grid, but – as a group (social network) – carry relevant and problematic cultural cognitive frames as well: there was little problem awareness among most tenants regarding hygienic conditions (Harloe, 1995).

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

15 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).

16 For instance, in the UK it was only in 1869 that 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 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.
Nevertheless, the findings also show that there too were groups that tried to tackle the critical “mainstream” situation, and that these groups had their own specific and often competing cognitive frames, social networks and institutions. Social and political organisations such as union and labour movements, secular and clerical welfare organisations, or the social democrats and the communist and socialist movements formed (cultural, political and economic institutions around social networks) (Hobsbawm, 1977, 1996, 1989). Usually, on their agenda there was a demand for change of the general housing situation and the discussion of welfare state services in general.

Table 1: Social grid elements during the “social question” in early industrialisation, second half of 19th century

<table>
<thead>
<tr>
<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Natural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artefactual</td>
<td>increased openness towards societal progress</td>
<td>technological pioneers partnering with investors and entrepreneurs</td>
</tr>
<tr>
<td>Cultural</td>
<td>separation of living and working space</td>
<td>rise of a new working class</td>
</tr>
<tr>
<td>Economic</td>
<td>industrial production became the dominant paradigm</td>
<td>dissolvement of relation between domestic workers / servants and their hosting principal</td>
</tr>
<tr>
<td>Security-related</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>liberal Night-watchman state</td>
<td>weak political representation of new working class (no ties to elites)</td>
</tr>
</tbody>
</table>

Resulting Capabilities
(+ = achieved; - = deprived)

(-) access to secure, private, affordable accomodation non-hazardous to health
(-) free family planning
(-) freedom of settlement
(-) social recognition
(-) participation in community building
(-) political participation
(-) physical and psychological integrity
3.2.2.3 Deprived capabilities of the marginalised during the rise of industrialisation

Taking the described development as external conversion factors, the deprivation of various capabilities in different domains can be explained. In some cases, internal conversion factors such as sex or age even reinforce the problem. The most obvious consequence in terms of capabilities is the lacking access to affordable, private, and secure accommodation. 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). Often, there was only one room for families and “Bettgeher” that was used for cooking, eating, sleeping, or having sex (Fuhrmann et al., 2008). What is more, on the capability side, the spill over effects of social forces between different societal power categories are clearly mirrored. The situation made the marginalised an easy target for fraud and exploitation. As consequence of an internal conversion factor, particularly female workers often found themselves in situations where landlords exploited them sexually for accommodation (Fuhrmann et al., 2008), thereby violating their physical and psychological integrity. Further consequential grievances of the situation included brutalisation, prostitution (including child prostitution), or gang formation. Likewise, sanitary conditions and accordingly public health standards were extremely bad in most of the dwellings and made a healthy living environment impossible. Typhus or cholera not only caused numerous deaths and a particularly high mortality rate of children and new-borns (Verein für Socialpolitik, 1886), but also endangered people’s workforce, which was the essential asset and hard to compensate for in the daily struggle for subsistence (Ehmer, 1979). Freedom of settlement and family planning was also deprived since the situation demanded very high mobility, and low wages made the foundation of a family a financial risk (Ehmer, 1979). Also, the number of marriages decreased among workers, or people waited longer to get married. Settlement often was – if at all – achieved only through several generations (Fuhrmann et al., 2008). This came along with a very low social status and lacking social recognition as well as absent opportunities for community development and political participation. There was no such thing possible as democratic or communal planning to deal with the challenges of urbanisation (Howard, 1944; Kampffmeyer, 1908). This was partly due to long working hours and short termed contracts for living and working that caused high fluctuation, and partly because the bourgeois authorities had no interest in such political participation and tried to inhibit opportunities for assembly and community organisation.

Further internal conversion factors were a low social status, such as being part of the lower working classes, day labourers, apprentices in still existing small (craft) businesses, or peasants, and specific personal characteristics such as being extremely young (and without education) or old (and losing physical strength), having a family to take care of, or being a migrant (Fuhrmann et al., 2008; Saldern, 2006).
The “Bettgerer” (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 were not using it. The bed was often rented to several “Bettgerer”, and the fee did normally not include use of the kitchen or other habitable rooms (Dimitz, 2012).

**Share of “Bettgerer” 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)

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 often was 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 often were single sexed (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 by the legislation on these circumstances were prohibitions and prescriptions. It should only be allowed to accommodate a “Bettgerer” if a separate room existed – but such delicts were not controlled very dutifully (Brüggemeier and Niethammer, 1978).

### 3.3 Phase 1 - The origins: housing reshaped by utopia, philanthropy, and industry

The earliest attempts, (i.e. the invention phase of the social innovation) to address the social housing crisis can be dated back to the mid of 19th century until the beginning of WW1. They were conducted by different societal actors, and their agency was shaped by different motives, influences and accordingly different views on how the solutions should look like. The numbers of dwellings in these different new forms of ‘social housing’ were negligible, and most working-class people continued to live in extremely poor housing conditions. Yet these dwellings for a “happy few” (Levy-Vroelant et al., 2008, p. 33) pointed the way towards the concept of social housing.

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17 However, already in the Middle Ages some forward-looking and wealthy people provided (temporarily) good housing for workers in need and their families, strongly influenced by Christian values. 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 Kluger (2009). Mullins et al. (2003) date the beginning of the nonprofit housing sector in Ireland to the late 18th century, largely in the form of ‘alms’ or ‘poor’ houses connected in one way or another with religious organisations or the Crown. However, these initiatives remained on a small scale.
3.3.1 Overview of developments

Proactive bourgeois personalities. First ‘social’ housing initiatives were taken by private actors, mainly “proactive bourgeois personalities” (Levy-Vroelant et al., 2008, p. 33) such as factory owners, philanthropists and/or social reformers who were part of the bourgeois, religious, or aristocratic layer of society. Some of the most prominent examples and some other early progressive initiatives include (for more see Scheuerle and Glänzel, 2015):

Kruppian Social Housing, Essen, GER: Initiator Alfred Krupp (1812-1887), 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; building of the first Arbeitesiedlungen in 1863, consisting of two-storey houses with 15 m² units, comprising a combined kitchen/living room, a bedroom and a toilet (Kieß, 1991; Harloe, 1995, p. 48); also provision of social security services in the case of illness and death or affordable food provision to raise worker loyalty, yet conservative attitude and suppression of worker unions, no community facilities included (Kieß, 1991; Kastroff-Viehmann, 1979).

Familistère, Guise, FR: Initiator Jean-Baptiste André Godin (1817 – 1888), a French industrialist, writer and political theorist influenced by Charles Fourier and (utopian) Socialism ideas Newman, 2005; Familistère (Social Palace) self-contained community within the town included facilities for recreation and education; three large buildings, each four stories high, for 900 workers and their families; ultimately converted to cooperative ownership and management by workers in 1880 (Fischer, 1911).

Improved Industrial Dwellings Company, London, UK: Initiator Sir Sydney Waterlow (1822-1906), started a commercial company (Improved Industrial Dwellings Company) building on MCD in London in 1863; aimed to demonstrate that the housing problem could be solved by combining capitalist and philanthropic methods; idea of “philanthropy and 5 per cent” and model of limited-dividend companies was implemented (Adam, 2002, p. 332).

Peabody Trust, London, UK: Initiator George Peabody (1795-1869), American banker; provided housing facilities, built and ran by his Peabody Trust, founded in 1864; philanthropic approach, no profit-interest, trust was self-perpetuating and aimed at an annual net return of 3 per cent to expand the trust; 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; 3,500 dwellings in 1862, housing more than 14,600 people (Adam, 2002, p. 330).

Housing management system, London, UK: Initiator Octavia Hill (1838-1912); established in 1864 in three rundown buildings; crucial feature of approach was to convince the tenants of

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18 Model Dwellings Companies (MDCs) were a group of private companies in Britain that sought to provide housing and at the same time generate a financial return; also renovate old and ill-arranged houses Scratchley (2013 (repr. 1862), p. 362).
the worth of living in decent housing conditions; system of “friendly rent collecting” where rent was to be collected weekly by upper-class women who were expected to establish friendly relations with the tenants; insisted on a return of 5 per cent interest on capital invested; when 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, pp. 27ff.).

Self-help approaches. What is more, 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. They were 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. Some developments include:

Cooperative building societies, UK: started to develop in England already in the 18th century as collective saving mechanism providing loans for home ownership to their members; in the 1850s, more and more workers joined and became shareholders of limited-dividend housing companies themselves, by the end of the 19th century with the growing number of better-off workers these building societies had become large-scale organisations (Mansbridge, 1934), addressing mostly lower middle-class, not most marginalised (Harloe, 1995, pp. 35f.)

Building cooperatives, GER: 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; ownership-based approach with limited-dividend company; bankruptcy in 1856 because of difficult capital access and unfavourable cooperative laws (Thienel, 1973); from the 1880s onwards more successive (building) cooperative models pooling small weekly dues for construction of tenements with rent-based approaches; 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).

Worker’s construction associations, DEN: emerging in the 1880s in Denmark self-built associations as ownership-based solutions, yet usually the ‘respectable’ working class was involved and not so much the most marginalised; often founded and created as cooperatives, first timid loans in 1887 by local authorities, only after some pressure and risk sharing in a more systemised loan system of the state in the early 20th century activities slowly increased (Harloe, 1995, p. 33).

Private, non-profit corporations of civil society organisations, NED: 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 after the Housing Act
(Woningwet) of 1901 stating that corporations could not operate in direct interest of employers, unions or other organisations (Harloe, 1995, p. 29).

**Public provision through municipal housing.** On an even smaller scale than the other solutions, there also emerged some cases of direct housing provision by municipalities at the turn of the century, which often developed dwellings at least for their own employees. This occurred e.g. in Krakau, Budapest, Vienna or British and German cities (Saldern, 2006).

**London County Council (LCC)**, progressively started with five- and six story apartment blocks in central areas between 1889 and 1907, equipped with more generous inside space and sometimes grouped around infrastructural elements such as schools; 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; small and narrow row houses, standards were further improved, and architects tried to foster neighbourhood solidarity (Rodgers, 2001, p. 190); 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) (still less than 5 per cent of the housing built in England at the time).

**Frankfurter Aktienbaugesellschaft für kleine Wohnungen** (“Frankfurt small dwellings construction corporation”), organised as private limited-dividend company; 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).

### 3.3.2 The initiation phase of social housing through the ESGM

#### Table 2: Social grid elements during the origins of social housing

<table>
<thead>
<tr>
<th>Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)</th>
<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>- competing models on SH design</td>
<td>- philanthropic engagement as a chance for access in high society</td>
<td>- implementation of social control</td>
</tr>
</tbody>
</table>
| Artefactual | Cultural | - fear of self-help approaches because of socialism
- no acknowledgement of need for clean housing amongst some marginalised
- consensus that matter should be solved by private means
- general exclusion of ‘undeserving poor’ | - attempts of self-help approaches via cooperatives, led by
- unfavourable cooperative laws
- different legal design of SH |
| Economic | - importance of productive workforce acknowledged
- reluctance to idea of ownership | | |
amongst marginalised competing models on SH provision social reformers entities

Security-related
- fear of social riots and epidemics

Political
- fear of self-help approaches because of socialism
- consensus that matters should be solved by private means
- conservative forces (public and entrepreneurs) protecting status quo
- social networks of working class leaders rather than elites than lower working class peers
- establishment of first SH laws across Europe heavily fostering private contribution

<table>
<thead>
<tr>
<th>Resulting Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(+ = achieved; - = deprived)</td>
</tr>
</tbody>
</table>

For a “happy few”:
(+ ) improved access to secure, private, affordable accommodation non-hazardous to health
(+ ) free family planning
(+ ) freedom of settlement
(+ ) social recognition
(+ ) participation in community building
(- ) strong control of lifestyle
(- ) political participation (only for some)

3.3.2.1 Initiating agency: motives for engagement

Of the proactive bourgeois personalities, many were driven by economic and social considerations, although with different emphasis on one or the other (see below). They wanted to improve worker productivity by improving living conditions (Harloe, 1995, p. 18), but some could also be seen as social reformers, driven by societal commitment, often religiously driven (Levy-Vroelant et al., 2008). However, amongst proactive bourgeois personalities as well as progressive municipality representatives who were not marginalised themselves, cognitive frames (spanning across political, economic, cultural domains) emerged that acknowledged the interlinkages between solving the housing problem and the interest of bourgeoisie itself and the society in general (Kastroff-Viehmann, 1979; Levy-Vroelant et al., 2008). As Gustav Schmoller (cited in Bullock and Read, 1985, p. 52) put it, the necessary efforts are nothing “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”. Initiatives of progressive municipal providers were driven by this. Obviously, for a social innovation to emerge, these advantages for other stakeholder groups beyond the actual beneficiaries seem a relevant precondition. A further relevant factor, resulting from changing social networks with the rise of the bourgeoisie (cultural domain), strengthens this assumption. Charities and philanthropic engagement provided opportunities for industrialists, as a new social group, to establish themselves in the
High Society of their respective cities (2002, p. 349). Finally, self-help approaches that tried to shift a substantial role to the marginalised themselves were obviously motivated more directly, although often social reformers who were not personally affected by the living conditions took the lead here. Such approaches had a difficult start because of unfavourable legal conditions (e.g. cooperative law as an economic institution) and powerful opponents that were in fear of socialist and revolutionary ideas fostered by accumulations of people (i.e. social networks with conservative cognitive frames across the political, economic, and cultural domain) (Kastroff-Viehmann, 1979; Harloe, 1995; Fuhrmann et al., 2008). Also, especially the most marginalised workers did not really have the resources to afford engagement in cooperative solutions, and also the idea of ownership was not really accepted yet (a mainly cultural cognitive frame) (Fuhrmann et al., 2008). In general, the most marginalised groups had little opportunity to engage in solution approaches, with exemptions such as in Vienna where the settler’s movement laid the ground for one of the most elaborated social housing systems today (Giesecke, 2015).

3.3.2.2 Shaping agency: influences of social forces

Innovative agency came about in various ways and by many actors. The historic data shows that in the surrounding social grid, different dynamics occurred. In some cases, and regarding some aspects of the problem solution (e.g. who is responsible), cognitive frames are relatively stable across different social networks. Regarding other aspects (e.g. the concrete solution approach), cognitive frames even within relatively homogeneous social networks such as the bourgeoisie differs, and therefore solution approaches are shaped in different ways as well.

**Societal responsibility and governance of solution.** In this early phase of social housing as a social innovation, there was a relatively stable consensus across philanthropists and policy makers (as different, but linked social networks) that the matter of housing for working-class families should be solved by private means (cognitive frame). Municipal provision of social housing and market interventions to support specific providers in reducing prices of working-class-housing below cost-covering level were viewed critically (‘municipal socialism’). 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). However, this thinking was pronounced differently, influenced for example by national traditions, political backgrounds and specific relations between the public and private domain (i.e., by major social networks and their economic and political cognitive frames). Public interventions were strongly objected or even “unthinkable” in France and also for liberals in

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19 For example, social reformers like V. A. 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).
Britain or the Netherlands, whilst Germans civilians with a longer tradition of corporatist state-civil society cooperation (Harloe, 1995, p. 51) were a bit more open to them, also because there was a particularly strong relationship between industrial needs and housing policies in Germany (Harloe, 1995, p. 48). Even among more specific social networks, such as the German Social Democrats, there was no general agreement on the issue of government intervention. On the other hand, however, social and housing reformers and hygienists (as another social network) lobbied on behalf of public reforms across Europe early on, and even more when it became clear that early philanthropic endeavours would by no means be sufficient, given the majority of the task (Rodgers, 2001; Harloe, 1995). Around the turn of the century, finally policies were beginning to get institutionalised across Europe in accordance with the paradigm of limited market intervention. They promoted the leveraging of private resources and the involvement of private actors in the coordination and provision of social housing. Those policies were rather similar and based on a normative consensus surprisingly stable across all parties (Levy-Vroelant et al., 2008, p. 34). Often, they included tax privileges, repayable public investment instruments, and different types of obligations, as the following examples show (Rodgers, 2001; Acker et al., 2008; Harloe, 1995; Levy-Vroelant et al., 2008):

**Belgium, Housing act, 1889** (first in Europe)

**Britain, Housing of the Working Class Act**²⁰, 1890: subsidies for housing companies only under specific circumstances (e.g. slum clearances), state support for workers’ ownership excluded by law

**France, Loi Siegfried, 1894; Loi Ribot, 1908; Loi Bonnevay, 1912**: ownership promotion, central loan system (Ministry of Finance) with no role for local authorities

**Netherlands, Woningwet, 1901**: requirements and quality standards, subsidies and loans for affordable housing in public interest (volkshuisvesting), administration and risk taking by local municipalities, establishment of non-profit housing associations (woningbouwcoöperaties), but not in direct interest of employers, unions or other organisations

**Germany**, different local bills such as the **Prussian Housing Bill, 1904**: no intervention through subsidies, but public investment through the state’s new regional social insurance funds in non-profit and limited-profit working-class building associations, available at a percentage point below market rate.

**Austria, 22 December 1910 Act**: state-guarantee-based banking system channelling money from taxes to housing construction, state support by guaranteeing the funds; in Vienna, from 1910 onwards a share of the housing tax earmarked for a housing charity fund.

**Italy, Luzzati Law, 1903; Testo Unico, 1908**: financial aid for cooperatives, charities and

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mutual aid initiatives

What is more, not only laws (*institutions*) directly dealing with the housing situation, but also social forces in related fields proved relevant. For example, the reform of the building cooperative law (*Baugenossenschaftgesetz*) of 1889 that reduced liability for accommodating investments brought some relevant improvements for cooperative activities, which slowly increased in the early 20th century as a result. Accompanying these legal developments, also committees, offices and idea exchange through congresses was further *institutionalised*. For example, in France social reformers founded the *Société Francaise des Habitations à Bon Marché* (SFHBM) after the First International Congress Habitations Bon Marché in Paris in June 1890. Also municipal housing agencies were founded in Vienna, Amsterdam and elsewhere.

**Design of solutions.** The manifestation of different *cognitive frames* across and within different *social networks* can be detected in the business models and design of the provided solutions. First, there were different positions regarding the precise business model for solving the problem, particularly regarding the role of profits. For some philanthropists and social reformers such as Waterlow or Hill 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). In most countries, however, philanthropists rather accepted that the situation needed a solution outside the free market system without the ability to generate even moderate returns and thus charging relatively low rents. Depending on the respective *cognitive frame* in this issue, initiatives accordingly were *institutionalised* either as limited-dividend companies or as endowed trusts, foundations and charities. Self-help approaches grounded in the *social networks* of the rising worker movement took the form of cooperatives or associations (Morris, 2002, p. 191; Harloe, 1995, p. 33).

Ideological convictions (i.e. competing *cognitive frames*) were also expressed in the design of the buildings, where the main discourse was found between multi-storey, large-scale tenements driven by communitarian thinking on the one side and more traditional small houses or cottages on the other side (Kastroff-Viehmann, 1979; Harloe, 1995), that emphasised the role of the small family within detached accommodation for social order.

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21 This contrasts with North American philanthropists who preferred the Waterlow’s “investment philanthropy,” and rejected Peabody’s “pure philanthropy” (Adam 2002).

22 There were exceptions, however. In Waterlow’s Industrial Dwellings Company, founded in 1863, his quite different views on society as a whole and on families in particular were reflected. Because of the high prices in London, he built multi-storey tenements as well, but 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) (Adam 2002).
Both approaches were put into practice, although high land prices often made the small houses solution unaffordable. Innovation in architecture (i.e. the artefactual domain) tried to solve the matter of high costs, a pattern that reoccurred during the development of social housing many times. Compromises such as cluster or quadruple house were developed and implemented for instance in Mulhouse or the Ruhr area (Bochumer Verein (“Bochum Association”) (Däbritz, 1934)). Also, ideas of suburbanisation, but also decentralisation were developed as alternative planning and living paradigms (artefactual and cultural cognitive frames). Colonies of small houses outside the cities should disburden metropolises from overcrowding, an idea that came up not least from within the Garden City Movement (Pahl, 2000, p. 5).

A third area for manifestation of competing cognitive frames was the way the social housing facilities were run. Generally, the establishment of social housing solutions did not necessarily imply that progressive ideas were the driving force behind. Actually, most philanthropists were “conservative reformers” who were ready to make reforms within the framework of the existing system to prevent revolutionary change (Adam, 2002, p. 349). 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). Alfred Krupp prompted his employees to focus on work and family life instead of political discussion (“Krupp, 1877) and only accepted non-union organised workers (Fuhrmann et al., 2008; Kieß, 1991). Nevertheless, there were also different, yet few, approaches guided by alternative and more progressive cognitive frames that had strong sympathies for liberal and social democratic or even (utopian) socialist ideas of the time (e.g. Godin, Dollfus or Ebenezer Howard, the founding father of the Garden City Movement). In Mulhouse for example, the textile mill owners introduced the first ‘monthly payment’ arrangement that enabled workers to save for their own houses or included facilities for recreation and education (Godin) (Adam, 2002, p. 333). What is more, already some early social housing pioneers had in mind aspects of social mix and urban development. E.g. the Peabody buildings tenements were scattered throughout various districts in the cities of London respectively, in order to avoid the emergence of working-class ghettos (Adam, 2002, p. 335).

Beyond this, also all early approaches regardless of their background comprised a strong element of social control that became institutionalised through the notion of (social) hygiene or cleansing. Topalov describes the cognitive frame behind this as follows (1985, p. 261): “[a] key word characterised 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”. This was strongly influenced by the bourgeois classes’ strong status thinking, privacy orientation, and conservative values with the nuclear family (parents and their children) as fundamental for

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23 This did not directly mean suburbanisation, but rather the foundation of new cities in the country side following well-thought out principles and policies to provide healthy living space out in the greens Pahl (2000, p. 5).
social order, but also adopted by more liberal and socialist landlords (Fuhrmann et al., 2008). Generally, exchange and creation of philanthropists’ social networks, fostered by prominent and influential personalities such as Princess Alice of Hesse-Darmstadt, Queen Victoria’s third child, occurred. Hill, Godin and others also published their ideas in books, and the different philanthropists, social reformers etc. visited each other and adapted specific approaches (Adam, 2002, p. 337; Rodgers, 2001). All these developments span across the economic along with the cultural and political domain, since at the end of the day, they dealt with the appropriate approach towards social issues in society. Most proactive personalities were privileged in some way and thus able to test their ideas, and also to impose their conditions on the marginalised tenants, so that power in a distributive sense is relevant for the shape of the solution on the one hand (cf. Mann, 1986). On the other hand, there is also an aspect of collective power involved, since the general ambition was to find the best mode to master the housing problem.

**Targeted beneficiaries.** Mainly cultural cognitive frames had a strong influence on who actually was the target group for social housing. From the beginning, the solutions adopted by all societal groups (including self-help approaches) did not address those that suffered the most from the problem, but comparably the better-off, skilled working class members. This was partly due to their financial resource endowment, but mostly because of a dominating cognitive frame that classified workers according to their “potential for salvation” (1995, p. 20), i.e. for social integration. Social housing mostly targeted the ‘skilled and responsible workers’, since it was seen as essential to integrate this group securely into the existing social and economic order (Gareth, 1984). The second group, the ‘deserving poor’\(^\text{24}\), usually could not afford social housing solutions or did not fulfil other selection criteria. But they were still addressed with approaches such as Octavia Hill’s paternal control, striving for social integration through conviction of the benefits of improved housing conditions and their effect on overall living circumstances (health, productivity and wages etc.) (Harloe, 1995, p. 64). The third group of the ‘undeserving poor’, however, was generally seen as a dangerous and unstable residuum that was addressed by repressive and punitive solutions such as deprivation of their citizen and parental rights, separation from other working classes, and incarnation in labour colonies (Harloe, 1995). For these more marginalised, at best filtering – the approach that building comfortable dwellings for the better off will decrease demand and therefore also

\(^{24}\) The distinction between the ‘deserving’ and the ‘undeserving’ 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 due to 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 live under these circumstances 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 to continue their sluggishness. Nowadays, the debate about the deserving poor has regained relevance and urgency in many countries under the heading of the working poor. Handler (1971); Shipler (2005); Evason (1989)
rents in the lower sector – was accepted as a solution approach (Gareth, 1984). Influenced by more general cognitive frames of Social Darwinism and Imperialism, they were seen as weakening elements of society and a threat to industrial efficiency (Harloe, 1995, p. 37). In many countries, working class leaders (of trade unions etc.) that were supported by social democrats and in some circumstances also liberals\textsuperscript{25} agreed with this perspective, thus building actually stronger social networks with political decision makers than with their lower working class peers (Harloe, 1995, p. 39).

### 3.3.2.3 Capabilities of marginalised groups

During the early phase of social housing, capabilities, particularly in terms of secure, clean and affordable accommodation, improved only for a low number of better skilled, ‘respectable’ working class members, and, with some limitation, for the ‘deserving poor’ (cf. Octavia Hill’s approach) (Harloe, 1995, p. 20). Also, spill overs, now in a positive way, occurred for these “happy few”. In consequence, family planning etc. became easier, and for some even housing ownership came into reach. However, some landlords still suppressed political activities (e.g., Krupp), and strongly followed a double strategy of a paternalistic “care and control” (Fuhrmann et al., 2008) regime that reached deeply into people’s privacy\textsuperscript{26}. The ‘undeserving poor’ as most marginalised groups faced rather repressive measures in the context of early interventions. Social forces shaping the early social innovation activities in fact even worsened their situation with further constrained individual freedom and no real access to a fair judiciary. Shelter homes, squatting or private accommodation that remained after the filtering process were the options left for accommodation.

### 3.4 Phase 2 - The period of municipal commitment to social housing

The phase beginning with WWI was characterised particularly by municipal commitments to social housing on a broader level. Private provision and investments had been strongly affected by the consequences of war. But there were also strategic motives for public authorities, since the continuing dissatisfaction of the working classes posed the greatest threat to the dominant wish of the time, the “re-establishment of the capitalist social order” (Harloe, 1995, p. 101). First mass housing programmes were publicly provided, and although the actual idea was to keep this a temporary solution that should guide the way back to a normal functioning of free markets (International Labour Office, 1924, pp. 47f; Harloe, 1995,

\textsuperscript{25} 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).

\textsuperscript{26} Commentors described for example the Krupp settlements as “cemeteries for the living” (Eisner (1912), quoted from Bolz (2010, p. 91)).
p. 100), various of the developed socioeconomic structures remained afterwards. Thus, by this phase social housing as a social innovation started to become mainstream on a broader level. However, the idea remained being contested and was influenced by a variety of contemporary developments and social forces. What is more, although a considerable amount of dwellings was built, the gap between demand and supply still was relatively large at the end of this period.

3.4.1 Overview of developments

The following data illustrates the main achievements in several European countries:

- In Britain, 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). Of these houses, about just over one-third belonged to local authorities, and less than one third was private but subsidised (Holmans, 1987, pp. 66ff.)

- In France, only about 60,000 to 70,000 new dwellings (all in Paris) were established at the end of the 1920s (Schwan, 1935; Bauer, 1934), most of them in the suburban lotissements, i.e. overcrowded and unhealthy semi-rural slums. However, over 400,000 units were repaired and rebuilt incurring massive state expenditure, which was ideologically acceptable as it restored private property (International Labour Office, 1930, p. 202). There also were very few private sector and cooperative landlords established according to the legislation on Habitations à Bon Marché (HBM) societies from 1912, and there were only 130 public HBM offices.

- In Germany, until 1921 about 315,000 subsidised units were built (International Labour Office, 1924, p. 346), but the housing deficit still reached 1.4 million units in the early 1920s (International Labour Office, 1924, pp. 317–323)\(^27\). The share of new building construction endeavours 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), mainly by publicly owned housing agencies. The number of cooperatives increased from 1300 before the war to over 4000 by 1927 (International Labour Office, 1930, p. 324). Publicly provided capital amounted about half of all investments between 1924 and 1928 and afterwards 87 per cent or more of all new housing received some kind of support\(^28\).

\(^27\) Developments were particularly bad here due to the consequences of WWI and hyperinflation, 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.”

\(^28\) The precise conditions depended on the policies and resources of the individual Länder International Labour Office (1930, p. 356).
- In the *Netherlands*, neutral during WWI and therefore not struck as hard as belligerent nations, between 1918 and 1928, about 74,000 units were built by state loans by housing corporations and another 20,000 by local authorities (Harloe, 1995, p. 122; Gray, 1946, p. 72)

Again, there were also various proactive personalities taking agency within the setting of the time, many of whom active in the public sector. Some prominent examples are:

**Florentinus Marinus Wibaut** (1877-1936), was a Dutch politician and social reformer. He joined the SDAP (*Sociaal-Democratische Arbeiderspartij*; “social-democrat labour party”) in 1897 and moved to Amsterdam in 1904 where he became elected member of the municipal council in 1907 and first alderman for housing. He campaigned 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, had 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. Inspired by the work of Ebenezer Howard, from 1915-1937 he was head of the newly founded municipal buildings agency (*Gemeentelijke Woningdienst*) in Amsterdam and built as many homes as possible for workers via the city council and via new housing associations, including the housing association *Rochdale*, which assisted and advised inexperienced workers in boards of housing association, and gave many international lectures on social housing. Amsterdam became “the Mekka of social housing in Europe” at this time. When Keppler left the office in 1937 for an early retirement, 30,000 new houses had been built (Smit, 2001).

**B. Seebohm Rowntree** (1871-1954), son of the well-known entrepreneur and later industrialist and philanthropist Joseph Rowntree, was an English sociologist, industrialist and philanthropist primarily known for his extensive studies of poverty and welfare. After he became director in 1897, he had his 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), director of the welfare department of the Ministry of Munitions (1915–18) and member of the Reconstruction Committee (1917). (Briggs, 1974)
3.4.2 The municipal commitment phase through the ESGM

Table 3: Social grid elements during the phase of “municipal commitment” after WWI, early 20th century

<table>
<thead>
<tr>
<th></th>
<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artefactual</td>
<td>- Rationalism, Functionalism, Modernism influencing SH design</td>
<td>- SH experts start to establish as a distinct group</td>
<td>- SH experts become part of committees</td>
</tr>
<tr>
<td>Cultural</td>
<td>- ambition to restore liberal pre-war status</td>
<td>- post-war demographic changes and migration</td>
<td>- housing inspectors and ‘living schools’</td>
</tr>
<tr>
<td></td>
<td>- belief in paternalistic control and education in social matters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>- ambition to restore liberal pre-war status</td>
<td>- strong networks between state and industry</td>
<td>- dysfunctional SH structures after war</td>
</tr>
<tr>
<td></td>
<td>- weakened free-market paradigm (temporarily)</td>
<td>- rise of private non-profit or limited-dividend housing companies and cooperatives</td>
<td></td>
</tr>
<tr>
<td>Security-related</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>- ambition to restore liberal pre-war status</td>
<td>- strong networks between state and industry</td>
<td>- SH as a central domain of the rising welfare state</td>
</tr>
<tr>
<td></td>
<td>- weakened free-market paradigm</td>
<td>- increasing organisation of working class (committees)</td>
<td>- often direct public housing provision, but with resistance of administrations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- increasing organisation of housing provider (unions)</td>
<td>- industry-friendly laws unfavourable for workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- constitutional right for housing established</td>
</tr>
</tbody>
</table>

**Resulting Capabilities**

(+ = achieved; - = deprived)

→ focus on members of certain social groups (unions, church groups)

(+) further improved access to privacy, security and clean accommodation (standards increase)

(+) political participation

(-) eroding access to infrastructure in remote suburbs

(-) enforcement to break social ties

(-) strong control of lifestyle

3.4.2.1 Initiating agency: motives for engagement

The consequences of WWI and the following economic situation made large-scale public intervention inevitable. The war’s consequences were severe enough to loosen basic cognitive frames such as the free-market paradigm in the economic and political domain. But also the respective institutions that had shaped and dominated the housing market clearly were
overstrained and not functional any more. During WWI, private 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 (Swenarton, 1981). 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 had to be 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, and migration (i.e. changing social networks in the cultural domain were in play as well). 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).

Therefore, direct provision by local authorities became – at least temporarily – accepted (Harloe, 1995, p. 102), although against widespread resistance among some public bodies. In France, the Caisse des Dépôts refused to give loans of below-market interest rates despite the obligation to do so. Together with the more general, predominant cognitive frame across most societal domains that things should be restored to the liberal pre-war status, public support for housing was only seen as a temporary solution on the way back to “business as usual”, and the political and economic institutions that were built were supposed to then be reconverted (International Labour Office, 1924, pp. 47f; Harloe, 1995, p. 100; Maier, 1975). Yet, also some aspects had changed that had a (short-term) effect, leading towards more public action in the matter as a result of the war. The need for standardised mass production in the war economies had led to a new form of corporatism or partnership for instance in Britain or France. Labour and trade union representatives 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. However, this effect was not to last for long. The relationship between state and industry however remained far closer and improvements from these relationships were short. However, the working class too also strengthened their inner social networks and became increasingly institutionalised. This increased their economic and political power. When WWI and also the hyperinflation in 1923 caused insecurity and inequality through wages even lower than before the war, in many European states this lead to widespread social unrests, mass demonstrations, strikes and revolutionary ideas particularly in industrial regions, such as the Ruhr area (Marwick, 1974, pp. 30f; Berghahn, 1982; Fletcher, 1987; Harloe, 1995, 29

29 In Paris, there were twice as many marriages in 1920 as in 1913 International Labour Office (1924).
30 Lax controls of profits enabled large-scale war profiteering Harloe (1995, pp. 76f.)
The newly established worker committees became nucleus for revolutionary agitation, forsaking the reformist way of trade unions and Social Democrats’ leaders, with both left and right wings radicalised. When impoverishment also started to hit the middle class, the elites came under pressure and made further concessions, such as a stronger public involvement in housing provision, to prevent social order. Many of the institutions established at this time remained and were irreversible, even when conservative forces gained dominance after the end of a short post war economic boom (Harloe, 1995, p. 80).

3.4.2.2 Shaping agency: influences of social forces

**Societal responsibility and governance of solution.** Given the preconditions just discussed, there was a substantial shift in housing providers after WWI to direct municipal provision and the foundation of municipally owned housing agencies on the one hand, and private non-profit or limited-dividend housing companies and cooperatives on the other hand. But because of the weakend, but still prevailing free liberal market paradigm and the common belief that only temporary public assistance would be necessary (cognitive frame), treasuries insisted on minimal provision and temporary buildings wherever possible, and also expected local authorities to take responsibility, which however refused that call (Englander, 1983). There was a fear that policies fostering public housing by rents below market levels would leave the governments with long-time requirements to subsidise working class housing, since private investments would be crowded out. Rent controls were imposed in almost all countries during the war and upheld partly until the mid of the 1920s, because earlier 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 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). Nevertheless, the emerging cognitive frame on the right for adequate shelter increasingly manifested in institutional settings, such as in the German constitution (Weimarer Republik) after WWI (International Labour Office, 1924, pp. 317–323) or the British Housing and Town Planning Act (‘Addison Act’) in 1919 (Gilbert, 1970). However, institutions were ahead the cognitive frames at least in some social networks, and particular interests still led to objections. For example, in Germany the house and property owners’ associations resisted to admit that there are

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31 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).

32 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, p. 264). Article 155 stated (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“. 

33 The discussed schemes for providing cheap building land threatened the large speculative gains that landowners had made before and during the war.

34 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).

35 The detailed formation of the Union can be read here: http://www.iut.nu/aboutiut.htm#History
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. Housing inspectors (visiteuses à domicile) were implemented in many countries. They inspected the properties, and (sometimes) at the same time collected rents or distributed social allowances (Levy-Vroelant et al., 2008, p. 36). Further, as it had been already before WWI, social housing provision often incorporated community facilities such as club rooms, stores, libraries or restaurants/cafeterias with cultural activities and secondary education for adults (Novy and Förster, 1991, p. 92). The increasing municipal commitment to social housing often was embedded into the moving towards 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 (Levy-Vroelant et al., 2008, p. 36). Social housing thus benefitted from social forces that worked even on a more general level, but with a similar motivation.

Continuing from before WWI, also the discussion about small houses versus tenements went on. Social reformers, architects and planners now had improved their position to put their ideas of improved working-class housing into practice, since they became part of the steering social networks within the emerging public support institutions for housing provision (Harloe, 1995, p. 83). Besides 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 were cognitive frames (cultural, political, and economic) that became important paradigms for the housing solutions of the time. For example, the Neues Bauen (“New construction”) movement combined new architectural approaches and concepts with ideals of social reforms to create buildings of enhanced functionality and living standards (Gutkind, 1919; Heßler, 2012), e.g. get substantially more sunlight and air into formerly dense, dark and overcrowded urban settlements36. The Amsterdam School of architecture, an expressionistic style using bricks, glass etc., strongly engaged in social housing and developed ambitious projects, often linked to the cooperative movement and based on local patriotism37 (Witt, 1983). In Vienna, Adolf Loos’ ‘house with one wall’ was an invention to build row houses in a system with only one load-bearing wall that could in large parts even be constructed by unskilled workers38, and the idea of the ‘core house’ that emerged in the early 1920s comprised to make one part of the house immediately habitable that could later be extended from the settlers’ own means. (Förster, 1980, p. 68;

36 Compared to the somewhat competing ideas of 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.
37 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 Witt (1983).
38 E.g. the Heuberg-Siedlung.
Neumann, 1929, p. 23; Novy and Förster, 1991, p. 76). Often, new materials such as glass, iron and concrete or also new processes and building techniques, such as steel casting, iron trellis construction, and glass columns were developed and used to make social housing construction more affordable (e.g. clay bricks or slag masonry in Vienna) (Baaser, 1960; Koch, 1987, p. 5; Novy and Förster, 1991, p. 155). Also, household devices based on a broad scale electrification played an important role, influenced by cognitive frames such as from the emerging feminist movement. That promoted the liberalisation of housewives from the hardship of housework that had become a major issue since the higher attractiveness of fabric labour made it difficult to find maids, which had been usual in previous ages (Heßler, 2012, p. 77). Also, for major electric devices manufacturers like Siemens and AEG were driving forces, realising that very often it was their own workforce who benefitted from electrification. Social housing settlements became both fields of experimentation and important sales markets (Heßler, 2001, p. 264). Such progressive ideas by social housing corporations and related actors frequently resulted in higher standards than in the private sector, since housing reformers demanded that social housing must raise the working class-housing. Accordingly, it can be stated that technological innovations were part of and also shaped by social housing. Even more – when enough resources were provided – social housing was innovative in the artefactual domain in so far as it also affected the mainstream housing, be it because of the need for efficiency or because of the social mission.

**Targeted beneficiaries.** Generally, the focus on the better-off working class members in social housing remained during the period of municipal commitment. This was for several reasons. First, they were not being selected according to who suffered most from the housing situation, but mainly on the basis of social network membership, e.g. in unions or socialist or communist parties, in public housing 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 (Levy-Vroelant et al., 2008, p. 36). Further, along with the dominating cognitive frame of being on the way back to ‘business as usual’ and consequently the idea to attract private investors with subsidies for working-class housing provision, policies targeted on rents that were oriented towards market levels. Subsidies should fill the temporary gap between investment costs and expectable returns until routine was restored (Harloe, 1995, p. 100). Accordingly, housing was particularly affordable by ‘the aristocrats of the working classes, the skilled and highly paid artisans’ (Member of the British parliament, quoted in Swenarton, 39

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39 Around 1923 there was a shift favouring *superblocks* in social housing policies, mostly for financial reasons. Förster (1980, p. 104); Bauböck (1981, p. 130)
40 This compartmentalisation or pillarisation (*verzuiling*) of society was to last until at least the 1970s and its effects are still visible in Dutch society.
41 This ignored, however, that the private housing market already before WWI was 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 (1924, p. 3).
3.4.2.3 Capabilities of marginalised groups

Regarding capabilities for those that were that privileged to enter social housing facilities, there were some clear improvements regarding the living conditions in terms of privacy, security and cleanliness. For example, in stark contrast to the Kaiserreich\(^{42}\) when it was the norm to have no toilets, no electricity, no bathroom and no warm running water, the Neues Bauen/Neues Frankfurt settlements marked an enormous improvement. Electrical household appliances were a further development towards hygiene within dwellings and for abolishing “coal and ashes” from inside. Sunlight terraces and gardens further increased the wellbeing of inhabitants (Heßler, 2001). Membership in unions or political parties (although rather a precondition than a consequence of social housing) also improved political capabilities. However, social tensions generally were strong, mostly because the economic capabilities did not really improve, at least for the majority of the working class.

However, there also were a few downsides resulting from the social forces of the time. When new dwellings were remote, this 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). This however was tried to be addressed by community facilities at least in some dwellings (Novy and Förster, 1991). Even more, capabilities were constrained through the enforced paternalistic control system, which was the complete opposite to the values that make up the core of the capabilities approach today. At the time, at least amongst social groups this was different (see the initial quote). Conceptually, this means that here is a problem for historical analysis with the ESGM, as it builds upon normative values from these days that might have not been prevalent in earlier days.

What is more, still a large number of people remained homeless, a high portion of whom were unemployed, i.e. fulfilling two main aspects of extreme marginalisation. For them, improvements often were worse in quality, as the following quote shows for Germany:

[I]n 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 men’s’ and women’s’ 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

\(^{42}\) The era between 1871 and 1918 is called Kaiserreich or Deutsches Reich (German empire).
some places remained (Denby, 1938). Some exception occurred in Vienna, where the local authorities practically legalised informal settlements of the settlers at cities margins. (Novy, 1981, p. 46) (see also the report on Social Housing in Vienna in this deliverable Giesecke, 2015).

### 3.5 Phase 3 - The great depression and its effects on social housing

The economic crisis (great depression), starting in December 1929 with the Black Friday at the stock market in New York, marked a new turning point in social housing. There was a public withdrawal, i.e. freezing of subsidies and grants etc., so that the period witnessed a rising importance of private organisations in the construction as well as in the provision of social housing. Embedded in general policies for economic recovery, many governments implemented programmes that subsidised private-market based housing provision. Some also still comprised direct municipal provision, taking (non-voluntarily and on a limited scale) a complementary role to the private sector in the sense of a residual approach for the poorer workers. In any case, these measures were not meant to be temporary solutions any more, although there still was the conviction that public housing should not be a lifetime source of accommodation (Harloe, 1995, p. 188; Bowley, 1944).

#### 3.5.1 Overview of developments

Some of the main developments in different European countries were:

In the **Netherlands**, construction in general decreased due to cuts in subsidies (League of nations, economic intelligence Service, 1939, p. 93). 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 groups, and probably even more to the Social Democrats (Harloe, 1995, p. 170). Further, deflationary policies comprised rent controls, which lead to objections from housing associations that got into financial trouble (Harloe, 1995, p. 171).

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, pp. 66ff.).

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 organisations they controlled (low-income and slum rehousing). A Reich degree in 1931 shifted housing policy for unemployed and low-income classes to rural settlements in general,
but the re-armament made clear that urban housing needs could not be ignored\textsuperscript{43}. State loans, guarantees for mortgages and some direct subsidies were given, although public support was reduced by 80 per cent between 1930 and 1933.

In \textit{France}, mainly \textit{Societes Anonymes d’HBM} (limited-dividend commercial companies with 6 per cent revenue), cooperatives and \textit{Sociétés de Crédit Immobiler} built houses with the loans from the subsidised housing programme of the time (Loi Loucheur in 1928), and not so much small-scale private owners as intended. By 1933 about 180,000 HBMs were constructed, of which 80,000 had been built by \textit{Offices Publics} (i.e. mainly low rent dwellings). In total, under all preceding legislations in 1939 not more than 320,000 HBM units had been constructed (Denby, 1938, pp. 216ff.).

In \textit{Finland}, the first notable \textit{non-profit building consortiums} were founded in the late 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 \textit{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.

\textbf{3.5.2 The Great Depression phase through the ESGM}

\textbf{Table 4: Social grid elements during the Great Depression}

\begin{center}
\begin{tabular}{|l|l|l|}
\hline
& Cognitive frames & Social networks & Institutions \\
\hline
\multicolumn{4}{|l|}{Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)} \\
\hline
\textbf{Natural} & & & \\
\textbf{Artefactual} & - focus on improving existing, cost-saving technologies & & - institutionalisation of ‘housing science’ \textsuperscript{\textit{GER}} \\
& - simple, minimal techniques under Nazi regime (GER) & & \\
\hline
\textbf{Cultural} & - anti-urban ideology in Germany & - socio-spatial segregation through SH & \\
\hline
\textbf{Economic} & - market differentiation between private (respectable working class) and public providers (poor) in SH & & - cutback of resources and construction activities of private investors on housing market \\
\hline
\textbf{Security-related} & & & \\
\hline
\end{tabular}
\end{center}

\textsuperscript{43} 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).
Political
- competing view on emerging residual understanding of SH
  - SH perceived as a chance for slum clearance
  - increasing top-down understanding of welfare state
  - adjusting SH according to Nazi ideology (GER)
- rise of anti-democratic groups and parties, including Nazi regime in GER
- bureaucratic welfare institutions more top-down
  - assimilation of SH structures in administration
  - cutback of resources and construction activities of public investors on housing market

<table>
<thead>
<tr>
<th>Resulting Capabilities</th>
<th>(+ = achieved; - = deprived)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>➔ ethnical background becoming a dominant selection criterion in Germany</td>
</tr>
<tr>
<td></td>
<td>(+/-) affordable, clean, secure accommodation at lower standards</td>
</tr>
<tr>
<td></td>
<td>(-) free spatial choice of affordable housing</td>
</tr>
<tr>
<td></td>
<td>(-) social recognition in SH estates (stigmatisation)</td>
</tr>
<tr>
<td></td>
<td>(-) deprived autonomy</td>
</tr>
</tbody>
</table>

3.5.2.1 Initiating agency: motives for engagement

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 raise of the Nazi regime in Germany. What is more, as a downside of the private building boom for example in Britain, the older basic industries declined, and the need for modernising urban infrastructure and slum clearing became more and more relevant (Holmans, 1987, p. 66; Harloe, 1995, p. 181).

3.5.2.2 Shaping agency: influences of social forces

Societal responsibility and governance of solution. 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 countries such as Denmark, the Netherlands or Britain (here the private construction sector boomed in the 1930s). This also affected the discussion on the rule of publicly provided or supported social housing. The cognitive frame changed towards a more residual conception of publicly provided housing as a complement rather than a substitute for private housing (Harloe, 1995, p. 160). Malpass (1986, pp. 51ff.) summarises the developments for Britain as follows:

“general needs housing … was subject to strong residualisation 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. However, contemporary commentaries recognised that this assumption was not the case in practice (e.g. Denby, 1938, pp. 119ff.), since prices on the private market were still too expensive for most workers. What is more, there were also different perspectives (cognitive frames) on the sharing of responsibilities, resulting in tensions across different social network structures. Many local authorities were reluctant to accept the new, residual role for public housing, and only slowly compiled with state pressure in this respect (Harloe, 1995, p. 188; Bowley, 1944). 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 did not see their role 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).

Nevertheless, 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 achieve clearance and rebuilding the areas of poorest housing. In fact, slum clearances and relocation of slum dwellers became a dominant topic in this period. In the Netherlands, after a decree in 1934 it even became obligatory for all new building loans (Harloe, 1995, p. 171), and in the UK ‘containment policies’ basically meant the same (Harloe, 1995, pp. 34f; Malpass, 1986). The upcoming ideology of fascism and racism in some countries contributed to this development. The consequences of re-locations after slum clearances was a socio-spatial segregation of the working-class population (i.e. the dissovelment of more mixed cultural social network structures), based in fact on the pre-war system of a classification of the poor into different categories (Denby, 1938, p. 109). Accordingly, activities under the label of social housing started to create new social problems since at least this period.

What is more, evidence indicates that the interwar period saw a general professionalisation and institutionalisation of housing ‘science’. 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 and the need for a more differentiated approach to address the different aspects of the problem (i.e., particularly collective artefactual power increased). Also, 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. This reflects more generally the increasingly bureaucratic, top-down style of social welfare provision of the time that persisted for many years (and thus a basic political and economic cognitive frame with its respective institutions).

The social housing policy of the time was heavily influenced by the fact that 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. Workers’ movements 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). 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). In Germany, the SPD did not manage to mobilise the working and middle classes to resist against the rising Nazi regime that built on anti-democratic and anti-individualist ideas and ideologies such as the volkisch (“people”) community, anti-Semitism, and nationalism (Roberts, 1978). Particularly the working class was increasingly entrenched in the existing political and economic institutions and also was occupied with the bureaucratic organisation of its own economic empire (Umrath, 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 subsidiaries 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) when 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 also tried to give social housing their ideological spin (Neumann, 1942). Although seemingly committed to cultural cognitive frames such as rural, communal life and anti-urbanism, the Nazi regime developed a coalition with large-scale industry, particularly in the context of rearmament. The social innovation was adapted as a political instrument with the aim to bind the working classes to the Nazi regime. In general, German social housing organisations were incorporated into the totalitarian organisations of the state and society after 1933. Both independence and autonomy within a political and social culture of the working-class had gone. Institutions and social network structures also changed on the organisational level. Self-governing structures of the associations were replaced by hierarchical command and control structures that accorded the Nazi ideology. The main organisations became reorganised into a large bureaucratic entity 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, pp. 337f.).

**Design of solutions.** The social housing sector generally differentiated during this period, and different actors adopted different business models and solution designs. Accordingly, the market based on the initial social innovation was segmented. 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*, targeted at the market section for which no market-based solution was expected, was linked with a shift back to multi-storey buildings in many countries (Harloe, 1995, pp. 165ff; Levy-Vroelant *et al.*, 2008, p. 37). Self-managed housing estates by cooperatives maintained higher standards, and housing associations that mainly served the more skilled workers mostly did the same. What is more, the re-location of the poorer and ‘less desirable’ working class also involved the impositions of *housing management schemes* that were event stricter than in the periods before, with measures such as locking up at 11 pm in the night (Denby, 1938, p. 117; Harloe, 1995, p. 169). For exerting power over the most ‘undesirable’ dwellers, even the architectural design was adapted. Separated bedrooms were implemented to ensure the segregation of parents and their children at night, and the kitchens were kept extremely small to reduce them to a working instead of a living unit (Denby, 1938, pp. 113ff; Harloe, 1995, p. 169). 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, rather following Octavia Hill principles (The Building Centre Committee, 1936, p. 280; Harloe, 1995, p. 170; Denby, 1938).

Showing that social innovations are not immune to ideological manipulation, under the anti-urban ideology of the Nazis there was a wide shift to rural, agrarian-settlements with small, low standard houses also in social housing, engaged in subsistence agriculture (Highton, 1935; Fuhrmann *et al.*, 2008). International construction was criticised as “artfremd”, and *Neues Bauen* was declared being too expensive. Multi-storey buildings were suspicious to be a breeding ground for socialism through the cultural cognitive frames of the Nazis (Saldern, 2006). Furthermore, those settlements also put a strong emphasis on indoctrination with the Nazi ideology and were meant to cut unemployment (Harloe, 1995, p. 174). Simple and minimal quality construction (“Einfachwohnbauten”; “Primitivsiedlungen”) was adopted.

Often 20 sqm living kitchens were considered to be sufficient. As Blumenthal (1934, p. 22) reports, rural housing normally lacked electricity, flush toilets and other basic facilities.44

What is more, there also was 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.

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44 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 tinged by fascist and racist ideologies.

**Targeted beneficiaries.** With the increasing residual approach during this period, the poorer households moved more into the focus of publicly provided social housing solutions, while the more ‘respectable’ working and middle classes, who earned reasonable wages, were addressed more by private solutions with a solid or even improving quality. They also held a considerable degree of tenant self-government under cooperative or housing associations regimes (Harloe, 1995, p. 170). 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”). But also in other countries such as France, foreigners were excluded from social housing policies (Harloe, 1995).

3.5.2.3 *Capabilities of marginalised groups*

The increasing application of slum clearances and re-location prevalent in this period had severe societal consequences through social segregation. The *capability* to freely pick a *place for living* was clearly not widespread amongst marginalised target groups. Even more, the stigmatisation of living at municipality built estates (‘experimental colonies’) was considerable, so that the *capability* to gain respect and social recognition can be seen as constrained as well for social housing inhabitants. Therefore, they were not fully occupied (The Building Centre Committee, 1936, p. 280; Harloe, 1995, p. 170; Denby, 1938). Also, *autonomy* of living was still not in place particularly for those exhibiting *internal conversion factors* that classified them as ‘unrespectable’ working class. The rise of residual approaches accordingly took them under even more systematic control in many countries. Tight rules and quality oriented at minimum standards were custom. 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, pp. 72ff.), thus compromising hygiene capabilities as well.

3.6 Phase 4 - The mainstreaming of social housing after WWII

The phase after WWII is also referred to as the “Golden Age” of social housing. After the destructions of the war, housing shortage was extreme in many European countries, and social housebuilding therefore occurred on a hitherto unimaginable scale. By some still seen as a temporarily expedient, large amounts of public resources were channelled into the sector (UN Economic Commission for Europe, 1976). This was interlinked with processes of industrial modernisation, as well as an ongoing demographic change and urbanisation. 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 mid1970s. 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 long-term process of economic recovery and modernisation.

3.6.1 Overview of developments

These developments varied across different countries regarding pace and intensity. The following examples show a variety of activities by different countries at the time:

In **Britain**\(^{45}\), a comprehensive system of town and country planning was institutionalised, including the relocation of population out of the major cities based on regulation allowing for centralised government planning (*New Towns Act*, 1946, 1965, 1891; *Town and Country Planning Act*, 1947). Areas could now be designated as new towns, controlled by *development corporations* (in the case of new towns) or to *county councils* and *county borough councils*. Also, measures such as shared ownership by locals were implemented (Kähler, 1999). By 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 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 **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 (Wollmann, 1986, p. 138). In contrast to most other countries however, there was a rejection of collectivism through public ownership and an encouragement of private ownership and investment. The government strived for the revival of non-profit housing institutions; subsidies and tax breaks were provided either for rental housing or for home ownership. The estates, however, held the status of social housing only for a limited amount of time– usually 30 or 40 years – and would then be turned into normal market housing (Boccardo, 2008, p. 262). Also, from 1952 premiums were allotted to people to deposit their savings in *Bausparkassen*, a form of building societies (Harloe, 1995, p. 338). Almost 5.2 million dwellings were established between 1950 and 1959 only. Private social home ownership rose from 17 per cent of all new housing in 1950 to 43 per cent by 1975 (Einem, 1981, p. 10). Housing associations later also got involved in urban renewal projects or landlord services for private owners. (Emms, 1990, pp. 18ff.)

In **France**, state intervention was late and centralised with influential technocratic elites (Butler and Noisette, 1983, pp. 70ff.). Initial programs simply reproduced housing based on the HBM (from 1950 onwards HLM – *Habitations à Loyers Modérés*) system (Duclaud-Williams, 1978, p. 127) with high subsidies and a high degree of credit market control. Later on, the ‘1 per cent patronal’ (1953), stipulating that every company staffing more than 10 employees must invest in social housing construction (with the right to nominate employees

\(^{45}\) Compared to its European counterparts, Britain initially failed to restructure and modernise its economy immediately after the war, as many structures of industrialisation had already been in place before WWI and the focus in this respect was on dealing with uneven developments Harloe (1995, p. 281).
to a proportion of the new units), levered private resources, which play an important role until today (Ball, 2008)\textsuperscript{46}. In 1959, under the Zones d’Urbanisation Prioritaire (ZUP) legislation, land prizes were frozen, bought by the state or local municipalities, and then sold to private (social) housing developers to overcome fragmented land ownership. In total 5.2 million housing units were constructed until 1968; a great deal of housing was built privately based on HLM organisations, as well as by Public Offices.

The Netherlands, among other measures, introduced a dynamic cost rent system. With degressive subsidies, housing loan repayments rose over time and reduced the ‘front loading’ of interest payments, assuming that income and rent paying-capacities would increase over time (Priemus, 1981; Harloe, 1995, p. 314). As a consequence, 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) (Lundqvist, 1992, p. 50).

In Italy, the INA-Casa plan was launched (Fanfani Law) in 1949. 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 been allowed to pay the houses in annual instalments for 25 years, receiving a contribution to it from the employers and the State. Additionally, positive effects on employment rates were intended and in fact achieved. Initially planned to be implemented for seven years only, 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).

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.

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 introduced in order to eliminate any discrimination based on nationality, also regarding the access to accommodation (Boccardo, 2008, p. 262).

\textsuperscript{46} Ball (2008) argues that the French legal system relies heavily on the concept of solidarity, i.e. on individuals and firms bearing some collective responsibility for each other. Thus, in France it is seen as fair that private employers are obliged to contribute to funds for construction of new social housing – and in return for them to have a say in how such housing is being allocated. In contrast, the UK private sector for instance 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.
### 3.6.2 The mainstreaming phase through the ESGM

#### Table 5: Social grid elements during the “golden age of social housing”

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<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
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<td>Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)</td>
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<td><strong>Natural</strong></td>
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<tr>
<td>Artefactual</td>
<td>- alternative construction paradigms (multi-storey vs. garden city) still upheld, but under efficiency pressure</td>
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<td>- accessibility, functionality, and uniformity dominate</td>
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<td>Cultural</td>
<td>- collectivism in SH</td>
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<td>- demographic changes (baby boom), migration and urbanisation</td>
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<td>- starting gentrification</td>
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<td>Economic</td>
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<td>- “techno structures” with investors, construction companies, architects, urban planners emerge</td>
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<td>- non-profit housing associations dominate</td>
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<td><strong>Security-related</strong></td>
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<td>Political</td>
<td>- universal model of SH rises</td>
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<td>- consensus on leading role of governments to solve immense post-war housing task</td>
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<td>- “techno structures” with investors, construction companies, architects, urban planners emerge</td>
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<tr>
<td><strong>Resulting Capabilities</strong></td>
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<td>→ broad ranges of populations addressed</td>
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<td>(+) improved access to secure, affordable accommodation</td>
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<td>(+) improved income generation opportunities and social mobility (economic boom)</td>
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<td>(+) participation in design processes (some)</td>
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<td>(-) free choice of affordable housing</td>
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<td>(-) no access to mobility / urban infrastructure</td>
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### 3.6.2.1 Initiating agency: motives for engagement

After WWII, the political, economic and social consequences were disastrous. The destruction
of transport and productive capacity (which can be understood mainly as economic institutions) 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 due to modernisation processes in countries that had been holding up a strong agricultural sector for long. Furthermore, the baby boom put additional pressure on the housing situation (Harloe, 1995, p. 257; UN Economic Commission for Europe, 1952, 1954). All together, this meant considerable changes in cultural social networks. In Finland, for instance, 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. 17 per cent cohabitated with other families, summing up to an estimated housing need of 10 million rooms.
- 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).

An UN report estimated that in the 17 countries under consideration, the equivalent of six years’ housing construction at average pre-war rates had become destroyed. In total, about 15 million units were expected to be necessary to compensate for this in order to replace slum housing. Even under 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).

3.6.2.2 Shaping agency: influences of social forces

Societal responsibility and governance of solution. It was self-evident and based on a wide political agreement (as cognitive frame) that the extensive need for social housing required governments to take the lead, since the task was beyond the competence or willingness of the (barely functioning) private market industries. Rent controls and other accompanying

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47 However, even now the dominant cognitive frame of social housing as a public task faced some general concern among governments about the long-term burden on governments. 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).
legislation made private investments even less attractive, so private capital was – with some exceptions – not present in the sector. For implementation of social housing policies, governments used (or re-built) the grown institutional set-up from the interwar years consisting of publicly accountable and controllable housing agencies. Accordingly, there was a general tendency towards collectivism as guiding, basic cultural cognitive frame in housing provision (Harloe, 1995, p. 257). However, some country-specific differences and struggles within this general agreement existed. 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), which particularly encouraged private building and private investments through tax concessions (Wollmann, 1986). In Italy, a nice example on how social innovations are negotiated and argumentatively framed to be adaptable within and across different social networks along its diffusion process could be observed. The Christian Democratic Party temporarily abandoned the INA Casa plans developed by the INA-leader Puggioni because of his 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. In Finland, 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 Juntto, 1990a, pp. 266ff. Civil society organisations compensated for hesitating public actors here.

Only after the beginning to mid-1950s when the economy had recovered and a period of steady growth and full employment followed, 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. This dominance of public investment significantly contributed to the growth of non-profit market associations. With their goals and competencies, 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. In these pragmatically strengthened political and economic social networks with the public sector, however, cognitive frames collided. Non-profits’ saw their own role as being oriented more at their rather autonomous status from before the war.

Formalisation and institutionalisation of social housing structures also further proceeded. Agencies and professionals’ influence and power increased, reflecting the trust in social

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48 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 public sector. Only Germany had a share of less than 30 per cent here UN Economic Commission for Europe (1958, pp. 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.
planning approaches of this period. 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 in 1945. The emerging social networks for instance also entailed construction companies, large scale building loan providers, mortgage markets etc. In France, a ‘techno structure’ of banks, construction companies, architects, urban planners and engineers developed (Levy-Vroelant et al., 2008, p. 38). In Finland, the central state department ARAVA (Asuntorakennustuotannon valtuuskunta) developed a system of state subsidised housing loans (Juntto, 1990a, pp. 203–216). Further, the intense construction activities in social housing also had a considerable impact on economic and market development, generating many spin-offs in other industries (iron and steel industry, timber industry, plumbing activities, etc.), demonstrating how social innovations can unfold indirect macro-economic effects.

What is more, the policies around how to achieve a decent housing situation for needy people diversified more and more through innovative adjustments, thus causing institutional diversification. More and more a generalist or even universal model of social housing was adopted, targeting wide parts of the society (cognitive frame). Rent harmonisation was discussed through linking rents to quality, regardless of age, and to use the surplus of the older units from before war to cross-subsidise the newer ones with comparably lower standards (Harloe, 1995, p. 259). Towards the end in the mid 1970s, the period also witnessed the introduction of rent allowances and a shift from ‘indiscriminate’ construction (object-related) to income-based consumption subsidies (subject-related). 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 and also to promote social mixture a bit more (Harloe, 1995, p. 266). Further, towards the end of the period there also was an increasing emphasis on home ownership, and increasing prosperity led many social housing tenants (and voters) to opt for this possibility. Complementary 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). From the 1960s onwards, there also was a pressure to modernise 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. Despite some countermeasures to prevent the displacement, an outflow of urban poor to social housing in peripheral estates was reinforced (Harloe, 1995, pp. 267f.).

49 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).
Design of solutions. 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 among the 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 (institutions). They were strongly discussed by policymakers in different countries (Parker Morris Committee, 1961)\(^{50}\). 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, pp. 10f). Further, on the one hand there was a rapid rise in the proportion of units built as single- or two-family houses\(^{51}\) (UN Economic Commission for Europe, 1980). Semi-detached (duplex) and terraced (row) house properties were built at low space densities. 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, whereby the duality between small houses and multi-story buildings was not tantamount to the separation between manual workers from the working-class and better-off middle-class white-collar workers. The latter also lived in rented apartments e.g. in Britain or Germany, at least if those were in attractive areas (Harloe, 1995, p. 264). High-rise dwellings built on peripheral estates in the 1960s and early 1970s (see below) were refused by better-off households. Nevertheless, the social innovation kept accommodating different approaches, with different underlying business models. The increase in multi-storey buildings was mainly due to the continuing drive for higher building productivity and/or higher output of the limited skilled labour and increasing demand for ground which became scarcer (Pahl, 2000). There also was an increase in squatting empty properties including offices in major cities, e.g. in Britain (Morgan, 1984, p. 165). Further, major construction companies wanted to test innovative building techniques, new materials etc., and housing professionals used their increased power to push such approaches. Influenced by ideas and cognitive frames such as Modernism,

\(^{50}\) An explicit example are the Parker Morris Standards in Britain that became mandatory for all council housing in new towns after 1969 and are still influential today. They were drawn up in 1961 by an influential report on housing space standards and 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).

\(^{51}\) Increases were: in France from around \(\frac{1}{3}\) to \(\frac{1}{2}\) between 1960 and the mid-1970s, in the Netherlands from \(\frac{1}{2}\) to \(\frac{3}{4}\) in the same time, and in Germany from under \(\frac{1}{2}\) to 79 per cent between 1970 and 1976/7 UN Economic Commission for Europe (1980).
Fordism and a belief in social planning approaches, e.g. in the Netherlands urban planners, social (housing) scientists and engineers worked along five-year plans. Accessibility, functionality and uniformity were the prevalent planning paradigms of the time, and the technology employed consisted in prefabrication, modularisation and standardisation within series production (Oldenziel and Hård, 2013; Flagge, 1999; Kähler, 1999). Although this only lasted until the early 1970s, due to the constructional defects and its unpopularity it left a baleful legacy (Harloe, 1995, pp. 264f.). One focal point for innovative living concepts continued to be the kitchen as the productive heart of the dwelling and an important macroeconomic production factor increasingly recognised by political leaders. The firm belief in societal technological progress expressed itself in the level of modernity of the kitchen in the average household. 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 (Oldenziel and Hård, 2013, p. 215). The role of the rising home economists of the time and their associations was thus to act as bridge builders and mediate across social networks between functionalist architects, governments and the target group (homemakers). The home economists saw themselves as representing the homemakers. The result the consequence was, particularly in socialistically and/or social-democratically led countries such as the UK, France, Finland, the Netherlands, (East) Germany and Turkey, 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, pp. 216f.).

**Targeted beneficiaries.** Particularly in the time immediately after WWII, a generalist or even universal model of social housing was adopted by most countries that targeted wide parts of the society (cognitive frame). 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. In Britain even this weak restriction had been removed (Harloe, 1995, p. 261). Poorer households were forced to more remote areas with high-rise building that became problem areas quickly (Harloe, 1995, p. 266), and 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

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52 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.” (2013, p. 197)
France (Levy-Vroelant et al., 2008). What is more, an explicit residual orientation towards ‘specific population groups’ re-occurred at the end of the period. Specific target groups 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).

3.6.2.3 Capabilities of marginalised groups

Capabilities of target groups of social housing kept improving after WWII with the large scale building activities. At least some representatives of working class-related movements came into positions that allowed them to discuss the design of the dwellings and oppose concepts that were too functionalist (Oldenziel and Hård, 2013, pp. 216f.). Broad access to social housing significantly contributed to an elevator effect (i.e. again a positive spill over) and to the chance to benefit from the wealth coming with the economic boom (Levy-Vroelant et al., 2008, pp. 38f.). Nevertheless, restrictions of autonomy remained or even emerged. Many of the poorest households had no choice but to accept accommodation in remote high-rise buildings, even though the rents there were still high. Conditions got worse due to a lack of communal services and poor public transport connection, constraining the capabilities of individual mobility, access to labour market, or cultural living in cities. Towards the end of the period, these settlements began to develop into “hard-to-let” units or “problem estates” (Harloe, 1995, p. 266), affecting the security of tenants. Modernising urban infrastructure and demolition of slum housing kept leading to the replacement of many of the urban poor against their will.

3.7 Phase 5 - Individualisation and fragmentation

By the period following the economic crisis of the 1970s, social housing 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, pp. 365f.). The period, however, was characterised by a gradual withdrawal of state-related actors from housing and also by a certain market saturation with steeply decreasing constructing activities. Housing slipped down on the political agenda in most countries compared to education, health-care or pensions, and there was a general trend towards privatisation, individualisation and also again towards residualisation. Nevertheless, observers also state that social housing subsidies remain a highly regarded part of the normative welfare consensus (Levy-Vroelant et al., 2008, p. 39).
3.7.1 Overview of developments

Developments of a few countries shall be sketched out for illustration:

In the **UK**, in the second half of the 1970s, public expenditure for housing was cut by 20 per cent (Kähler, 1999). Legislation such as the *Right to Buy* scheme or the *Large Scale Voluntary Transfers* of the social housing stock to private housing providers fostered privatisation. A system of local authority investment planning was implemented with four-year rolling plans that included bids for central government subsidies and investment permissions, which, however, actually strengthened central control (Harloe, 1995, p. 427). 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. Also, privatisation 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 (46 per cent of the total social rented sector) (Malpass, 2008, p. 27).

In **France**, a new system of more generous housing allowances, *Aide Personnalisée au Logement* (APL) was introduced for new or rehabilitated housing alongside a modernisation of the HLM scheme. Also, in 1990 the *Loi Besson* required departments to draw upon plans (*Plans d’Occupation du Patrimoine Social*) 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, p. 458). Still, 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 (Ghékière, 1991, p. 130).

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 collapse of the housing organisation *Neue Heimat*, owned by the trade union federation, in 1986 due to speculation and corruption among its top management. Eventually, in 1988 the tax-privileged status for non-profits was abolished, except for housing cooperatives Harloe, 1995, p. 465. The decline in social rented construction was from 81,000 in 1975 to 14,000 in 1988. The share of home ownership in this time has risen from a quarter to about 75 per cent (Jaedicke and Wollmann, 1990, p. 134).

In **Hungary** and various other countries of the former Eastern bloc, after 1990 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.
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 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 60,00 in 1982, but then again fell to around 23,000 (Lundqvist, 1992, pp. 54f.).

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).

At the European level, single-market regulations introduced by the Commission targeted for instance different rates of VAT or state aid. Generally, there was a pressure 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, pp. 262f; Tutin, 2008).

3.7.2 The individualisation and fragmentation phase through the ESGM

Table 6: Social grid elements during the “individualisation and fragmentation phase”

<table>
<thead>
<tr>
<th></th>
<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
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<tbody>
<tr>
<td></td>
<td>Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artefactual</td>
<td>- renovate historic housing, later style diversity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural</td>
<td>- emphasis on ecological aspects</td>
<td>- demographic changes (elderly; single parent household) fostering SH demand</td>
<td></td>
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<tr>
<td></td>
<td>- Ideological individualism</td>
<td></td>
<td></td>
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<tr>
<td>Economic</td>
<td>- emphasis on ecological aspects</td>
<td>- new public-private partnership</td>
<td>- transformation towards less industrialised and more service-oriented industries</td>
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<tr>
<td></td>
<td>- Monetarism</td>
<td>- co-planning and management models</td>
<td>- deregulation of financial markets hampering SH capital</td>
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<tr>
<td></td>
<td>- Life quality more important</td>
<td>- increasing concentration of low income households in SH</td>
<td>- abolishing mass construction estates / urban renewal</td>
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<td>- lower standards in ‘very social housing’</td>
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<td></td>
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<td></td>
<td>- provision of non-landlord services</td>
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<tr>
<td>Security-related</td>
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</table>
Political
- privatisation in SH and other welfare domains
- residual understanding of SH; ownership as goal in SH
- emphasis on ecological aspects
- Monetarism

Political
- rise of the New Right and cut back influence of organised labour
- end of Eastern Bloc in 1990
- decentralisation of SH responsibilities
- contracting and related measures

Resulting Capabilities
(+ = achieved; - = deprived)

(+)
1. improving living conditions for better off working classes
2. lower quality standards for poorer households
3. stigmatisation of SH (deprived social recognition)
4. stronger participation in co-decision and management models

3.7.2.1 Initiating agency: motives for engagement

The economic crisis from the mid of the 1970s had strong effects. After the opportunities for modernisation and high productivity rates diminished and infrastructure had been restored, structural unemployment, low growth rates and even recessions occurred. Furthermore, the transformation towards less industrialised and more service-oriented industries (changes in economic institutions) with stronger international competition was dawning, and there was a persistent presence of inflation and a depolarisation of incomes. Deregulation of financial markets (dto.) in the 1980s further imposed some problems for sustaining cheap housing capital (Ball, 1986). Besides these more economic and political issues, also demographic changes had important effects on housing needs. For instance, since the 1980s the share of elderly older than 65 years had increased to 30 per cent in some countries as a result of modern medicine and improved standards of living (changing social networks). Similarly, the share of single-parent or single-person households rapidly increased from the late 1960 onwards (Boelhouwer and van den Heijden, H., 1992), 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 also was 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 was higher, which became a main driver of the beginning processes of gentrification (e.g. Harloe et al., 1992).

More and more, it also became clear that (social) housing policies from previous periods themselves had contributed to a scarcity of accommodation for marginalised target groups, and that they partly also had created additional problems. General privatisation policies since the late 1970 generally aimed at an increase of owner occupation and more private provision and investment in social housing (political cognitive frame). Large Scale Voluntary Transfers
(LSVTs) in the UK show that privatisation in some countries had been creating a substantial ‘demand gap’ between annual demand for housing and the number of housing units actually being built (cf. Edmiston, 2015b). 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).

Finally, a fundamental political change induced increased need and activity in social housing during this period. After the end of the socialist Eastern bloc in 1989, Eastern European transformation countries such as Hungary had to completely renew their housing models (IZA, 2013; Hegedűs, 2008).

3.7.2.2 Shaping agency: influences of social forces

**Societal responsibility and governance of solution.** 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. The social housing system developed towards a more residual character again, also promoted by single-market regulations of the European Commission which have been starting to pressure countries towards more restrictive or residual systems with the underlying rationale that more general assistance is anti-competitive (Tutin, 2008). Yet it became clear that commitments that had been made were not that easily to be dissolved (a fear that earlier had always caused governments to be precautious) (Harloe, 1995, p. 365). Policy makers therefore increasingly understood social housing as a ‘spring board into ownership’. They encouraged those who could leave the social housing sector to do so, while social housing continued to have the role of a safety net for those unable to survive on the open market (Malpass, 2008, p. 27). The gradual withdrawal of state-related actors (particularly from the central government, but also consequently the municipalities) comprised both coordination (decentralisation) and expenditure (privatisation and cut backs).

More market principles were introduced to welfare service provision, such as competition for the supply of services (“contracting”) or the adaptation of quasi-market processes. The underlying economic and also political cognitive frame for these developments was Monetarism as the dominant macro-economic paradigm, following neo-liberal ideologies of a conservative New Right (King, 1987; Harloe, 1995, p. 381). The legitimacy of social

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53 In some examples, e.g. in Britain, private actors even were mandated with urban planning processes, while the power of local authorities to do so was restricted Steward and Stoker (1989).

54 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 was reduced in many countries.
housing supported and/or owned by public or non-profit bodies had rested mainly on social and political arguments, rather than a strictly economic rationale, which became increasingly contested now (Tutin, 2008). Correspondingly, for instance in Britain the power of organised labour, such as trade unions, to influence governments was cut back (Harloe, 1995, p. 386). There also were exceptions, such as France, where, with the election of social and communist parties, worker’s rights were expanded, together with an increasing welfare provision and substantial income redistribution. However, in general the support for social democratic and left parties eroded, and they increasingly lost access to power networks as emerged in the previous periods (Gourevitch, 1986, pp. 29ff.). The New Right dominated in most countries; Britain, particularly under the government of Margaret Thatcher, being one of the most prominent examples. Many of their positions were adopted also by centrist and social democratic governments (Levy-Vroelant et al., 2008; Harloe, 1995, p. 367). Somewhat being the other side of the coin, there also was an increasing ideological individualism, i.e. the notion became common that each person should look out for him or herself (Levy-Vroelant et al., 2008, p. 39). This cultural cognitive frame went along with higher prestige of private property, but for instance also with more tailored and individual welfare and social housing policies.

Funding for social housing began to be channelled not only through the non-profit sector (associations and corporations), but also through private builders and real estate investors. Public-private partnerships as new, institutionalised social network structures that forms an organisational innovation at the same time became important as a consequence (Reinprecht, 2007, p. 37) within new arrangements between the private and the public sectors with well-defined roles. E.g. in Britain, local authorities managed the existing social housing stock while the private sector was responsible for developing new social housing (Malpass, 2008). Nevertheless, the increasing neo-liberal paradigm also put some pressure on non-profits, which increasingly saw themselves confronted with accusations of being inflexible, bureaucratic, inefficient, and paternalistic. In many cases, the measures forced housing associations to apply more restrictive access policies to avoid financial risks. Some tried to counter this 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). Further, increasing rent arrears and the need for new expenditures on community programmes, social work, security provision and rehabilitation were pressing to them (Harloe, 1995, p. 368).

What is more, the period also witnessed a heavy shift from building (bricks-and-mortar) to personal subsidies (political institutions) like housing allowances and tax deductions in almost all European countries, except Austria and the Scandinavian welfare regimes. Many

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55 As Levy-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.”
governments hoped to reduce the financial expenses with this change, but with little success. The costs for housing allowances respectively individual subsidies rapidly increased because of the damped production, the continuous inflation, and higher capital costs due to deregulation of mortgage markets in the 1980s. Also, the share of poor households was increasing. Cost savings in public expenditure became negated, despite cut backs in eligibility criteria narrowing the scope to low-income households and cutting the depth of the subsidy (1991). As a consequence of these developments, housing production fell from the high levels in the previous period. 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 (Boelhouwer and van den Heijden, H., 1992, p. 35).

At the same time, urban renewal processes further gained importance. 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 with increasing concentration of tenants in economic or social problems that started to become problematic “hard-to-let” areas (Harloe, 1995, p. 367). At the end of the 1990s, very run-down neighbourhoods (‘sensitive urban areas’) led to urban renewal programs that featured demolition of big social housing estates (Levy-Vroelant et al., 2008). Housing associations owned most of the housing stock in renewal areas, and their increasing professionalism and financial means made them obvious leaders, increasing their power as well. Their self-perception changed, and they saw themselves as policymakers, implementers, and social engineers. The ambition grew not only to improve their housing stock, but also the local environment, social cohesion and tenants’ individual potential and well-being (Levy-Vroelant et al., 2008, p. 39).

A special case in this period were the Eastern European transition countries, of which many completely changed their housing model and followed a diverging trend in experiencing a massive housing privatisation as a response to public pressure. 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, 2013). Mass privatisation increased social housing needs in transformation countries such as Hungary (Hegedűs, 2008).

**Design of solutions.** Along with privatisation and individualisation, there also were increasing inequalities in the construction of dedicated units for different target groups across different countries and regions. With tighter public budgets, in some areas already established standards were relieved again, such as the Parker-Morris-Standards in municipal housing in

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56 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.
Britain (Kähler, 1999). For the most marginalised groups, even the ideas of very social housing with low construction standards in terms of amenities and finishes, temporary contracts, and access control by social workers emerged, e.g. in Paris or Vienna. These 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 Levy-Vroelant, 2008, p. 210)\(^57\). In some contexts, in contrast, the focus 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) as dominant cognitive frame. This was accompanied by architectural and city planning conceptions expressing desires for liveable and loveable cities (Flagge, 1999, p. 861). What is more, the provision of non-landlord services started to play an increasingly important role (Brandsen et al., 2011). Amongst the variety of measures linked to social housing, Levy-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.

Also, architectural developments and trends during the 1970s and 1980s evolved and generally reflected the predominant individualisation cognitive frame. 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 valued (cognitive frame) 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 1970s (Flagge, 1999, p. 863). That was not to change 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 then 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. Therefore, not so much technologic innovation shaped the earlier part of the phase but rather the recombination of existing technology, primarily being renovation and methods that allowed using old housing stock for new purposes (Flagge, 1999, pp. 891ff.). Also organisational innovations (grasped here as social networks in the economic domain) such as co-planning and co-management gained importance (Seidler, 2002, pp. 24–25). Since the early 1990s and particularly since the turn of the millennium, including ecological considerations such as energy-saving technology for heating and insulation have gained importance and relevance substantially and also pushed technological advancements. E.g. in Finland and Sweden, a new form of tenure, the right-of-

\(^{57}\) Concerning its particular actor constellation, Levy-Vroelant and Reinprecht (2008, p. 215) hypothesise that very social housing is a contemporary renewal of the original 19\(^{th}\) century core idea of social housing and that combines, in a contemporary way, the traditional principles of social housing: the alliance between private actors in the broader sense (including profit and non-profit sectors) and forms of public funding.
occupancy housing, was implemented (Yousfi et al., 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 is to be paid each month as a charge for use, varying according to the dwelling and its location. Ecological considerations also increased in importance, shaped by the environmental movement (cognitive frame across different domains). In Vienna, ecological key performance indicators have become integral parts of calls for tender of all social housing settlement plans, and so have innovative and intelligent floor plans, community spaces and security considerations. As a result, all new buildings fulfill the requirements for low-energy houses (50kWh/m²/year or less). The use of hot water springs, rainwater collector, or car-free model settlement are other examples (Seidler, 2002).

What further is worth mentioning is that, in social housing as elsewhere in the context of social innovation, social impact measurement is gaining importance. 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).

**Targeted beneficiaries.** Developments on the side of beneficiaries were twofold, and the sector became more polarised. 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. 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). 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 (Harloe, 1995, p. 366). Since the number of poor households increased in most countries due to higher unemployment rates and at the same time housing cost became more expensive, there was also an increasing demand for social housing claimed by these households, which was gradually shifted to take the role of a safety net (Malpass, 2008). This focus led to a differentiation among social housing tenants. In the older social housing dwellings, different economic and social backgrounds (although not

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

59 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 Boelhouwer and van den Heijden, H. (1992, p. 31).
ethnical) were mixed, while in the newer ones, there was a concentration of the poorest, disadvantaged target groups. This shows as well that (specific) social network developments can be a symptom of the social problem and marginalisation. Both sections remained rather separated (Harloe, 1995). In general, this widening gap reflects the altering social network structure of the working classes 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 increasingly polarised employment structure (Gordon et al., 1992).

3.7.2.3 Capabilities of marginalised groups

With the increasing gap and residual character of social housing and urban renewal activities, the situation remained problematic particularly for the most marginalised groups. While they now found better access in the social housing sector, standards in low income housing were rather sinking, and thus the capability to live in decent housing conditions. Even more, in public discourse the stigmatisation of social and municipal housing in particular increased, given the problem sketched out in this section (Levy-Vroelant et al., 2008, p. 39), and thus compromising social recognition. Thus, this period also saw a variety of organised protests or even riots as response to the cut in public expenditure in the housing sector, social and economic polarisation 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 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).

On the other hand, there were also progressive trends with co-decision and co-management approaches in social housing projects, e.g. in Vienna, where different laws were introduced in this respect (Seidler, 2002, pp. 24–25). Also, the mass introduction of housing associations has shifted power relations between housing providers and social tenants towards a less hierarchical structure of tenant consultation. Social tenants are more often conceived as active ‘clients’ rather than passive ‘recipients’ of social housing services. Generally, actors exert pressure and influence on the organisations delivering social housing in the UK (Malpass, 2008) and elsewhere (including Sen etc.), i.e. to improve the capabilities to influence one’s living conditions and more generally for political participation.
4. Fresh Water Supply

“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” (Tabberner, 1850, p. 9).

4.1 Conceptual foundations

4.1.1 Definition and general relevance of fresh water supply in Europe

In 2010, universal access to safe, sufficient and affordable water was declared a human right by the UN general assembly. In most countries, clean drinking water is seen as a public good nowadays and it is not considered acceptable anymore to exclude anybody from access to it.

For most people in EU countries, access to freshwater is not a problem anymore. According to WHO statistics, more than 99% of the population in EU countries live in homes connected to the water net (World Health Organization, 2015). This even applies to most of the marginalised groups. In this sense, freshwater supply offering treated water from the tab to homes and workplaces has been a very successful social innovation (even if, to be sure, numerous questions of quality, affordability etc. remain).

The target group of the social innovation however changed over time with the extension of the water and sewage network to develop even broader areas. As the social innovation has a systemic character dealing with questions of hygiene as well as fire control, the target group changed from the marginalised (working class people in cities in the 19th century and later people in rural areas) to include all people in society (right to water). With this change, the firm perspective on the marginalised dropped away. 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 is at risk are people without permanent

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60 We thankfully acknowledge that the basis of this analysis is material (data, literature etc.) which was collected in WP 2 of the CrESSI project in 2015 by Jari Aro, Enrica Chiappero-Martinetti, Daniel Edmiston, Margherita Fabbri, Susanne Giesecke, Attila Havas, Nadia von Jacobi, Gudrun-Christine Schimpf, Martijn van der Linden, and Rafael Ziegler. The responsibility for the analysis rests on the authors.
residence (Hirschfelder and Winterberg, 2009, p. 125) or vagrant peoples. Finally, even though in many countries it is not allowed to disconnect homes from the supply network, in some countries, it is still a threat to poor people who are not able to pay their regular water bills (Prasad, 2008a, p. 19). Normative debates on the admissibility of this come up as then the core element of the social innovation is questioned.

When talking about fresh water supply as social innovation, the central supply with water is not the only criterion but the supply with naturally clean or treated water. Already in Roman and some medieval cities, public supply systems were installed using public fountains as conventional water intakes, alternatively private fountains within the house were used. The decisive criterion therefore is the development of freshwater supply at the urban level of industrialising / industrialised countries so as to ensure safe appropriate health and working conditions for all, including the poor and marginalised in the cities, via access to freshwater and hygienic sanitary conditions. The social end thereby had both an intrinsic component (improved capabilities of those benefiting from the service) and instrumental component (stability, healthy workforce, reduction of epidemics).

The technical aspect of the social innovation includes as a normal configuration (Vincenti, 1990) – drawing from the ideas of the 19th century social reformers such as Edwin Chadwick – a central, piped supply of clean freshwater to all houses, water closets in all houses, a sewage systems removing the grey water from domestic (and other uses) and a sewage treatment. The technical aspects of this idea change significantly over the decades.

The social process of the social innovation exhibits a continuous struggle of power relations, notably regarding the public or private governance and ownership of the process.

4.1.2 Phases of development of the SI

The introduction and extension of fresh water supply in Europe is a multidimensional development, starting earlier in some countries and regions than in others depending on local circumstances. The setup of the technical infrastructure developed rather linear following early blueprints and examples of best practice as well as emerging technical norms. At the beginning of modern fresh water supply, many different approaches were discussed on the local or regional level. However, after the decision was taken and the systems were established, alternatives were neglected. Instead of this, the systems were extended according to population growth and city expansion (Juuti and Katko, 2005, p. 220). Thus, with regard to the technical infrastructure, path dependency developed. This does not hurt the social

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Path dependency means that existing forms of operation or infrastructure bind future decisions. Thus “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” Juuti and Katko (2005, p. 22). A distinction is made between 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
innovation as such as the social need is still more or less fulfilled. However, it makes it difficult to adapt to new problematic situations emerging over time as a change entails high costs and economic losses. The design of the social innovation, on the contrary, evolved differently and dynamically, in terms of model of operation, organisation of services, use and financing.

Our literature survey on freshwater supply suggest the following phases of urban fresh water supply (Sedlak, 2014; Juuti and Katko, 2005, pp. 237–238; Prasad, 2008b):^62

Phase 1 (early 19th century to late 19th century): urban freshwater supply as social challenge was often met by private operators via concessions. The discovery of water-borne diseases paved the way to improved drinking water treatment.

Phase 2 (mid-19th century to early 20th century): Municipalities increasingly took over responsibility for freshwater provision to prevent management problems, corruption and high water prices.

Phase 3 (early 20th century to 1980s): Expansion of access to piped freshwater for urban and rural population in Europe. Drinking water should be available and affordable to all. In response to health concerns and, more general, environmental impact concerns, sewage and environmental regulations emerged since the late 1950s.

Phase 4 (1970s to 1990s): Privatisation of the water sector became a big issue in UK and other European countries following neoliberal ideas. This development was furthered by the fall of the Eastern Bloc in 1989 and the reconstruction of fresh water supply in Eastern and Central European countries.

Phase 5 (Around the turn of the millennium to present): Increase in re-municipalisation and new awareness of diversity

Throughout all phases, we can see the importance of path dependency due to the network-character of the technical infrastructure of urban water supply. Another important point is the central role local governments play (see Juuti and Katko, 2005, pp. 234, 239). Interestingly, though, innovative advancements in the design still took place due to changing circumstances and new discourses. While the social innovation became mainstream over time, normative debates accompanied the advancement.

inefficient outcome.” (ibid.) With regard to fresh water supply, path dependency may result from the form of organisation (e.g., concessions given to private companies limited the possibilities for a certain time), 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 even impossible to revise (ibid., p. 232).

62 This list neglects the antecedents of the social innovation before 1800.
4.1.3 Streams of the development of the SI

Freshwater supply was not implemented everywhere in Europe in the same way. There were significant differences regarding a) the need for action following perceived health problems and epidemics due to polluted water, b) the types of operation and organisation, c) the responsibility (public or private provision) and d) the different cognitive frames (does water constitute a common or commodity?). Depending on the local or national context different actors and social networks were involved. Such context differences depend also on different perspectives on responsibility: is the state and local government in cities responsible for the freshwater supply, or only for its regulation so that private actors become more important. Different institutions and norms, such as laws on public health, water quality or later waste water treatment, financing concepts and policies on the national, regional or local level influenced the development of the social innovation. These norms and regulations in turn are interpreted in terms of different cognitive frames.

The need for a central water supply with potable water was not present at all places at the same time. The moment in which a country, city or region turned to the question depended on one or more of the following six factors:

Firstly, the 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 UK earlier than in other countries. Cities earlier had to deal with it than most rural areas.

Secondly, immediate threat: cities which had recently experienced an epidemic or felt threatened by one and cities in danger of big fires or those that had experienced firestorms took the decision earlier and with less discussion.

Thirdly, the problem of upstream/downstream riparians: depending on the location of the city in relation 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.

Fourthly, the major type of industry residing in a city or an area determined the industrial water consumption as well as the degree and kind of pollution.

Fifthly, financial capacity and know how: affluent cities acted earlier than others and most urban agglomerations in turn earlier than rural areas.

Finally, the water yield and geological preconditions were of importance: cities in water-rich areas had fewer problems to set up water supply systems than those in water-poor regions. Where it was easy to dig or bore a new well or where water-bearing beds existed, the situation could more easily be improved with the technological possibilities available.

Not only the point in time varied but also the management of the social innovation. All in all, there have been four different types of owners and providers during the long time that fresh water supply has been organised and managed in European countries: private companies,
public service provision, mixed forms (as private in public commission or private-public-partnership), and cooperatives and syndicates.

Over the whole time span, private and public forms of ownership and management alternated. There were periods of predominantly private involvement and periods of more public engagement. In most cities, private companies got concessions around the middle of the 19th century. It was only later that infrastructure companies were municipalised (Schott and Skroblies, 1987, p. 79). Contracts with private companies posed difficulties to the administrations. The legal frame was difficult (ownership on public goods) and the long duration of the concessions made it complicated to react to emerging needs of urban infrastructure. Especially with regard to pricing, there mostly was no instrument in the contracts, which the municipalities could use to control the private companies (Jellinghaus, 2006, p. 217). Water networks often were not extended or only prosperous boroughs were connected. Small cities and rural areas would usually not attract private capital. When the municipalisation of fresh water supply started in the late 19th century, this was in reaction to “the inefficiency, costs and corruption” (Juuti and Katko, 2005, p. 39) of the private systems. The result was “more effective control, higher employment, and greater benefits to the local people.” (ibid.)

Mixed forms of water management and supply predominate for example in France. Often the ownership of the water infrastructure is public (municipality), while the management usually is private. There are different arrangements between municipalities and private actors: management contracts, leases, concessions (running 10-30 years Prasad, 2008a, p. 22) that regulate operational, pricing, and investment responsibilities (Reynaud, 2008, pp. 39-42, 48).

Cooperatives or syndicates most often existed in rural areas where small communities or townships could not attract private capital as the number of users was fairly low. The associates were for example the inhabitants of a community which became part in a non-profit making organisation (Steuer, 1912, p. 57; Feldkamp, 2009, p. 28; Katko, 2004, p. 30, 2013, pp. 230–231). Grenoble shortly experimented with a syndicate after WWII but abandoned its cooperation because of problems with voting procedures in the syndicate (Lobina, 2005a, pp. 75–76).

The arguments brought forward in the discussion on public or private provision have been similar since the 19th century: advocates for public provision argue that municipal providers allow for more political scope and public responsibility to react to new problem areas coming up in society, economy or environment. In the case of private providers, advocates for public provision see economic interests predominating public interest and conflicts emerging over diverging interests between provider and municipality. Opponents of public provision, however, claim that public administrative structures would have counter-productive effects when running an enterprise. They criticise bureaucracy as being inefficient and too dull to run a company and as being incapable to adjust to the economic situation (Meyer, 2011, p. 88;
Jellinghaus, 2006, pp. 218–219; Steuer, 1912, p. 61). Finally, an important historic motive for the municipalisation of infrastructures was to supply at least in the long run the whole population with water at affordable rates (Meyer, 2011, p. 329).

The question of water constitutes a common or a commodity is subject of another discussion which has been led differently at different times and in different countries. While in German speaking and Nordic countries water was regarded as “a natural resource which should ideally be supplied unpolluted and untreated, when possible” and therefore publicly-run water works were maintained, other countries like France or UK were more likely to regard potable water “as a ‘manufactured good’ which regularly needs treatment before consumption.” Here pointing towards the direction of privately owned water utilities seems to be preferred (all quotes Juuti and Katko, 2005, p. 237). This discussion – public vs. private, commodity vs. common – has been going on since the 19th century (see John Loude Tabberner on the English situation in 1850: Tabberner, 1850, pp. 8–9). Since the 1970s and well into the 1990s, this discussion was led with neoliberal tendencies (Prasad, 2008a, pp. 2–3).

Water services, so Juuti and Katko drawing on their historical comparative study, “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 (2005, pp. 242–243). The European Water Framework Directive (2000) recognises the importance of this theme when it 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.”

In the next section, we will sketch the social problems at the early stages of modern urban fresh water supply and then turn in the following sub-chapters to the five phases of the development of fresh water supply in Europe as an example for a social innovation, which was established gradually.

4.2 The initial social problem in the 19th century

4.2.1 Overview of developments

Already up to the 18th century water was subject to regulation. However, all in all, it was a matter of fate or prosperity that one had access to potable water or not. Industrialisation and urbanisation made water conditions worse. Firstly, during industrialisation the population grew. Migrants came from the countryside to the cities to make a living. Secondly, the settlement density increased, the houses became higher, and the cities expanded. The old regulations were not sufficient anymore to cope with these new developments during urbanisation. More water was needed to supply 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 rivers) in a way and extent unknown before. These three factors led to a situation in which the supply with drinking water was close to break down (Hirschfelder and Winterberg, 2009, p. 121).

Along with the worsening water supply and the bad housing conditions the hygienic conditions in the settlements deteriorated. 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 in the 19th were even worse off. 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). Especially epidemics like typhoid fever and cholera took their toll among the city inhabitants. During a cholera epidemic in London in 1831 about 3,000 people died.

The introduction and distribution of water closets as a technical innovation since the middle of the 19th century further aggravated the problems of sewage, water consumption, and polluted water. Not only did the consumption of water increase beyond the amount of water which could be met by local wells. It also became more difficult to collect the faeces and reuse them as fertiliser as the cesspits taking the sewage from the water closets contained more liquids than before. This tradition became finally inefficient when industrial produced fertiliser became available (Sedlak, 2014, pp. 35-38; 63). Moreover, 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).

Sometimes whole cities, boroughs or villages were affected by polluted drinking water, but not all in the same way. While the wealthier inhabitants could often get access to other sources of drinking water (like privately financed water pipes with spring water or the purchase of bottled water64), buy small household filters (which helped only against clearly visible pollution) or even 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. The range of their possibilities did not exceed more than walking longer distances to get water of better quality. The access to clean water was a question of wealth, status and prestige (Hirschfelder and Winterberg, 2009, p. 124). In the beginning, the general public did not understand the problem of polluted water or they considered it just to be a problem of the marginalised. But Edwin Chadwick, a forerunner in subjects on public health and hygiene, already argued in 1842 that the “labouring classes” were especially in need for water to drink

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63 The difference in average life expectancy for children born in Germany today, for example, is 8.4 years (females) resp. 10.8 years (males) when the group below 60% of the netto equivalent income is compared with the group of 150% and more Rober Koch Institut (2014, p. 3).
64 Water from Selters or Fachingen, both situated next to the Lahn river in Germany, for example, was distributed internationally in exclusive pottery vessels at least since the 17th century. (See http://www.selters.de/selters-historie/, accessed 19 May 2016; Heege (2010, pp. 56–57).
and to cook, for personal hygiene and housecleaning and therefore, public supply of clean water should be set up in all towns and villages (Chadwick, 1842, p. 63).

4.2.2 The problem situation through the extended social grid model (ESGM)

Urbanisation and industrialisation in the 19th century put up pressure on the existing social grid. The situation affected especially the labour migrants who came to the cities in search for working opportunities and lived in dense settlements, often without sufficient access to clean water. The prevailing social forces at that time were not only unable to cope with the new situation but rather had a stake in the worsening situation.

4.2.2.1 Social forces leading to the worsening drinking water supply and marginalisation before the social innovation

The supply and health problems addressed with the introduction of fresh water supply emerged against the backdrop of industrialisation and the emergence of national states in Europe in the 19th century. Cognitive frames, institutions and social networks in different societal domains and on different levels were affected by new developments in economy, in science and technology, as well as in culture. The new demands led to changes in the existing social grid dealing for example with questions concerning the organisation of society and the transition from agricultural to industrial states. Family as the smallest social network within a society came under extreme pressure when labourers left the villages for the cities to find work there. In the cities the lower classes lived in dense and unhealthy settlements and epidemics and especially water borne diseases often occurred. These changes taking place in the cultural and economic domain were enforced by changes in the artefactual domain as e.g. the innovation of water closets which was meant to improve the hygienic conditions, but instead worsened it for all because of the growing amount of sewage, which posed new problems.

Technical artefacts as water closets, the system of water pipes and even more the whole emerging network of fresh water supply with water works and water reservoirs as well as the sewage system can be understood as institutions. They are part of a defined infrastructure that establishes societal norms, regulating human behaviour, human rights and duties. “These norms should be inscribed in social actors” (Joerges, 1996, p. 128).

Emerging national states on the one side and regionalism in some countries, especially in Germany, on the other led to problems with responsibility and authority (lack of institutions). Rivers crossed borders and took the sewage with them. So regulations in one country would not necessarily affect the water quality as long as neighbouring countries upstream would not take the same steps (existing institutions were not effective). Factory owners and business people did mostly not care how and under which conditions their workforce lived. Similarly short sighted was their dealing with water (cognitive frame; irresponsible use of economic
power). Without social or environmental considerations water for production was taken out of the water cycle and polluted water was led back into the environment. This behaviour followed the general cognitive frame at the time that water would purify itself. Therefore, rivers were used as open sewers just anywhere in the past, and all kind of garbage and sewage was thrown into them (Steuer, 1912, p. 23). People thought that the flowing river would remove all pollutions. As a consequence, water was not only used but consumed and pollution often made the water unhealthy. Even scientists believed that water could regenerate itself just by flowing. Downstream settlements did not have to be protected from sewage of up-riparian settlements. It was only later that first epidemics and then scientific research showed that this perception was not true; especially not for germs of infectious diseases (Sedlak, 2014, p. 45; Hirschfelder and Winterberg, 2009, p. 121) (first lack of artefactual power, later (see below, phase 2), increase of artefactual power tackling cognitive frame).

4.2.2.2 Social forces reinforcing the problem and marginalising specific groups before the social innovation

Analysing our material showed that the interplay of some social forces not only led to the problem but also increased the marginalisation. On the institutional side a formal responsibility was missing, sickness and death were considered to be personal problems or fate (cognitive frame). Hygienic standards one could refer to were unknown (cognitive frame, lack of artefactual power). Supply with food and water were not considered the duty of the state (lack of public services (Daseinsvorsorge) in early 19th century) and poor relief was mostly performed by religious or private donors (cognitive frame).

Already in earlier times, people had to deal with water scarcity or polluted water. In some cities, well communities (social networks) existed, which took care of the wells in the neighbourhood and were responsible for their maintenance. 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 (institution) (Fuhrmann et al., 2008, p. 40; Radkau, 2012, pp. 173–174; Meyer, 2011, pp. 72–73; Pich et al., 2010, pp. 23, 25). However, marginalised people often lacked the financial resources (economic power) to buy into these communities. They had to rely on polluted water from the river (Meyer, 2011, p. 77).

So the problem as such was not new. New was its size, the number of people affected by the problem as well as the degree of pollution of the water. The marginalised lacked the economic as well as the political power to improve their situation. Worsened was the situation by another cultural aspect. Up to industrialisation, freshwater was not a “good of distinction”, but was associated with poverty (cognitive frame) as the rich drank alcohols, tea, coffee etc.
(Hirschfelder and Winterberg, 2009, p. 128). Therefore, the need of clean drinking water was not considered as big in early modern times as could be imagined today. Water was treated as the beverage for animals and beggars (Sedlak, 2014, p. 16). Thus, the question of need or no need of drinking water was also at least partly a question of prestige, and the idea to improve its supply qualifies – besides hygienic implications – by its sheer content as a social innovation in favour of the marginalised.

In the artefactual domain the importance of hygiene was not yet understood. Since classical Greek times the conviction of people of all classes was 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 Chadwick, spoiled water, strong stench, and crowded housing conditions were the cause of diseases (Chadwick, 1842, pp. 203, 371-372). This lack of understanding the transmission of waterborne diseases made ventilation and improved water cycles 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). Not knowing yet that cholera, for example, is waterborne caused by contaminated water or food, cleaning of the streets had highest priority. This measure however had not the desired effect as it went into the wrong direction (Sedlak, 2014, pp. 30–31).

**Table 7: Social grid elements during early industrialisation, 19th century**

<table>
<thead>
<tr>
<th>Preconditions/consequences of marginalisation</th>
<th>Social networks</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- water purifies itself</td>
<td>- no nature protection organisation</td>
<td>- no river protection legislation</td>
</tr>
<tr>
<td><strong>Artefactual</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- no understanding of hygiene; belief in miasmas</td>
<td>- Scientists share cognitive frames. Thereby, unfavourable cognitive frames reinforced each other mutually. - lack of artefactual power</td>
<td>- introduction of water closets</td>
</tr>
<tr>
<td><strong>Cultural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- health and death are a private matter</td>
<td>- family under pressure - traditional relationships dissolved</td>
<td>- lack of Daseinsvorsorge (public services) in early 19th century</td>
</tr>
<tr>
<td>- water is a drink for beggars</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- water not recognised as a ‘natural capital’ that contributes part of the wealth</td>
<td>- labourer form new social network, but lack economic power - factories taking water out of the water cycle for production etc. - factories leading polluted water back into the water cycle</td>
<td>- lacking regulation of industrial water use</td>
</tr>
<tr>
<td><strong>Security-related</strong></td>
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</tr>
</tbody>
</table>
4.2.2.3 Deprived capabilities of the marginalised during the rise of industrialisation

Deriving from the description of the problematic fresh water situation above, it became clear that the capabilities of the marginalised before the introduction of the social innovation were especially deprived with regard to health. Their life expectancy was low, even compared to their contemporaries, and many of them already died in early childhood. Living under unhygienic conditions in an unhealthy living environment was the reason for many acute or chronic diseases.

Having no access to clean water affected the working power of the marginalised and their access to education (both affecting the economic domain). Sick workers could not earn money but instead had to spend money on treatment. In case of epidemics, families often were left with only one breadwinner or children remained without parents. Children suffering from recurring diseases like diarrhoea could not attend school on a regular basis if they could go to school at all. The low social status marginalised experienced further impaired their capabilities (cultural domain). These conditions limited also the social mobility of the marginalised people.

Internal conversion factors like personal traits, gender or age aggravated the marginalisation. The back-breaking job of fetching water was generally the duty of women and children who walked to rivers or wells and supplied the family with buckets of water each day (Wohl, 1983,
Having no economic power the marginalised could hardly afford access to other sources of clean water. Under the ruling political conditions, they lacked also political participation and had no connections to the political elite (political power). This left the marginalised without a handle to change their situation while political decisions in the field of fresh water supply were taken without their voice.

4.3 Phase 1 – Proactive middle-class personalities break the ground (early 19th to late 19th century)

4.3.1 Overview of developments

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. 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.

Different societal actors of mostly middle-class backgrounds engaged in first attempts to deal with and improve the new situation. In the beginning, members of the middle-class in general had a strong position to formulate norms and values. The actors were well educated and mostly had a background as lawyer, physician, or engineer. While their aim was the same, their motives and even more important their possibilities of influence were quite different.

**Edwin Chadwick** (1800-1890), London, UK: lawyer and social reformer; served on a royal commission to investigate the effectiveness of the Poor Laws in 1832 and later as secretary of the commission of the Poor Laws (1834-1846); became interested in the problem of sanitation and was asked by the government to inquire into sanitation at the end of the 1830s. His investigation of the living conditions of the lower classes was published in 1842 under the title “The Sanitary Conditions of the Labouring Population” (Chadwick, 1842). By using quantitative methods, Chadwick was able to show a direct link between poor living conditions, diseases and life expectancy. 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 until 1854. Chadwick’s report was an important trigger for hygienic efforts in the areas of drainage, sewage, water supply, ventilation, and housing.

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65 Including fire protection, factors driving the demand for improved water supply are listed by cities in Juuti and Katko (2005, p. 223).
Jacob van Lennep (1802 – 1868), Amsterdam, NL: Dutch writer and politician; had the idea to construct a water pipe to improve the water quality in Amsterdam around 1845. Among the different plans for water pipes since the 1830s, the one of the engineer and retired major Christiaan Vaillant gained support and got permission by the minister of Interior Affairs (Binnenlandse Zaken) in 1847; a committee for the implementation of the first water pipe was formed by well-known Amsterdam citizens and van Lennep became its chairman.\footnote{See e.g. http://virtueletochten.noord-hollandsarchief.nl/?pc_id=19&pp_id=84, accessed 16 March 2016.} Finally, in 1851, an English investor was found to fund the project. The Amsterdamse Duinwater Maatschappij was founded and van Lennep became its first chairman. The first water pipe transported water over 23 km from the dunes near Heemstede to the city centre of Amsterdam where the first tap was opened in December 1853. In the following years more private initiatives evolved and the water pipe network expanded rapidly (Groen, 1978).

John Snow (1813-1858), London, UK: physician and epidemiologists of labour class background; during a cholera epidemic in London (1853-1855) he was able to prove by empirical evidence that cholera spread because of contaminated drinking water (Snow, 1965). Not only did he 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 he had detected to prevent people from fetching their water there (Johnson, 2006, especially pp. 160-162). While he could not explain the cause of the disease he could point out water as the transmitter. He therefore did not believe in cholera spreading by miasma but instead held germs responsible, which was to become subject to 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 one took its water from the upper River Thames, the other withdrew it from the Thames within London where it was contaminated with sewage.\footnote{http://www.britannica.com/EBchecked/topic/550563/John-Snow, accessed 16 March 2016; http://www.ph.ucla.edu/epi/snow.html, accessed 16 March 2016; http://johnsnow.matrix.msu.edu/index.php, accessed 16 March 2016; http://www.sciencemuseum.org.uk/broughttolife/people/johnsnow.aspx?keywords=snow, accessed 16 March 2016; Snow (1965); Johnson (2006); Hempel (2007); Hardy (2005a, pp. 275–279).}

William Lindley (1808-1900) London, UK and Hamburg, GER: engineer; after the Great Fire in Hamburg in 1842, he was entrusted with the rebuilding of the burned down part of the city. Ideas of social reform run through his blueprint like a common thread: he planned 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. After heavy discussions in the city government the plan was realised (1842-1845) and the water and sewage systems expanded step by step during the following decades. Later, Lindley built many water supply and sewage systems in other German cities as well as
First attempts to deal with the situation in European cities. All these actors were situated in large European cities. This corresponds with the finding that first attempts to improve the fresh water situation were undertaken in large capitals. Starting with Paris and London, Berlin, Hamburg and others followed. While the solution in London in 1808 was provided by private companies (Sedlak, 2014, pp. 27–29; Prasad, 2008a, p. 6), the water supply system in Paris was public. Intellectuals and political philosophers in the Napoleonic era shared a common view that “cities should be comfortable and safe” for all their inhabitants (new cognitive frame). Engineers therefore tried to integrate the water system into city planning. 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 public fountains distributed across the city, which also were used to clean the streets (Sedlak, 2014, pp. 33–34). Thirty years later, in the process of building and restructuring the city of Paris after 1853, Georges Haussmann saw like Snow a connection between cholera and the quality of drinking water. Therefore, he opted for a water supply which led water from the Champagne into Paris. Despite this, as there was no obligation for home owners to connect to the new supply which opened in 1867, this measure did not develop any direct effect (Lenger, 2012, pp. 22–23).

First steps toward a central water supply in Berlin date back to 1816. 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. Because of diverging priorities, it took up to 1852 until 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. They had to build and operate the water supply system and were granted a concession for 25 years and a monopoly to supply private households with water by von Hinckeldey (Bernhardt, 2005, p. 77; Feldkamp, 2009, p. 25; Kalweit, 1998, p. 140). When the water works opened in 1856, about 300 households hooked up to the new supply; then the figure slowly grew up to 1,141 (Bärthel, 1997, p. 48; Hård and Jamison, 2005, p. 240; Feldkamp, 2009, p. 25). Six years later, the number merely had doubled (Lanz, 2005, p. 85).

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 and a death rate of 20% of the urban population it seemed to be important to have enough water available at all points.

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of the city to extinguish any fire early.\textsuperscript{70} Hamburg became the first German city with a modern central water supply built in 1845 under the guidance of the British engineer William Lindley.\textsuperscript{71}

The answer to the problem these pioneering cities found and installed “became the norm throughout the developed world” (Sedlak, 2014, p. IX) (institution). The goal of their activities was the containment of epidemics and the prevention of further outbreaks (Lenger, 2012, p. 151), but also firefighting and street cleaning. These first, local solutions varying in set up, operation and the approach to public health gave way to the beginning of centralised and integrated water supply systems later in the 19\textsuperscript{th} century (Sedlak, 2014, p. 26; Prasad, 2008a, p. 6).

4.3.2 The first phase of fresh water supply through the extended social grid model (ESGM) (early 19\textsuperscript{th} to late 19\textsuperscript{th} century)

<table>
<thead>
<tr>
<th>Table 8: Social grid elements during the initiation phase of fresh water supply (early 19th to late 19th century)</th>
</tr>
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<tbody>
<tr>
<td><strong>Cognitive frames</strong></td>
</tr>
<tr>
<td>Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)</td>
</tr>
<tr>
<td><strong>Natural</strong></td>
</tr>
<tr>
<td>- greater openness to science and education</td>
</tr>
<tr>
<td>- improved understanding of hygiene</td>
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<tr>
<td>- morally charged understanding of hygiene</td>
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<tr>
<td>- doubts about miasma theory</td>
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</tbody>
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\textsuperscript{70} William Lindley had introduced hydrants to supply fire fighters with enough water in Hamburg Laube (2009, p. 43).

\textsuperscript{71} On the water supply systems in Hamburg see Meng (1993), on Lindley’s activities in Hamburg (see Pelc and Grötz (2008), especially pp. 298-318).
### Cultural
- no acknowledgement of need for clean potable water amongst people of different social backgrounds
- social problems and health problems are personal ones
- discourse on hygiene and prevention of epidemics
- society as a whole would profit from the social innovation

### Economic
- importance of productive workforce acknowledged
- labour is an important resource in industrial capitalism

### Security-related
- importance of healthy soldiers acknowledged

### Political
- progress would solve the social problems.
- beginning acknowledgment of responsibility for fresh water
- emerging social welfare state
- Social and political elites dominated discussion and political decision making process
- new parties entered the political arena
- marginalised lacked access to political elites
- laws on public health
- laws on use and protection of water

### Resulting Capabilities (+ = achieved; - = deprived)

For a minority:
- (+) those connected to the first water pipes or receiving water from them gained in health
- (+) healthier work force could work more steadily, earn more money and thus slowly improve their living conditions
- (+) improved health allows for improving capabilities of education, participation and ultimately economic control
- (+) more wealth in rural areas when access to water was improved
- (+) healthier soldiers

For the majority of the marginalised:
- (-) life expectancy
- (-) access to education impaired by frequent sickness
- (-) economic security
- (-) political participation, express political preferences
- (-) strong control of lifestyle by hygiene movement

In the beginning a few actors in different European countries began to develop ideas and solution approaches for a problem which became visible with sharpness. Their actions were motivated and shaped by their personal activities and experiences gained by means of research, on-site inspections, travels, contact with patients and marginalised people as well as through concrete, personal experience with epidemics. As the situation of fresh water supply could not be easily improved by self-help, most actors directed their ideas to local or national government as another important actor in the field (interplay between actors in the artefactual and the economic domain).
4.3.2.1 Initiating agency: motive structures for engagement

In the 19th century a new actor constellation consisting of physicians, administrators, and engineers formed. It was enabled by a greater openness to science and education since the Renaissance (cognitive frame), by more and improved education (institution), and by improved artefactual conditions through science and education. The connection between the professional communities of engineers and health professionals was crucial to properly understand the health-water link and to provide the expertise to build the water infrastructures (Hård and Jamison, 2005, p. 226). Still, these key actors from a middle-class background were a minority. Edwin Chadwick describes in his report on the sanitary conditions in 1842 that only a few people like medical officers and police officers noticed and cared about the situation of the marginalised. Among physicians and other citizens occupied with the situation of the poor there was a feeling that something should be done, but the responsibility was not clear (Chadwick, 1842, pp. 26–37). The social problems with early industrialisation and urbanisation were more perceived as personal ones or fate (cognitive frame).

Chadwick on the contrary considered sanitation and fresh water supply to be the answer to the social problem and enable social progress. With his report on “The Sanitary Conditions of the Labouring Population” in 1842 (Chadwick, 1842) and the following efforts of the sanitary school the consciousness for hygiene grew and new social networks developed. 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 Chadwick or William Lindley (Schott and Skroblies, 1987, pp. 83-84, 37; Simson, 1983, pp. 22–25). 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. What they had in common was a privilege by education and social position, and access to local, regional or national elites (power aspect across different domains – political, economic, and artefactual). They understood the improvement of urban hygiene as a way to solve the social question.

Various motivations led to action. The motives of these actors and networks were not purely philanthropic. They were concerned with worker productivity, the decrease of morals and values, with fear of fire storms or of epidemics (connecting the cultural, economic, security-related, and political domains). Some also felt a societal commitment to improve the living conditions of the marginalised. Slowly a new cognitive frame developed which touched upon aspects of the political, economic, and cultural domain: the solving of the problem was connected to the interest of the middle-class and society in general. Not only the marginalised would profit from the solution. William Lindley exemplarily combined cleanliness and moral arguments with economic ones 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 combination of arguments was important to gain acceptance for his plans in the city council and fostered the implementation and scaling of the social innovation in general. Sanitation, it could be argued, was a persuasive way to reduce public expenses in the long run. Home and land owners of the middle-classes or the nobility sitting in city councils and governments decided upon these public expenses. The misery of the marginalised hardly was a subject on their political 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 (Schott and Skroblies, 1987, p. 93) (group-specific cognitive frame). Therefore, many of these stakeholders were reluctant to vote in favour of projects that would cost their money as tax payers but would not directly benefit them.

Another direct connection was drawn between water, cleanliness and morals. Therefore, committed members of the middle class, people involved with the sanitary movement in general and physicians and educators in particular emphasised that working class people would become better citizens if they had access to clean water. Thus, the conclusion of Chadwick and others was that clean water would be a way out of a social crisis and a measure to prevent social uproar. With the growth of populations and cities in the context of industrialisation, the demand for domestic and freshwater supply also increased. With the wealth (economic power) and expertise (artefactual power) brought about by industrialisation (economic power), the financial capital (economic power) and engineering know-how (artefactual power) for creating and expanding urban water and sewage systems was also available (Sedlak, 2014) (Sociotechnical innovation).

**New social networks emerged.** During the 19\(^{th}\) century both the middle-classes as well as the lower classes established as social groups with strong allegiance, and new social networks like associations, parties, unions and - more broadly speaking - the labour movement developed. The middle-classes had a strong and influential position in 19\(^{th}\) century Europe. With growing influence in trade, industry and the educational system, the self-confidence of the economic and the educated middle-classes was increasing 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 (cognitive frame) were spread by the press, by the education system, by books and training etc. and laid the ground for new approaches.

While members of the middle-class were successfully connecting to political power and holding large portions of economic power in their hands, this cannot be said of the marginalised. They shared in large part the same cognitive frames but their economic power was only moderate as was their political power (no political participation). In the beginning phase of central water supply in mid-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 the need and basis of the water infrastructure (Juuti and Katko, 2005, p. 40). Generally speaking, suffrage on the local level was granted on the basis of gender, age, occupation and income or property. Having no suffrage and being highly mobile in search of better working opportunities the marginalised lacked access to the local elites. Being highly mobile was probably another reason not to act but to arrange with the local situation for a given time.

**Opponents.** Even where the arguments of the reformers convinced the decision makers still not everybody was happy with the introduction of water supply and sanitation in European cities. Chadwick reports that during a cholera epidemic in Paris in 1834 “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 ragpickers and some ‘savage’ people, rioted against the new regimentations for economic reasons (Chadwick, 1842, pp. 93–94). In other cities, local people (e.g. water suppliers, water carriers, vendors of small filters for household purposes, or home owners) whose economic interests and thus power position were touched by the new infrastructure of water supply, opposed the social innovation or prolonged its introduction. Landlords and water companies in many cases successfully resisted the public health reforms in the 19th century and tried to maintain the old system because of their vested interests (economic power in connection with political power trying to prevent the social innovation.

### 4.3.2.2 Shaping agency: Social grid as influential background and subject of change

When applying the ESGM in analysing the material it becomes clear that certain aspects changed in the 19th century. Most prominently were changes in the cognitive frames of the contemporaries concerning the perception of the working class, the usefulness of the solution approach and the connection between polluted drinking water and deadly diseases.

**Societal responsibility and governance of solution:** In the beginning, the catastrophic situation of potable water and water supply was understood as a private problem under the
prevalent cognitive frames improving with progress. Therefore, many cities tried to solve the situation by contracting private companies to take care of the problem. This was also a good opportunity to externalise the risks and the costs of the new infrastructure instead of taking it on the municipal budget (aversion to economic risks on side of the middle-class actors in municipal bodies). For some, it was also difficult to come up with the capital needed (economic problems preventing political decisions). A crucial insight was the discovery by John Snow of the causal link between cholera and contaminated drinking water. This replaced the old cognitive frame of miasma theory that perceived “bad air” evaporation as the reasons for sickness, and put forward the importance for improved drinking water supply and treatment to make it “safe” for drinking: water filtration, chlorine disinfection etc. The impact in terms of public health and life expectancy was enormous.

Until the sanitation reform movement started in the second half of the 19th 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) (beginning acknowledgment of responsibility for fresh water: emerging social welfare state).

In Germany, for example, there was no general acceptance for a central drinking water system up to about 1850. 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). A central element of the social innovation is therefore a change in cognitive frame by artefactual power, more specifically the way the relation between water supply and health was understood and thus in the beginning acknowledgment of a public responsibility.

New cognitive frames were transmitted by new social networks, the sanitary school and the hygiene movement in which social reformers, engineers, policy makers and physicians connected and exchanged their ideas and findings. The rationale William Lindley presented in the 1840s to the Hamburg city council 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, p. 18). His friend Chadwick also appealed to the economic understanding of his audience when declaring: “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. […] 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” (Chadwick, 1842, p. 152). Investment in sanitation and water supply
would not only be healthier for all but also maintain the workforce and reduce the welfare bill.

**Institutions and policies.** It was rules, norms and laws within the national frame even though it not necessarily was laws of the nation state which were applied concerning fresh water and its distribution to the people. Important with regard to the subject was the

**Public Health Act**, UK, 1848: local authorities got the power to improve water supply; Local Board of Health became compulsory when mortality was higher than 23 per mille (De La Motte, Robin and Lobina, 2005, p. 205). Local boards had 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 (Wohl, 1983, p. 149). 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 like education, housing, and basic needs). Accordingly, the regulation of water supply operations should be complemented by social policies explicitly pursued by the state (Prasad, 2008a, p. 5) (*new cognitive fame, new institution*). From a socio-political perspective, this reflects the disruptive effects of industrialisation on social order and the increased interdependence of citizens in industrial urban centres.

**Travelling of ideas.** Science and knowledge were important *artefactual institutions* which were distributed and enforced by the travelling of ideas. 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 (different, but overlapping *social networks*) (Lenger, 2012, p. 147; Neumann, 2005, pp. 35–36). Travel reports physicians, engineers or complete expert commissions wrote about their journeys, findings, discussions and insights were on the one hand an important basis for decision making for city governments and administrations and on the other hand inspired the national discussion among experts on the subject. Congresses themselves served the institutionalisation of idea exchange. A first Hygiene Congress took place in Brussels in 1852 which was a full success (Hardy, 2005b, p. 96). The interest of public authorities on public health grew which led to further, regular hygiene congresses after 1878 (Caltana, 2011, pp. 32, 35–37).

While *cognitive frames* changed, old *institutions* became obsolete and new ones had to be established, it were *social networks* who discussed and transferred ideas, findings, and examples of best practice, thus shaping the implementation of the social innovation.

**Design of solutions**: The local or regional solution design turned out differently. Market solutions were taken up as well as non-market ones resulting in private or public provision.

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72 See for example Varrentrapp (1839); Wiebe (1861); Grahn and Meyer (1877).
The beginnings of water supply in UK, e.g., were private. But even though this was the case, there were also voices arguing for municipal enterprises, like Joseph Chamberlain, a member of the Liberal party, who 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). In Germany too, the supply of water was often private in the beginning, while 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 (Feldkamp, 2009, p. 25).

A change in the cognitive frame in France in the 19th century resulted in the acceptance of a private business model. Until the 19th century most French people had obtained water for free and a communal responsibility for securing the supplies was assumed. Then it became an industrial and commercial product. With the intervention of private companies like the Compagnie Générale des Eaux in 1853 “the organisation and distribution assumed a comprehensive and modern pattern” (Hassan, 1996b, p. 122).

**Technological possibilities.** 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) (*artefactual power*). Pumping stations had already existed since the middle ages but the new steam engines coming up in the 19th century opened new and better possibilities (Müller, 1981, pp. 53, 89; Steuer, 1912, p. 17).

The social reformers like Chadwick advocated spreading technological innovation to all so it would benefit all. His concept of water supply and sewage systems rested on 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. In his view, this made sense economically as it was a lot cheaper in the long run than keeping up the old system (Chadwick, 1842, p. 48).

However, not all technological possibilities were implemented if the costs were considered too high (conflict between the *artefactual* and the *economic domain*). When a great cholera epidemic swept Hamburg in 1892 despite its central water supply it was the result of the missing sand filtration of the water at the water works 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 (technological innovations (*artefactual domain*) conflicting with considerations in the *political* and *economic domain*). Not so in Altona, some kilometres down the Elbe river, where policy makers had listened...
more closely to the advice of the engineer William Lindley who recommended sand filtration. No victims had to be bemoaned there. Before 1850, very few water providers had 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 improved until the end of the 19th century 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 others who had to do without filtration (increased artefactual power influencing cognitive frames of water providers).

**Targeted beneficiaries.** The target group in the beginning were the economically marginalised. Poor working class people, many of them labour migrants coming from the country-side to the cities, were perceived as being at the centre of the problem. They lived mostly in the city centres in overcrowded houses close to their workplace without access to clean water and sanitation. If water had been considered to be a drink of beggars in the past this perception changed during industrialisation (cognitive frame). Under the impression of alcohol abuse among the lower classes, early reformers like Chadwick considered water to be better for the morals and values of the marginalised (cognitive frame) as well as for the growing up of the next generation. They worried about the future of the workforce (economic), the next generation of soldiers (security-related) and the maintenance of social order (political). Besides all good intentions it becomes also clear that the implementation of the social innovation served not only the beneficiaries but also the vested interests of the better-off in keeping up the social, political, and economic system as well as in containing epidemics.

**4.3.2.3 Capabilities of the marginalised during the first phase of fresh water supply**

For those connected to the first water pipes or receiving water from these, a gain in health can be attested. But this was still a minority. Improved health is of instrumental importance for improving capabilities of education, participation and ultimately economic control (economic power). For the majority their capabilities were still impaired by the lacking access to clean water. Marginalised people were not able to live “a long and healthy life” (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 1900 – 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-Martineti and Jacobi, 2014b, pp. 3-4, 6). Also, the hygiene movement installed a strong control over the lifestyle of the marginalised.
4.4 Phase 2 – Scientific findings leveraged the central freshwater supply (mid-19\textsuperscript{th} century to early 20\textsuperscript{th} century)

Since the mid-19\textsuperscript{th} century along with the proceeding industrialisation water conditions and sewage in ever more cities worsened. On the other hand, the network of actors addressing the fresh water problem broadened and their findings and the solution approach spread.

4.4.1 Overview of developments

Among the new actors since the 1850s were demographers, teachers and educators, but also civil servants and local officials. They connected in national and international associations (social networks) to exchange their ideas and agitate for an improvement of sewage and fresh water supply.

\textbf{Deutscher Verein für öffentliche Gesundheitspflege (DVöG), GER:} The German Association for Public Health Care belonged to the new social networks connecting actors of the civil society and the state. They were founded to act on behalf of the marginalised in society, dealing with economic as well as social questions. The members of the DVÖG were physicians, local politicians, civil servants, and engineers (Meyer, 2011, p. 45). This network of practice (Duguid, 2005, p. 113) offered since 1873 an important forum for exchange and discussion between theory and practice. It claimed better hygienic conditions in cities by pointing out that epidemics threatened the productivity of the labourers (economic domain) and also spread to the quarters of the wealthy (Schott and Skroblies, 1987, p. 95). Its members tried to control the process of urbanisation by resolutions and legislative proposals as well as to soften its effects with the introduction of hygienic standards (new institutions were proposed and/or introduced) (Jellinghaus, 2006, p. 90).

A crucial point for the dominant position of the DVÖG at the time was the composition of its members and thus the tight combination of science and politics. No other institution discussed in an equally intensive manner and with a comparable professional competence about the urban expansion of infrastructure (Hardy, 2005b, p. 209). The association focused on a municipal alternative to the welfare state. According to its members, the social question and the hygienic question should be resolved by different actors but with academic expertise (Jellinghaus, 2006, pp. 93–95; Münch, 1993, p. 339). Through the tight cooperation of actors from civil society with policy makers the DVÖG was able to implement its scientific claims into practice. Since 1860, a central water supply network was implemented in an increasing number of cities. The willingness of the communities to implement the demands of the hygiene movement was very strong (Jellinghaus, 2006, pp. 99–100).

\textbf{Deutscher Verein für das Gas- und Wasserfach, GER:} Experts connected in professional associations like the German Technical and Scientific Association for Gas and Water, founded in Frankfurt (Main) in 1859. The fast growing association which claims to be “the
oldest technical and scientific gas and water association in the world” has not only had individual members, other members have been utility companies, gas fitters and installers, authorities, institutions and organisations. These experts actively influenced the shaping of freshwater supply by advising governments on different political levels and establishing technical standards.

Industrialisation, urban growth and resulting pollution triggered also other forms of organisational 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, emphasis added). Thus, reacting on public health issues and increasing the social impact of the social innovation this cooperative resulted in the creation of many more water cooperatives across the provinces. On the other hand, from an ecological point of view, this trade-off was disastrous and a negative outcome of the social innovation.

The labour movement and unionists were still less influential at the time. Interestingly though fire brigades (availability of enough water to fight fires) and insurance companies (reduce damage events by fires in areas with many wooden buildings) unexpectedly were supporters of the case (e.g. Finland as well as Bavaria).

As the following three examples from Germany show, the ideas of reformers and pioneer epidemiologists were now maturing. Physicians and scientists were of special importance to provide background and findings, and their arguments were conflicting in several ways.

**Max von Pettenkofer** (1818-1901), Munich, GER: hygienist, physiologist, and epidemiologist; important actor in Germany as well as internationally and part of a multifaceted network. He got interested in questions of public health and laid the foundation for the special area of hygiene in Germany. He founded several journals for scholarly exchange. Epidemiologically, Pettenkofer was especially interested in cholera and typhoid fever. He believed that miasmas were responsible for the epidemics (Münch, 1993, p. 341). Even though he assumed already in 1869 that these diseases could be caused by specific microorganisms and environmental factors, he denied any connection between potable water and the emergence of epidemics (Feldkamp, 2009, p. 42). To adopt his findings into practice, Pettenkofer worked closely together with policy makers and experts.

**Rudolf Ludwig Karl Virchow** (1821-1902), Berlin, GER: physician, scientist and liberal politician, founder of medical and social political journals and newspapers. On behalf of the

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governments of Prussia and Württemberg he investigated the living and health conditions in Upper Silesia and the Spessart in the 1840s and 1850s. In both cases he demanded education, democracy, and prosperity as prerequisites for health maintenance and cure of marginalised people. In his political work he championed the construction of municipal hospitals and the expansion of public welfare.\footnote{On Virchow see Bauer (2004); \url{https://www.dhm.de/lemo/Biografie/rudolf-virchow}, accessed 18 March 2016, \url{http://vlp.mpiwg-berlin.mpg.de/references?id=per149}, accessed 18 March 2016.}

**Robert Heinrich Hermann Koch** (1843-1910), Berlin, GER: physician, hygienist and one of the founders of bacteriology; discovered among other things the bacteria responsible for tuberculosis (1882) and cholera (1883) and their way of transmission via potable water, foods, and clothing. During the cholera epidemic in Hamburg in 1892/93, Koch guided the measurements to stop the disease. 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 (artefactual and political institution) 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 on-going discussion about miasmas and contagions. Counting proof was found for the hypothesis that the 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. The discovery of the germs of tuberculosis and cholera helped establish the bacteriological idea in science and public.\footnote{See \url{http://www.britannica.com/EBchecked/topic/320834/Robert-Koch}, accessed 17 March 2016; \url{http://www.nobelprize.org/nobel_prizes/medicine/laureates/1905/koch-bio.html}, accessed 17 March 2016; \url{http://www.deutsche-biographie.de/ppn118564064.html}, accessed 17 March 2016; Grüntzig and Mehlhorn (2010).}

This shows impressively the importance of the scientific basis for the shaping and scaling of freshwater supply as a social innovation.

### 4.4.2 The second phase of fresh water supply through the extended social grid model (ESGM) (mid-19th century to early 20th century)

<table>
<thead>
<tr>
<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)</td>
<td>- Ecological considerations did not play a role</td>
<td></td>
</tr>
</tbody>
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### Artefactual

- Discussion on miasma vs. bacteriology ended at the beginning of 20th century
- New networks were formed to connect actors from different professions and spheres of public life (e.g. DVÖG)
- New machines, pumps, and pipes offered new possibility for water works
- Water towers were built and used to store water (technological progress, new material)
- New ways and methods to treat water
- Water meters to control consumption
- New technological norms were introduced

### Cultural

- Marginalised shared problematic cognitive frames of other social groups.
- Hygiene discourse
- Support of the cleanliness of the lower classes would profit the middle classes, too.
- Members of the hygiene movement teach the lower classes new standards of cleanliness.
- Health education through the education system

### Economic

- Different cognitive frames between private water providers and municipalities on extension and cost coverage of the system
- Fire insurance companies support the extension of the water network.

### Security-related

- Municipalities assume responsibility for fresh water supply (municipal socialism); community should meet essential needs.
- Networks between social reformers and politicians
- Pro-active municipalities
- Health education through military training

### Political

- Laws on public health and laws regulating the water sector and enabling municipalities to build and operate water supply systems

### Resulting Capabilities

(+ = achieved; - = deprived)

(+): access to safe and affordable water improved (standards spread)
(+): better education leads to a better understanding of hygiene in all social groups
(+): improved health conditions
(+): rise of life expectancy
(+): decrease of child mortality
(+): increase in wealth in rural areas if water supply is improved
(+/-): political participation for some, low weight in political decision making for most
(-): strong control of lifestyle by hygiene movement

### 4.4.2.1 Motivating agency: motive structures for engagement

Countries like Finland or Italy where industrialisation and urbanisation took off later encountered the same problems as other European countries before them. In Finland, two concerns led to building water supply systems. One was an increased fire risk because many
houses were built of wood. A sufficient amount of water for fire fighting could only be ensured by high-pressure waterworks. This explains quite well why fire insurance companies (unexpected actor) financed the building of waterworks with advantageous loans in the second half of the 19th century (Juuti and Katko, 2005, p. 61; Juuti and Mäki, 2008, pp. 120–121). The other concern had to do with public health and the lack of potable water as in other European countries before. The introduction of water supply and sewage systems improved hygienic conditions in Finish cities and mortality decreased at the end of the 19th century (Katko, 2013, p. 25, 1996, pp. 17–18).

In **Italy**, pro-active municipalities (social networks), especially in the industrialising North, tried to find fitting solutions for the social need and to develop at the same time a competitive advantage for their communities (consideration bridging the political and the economic domain). They used a legal vacuum to become active and intervene. Private companies not everywhere fulfilled their task adequately or municipalities wanted to start a water supply on their own. In some cases, cities had become active, either by implementing regulations in the water sector or by buying private concessions to solve the social need themselves. There were three reasons for that: a) the hygienic problems posed a serious threat, b) the provision of public water represented an option to fill up the city treasury, and c) having an efficient water supply system was considered a competitive advantage in attracting promising industries. These pro-active communities were mostly governed by moderate and liberal majorities. The first attempt to draft a national law (institution) in 1889 facilitating the entry of public entities into the service delivery however failed because of resistance from conservative segments in the parliament, mainly industrialists. These were predominantly managing the natural monopolies of utilities and did not want to lose their economic privilege (Jacobi and Fabbri, 2015).

**Actors felt legitimised by middle-class values and self-understanding.** Changes happened not only with regard to institutions and societal responsibility but also with regard to cognitive frames within relevant social networks. The solution approach and the demand to implement it came in many cases from members of the civil society (social network) and parts of the middle-classes formative social network. Because the immense need of the marginalised in particular but also of society as a whole was visible and stressed by social conditions and frequent epidemics, the claims were acknowledged bit by bit.

Developing social networks like the German association for public health care carried strong middle-class values (cognitive frame). It legitimised its political claim of validity by the background of its members as belonging to the middle-class 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. The liberal self-understanding of its members was associated with strong social commitment. They felt the obligation to engage as members of the middle-classes 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
Epidemics knew no classes. Not just benevolence or idealism constituted motives. 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 (change in cognitive frame). 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 did not observe basic hygienic rules themselves (Spieker, 1996, p. 114). Thus, self-interest was another important motive: “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).

4.4.2.2 Shaping agency: Social grid as influential background and subject of change

Societal responsibility and governance of solution. An important development in this phase was that municipalities assumed responsibility for the fresh water supply from the middle of the 19th century onward. In countries like the United Kingdom, Germany or Italy, where private companies were engaged in the beginning, cities now often built their own profitable waterworks or overtook them early on as they were dissatisfied with private companies (Lenger, 2012, p. 148; Lobina, 2005b, p. 107). Before 1914, waterworks in Scotland, England, Germany, and Italy were municipal, at least in the big cities (Lenger, 2012, p. 185). In many cases this was a result of issues with management, corruption and high costs (Prasad, 2008a, p. 6; Juuti and Katko, 2005, p. 237).

In the Netherlands, most of the water companies still remained private (De La Motte, Robin, 2005, p. 135). Yet in 1874 Rotterdam got a municipal water supply system (De La Motte, Robin, 2005, pp. 141–142), and in 1896 the municipality of Amsterdam took over the Amsterdamse Duinwater Maatschappij. Also in other cities municipalities increasingly organised the supply of fresh water. In the meantime, private entrepreneurs invested in and operated fresh water supply systems in France in the second half of the 19th century. But the “connection rate remained very low” (Lobina, 2005a, p. 74).

The actors and the marginalised. With regard to municipalities becoming active it is important to note that in the 19th and early 20th century municipal committees often consisted of voluntary middle-class members. They combined political with economic power and in many cases with expert knowledge (artefactual power). When it comes to the topic of fresh water supply, commissions on poor relief, on public health or on civil engineering came into consideration (specific institutions addressing the social need). If these commissions were not supportive of the introduction or extension of freshwater supply, pressure had to originate
either from *social networks* outside city parliaments (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. One of the main arguments pro central freshwater supply was that water supply was a measure of necessary poor relief. Most of the time, the pro freshwater reformers were representatives of the middle-classes. They had the education, the knowledge, the networks and influence necessary (*artefactual, social, and political domain*) to agitate for their objective and to convince reluctant committee members and politicians. The marginalised as the target group were talked about, but not talked with. When it was difficult or impossible for individual marginalised to participate in the decision making process (*lack of political participation*), members of the labour movement or of liberal, socialist or social-democratic parties (*social network*) took a stand for the interests of the marginalised. Many of them shared the social background of the marginalised and knew about the social need and its consequences (see for example Meyer, 2011, p. 54).

With the acceptance of responsibility by the municipalities and the national state the extension of the system could be planned. In Germany, master plans were developed by municipal administrations and civil servants and implemented during the decades after 1900. 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).

**Municipal socialism.** Physicians, teachers and engineer connected with city authorities to improve public health. “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” (Hård and Jamison, 2005, p. 222) (*cognitive frame*). Besides hygienic and profit considerations these measures were meant to integrate the lower classes into the social order (Stremmel, 1994, p. 244) (*considerations bridging the economic and the political domain*). Since the 1880s, public opinion not only in Germany demanded to build public water supply systems in communities of any size to fulfil hygienic requirements (Steuer, 1912, p. 23). The Mayor of Düsseldorf, Ludwig Hammers, argued for municipalisation of water supply already in 1866 in favour of the marginalised: “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) (*cognitive frame*).

**Extension to rural areas.** Another important development was taking first steps to apply the solution approach to rural areas with serious problems in water supply. Rural areas in general were reluctant to follow the urban model of fresh water supply. 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 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, held
on to their traditional lifestyle and held back from everything new (Ehmann and Fraas, 1889, p. 106). Another reason was that the agricultural sector in Germany for example was facing problems since the 1870s. Communities were afraid of the costs and had problems to attract private providers. 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).

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. A successful state intervention happened in the German state Württemberg which supportively intervened in the water supply sector. Here a Royal Building Authority on Water Supply was created (institution) 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 (artefactual domain). In the 1870s, the Württembergian state supported rural communities financially in building water supply services (Feldkamp, 2009, p. 27). This step was trend-setting as for the first time a state signalled that it was willing to support smaller communities financially and ready to consult them in fulfilling their municipal self-government responsibility.

Still, not all were convinced of the new measures. When at the beginning of the 1870s the Württemberg government encouraged the building of a central water supply in the water-poor Alb region, the inhabitants were more than reluctant. They had till then to transport potable water over a distance of 12 km by wagons from the valley to the plateau. They also had to pay for the transport. The costs summed up on horse or cow (consuming 40 litres per day each) up to 20 Pfennig per litre. To deal with this surprising reluctance, the solution found 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). This proved to be a successful organisational innovation.

The consideration of water-poor rural areas like the Alb region was also an expression of new authority. Not only were new ways of financing and organisation (new economic and political institutions) found but foremost the cognitive frame had changed: drinking water shortage was no private fate but deserved remedy.

**Institutions and policies.** Around 1850, many aspects were only dealt with on a local or regional level. This changed during the decades up to 1900. More and more national laws were introduced (institutions), most of them dealing with policies on public health. These laws show that the necessity to regulate fresh water supply and the water sector especially

77 The German state 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 Steuer (1912, pp. 29–30). A similar solution was found in some parts of Prussia (ibid., pp. 36-37, 39).
with regard to public health was perceived in many European countries:

**Metropolis Water Act**, London, 1871: potable water in London had to be analysed with regularity (Feldkamp, 2009, p. 43).


**Local Government Act**, SF, 1876: made the local municipalities independent governments which had possibilities and resources to organise infrastructure services based on municipal ownership (Juuti *et al.*, 2006).

**Health Decree**, SF, 1879 (Juuti *et al.*, 2006).

**Act on Water**, HU, 1885: 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).

**Law on local rates** (*Kommunalabgabengesetz*), Prussia, 1893: 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 sanitize the city, and ensured the profitability of the system (Bernhardt, 2009, pp. 91–93).

**Public Health Act**, NL, 1901: *Gezondhetswet* regulated the state supervision of public health, including the supply with potable water (De La Motte, Robin, 2005, p. 144).

**Public Health Act**, France, 1902.

Social policy also played a major role in providing universal and affordable access to freshwater. Frequently, the marginalised were not able to pay, but the wealthy ones were reluctant to invest. As this hampered the assertiveness of the social innovation, social policy became important, for example in the way of cross-subsidies in tariff structure (Prasad, 2008a, p. 18).

**Hygiene discourse.** The most important *cognitive frame* to change with regard to fresh water supply was the understanding of bacteriology instead of miasmas. Here it came to a clash of old and new *cognitive frames* between contagionists and miasmatics (*conflicting cognitive frames in the artefactual domain*). In 1883, Robert Koch discovered *vibrio cholera* as the cholera pathogen. Max von Pettenkofer opposed this theory and held onto his own research results. While he finally accepted *vibrio* as the cholera pathogen, he was however 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 and drank an infectious *vibrio*.

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78 Already in the early 19th century, the London-bridge Waterworks Company charged water intensive enterprises like brewers, stable-keepers, and tradesmen with an extra fee. 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).
culture without becoming sick. As 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 and finally faded out in the early 20th century (Grüntzig and Mehlhorn, 2010, pp. 193–194) but it framed the upcoming discourse on hygiene.

First standards of a municipal provision with basic supplies emerged towards the end of the 19th century 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 (Matzerath, 1990, p. 11; Langewiesche, 1989, p. 634). To implement not only fresh water supply but also the correct application of it, a hygiene discourse developed as a kind of social programme since the late 19th century (institution). Hygiene was considered the key to solving social problems, to integrate social outsiders and to reform social conditions. It 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 as a social programme 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. 113–114; Hirschfelder and Winterberg, 2009, p. 123) (changing institutional setup).

This discourse was asserted as a ‘cultural paradigm’ (Bernhardt, 2005, p. 71) during the 19th century in three steps (cultural cognitive frame institutionalised in the urban context):

1. the extensive planation, drainage and sealing of the urban ground (to fight miasmas as well as to prepare for water pipes and canalisation),
2. the introduction of freshwater supply as well as sewerage,
3. the habitual internalisation of the new hygienic standards: citizens had to “adjust their behaviour and patterns of life to the 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 middle-class model from public to private, from being carried out collectively to individually (Bernhardt, 2005, pp. 79–80; Hård and Jamison, 2005, pp. 236–237). A strong control of the lifestyle of the target group was the result.

The lower classes that were at the focus of educational programmes by the communities and the state were not always happy with these interventions in personal and intimate affairs (Bernhardt, 2005, pp. 79–80; Frevert, 1985, p. 421). With the help of the education system and the military (institutions implementing a new cognitive frame) hygiene advocates tried to succeed. 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 (Hård and Jamison,
Important actors in this hygiene discourse were physicians, nurses and educators (Hård and Jamison, 2005, p. 229). Middle-class women on their mission to teach hygiene to lower-class women, women’s associations and women who had worked as servants in middle-class households served as cultural mediators (Frevert, 1985, pp. 421, 429, 446).

**Technological possibilities.** The scaling and dissemination of the social innovation profited from engineering progress and new technologies (*artefactual domain*) in four areas: water distribution, water storage, water treatment, and control of water consumption.

Water works benefited from the fast developments in engineering industry and construction: new machines, pumps and pipes for water works and canalisation became available as the social innovation progressed and demand grew (Feldkamp, 2009, p. 38). This equipment helped the steady **distribution of water.** The accumulation of technological know-how made the realisation of the projects feasible and was a key variable in the development process (Münch, 1993, p. 340). New materials and new ways to transport water over large distances and even uphill (e.g. with the fast centrifugal pump Šuchardin, 1984, p. 160) allowed for water supply throughout the year by means of long distance water supply as well as the distribution even into areas which had no abundant water resources themselves. The spread of knowledge by travelling experts, congresses, publications or engineering offices as outlined above took effect here, too. Especially the UK had a pioneering role in developing solutions for the freshwater supply in the 19th century which became blueprints for the setup of solutions in other European cities. Thus, for example, the Chelsea water works in London were 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. Foremost in flat areas, water towers became more and more important as the development progressed. These structures, too, benefited from technological progress in construction. New material (like ferroconcrete since the 1860s) 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, Henk, 2005, p. 8; Šuchardin, 1984, p. 157).

**Water treatment** was a third component improving by scientific and technical progress. 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 got polluted and its quality deteriorated, ground water became contaminated by sewage from cesspits and sewage farms. While sewage farms could serve as a “primitive type of sewage treatment system” already, 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, the connection between sewage and potable water became obvious. 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). Coarse filtration with sieves alone was no solution. New technologies to treat water, like finefiltering by sand filtration, were 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 with alum, iron chloride or lime was introduced (ibid., pp. 48-54).

**Control of water consumption** became an issue with the introduction of water supply systems and increasing wealth as consumption grew everywhere. Already by the 1850s and 1860s, water meters as developed by Carl William Siemens were used to control water consumption. However, their application was not extensively as they were still an imprecise and expensive device (Feldkamp, 2009, p. 39; Steuer, 1912, p. 104). The application became more common in the 1870s and as a result led to a reduction in water consumption (Aschendorf, 2014, p. 852; Steuer, 1912, p. 104). Because of the costs water meters were not recommended for rural areas and for small water works (Steuer, 1912, p. 105). The general usage of water meters was nevertheless criticised by the German 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). He urged to exempt the marginalised from paying water charges altogether, so less water meters would be necessary (ibid., p. 263). This proves a discourse on the question who should pay for water (consumption) obviously resulting from different cognitive frames: either charging by consumption or by wealth or providing water for free.

**Technical standards** were developed and established in different, but not in all countries. The infrastructures necessary for setting up the water supply and sewage systems were large networks extended and replicated in different settings. General standards made the scaling of the social innovation easier. Experts like the members of the Deutscher Verein für das Gas- und Wasserfach (German Technical and Scientific Association for Gas and Water) exchanged ideas and gave advice to establish standards. Together with the Verein Deutscher Ingenieure (Association of German Engineers) they developed already in the 1870s criteria for standard pipes and laid the ground for further standardisations (Deutscher Verein von Gas- und Wasserfachmännern, 1959, pp. 78, 80f.) (institution resulting from cooperation between the artefactual and the political domain). Examples of best practice became implicit norms
distributed by standard works for engineers.\textsuperscript{79} Thus, a standard model for central urban freshwater supply emerged already in the late 19\textsuperscript{th} century which resembled a fixing. It made the expansion of the water networks easier and cheaper. In the long run, however, it led to a hardening of the institution and, given the network character of the infrastructure, to path-dependency. On the other hand, standardisation of infrastructure components or water quality supported the view that all should have equal access to freshwater (cognitive frame). Technical standards can therefore be understood as social standards legitimising reality (Joerges, 1996, p. 137).

**Design of solutions.** With municipalities and states assuming responsibility many private water works were municipalised or the city administration acted as founder. Four aspects come up when dealing with the predominant solution designs: first, the extension of the water network, second, the purchase of private water works by municipalities, third, the connection rate, and fourth, the city treasuries.

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, usually the network was not extended consistently, the quality was not improved and the charges were disproportionate. Profit interests were at the fore. Areas where the number of expected customers was low were not developed. Municipal providers by contrast usually invested some parts of their profits 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. (different cognitive frames across the economic, political, and cultural domain) Thus, since the mid-19\textsuperscript{th} century “private monopolies were replaced by public monopolies” (Prasad, 2008a, pp. 19–20).

UK was a pioneer in private sector provision of water services already in the early 19\textsuperscript{th} century. This ownership pattern however changed in the second half of the 19\textsuperscript{th} century and public provision became a norm. At that time, policy makers agreed that every household regardless of geographical location, social class or income, should have access to treated piped water. This access without distinction was achieved for most urban regions in the early 20\textsuperscript{th} century (Prasad, 2008a, p. 23; Juuti and Katko, 2005, p. 41; De La Motte, Robin and Lobina, 2005, p. 205). Some city governments found another successful solution to this split between private economic interests and public social interests by including obligations like grid extension as a clause to the concession given to a private provider.

Other municipalities, like Berlin, bought the waterworks from the private waterworks company to be able to extend the water supply network to the whole city and to build a sewage network. This was occasionally an expensive solution as e.g. members of the Berlin

\textsuperscript{79} Handbooks on architecture, for example, dealt with the building of cisterns, wells, and reservoirs, the usage of appropriate materials, the diameter of pipes, the set-up of pipe networks and sewage systems as well as the functioning and usefulness of water metering devices Durm et al. (1881, 1890b, 1890a).
local government estimated that the purchase price was up by 2 million Mark higher as compared to the real value of the sites (Jellinghaus, 2006, p. 230). The municipalisation of water was costly. This experience was shared by cities in the UK like Leeds or Liverpool but it paid off by the prevention of large-scale epidemics like typhoid fever or cholera (Wohl, 1983, p. 112).

With the shortcomings in the network extension and in many cases a missing requirement for households to hook up, the connection rates were still rather low and the social innovation could not reach all people. While well situated people got hooked up, the marginalised did not. It was too expensive for them or their landlords were 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 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 Berlin, connection rates were also low until communalisation. Only 19% of the Berlin households were connected to the water supply in 1864. The figure increased up to about 80% in 1880, eight years after the municipalisation and about 93% another ten years later (Jellinghaus, 2006, p. 231).

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. In line with the market liberal thinking of the time, user charges were collected for connecting to the net and the water price could be regulated to bring in new funds into the city treasury. This was sometimes used as an argument for municipalising fresh water supply but a contradiction to the argumentation that in many cities it had led to municipal infrastructure in the first place: to solve a social need and to prevent epidemics. Thus, representatives of public health 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; Witzler, 1995, p. 77). 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. 129–130 with examples).

**Travelling of ideas.** The travelling of ideas continued with latecomers like Finland (where industrialisation and urbanisation began later than in other European countries) taking over and adapting solution models from forerunners. Therefore, the building of water works started a few decades later in Finland than in Sweden, Germany, and the UK for example. Water service systems (*institutions*) were first built in big densely populated cities. In most cases water and sewerage systems were built simultaneously. The development of water services in
Finland followed two different paths. While in cities the waterworks were municipal public utilities, in rural municipalities, waterworks were often established as local and relatively small private cooperatives. Later some of these cooperatives have developed into larger public utilities or companies (Juuti and Katko, 2005, p. 62). The first initiatives to build water works came from the government. With the Local Government Act from 1876 and the Health Decree from 1879 cities were enabled to plan and later implement water and sewerage systems. Municipal socialism was not discussed as in other countries. While the health legislation in Finland seems to originate from the English and later Swedish tradition, municipal legislation is closer to the German tradition (Juuti et al., 2006). As Finnish civil engineers and physicians were well connected, the spread of innovations happened quickly. By fact-finding travels abroad or hiring experts to plan the waterworks and sewerage systems, Finish cities learned from the experiences of others (Katko, 2013, pp. 39–42).

**Targeted beneficiaries.** The target group of the social innovation remained marginalised people living in cities, more and more also living at the peripheries of towns. In some cases people living in rural areas were already taken into view (especially in areas with insufficient water yield) where they were suffering from poverty and frequent diseases.

All in all, society as a whole profited. But the target group did not benefit as much from the solution which developed finally as one would expect from the proposals. As said with regard to water charges and connection rates, the social innovation instead helped probably the middle classes at first even more than the lower class because of different economic leeways and cognitive frames.

“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).

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. This shows how the beneficiaries shared problematic cognitive frames and were unconvinced by the announced improvements in the beginning.
4.4.2.3 Capabilities of the marginalised during the second phase of fresh water supply

Keeping the leading paragraphs in mind, still the capabilities of the marginalised improved in the second half of the 19th and early 20th century. At least there was a chance for those marginalised having access to the fresh water supply. The scope of the impact depended on internal conversion factors like personal traits, gender or age.

The implementation of the centralised infrastructure for freshwater and wastewater positively affected the endowments of the marginalised in cities: in principle they had access to safe and affordable water (improved collective power in *artefactual and economic domains*) - and socially important - this access was universally shared with all citizens. In practice, there were many social struggles about how exactly and to what extent this access was affordable and safe. The hygiene conditions improved demonstrably as it had become clear that monetary wealth created by industrialisation had to be linked to human development in a sense of improved health and life expectancy (*economic power having positive influence on capabilities*). All kinds of health issues were directly affected following the findings of bacteriology (*artefactual domains*).

Several capabilities improved after the social innovation had been implemented in a growing number of towns in several countries, among those the rise of life expectancy, the decrease of the death rate and finally also infant mortality, as well as an increase in wealth in rural areas. The *increase of life expectancy and decrease of death rate* in European cities in the second half of the 19th century resulted from several factors. Besides better water quality and improved sanitation enhanced hygiene, better nutrition, and improved working conditions played, as Spree shows, a major role (Spree, 1998, pp. 38–40; Bernhardt, 2005, p. 77; Sedlak, 2014, p. 56). Findings show that the combination of improved freshwater supply plus drainage and sewage system plus the hygiene discourse enforced each other and yielded a result more than positive (2005, p. 29). *Infant mortality* only sank after sanitation and health education became a rule.

Preliminary historic 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). After water was pumped from the valley to the plateau of the Alb, a rural, water-poor area in Southern Germany, since 1871, on the one hand water consumption increased, on the other also the amount of livestock (heavy livestock as well as pigs). This suggests that with introduction of water supply many people were able to keep animals for the first time at all or at least more than before.

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 people, also marginalised, had more and better water available than before. Under gender aspects it has to be noted that 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. With the introduction of an improved fresh water supply women remained the responsible person for household, family, health education and hygiene within the family. Housewives and mothers spent much of the time gained on fulfilling the risen standards of hygiene, cleanliness, parenting and family care (Heßler, 2012, p. 88).

Still an obstacle to the introduction of freshwater supply to the marginalised specifically was their relatively speaking low weight in political decision-making. Accordingly, freshwater supply first reached 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 solution approach has been conceived for urban centres, whereas for much less densely populated rural areas this approach is relatively more expensive and hence dependent on political will and cross-subsidies.

4.5 Phase 3 – Public commitment to fresh water supply wins through (early 20th century to 1980s)

The period from the early 20th century until the 1980s is the time span when the idea of fresh water supply in general and the way it was provided were rather uncontested. Fresh water supply grids were either built or existing grids extended, and in most countries the supply was in public hands. What made the development sometimes bumpy were external factors like economic crises, political upheavals, and the two world wars. With the growing environmental consciousness of the European population, a new aspect came into the discussion since the 1950s. A break towards the end of the third phase of fresh water supply came with the oil price crisis in 1973 and the stagflation of the 1970s, which slowly led over to the next phase (see 4.6).

4.5.1 Overview of developments

Important actors in this period were legislators who wrote and passed social policies and health norms either on the national or later the EU level as well as government authorities which implemented and controlled their observance (e.g., health authorities in charge of checking compliance with drinking water norm). These people checked or adjusted the standards or introduced new ones, they enacted regulations on the implementation and the scaling of fresh water supply as a social innovation. In addition, engineers and engineering and construction companies were an important economic force with a strong interest in the construction and extension of grids, even to remote rural contexts. (See forthcoming report of WP 7.) With environmental NGOs a new kind of actor appeared in the 1960s and 1970s when environmental consciousness evolved and debates around regulations for the protection of water increased: as a concern for human health in the light of industrial and agricultural
pollution, but also as a concern for ecosystems and rivers. This happened first at the national level, but the European level increasingly gained importance for developing shared norms and regulations.

At the beginning of the 20th century fresh water supply was provided in many European cities. In countries where urbanisation and industrialisation had happened later, cities now caught up with the development. In Italy, for instance, the expansion of public utilities in the field of water supply was supported by almost all political parties (broad cognitive frame across different social networks). It seemed a necessary response to the rapid urbanisation, believed to make further industrialisation easier and “to broaden the popular consensus with the modern state through life quality-enhancing services” (Jacobi and Fabbri, 2015).

During WWI, the continuing systematic expansion of the supply network in most European cities was interrupted. Other tasks were of higher priority. After the war, the situation was different depending on the country. In Hungary, WWI and the peace treaty of Trianon obstructed the further development of water supply in general and in Budapest in particular. Because of the consequences of the war, the end of the Habsburg monarchy and the great number of refugees and migrants, the population in the capital grew further. There were no financial resources though to develop the supply network accordingly. Water shortage was the consequence. To deal with this difficult situation and to decrease the amount of water consumed, water meters were introduced to bill the water according to real consumption instead of a lump sum (Oelberg, 1997, pp. 57–58).

For many German cities, especially big ones, like Berlin, Munich or Frankfurt/Main, growth by incorporation of surrounding villages and cities was a big subject in the 1920s. Along with this, the demand for water grew, too. Sometimes water works of the neighbouring communities were taken over (as in Berlin), sometimes the water supply was leveraged in annexation proceedings (as in Munich) (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 hyperinflation had ended and the general economic situation had improved 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). The Great Depression had similar, delaying effects.

WWII posed other difficult questions. Combat actions on the ground as well as bombs from the air damaged water works, water towers and pipes. ‘Total war’ as a cognitive frame licensed the destruction of civilian infrastructure. Where the supply network was damaged water had to be supplied by pumps in the streets or by tank vehicles (Kalweit, 1998, p. 202; Neumann, 2005, p. 29; Feldkamp, 2009, p. 93). As a sound water supply system in cities is not only important to provide drinking water and prevent epidemics but also to fight fire, the supply network was an infrastructure of high priority to be repaired when damaged. Depending on the gravity of the damage, repair of the pipe network took time. The supply in
Budapest was interrupted for some weeks after heavy damage. The reinstatement work of the systems was finally completed in 1947 (Oelberg, 1997, p. 58; Péter, 2005, p. 100). German cities, too, experienced serious 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).

In sum, especially the two big wars in Europe in the 20th century demonstrated the vulnerability of a central drinking water supply (Hirschfelder and Winterberg, 2009, p. 125). But in all cases, the supply was interrupted at most, but taken up again as soon as circumstances permitted. The social innovation as such was not questioned nor was its technical solution. Where the supply grid was damaged stopgap measures were applied to bridge the time until the status quo could be restored.

**Extend the grid to meet new challenges.** However, in the aftermath of the war, there were not only destroyed infrastructures (damaged *institutions*), but also refugees and migrants coming for political or economic reasons to the cities. The associated increased demand for potable water was further enhanced by the post-war baby boom and a steady increase in consumptive demand that accompanied the economic growth. Ever more water was needed; new, additional resources had to be tapped. All in all, fresh water supply networks in Western European countries were not only repaired but even extended to reach out to marginalised people in the refugee settlements at the outskirts (e.g. in Germany in the cities of Oldenburg, Magdeburg) and to connect more and more rural areas to the fresh water supply network.

This trend had already started in the first half of the 20th century when new technological solutions helped to improve the water supply and bring the social innovation to the peripheries of cities and in rural areas. Most households in urban regions of the **UK** had access to piped water in the early 20th century. Until the mid of the century, this was achieved for most rural areas, too, by an extensive and costly system of cross-subsidies (Prasad, 2008a, p. 23). In **France**, between 1900 and 1970, municipalities were investing in and operating the fresh water supply. The connection rate increased from 2% (1900) to 65% (1950) and 90% (1970) (Lobina, 2005a, p. 74).

When the extension of the water supply system in **Germany** was basically finished in the 1950s, the water resources had already become insufficient or the quality of the water was so problematic that a search for new resources began. Long-distance water transfers were built, deeper ground water wells were drilled and artificial infiltration (by infiltration systems or bank filtrate) became more important (*artefactual power*) (Lanz, 2005, p. 81). Also, construction companies had a vested interest to be part of this extension (*economic power*) (see forthcoming report of WP 7). Water professional organisations – for example the International Water Supply Association (IWSA) – played a role to co-ordinate this aspect of the “hydraulic mission” (Ziegler and Partzsch, 2009). As these technological aspects in
practice required significant investments in construction and maintenance (institution), there is also an important aspect of economic power that entails a distributive conflict: rural traditions of freshwater supply (from fountains and local sources) tend to be replaced by centrally organised freshwater supply and sewage systems. Local and provincial politicians and administrations frequently supported this expansion as it was associated with modernisation and economic benefits.

Between 1920 and 1950 also smaller towns (less than 10,000 inhabitants) in Finland built waterworks. Big cities grew in connection with the consolidation of neighbouring municipalities and their water and sewerage systems gradually expanded (Aro, 2015). The importance of cattle farming and later the dairy industry led to a different connection pattern on the Finish country-side than in other European countries. There, first, the cowshed was connected to the water supply network, then the farmhouse was hooked up to the sewer system, and finally a water pipe was laid to the house (Katko, 2004, p. 22). Following this pattern, the largest expansion of water supply and sanitation services in Finland took place from the late 1950s to the 1980s. The expansion of the water networks and the increase in water consumption went hand in hand. It was generally believed, especially in the 1960s, that cities would grow quickly. The design of water supply and sewer networks was largely based on this estimated growth (Katko, 2004, p. 26).

In general, 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 the mid-20th century, access to water was nearly universal in Europe (Prasad, 2008a, p. 6) – but not to safe and affordable piped drinking water in all EU countries yet. This period of expansion was driven by the public sector, most often the municipalities, but also by economic interests of construction companies (See forthcoming report of WP 7). Social policy and cross-subsidies played an important role in making drinking water available to all. The standard of safe and affordable drinking water as a basic right of which the government is responsible to fulfil and provide emerged (cognitive frame).80

**Water pollution and water as a finite resource.** Especially in the decades after WWII, potable water was increasingly polluted by industry, mining and agriculture and it became gradually visible how big the industrial impact on the environment was, and that still yet improved water treatment plants could not remove all harmful residues from the water (Carson, 2013, pp. 50–62). The economic growth decades and their relative political stability

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80 While this takes us beyond the focus of the present study, we should note that this drive to expansion is not limited to Europe (or North America). Thus, the topos of water supply is a central theme of the development discourse emerging after WWII, and the attempts of development cooperation agencies to improve urban freshwater supply in so-called developing countries, their rapidly growing (and sometimes quite recent) mega cities and slums. Contrary to the European context, neither access to piped freshwater nor to improved sanitary conditions has been achieved so far at the global level, suggesting important difficulties with the transfer and implementation of the social innovation that we would like to note here, even if we cannot analyse it further in this report (United Nations Development Programme (2006); Ziegler et al. (2014), also phase 4 below).
provided space for a developing and growing environmental consciousness among the European population, and the emergence of an ecological movement (*new social network spreading across cultural, economic, political, artefactual domain*). For example, in 1971 “Friends of the Earths” were founded.\(^{81}\)

In parallel, *institutions* emerged. In 1968, the European Declaration on Water was passed. In 1972, the European Council issued a declaration on environmental and consumer policy that is commonly regarded as the beginning of EU environmental policy. The modernist *cognitive frame* of the conquest and control of water during the emergence of the European nation states (Blackbourn, 2006), was increasingly challenged by a more integrated view on water and water management that viewed water as a finite resource, for humans but also for other living beings, transgressing national borders, and also as a heritage that needs to be passed on to future generations.\(^{82}\)

Eventually, new directives and national legislations exerted pressure on more ecologically improved ways of water management (*institutions*). Examples include national and European legislation that emphasised the river basin rather than traditional administrative territories.

### 4.5.2 The phase of public commitment for fresh water supply through the extended social grid model (ESGM) (early 20\(^{th}\) century to 1980s)

#### Table 10: Social grid elements during the phase of public commitment for fresh water supply (early 20th century to 1980s)

<table>
<thead>
<tr>
<th></th>
<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural</strong></td>
<td>- Environmental power and water stewardship: Water as heritage to be protected for current and future generations, and for other living beings.</td>
<td>- Emergence of environmentalist movement (Friends of the Earth, Greenpeace etc.)</td>
<td>- Water management according to river basin/watershed as an emerging regulatory development</td>
</tr>
<tr>
<td><strong>Artefactual</strong></td>
<td>- Conquest of nature</td>
<td>- engineers</td>
<td>- Dams and drinking water reservoirs were built.</td>
</tr>
<tr>
<td></td>
<td>- Epidemics are avoidable.</td>
<td>- Associations of water professionals (e.g., International Water Supply Association)</td>
<td>- Construction standards and water quality standards</td>
</tr>
<tr>
<td></td>
<td>- Continued believe in engineering and administrative power to supply everyone with freshwater</td>
<td></td>
<td>- infrastructure technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- requirement to hook up to the water network</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Water treatment had to be improved. -&gt; technologies improved, too</td>
</tr>
</tbody>
</table>

\(^{81}\) [https://www.foe.co.uk/FAQs/when-was-friends-earth-founded](https://www.foe.co.uk/FAQs/when-was-friends-earth-founded), accessed 31 May 2016.

<table>
<thead>
<tr>
<th>Cultural</th>
<th>Economic</th>
<th>Security-related</th>
</tr>
</thead>
</table>
| - Growing consciousness for hygiene led to new standards of hygiene and cleanliness.  
- Post-war consumerist attitude: Water flows from the tap.  
- Drinking water as a basic need that the government has a duty to fulfil and provide emerges.  
- Areas without connection to central water supply are considered to be backward.                                                                                                                                                                                                                       | - EU level, national, and provincial administrations  
- Keynianism and public investment policies  
- Water treatment to support fisher men and keep touristic areas clean  
- Engineering and construction companies (see also water professionals above)  
- EU level, national, and provincial administrations  
- Drinking water quality standards (for example 1980 EU Drinking Water Directive)                                                                                                                                                                                                                  | - ‘Total war’ and destruction of civil infrastructure during war times  
- National armies  
-spread hygiene and health education through military education  
- Keynianism and public investment policies  
- Water treatment to support fisher men and keep touristic areas clean  
- Engineering and construction companies (see also water professionals above)  
- EU level, national, and provincial administrations  
- Drinking water quality standards (for example 1980 EU Drinking Water Directive)                                                                                                                                                                                                                  |
| Resulting Capabilities  
(+ = achieved; - = deprived)                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                      |
| (+) Access to clean water; (+) Access to affordable water (cross subsidies, social tariffs)  
(+ ) Suburbs and rural areas became increasingly connected, especially after WWII  
(+ ) Access to education helped to spread knowledge on health education and hygiene  
(+ ) Health; (+) Leading a long and healthy life in a healthy environment  
(-) inexpensive dwellings looked for by marginalised people often lacked sanitary facilities or (a comfortable) access to water; (-) became more marginalised without this access |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                      |

**4.5.2.1 Motivating agency: motive structures for engagement**

With industrialisation still progressing and cities still growing it was an important task to make sure the increasing demand for drinking water was fulfilled. Around the turn of the century, engineers, civil servants and local officials were the most important actors in the field. Engineers played not only an important role in the drafting and building of water supply
and sewage systems. Their knowledge was also relied on when it came to building dams. Since the 1890s, French, American and German engineers further developed the existent knowledge after new technological findings and materials had made it possible to build dams for the recovery of drinking water in large reservoirs (institution, artefactual power). The water collected in this way was rain and surface water from what was perceived as unused and uninhabited areas (Steuer, 1912, pp. 24–25).

We can illustrate the example with the case of Germany. Decisive for the German projects was the engineer Otto Intze (actor). The first German dam was constructed in Remscheid, starting in 1890, as 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 subsidise the building of dams planned by different water cooperatives (Blackbourn, 2006, pp. 200–201) (institution, artefactual and economic power).

New actor groups and social networks after the wars. After WWI, a new political elite entered the stage in many European countries. They were not so much different from their predecessors with regard to their profession or role but they were still more driven by the impetus that it was the task of society not of the individual to solve social problems (social networks, cognitive frame). Even though they had to face economic crises, times of tremendous unemployment, public cuts, and social unrest, these engineers, civil servants and politicians tried their best to expand the grid further, sometimes following master plans. To finance this expansion and to make the water affordable for all (cognitive frame of social reformers since the 19th century), different measures of financing and social policy were employed (economic and political). In their view, all were entitled to participate in fresh water supply – a cognitive frame which became generally accepted.

Administrations and engineers as important actors were joined by new associations of water professionals (e.g., International Water Supply Association) after WWII and still later, in the 1950s and 1960s, they increasingly encountered environmentalists as further actors (growing and fragmenting of social networks, widening of cognitive frames). Hård and Jamison argue that there are similarities between the hygiene discourse of the 19th and the discourse on environmentalism and ecology emerging 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. […] If society was brought closer to nature - for example, by letting sunlight

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84 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.
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).

International cooperation in water protection. The emerging post-war environmental consciousness along with the relative political stability, allowed transnational cooperation in the water sector to start after WWII. One example of international collaboration to protect a river as an important source of water to many European countries is the river Rhine. On its way from Switzerland through Germany, France and the Netherlands to the North Sea, it takes up the sewage of about 50 million people. In periods with little rain or melt water, dirty water makes about 10% to 30% in some river sections of the Rhine water (Sedlak, 2014, pp. 86, 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 (institution).\(^85\) Pushed by accidents like the fire at the chemical factory Sandoz in Switzerland in 1986 when poisonous quench water led to a mass death of fish in the Rhine, the member states signed the Convention on the Protection of the Rhine in April 1999 (see International Commission for the Protection of the Rhine, 2011) (institution).

Accidents like at Sandoz further reinforced the growing ecological consciousness (cognitive frame) and brought environmental protection more and more to the political agenda. Not only access to fresh water supply became a new standard but also the protection of natural resources like water (cognitive frame).

4.5.2.2 Shaping agency: Social grid as influential background and subject of change

Societal responsibility and governance of solution. To protect water as a natural resource was also regarded as a necessary prerequisite to protect the health of the population. Societal responsibility and governance were now clearly seen on the side of the states and public

\(^{85}\) Member states are Switzerland, France, Luxemburg, the Netherlands and Germany. 
authorities. A similar change of perception happened already at the end of the 19th century and the beginning of the 20th century with regard to the responsibility of water suppliers for the health of their customers. When before the beginning of WWI the threat by waterborne diseases like typhoid fever and cholera had ceased to exist (Bernhardt, 2005, p. 81), this did not mean that there were no outbreaks anymore, but they were no longer taken as something unavoidable (new cognitive frame). Instead of this they were more often thoroughly investigated.

This was the case for instance with the epidemic of typhoid fever in Gelsenkirchen in 1901 and the following lawsuit against the private fresh water provider. 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 (economic interests). This was considered to be a perpetration of the food law by the court (institution) and the defendants were penalised accordingly (Meyer, 2011, p. 95). This example highlights the observation of Beate Althammer that “in the decades around 1900 […] social thinking and social policies entered a decisive new stage. For the first time, the state began to take on direct responsibility for the well-being of all its citizens, particularly the poorer ones, thus initiating a dynamic process of expanding government activity” (Althammer et al., 2014, p. 2).

**Ambivalence of sanitation.** 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 or lack of hygiene would just yet be acceptable changed (cultural cognitive frame adapted to new situation). The sanitation resulted in a further sensitisation (Schott and Skroblies, 1987, p. 85). The mutual influence became even stronger when all house owners and landlords were required to hook up to the water network by law (political institution). This requirement helped to solve the social problem faster than voluntary participation. But the social innovation which was based on a new infrastructure technology (artefactual institution) had another cultural component: it called, especially on the side of the marginalised, for adaptive performances of the urban population. Also, it led to growing dependence which improved social integration (political domain) on the one hand as well as to control of the population (security-related domain) on the other. Finally, a new socially accepted standards of hygiene and cleanliness emerged (Schott and Skroblies, 1987, p. 80) (cognitive frame). A multidimensional approach proves to be rather useful to get these interdependencies into view.

**Post-WWII developments.** After 1945, political considerations led to interventions into the water sector and water management on the national level in Eastern and Western Europe. Middle and Eastern European countries belonging to the Eastern Bloc reorganised and nationalised their water sector. In the nationalised water sector of Hungary as well as in the GDR, the ownership was now with the state while the municipalities operated the system...
(institutions). Decisions were taken on a local level by the local bodies of the ruling party (social networks). Investment decisions were taken by the Planning Office, together with the Ministry of Finance, and respective bodies of the ruling party (on the national, regional, and local level). Water was thus provided by the state (institutions and social networks in the areas of political and economic power) It was either provided free of charge or at very low costs due to heavy cross-subsidies (Nunn, 1996b, p. 149; Prasad, 2008a, p. 27) following socialist ideas (cognitive frame) - an experience forming a cognitive frame hard to overcome after 1989. But the supply network lacked money for sufficient investments in maintenance and development and geographical coverage became also insufficient. In Hungary for example, access was not universal (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 by four main sources: untreated or poorly treated industrial wastes, saline mine discharges, agricultural non-point-source pollution, and untreated municipal effluent” (ibid., p. 138). Between 1950 and 1970, 55% of households were connected to water supply but only 28% to sewerage (Péter, 2005, p. 93).

Eastern Germany followed an environmental policy comparable to that of Western European countries, but lacked central government interest in enforcement, and hence there were problems with water quality similar to those of Hungary (Nunn, 1996a, pp. 164–165).

In Western Germany lessons from the years of National Socialism were drawn. In accordance with the principle of federalism in Germany, drinking water management became mostly a responsibility of the provinces (Länder) in the era after WWII, taken care of on the communal level. However, in some parts it is constrained by higher-level policy and legislation (e.g., EU directives). The main driver of this delegation of responsibility was the intention to disperse political power “to avoid a renewed concentration of military strength” (Nunn, 1996a, p. 157) (influence of political and security-related power). 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). 86 This aspect is especially interesting as it is a crosscurrent to the processes of concentration visible in other Western European countries. It sheds a light on the fact how much cognitive frames, social networks, and institutions are influenced by national experiences and traditions.

86 For an overview see Bundesministerium für Wirtschaft (2001, p. 16). For 1998, the German Ministry of Economy reports 6,655 water provision organisations that run 17,489 water works and 8,000 organisations that run 10,273 waste water treatment plants Bundesministerium für Wirtschaft (2001, 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.).
Social innovation became mainstream. In all European countries, after WWII, fresh water supply as social innovation became mainstream and was taken for granted. The right to water was not yet accepted as a human right. But the social innovation had set a new standard and a broadly embedded cognitive frame of access to fresh water to which the population felt entitled to. Water was provided comfortably within or close to the house. Rural areas without connection to a central water supply were considered as backward (cognitive frame), and therefore, up to the 1980s, fresh water supply in Europe was extended to most rural areas. This development was supported by local politicians and construction companies (social network spanning the political and economic domains) which were interested in orders. (See forthcoming report of WP 7.) As the provision of drinking water was also understood as a prevention of epidemics, the supply was a matter of public responsibility in many countries (institution).

Institutions and policies. The common understanding that it was necessary to regulate the water sector found expression in further legislation, especially with a view to water protection. Here is a short overview:

In Italy, Law 103 (Legge 103) aimed in 1903 to strengthen state control of the municipalisation process. The government 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 the municipalisation process (Lobina, 2005b, pp. 107–108). The Testo Unico of 1925 abolished a complicated procedure which was ahead of municipalisation proposals (Lobina, 2005b, pp. 107–108).

In the Netherlands, with the Act on making funds available for creating drinking water supplies (Wet tot de beschikbaarheid van gelden voor den aanleg van drinkwaterleidingen) the government “granted loans (at a maximum of 4.5% interest) to provinces and municipalities to create (regional) water companies” in 1919 (van der Meer, 2005, p. 59). The Water Supply Act (Waterleidingswet) of 1957 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).

In Hungary, the water networks and water companies were nationalised in 1948. The Water Act was passed in 1964 which provided the basic framework for water pollution control until the 1990s (details Nunn, 1996b, p. 141). It set up a national water authority, twelve district water authorities (by watershed) as well as 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. 41) often were compromised for the pursuit of other goals such as economic development. 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).

In the UK, river basin authorities were created by law in 1963 (De La Motte, Robin and Lobina, 2005, p. 206).

In France, the water supply was recognised as a social-environmental impact, and six river-basin agencies were created in 1964. These agencies act under the national government, draw income from charges on pollution and service and use this income for water quality improvement projects (Hassan, 1996b, pp. 128–129).

In Germany, different paths were taken after WWII due to different political and economic systems. In the GDR, the water sector became nationalised during the communist era. In 1952, an ordinance on new forms of organisation in the water economy was issued which not only dissolved many district organisations but also water districts. The law on the indemnity of water (Wassersicherstellungsgesetz) was passed in 1965 (Neumann, 2005, pp. 21, 64). In the FRG, the Federal Water Act of 1957/1960 harmonised the different regional water laws dating back to imperial times. Up to 1962, it was supplemented by laws of the German states (Länder) to adjust to regional distinctions. Subsequently, 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). Since the 1970s, a broadening of the water legislation led to a constant strengthening of the federal institutions and their authority. However, due to the federal structure, policy development is slow and there is much “policy dilution” (Nunn, 1996a, p. 159).

The government in Finland started to support rural water supply through a financial support act in 1951 (Katko, 2004, p. 23). Modern water pollution control started eleven years later with the Water Act of 1962. To discharge wastewater, communities and industries had to apply for special permits. These became stricter parallel to the development of technology. The Wastewater Surcharge Act improved the treatment of wastewater in 1974. While the costs of providing sewerage services by water and sewage works were covered largely by municipal taxes before that year, the utilities were now allowed to charge their customers more to cover the costs. This resulted in an increase of the price of water services (Aro, 2015).

At the level of the European Community and the EU, principles and regulations on water were issued since the late 1960s. The European Declaration on Water introduced principles for the proper management of water in 1968, set forth in 12 articles.
**Technological possibilities.** Public responsibility for health issues led to more and improved water treatment (*cognitive frame influences an institution*), and this trend was in turn enforced by the environmental discourse starting in the 1950s/1960s and intensifying in the 1970s/1980s (Meadows, 1972; Carson, 2013). With the expansion of freshwater supply infrastructure and filtration techniques (*extended and new institutions*) the problem of waste water discharge from households and industry going into the sewers and aquatic systems, causing health problems and more general environmental impact concerns was not eliminated. Starting in the late 1950s, *institutions* were built in this respect, too, such as sewage and environmental regulations that required wastewater to be treated “to protect downstream drinking water supplies and aquatic ecosystems from the negative effects of sewage” (Sedlak, 2014, p. 88). Bit by bit, water treatment technologies improved (*artefactual power*), and stricter requirements had to be fulfilled (*political power*). Sewage treatment became an expected standard for urban water systems,\(^{87}\) however by no means a standard that was being directly implemented everywhere.

It is important though to note, that besides the health issues and environmental concerns there were also economic interests at play (*social networks in the economic domain*). Treatment of sewage was also seen as a method necessary to support fisher men (economy) and to improve the water quality of rivers and lakes which became recreation areas (tourism, economy).\(^{88}\) In addition, sewage plants and their energy requirements attracted economic interest from construction companies and energy providers. Consequently, several policy fields were involved in this decision making process and the implementation of the respective laws.

The development of water supply and waste water networks was both driven and accompanied by the general *cognitive frame* of the time that technology (*artefactual power*) would help to solve social problems and that with planning and progress all problems could be solved. In many cases, technological changes (new materials, new procedures) and new scientific findings (bacteriology, residues in water, etc.) resulted in *new standards* (*artefactual domain influencing or creating new institutions*). This belief in progress and the trust in technology did not always come true, at the latest the reactor disaster at Chernobyl in 1986 can be seen as a decisive turning point. With the emerging ecological discourse and public pressure a sensitisation and adjustments in little steps took place (*cognitive frames influencing institutions*). Since the beginning of the 1970s, a new ecological awareness led to new regulations and laws for example in Germany (Münch, 1993, p. 334). Throughout that decade, waste water treatment plants were modernised or set up in the first place, 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). When new *social networks* like the environmentalists and

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\(^{87}\) For historical emergence of water works and sewage systems in selected EU cities see Juuti and Katko (2005, p. 224).

\(^{88}\) On reasons which led to the introduction and improvement of water treatment see Sedlak (2014, p. 81).
politicians of “green” parties, one could argue, get a certain degree of public attention, sometimes pushed by incidents, they have a realistic chance to *co-shape institutions* and *cognitive frames*.

First attempts to harmonise **technical standards** within the EC date back to the 1970s. It proved in all cases to be a long and tedious process. In those cases where experts (*artefactual social networks*) coming from different countries started to discuss upon norms it took decades until all objections could be removed (Klümper and Klaus, 2009, pp. 26–27). It was especially difficult to implement standards in or harmonise standards in countries, which were not used to this kind of norms. Often besides technical interests also market interests were involved were, for instance, non-European products were used until then which set a kind of standards already (ibid., pp. 28 f.). This demonstrates plausibly that behind all technical standards lie non-technical orientations (Joerges, 1996, p. 128). Since the millennium, more progress has been achieved in this area as with EU regulations and directives (*institutions*) an implicit normalisation is taking place. This shows that path-dependency in the infrastructure of freshwater supply (*institution*) can be overcome. However, generous transition periods should be conceded to allow for adjustment.

**Designs of solutions.** In most European countries, fresh water supply in this period was a public task, but not in all. The developments in a few countries shall be sketched to illustrate how differently the social innovation was implemented.

In the **UK**, since 1914, 80% of water enterprises were public (the same share had been private earlier) (De La Motte, Robin and Lobina, 2005, p. 205). Public provision was pursued in a universal spirit of access to treated water. Since the late 19th 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” (Hassan, 1996b, p. 125). Fresh water supply was largely delivered and managed through local authorities or organisations controlled by local authorities from the late 19th century to the late 1980s. For the few remaining private water companies, profit ratios were capped (Prasad, 2007b).

The strong fragmentation of responsibilities among different authorities (local authorities, water boards, joint-committees, statutory water companies as well as river authorities) up to 1973 led to stagnation with regard to sanitation and water quality control as compared with the beginning of the 20th century (Hassan, 1996a, pp. 101–102) (*fragmented institutions* negatively affect *artefactual domain*). Hassan explains this with a lack of expertise (*lack of artefactual power*) of the sometimes very small municipal water industries as well as with 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.
In **France**, water provision was largely a public-private arrangement. Even though there had been public features in the French water sector between WWI and WWII, French people considered water more being a market commodity than a public good (*cognitive frame*) and paid according to their consumption (Hassan, 1996b, p. 125). As a consequence of this public-private arrangement, the French development proceeded more slowly than in other countries. Especially rural and marginalised parts of the population were left standing because the companies focused on the better off cities: “As late as 1946, 58% of the inhabitants of rural parishes were still fetching their water from courtyard or village pump” (Hassan, 1996b, p. 123) compared to 30% of rural parishes in England and Wales in 1944. The increasing coverage up to almost universal access in France took one to two generations and required a high level of subsidies from urban to rural areas (Prasad, 2008a, p. 22).

France was one of the pioneers of private water sector involvement. A phase with a particular dynamism in this regard was the time frame between the 1950s and the 1970s. At the end of the 20th century, about 80% of French water supply was private (compared to 17% in 1938, and 75% by 1990 Reynaud, 2008, pp. 38, 47-48; Hassan, 1996b, pp. 121, 123).

In **Finland**, besides municipalities, small private water associations are a unique solution to water supply, especially in rural areas. These associations can be partnerships, water cooperatives, or joint-stock companies. Water cooperatives developed mostly after 1901 when the law on cooperatives became effective. They were established in small rural villages and neighbouring areas to larger cities. They were usually consumer-managed and operated without financial support from the government. Instead, they depended on prices covering the costs, relied on their own assets or tried to receive loans. After 1950, municipalities and the government started to support water supply by granting loans and subsidies (Katko, 2004, p. 30, 2013, pp. 230–231).

Intermunicipal systems were established in the Finnish water management sector in the 1950s. Since the 1970s, joint-stock wholesale companies have been established. The establishment of these systems arose from local geographical circumstances, the increase in environmental and technical standards and the need to renovate old plants and systems. Especially small municipalities did not have the financial resources to do so (Aro, 2015).

In the **Netherlands**, the extension of the fresh water supply to rural areas led to a change in the predominant business model. Private companies had considered it to be too risky to extend the water supply network to rural areas. Growth of the population and of the demand for water entailed the next step. 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 (De La Motte, Robin, 2005, p. 136; van
der Meer, 2005, p. 59). Between 1920 and 1975, rural areas were connected to the water supply network. Most water companies were then 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).

The peak of municipalisation in the water supply sector of Italy was reached between 1903 and 1914. The underlying idea was that through the municipal undertakings 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. 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 public intervention an urgent issue. In fact, many economists and philosophers were supporting the idea that municipal undertakings would at the same time benefit people of all classes (Fazioli et al., 1999).

Fascism brought a slight return of private actors in the utilities scene. Further, the Testo Unico 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 (Jacobi and Fabbri, 2015).

Financing issues. From a policy point of view, the importance of social policy in ensuring truly accessible and affordable freshwater for all is an important and recurring pattern in the area of freshwater supply. This can be achieved by subsidies or by a tariff structure which reflects upon different socioeconomic resources of different customers. Pricing therefore was always 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.

A socially designed structure of tariffs served for instance in Italy as a device of social appeasement. Investments in public water supply had been regarded there as of special relevance for modernising the country, for advancing economic growth and for uniting the society. Thus, prices for utilities in general, not just water, were kept low deliberately through subsidies. This policy was maintained until the 1970s. After the oil price crises, subsidies

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89 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 had come into effect 30 years earlier Fazioli et al. (1999).

90 This was for example the case in Oldenburg (Germany) in 1902/03. The fee for the house connection was abandoned and the access line to the main pipe was also for free. Consumption fees were scaled according to the insurable value of the house in the fire insurance Meyer (2011, pp. 96–97).
were reduced and potential partnerships with the private sector were looked for.

In France, the state had - in accordance with the Law on Public Health of 1902 - supported the companies with subsidies to advance the extension of water supply. While in urban areas almost all had access to piped water in 1939, the proportion in rural areas at the same time was only 25%. As a consequence, a special fund (Fonds National pour le Développement des Adductions d’Eau) was created in 1954 to accelerate the expansion in rural areas. The industry as well as individuals who wanted to have a water connection in their homes financed the installation of public pumps and fountains through cross-subsidisation. Hence, about 50% of the extension of the whole French water network took place between 1965 and 1980 (Prasad, 2008a, p. 18).

**Targeted beneficiaries.** In this phase of extension throughout most of the 20th century, most neighbourhoods within cities and most rural areas were reached by the social innovation and, by this, large segments of the marginalised population. The social innovation became more and more a new standard, and thus it lost its character as a social innovation. Still, not all benefitted from this development to the same degree and at the same time. The economic situation after WWI, 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 during the 1920s and 1930s. Illegal settlements emerged. In Düsseldorf-Heinefeld (Germany), for example, 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).

After WWII, the demand grew by millions of refugees and migrants coming to Western Germany. To integrate these, 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 bit by bit (Feldkamp, 2009, p. 130). But this neither was a constantly smooth development. Housing was priority, leaving the extension of the infrastructure, including water supply and sewers, postponed at first. Many dwellings built at the periphery of the cities between the late 1940s and the early 1960s, neither became connected to the water supply nor to the sewage system. This was extensively caught up on later (see the example of Oldenburg: Meyer, 2011, pp. 112–113).

In some cases, this process led to another kind of marginalisation: where settlements or farmhouses had an own freshwater supply (based on wells or sources) and sewage system the introduction of the social innovation of urban central freshwater supply led also to the introduction of expensive technology and owners of house wells became disempowered (loss of economic and political power) (see forthcoming report of WP 7).

People without a fixed abode as well as other marginalised people (unemployed, refugees, labour migrants etc.) did not participate in the development in the same way. The situation of
homeless people might have even worsened when formerly public fountains were decommissioned or only kept running as a decorative element but without a guarantee for potable water (*lack of economic and political power*). Unemployed people, refugees, labour migrants and others living on a very tight budget often chose dwellings with less sanitary facilities or less comfort which were cheaper than better equipped ones (*lack of economic power*). This does not necessarily mean that these dwellings were not connected at all to fresh water supply and sewers but they might have had only one tap in the kitchen or outside the house or shared facilities in the yard or on the same floor. The same was true for people in isolated settlements. Therefore, it becomes clear that marginalised are often the last ones to receive what others already consider a standard. They are becoming still more marginalised by the missing access to the infrastructure. New and innovative features, comfort, and new standards are often less accessible for them.

### 4.5.2.3 Capabilities of the marginalised during the third phase of fresh water supply

With the above mentioned restrictions, improvements of the capabilities of the marginalised are evident between 1900 and 1980.

Even for marginalised people in Europe, life expectancy increased further. This was among others a consequence of the better supply with freshwater and improved hygienic conditions. More and more had access to clean water, lived under better sanitary conditions and were thus capable of leading a longer and healthier life than the generations before them. Also, since the 1950s, a new public awareness and first environmental requirements made the environment healthier and water cleaner (decline of water pollution, but air pollution too).

With social tariffs and cross subsidies, potable water became affordable to the majority of the people in the cities as well as on the country side. (*economic power*) But this last development was not the same in all countries analysed and it would not stay the same as we will see in the next chapter.

Access to *political power* increased also within the period evaluated with suffrage becoming more and more universal. At least in countries and in times without dictatorships, suffrage became also more democratic. By upward mobility of members of the labour movement, the impact of the suffrage restrictions slowly watered down since the beginning of the 20th century. But 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 taken in many cities. Still in democratic countries the marginalised had more access to political power and decision making processes. There were more possibilities and opportunities to politically participate in meetings and demonstrations, in political parties and unions. Therefore, there was an option to vote for parties agitating pro public water supply, environmental protection, etc.
The introduction of compulsory schooling in most European countries since the late 19th century and especially after WWI spread values of the middle-classes. The education of the children of the lower classes and of the rural population which were at the focus of compulsory schooling also simplified the dissemination of the ideas of hygiene and thus the demand for clean water. This also makes clear that cognitive frames changed with regard to hygiene and prevention of epidemics as well as with regard to education for marginalised people.

4.6 Phase 4 – Privatisation efforts hit the fresh water supply (1970s - 1990s)

The oil price shock of 1973 and the oil crisis of 1979 led to a serious economic crisis in many European countries. With the recession following the price increase for oil in many countries, short-time work and persistent unemployment led to massive changes in society as a whole. Public expenses increased and in many countries it was critically reconsidered which tasks had to be public and which could be reorganised. Public expenditures as well as the idea of big government came under pressure. Due to neoliberal tendencies a discourse on the privatisation91 of water supply services, among others, started in many countries in the 1970s. Privatisation and private operational contracts were (re-)introduced in some European countries in the following years. After 1989 and the end of the Eastern bloc, the water and sewerage systems in many Central and Eastern European countries were reorganised and reconstructed.

4.6.1 Overview of developments

Besides external shocks coming from wars and military conflicts outside Europe and the oil embargo of the OPEC associated with it, the neoliberal discourse brought without doubt the largest change in the field of fresh water supply in the period between the 1970s and 1990s and puts it into a sharp contrast to the period before. Partly in response to neo-Keynesianism and the problems it faced (Mann, 2013), neoliberalism gained ground since the 1970s. Following its libertarian-inspired ideal of unconstrained markets (Okereke, 2008), privatisation of publicly owned companies became a major target on various levels. Along with public transportation, housing and energy, freshwater was one of the targets.

Transnational and global actors. With the new development and the new discourse new global actors entered the scene. World Bank and IMF were the main driving forces (Conca, 2006, pp. 221–222), promoting a discourse for privatisation during the 1980s and 1990s. They pursued four aspects:

1. charge people/customers for water with a view to full cost recovery

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91 Privatisation means the transfer of ownership, responsibility or service provision from the public to the private sector.
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 liberalisation and introduce competition, again to make freshwater provision more efficient.

The focus first was primarily on possibilities of privatisation in the so-called developing world. 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, there was a turn to North America and Europe and the privatisation options there (compare Dobner, 2013).

This economic discourse on water reordered the priorities in the global water discourse. Since the Stockholm Declaration in 1972\textsuperscript{92}, water supply became a regular concern of international conferences. At the Mar del Plata UN Water Conference in 1977, states set a target of universal provision by 1990 which however was not achieved.\textsuperscript{93} These declarations were followed by a period of “normative regression” (Langford and Winkler, 2014, p. 249). The Dublin Principles in 1992 defined “freshwater as a finite and vulnerable resource” but also declared that “water [had] an economic value in all its competing uses and should be recognized as an economic good” (Conca, 2006, pp. 141–143, emphasis added).\textsuperscript{94} This reinforced a primarily economic focus on water that prioritises questions of market efficiency over questions of distribution and equality.

The neoliberal discourse provoked counter-reactions, and in the water case the emergence of a global water justice movement (Barlow, 2008). We will turn to this movement in the next phase.

On 22 June 1981, the European Water Association (EWA) was founded as the European Water Pollution Control Association. The scope of this association of water professionals was enlarged in 1999 and its name changed to European Water Association. The aim of the EWA 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.\textsuperscript{95}

This new constellation of social networks, cognitive frames and institutions led to different developments in European countries. Some of them will be sketched in the following overview.

**UK**: In the late 1970s, there was a change in the general political discourse that replaced the post WWII model of the state as a provider of a range of goods and services to its citizens with a business organisation model catering for customers

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\textsuperscript{92} See United Nations (1972).
\textsuperscript{93} See United Nations (1977).
\textsuperscript{94} See for the full text United Nations (2015).
\textsuperscript{95} See [http://www.ewa-online.eu/home.html](http://www.ewa-online.eu/home.html) (accessed 19 April 2016).
(Sawkins and Dickie, 2008, pp. 70–72) (cognitive frame). This was accompanied following the 1973 oil shock by financial cuts (Hassan, 1996a, p. 111), resulting in insufficient investments in the maintenance of the infrastructure (lack of economic power). UK policy makers, partly influenced by Hayek and neoliberal economists, campaigned for privatisation and a rollback of the state (social networks). The UK set a precedent in 1989 that was later followed by Austria, Belgium, Denmark, the Netherlands, Spain and Sweden in Europe (Prasad, 2008a, p. 12) with different management models (built-operate and transfer, management, concessions, joint ownership etc.).

**France:** Starting from a different fundamental understanding (cognitive frame) and with a long public-private tradition in the water sector, the period of increased privatisation in France lasted from 1970 to 2001. At first slowly, later intensified after 1985, large municipalities changed from public to private supply (Lobina, 2005a, p. 74). Over the course of the entire 20th century a process of concentration evolved, 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).

**Finland:** After the 1970s, the Finnish water cooperatives have lost some of their character as independent and consumer-managed entities. The members of the cooperatives became less active and members’ ownership has become weaker. The tightening legislation concerning wastewater treatment (institution) has increased the establishment of water cooperatives in rural areas since the 1990s. There is also a group of relatively large water cooperatives, mostly established in the 1950s, that take care of water supply in small towns and population centres. The degree of public financial support to water cooperatives varies depending on the policy of the respective municipality (Katko, 2013, pp. 230–231).

**Germany:** Privatisation in Germany started in the 1990s and lasted to the beginning of 2000. 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, 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. A German discussion on water supply in the 1990s were also dominated by questions of cost effectiveness and privatisation, especially after the unification and in the Eastern provinces (former GDR). In Berlin, for example, the Berlin Water Works (public-law institution) since 1992 were responsible for drinking water and waste water. In 1999, a public-private partnership was set up between the Berlin Water Works, Veolia and RWE. It was the biggest municipal public-private partnership in Germany. A secret contract stipulated that, while only 49% of the shares were private, the private actors had 100% of management rights (among others: pricing rights) and a guaranteed profit-margin. The contract was meant to be binding for 30 years (Ziegler, 2015).

Privatisation proved to be unpopular in Germany. Critics point to rising water prices, job cuts and a lack of transparency (due to secret PPP contracts) that hinder communal democratic accountability. Reliable evidence that private water provision is more efficient than public provision is missing. However, due to the complexity of water provision, there is also no reliable evidence that privatisation increases water prices (Dobner, 2013, p. 74). Even though this causal link cannot be proven, there was a correlation as prices increased in most cases: On average water prices increased by 43% from 1992 to 2000 (Bundesministerium für Wirtschaft, 2001, p. 14). But these additional returns were not used to improve or maintain the systems. At the beginning of the new millennium, there were “strong signs of under-investment in privately run water operations, but increasingly also in public enterprises. Quality control had been reduced to the legal minimum, investment in maintenance postponed, etc.” (Lanz, 2005, p. 81).

Privatisation was furthered by the fall of the Eastern Bloc in 1989 and the reconstruction of freshwater supply in the formerly Eastern bloc countries, where infrastructure frequently suffered from insufficient investment.

**Hungary:** The end of the Eastern bloc in 1989 meant also the end of the nationalisation of water services in Hungary. In 1991, water provision and sewage management became municipal (new institutions were created). This resulted in many private-public partnerships and a highly fragmented structure (Boda et al., 2008, pp. 178–179; Péter, 2005, p. 93). While overall privatisation was prohibited by law, a partial privatisation by long-term management rights was possible (Prasad, 2008a, p. 27). In 1994 this quasi-privatisation started: 40% of water is distributed by private companies/joint ventures, and about 20% of companies are privatised (Boda et al., 2008, pp. 178–179). The different issues involved in privatisation mainly were discussed in closed-door sessions by politicians and experts, with hardly any public

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98 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.
involvement. The main concerns as reported by the media focused on topics such as the funds that would be needed to modernise and extend the infrastructure of public water supply.

All in all, privatisation of water services in Hungary led to a steep decrease of employment in the public sector without bringing additional investments. Responsibility for investments in the Hungarian water sector (state subsidies and EU funding) rests with the municipalities. These have to monitor the companies on the one hand but are on the other hand not always able to regulate them (ibid., pp. 190, 198 f.; Prasad, 2008a, p. 27).

4.6.2 The phase of large-scale privatisation in fresh water supply through the extended social grid model (ESGM) (1970s - 1990s)

Table 11: Social grid elements during the phase of large-scale privatisation in fresh water supply (1970s - 1990s)

<table>
<thead>
<tr>
<th>Cognitive frames</th>
<th>Social networks</th>
<th>Institutions</th>
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<tbody>
<tr>
<td>Preconditions/consequences of marginalisation (normal style); preconditions/consequences of SI (italic style)</td>
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<td>Natural</td>
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<tr>
<td>Artefactual</td>
<td>- Technology can protect from waste via end of pipe treatment</td>
<td>- Urban water professionals</td>
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<tr>
<td></td>
<td>- European Water Pollution Control Association</td>
<td></td>
</tr>
<tr>
<td>Cultural</td>
<td>- Market-focused individualism</td>
<td>- Neoliberal networks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- IMF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- World Bank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- disbandment of social networks as consequence of individualism</td>
</tr>
<tr>
<td>Economic</td>
<td>- Water is an economic good in all its uses (water is a commodity)</td>
<td>- International organisation: World Bank, IMF</td>
</tr>
<tr>
<td></td>
<td>- Neoliberalism and the primacy of markets</td>
<td>- Transnational companies such as Veolia, SUEZ, RWE</td>
</tr>
<tr>
<td></td>
<td>- Private sector is better suited to provide services than public sector.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Shareholder value is more important than responsibility towards community.</td>
<td></td>
</tr>
<tr>
<td>Security-related</td>
<td>No examples from Europe for this period</td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>Resulting Capabilities</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>- Libertarianism as political utopia</td>
<td>(+ = achieved; - = deprived)</td>
<td></td>
</tr>
<tr>
<td>- rollback of the welfare/environmental state</td>
<td>(-) access to clean and affordable water for all is at risk</td>
<td></td>
</tr>
<tr>
<td>- Political parties/governments advancing neoliberalism (e.g., Thatcher government in UK)</td>
<td>(-) access to water reduced as neoliberalism denounced the human right to water</td>
<td></td>
</tr>
<tr>
<td>- Transnational organisations: UN, WHO, EC, EU</td>
<td>(-) danger of disconnections for marginalised</td>
<td></td>
</tr>
<tr>
<td>- international conferences</td>
<td>(-) low political weight under prevalent political situation; neoliberal discourse proves stronger.</td>
<td></td>
</tr>
</tbody>
</table>

4.6.2.1 Motivating agency: motive structures for engagement

The oil price shock of 1973 and its economic consequences in Europe (unemployment and recession) posed new questions and led to discussions how to deal best with the situation. Subsidies were reduced, expenses thought over. (i.e. the consequences were particularly notable at the intersection between the economic and the political domain). New political ideas occurred based on neoliberal thinking, which went hand in hand with the emerging of conservative New Right politicians arguing for the interests of their country under security aspects. A trend of individualisation in society led to less solidarity (cultural cognitive frame and dissolution of social networks; political and security-related power). Besides the IMF and World Bank as new social networks also the UN and the WHO were active on a global level to ensure the universal supply with potable water and discuss water related health issues. Finally, the EC and the EU were actors with respect to environmental directives (see below) or to monitoring the adherence of the rules of the free market (as seen above in the case of Italy).

Prototypical privatisation discourse. Significant debates on public or private management of water services took place in the last decades of the 20th century. In many countries water was until then understood as a public good and the supply network was set up in the hands of the municipality. New questions of governance were posed in the UK in 1980s and in continental Europe in the 1990s. As a consequence, local authorities merged into larger regional units to react on the growing cost pressure, public supply systems were sold to companies and rented back or operation was outsourced or privatised completely.

The discussion on privatisation of the water services started early in the UK and the water sector there was privatised in 1989. The actors who in this prototypical discussion argued in favour of privatisation reasoned that services would become more efficient and effective if the private sector would be handling them instead of the public sector (economic and political social networks transporting new cognitive frame). Privatisation would lead to more
competition in the water sector and new capital could be acquired to make investments in modernising and maintenance of water supply infrastructures (Prasad, 2008a, p. 23, 2007b). These propositions were without proof (Lobina and Hall, 2001). Thus, the implementation of these ideas and the changing institutional developments in England and Wales can be explained by changing government and regulatory policies giving economic efficiency priority over social equity (Bakker, 2001) (economic and political power enforced each other; new cognitive frame leading to new institutions). The results were – contrary to earlier promises – rising prices, rising profits for private companies, and too little investments in water supply infrastructure. 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 decreased thereafter (Downing and Richards, 1998). In 1998, this practice became illegal (Edmiston, 2015a).

4.6.2.2 Shaping agency: Social grid as influential background and subject of change

Societal responsibility and governance of solution. Under the impression of the economic situation, societal responsibility to perform the services needed to secure drinking water supply and sewage was shifted from the public hand to private investors and companies. This shift from public to private was accomplished to cut public expenditure and to release local and government budgets (economic and political domain united). The discussions in politics and media led to a new cognitive frame in Western European societies which attached more importance to individualism and personal responsibility than to solidarity and the execution of tasks by the welfare state. Another factor leading to new forms of operation in the water sector were growing environmental restraints from the national or European level (e.g., waste water treatment) (new institutions). These often made new investments necessary. For smaller communities and operators, these costs were difficult to handle. Some utilities merged with others, others tried to attract private investors (new challenges linking the artefactual and economic domain).

As in many countries conservative parties came into power, it became difficult for unions (whose influence decreased in this era in general) as well as for those parties which felt more responsible for the concerns of the marginalised to shape politics in a way that these concerns were protected (political power resp. lack of political power; insufficient access to power networks). With respect to social impact, neoliberalism as an elite discourse aims at redistribution to social and political elites and holds little space in its ideology for the marginalised (cognitive frame). In consequence, water providers came under pressure to increase water prices or to cut off the connection where people were unable to pay. More generally speaking, they acted as profit oriented entities with responsibility towards the company or their shareholders (economic cognitive frame) instead of acting as organisations
with a complex responsibility towards the community \(\textit{lack of economic power for those disconnected}\).

**Eastern and Central European countries as case apart.** A special case with regard to privatisation issues were Eastern and Central European countries after 1989. When the communist Eastern bloc dissolved, the water sector in these countries was reorganised. Investments were necessary to repair and extend the supply network. For example, in Hungary, there were large regional differences in the supply rate before 1990. While in Budapest almost all dwellings were connected to the net, this applied to less than 2/3 of the dwellings in Nógrád County. Since 1990, the public network extension grew by almost 24% (Havas, 2015) \(\textit{political, economic, and artefactual power}\).

**Institutions and Policies.** Several \textbf{law making efforts} dealt with the reorganisation of the water sector in European countries. The following are examples from the UK, Hungary and Italy.

In the \textbf{UK}, with the 1973 \textit{Water Act (institution)}, ten Regional Water Authorities (RWA) \(\textit{social networks}\) were created which were responsible for all uses of water in England and Wales. This “revolutionary reform” (Hassan, 1996a, p. 105) improved the regulatory power over the water management problem but its goals were not fully achieved as it ran into clashes of interests with members from municipalities \(\textit{political social network}\) sitting on the boards of the RWAs (ibid., p. 104). Also, the RWA cooperated with 29 private companies that acted as agent of the Authority. At the same time there was a process of concentration in the water sector \(\textit{concurrent political and economic cognitive frame}\) going on which led to a reduction of undertakings and staff but which was also driven by the idea “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) \(\textit{cognitive frame}\).

In 1989, the RWAs were privatised with the \textit{Water Act (institution)} and became ten public limited companies. Simultaneously, the Office of Water Services (OFWAT) was created as an “independent economic regulator of the water and sewerage companies in England and Wales” (Drewry, 2005, p. 72) \(\textit{institution}\). 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 ownership, and a need to find a way of funding massive improvement in water quality” (Hassan, 1996a, p. 118) \(\textit{political and economic cognitive frame}\). However, in real terms this also introduced a company perspective, driven by shareholders (who invest), and effectively “short-termism and relatively low investment characteristics” (ibid., p. 120). It also increased the tension between the profit goal and social goals \(\textit{tension between different cognitive frames}\). The labour government responded with the \textit{Water Act (institution)}
Act of 1998 which prohibited the disconnection for non-payment and banned use-limiting devices as prepayment meters or ‘trickle valves’ as a means by which to recover water debt (Sawkins and Dickie, 2008, p. 76; Downing and Richards, 1998; Prasad, 2008a, p. 23) (institution).

In Hungary, the Act LXV on local governments was introduced in 1990 (institution): responsibility for water provision and sewage management were transferred to the local governments and became municipal in 1991. In the following years, many cases of private-public partnerships occurred which led to a highly fragmented structure with 369 companies providing drinking water and/or sewerage (Boda et al., 2008, pp. 178–179; Péter, 2005, p. 93).

In Italy, Law 36 (Legge 36) of 1994 required the reorganisation of the service provision (institution). A new management level, the so called ‘Optimal Territorial Environments’ (Ambiti Territoriali Ottimali, A.T.O), was introduced according to the hydrological, natural appearance of water sources. New management guidelines had to be observed.

In 1995, Law 549 (Legge 36) introduced a three-year period of tax exemption (institution). This law resembled a top-down proposal for the privatisation of public utilities as it was directed at entities under public law - including municipal water provision services - that decided to become privatised.99 The tax exemption was expected to free resources for better investment and productivity gains. But at the end of the time period an EC decision confirmed that the tax exemption went against the principles of the free market (cognitive frame).

Partly independent of the political economy discussions, the regulatory development of the post-WWII years continued at the level of the European Community and the EU. In 1991, the EU established a Nitrate Directive100 aimed to protect water quality by reducing nitrates influx from agricultural sources (institution). It defines water as polluted if it includes more nitrate than 50 mg/l. In the same year, the Urban Waste Water Treatment Directive was adopted so as to protect the environment from urban waste water discharges and industrial pollution (institution).101 Distantly echoing Chadwick’s original idea of thinking the urban freshwater supply from source to sewage, the directive requires “the collection and treatment of waste water in urban agglomeration with a PE (population equivalent) of over 2000, and more advanced

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99 This law should be seen as a cumulative outcome of previous law-making efforts, e.g. the Law 142/1990 promoted during the Andreotti government.
treatment in agglomerations with a PE greater than 10,000 in sensitive areas. The *Drinking Water Directive* of 1998 protects the water quality of potable water (*institution*). Human health should be preserved from negative effects of any contamination of water intended for human consumption (*cognitive frame*) by ensuring the cleanliness of the water. Finally, in 2000, the EU agreed on a *Water Framework Directive* that prescribed river basin management plans for all member states, including transboundary commissions (*institution*). The directive framed water as “not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such” (2000) (*cognitive frame*). In the context of the neo-liberal discourse, the contested nature of this claim is evident, and as a high level political signal points to the ambivalence towards market actors in the water sector.

**Design of solutions.** Like in the beginning of the social innovation in the 19th century, solutions and detailed arrangements differed locally depending on national laws and local arrangements (*institutions*). There were different forms of contracts and organisations (completely private, public-private-partnerships, corporations with or without public shares, owner-operated municipal enterprises) (*organisational innovation*). Depending on local arrangements, some contracts included clauses on pricing or regulations of social aspects. They differed also with regard to the duration and the possibilities of political influence.

For Hungary, the quasi-privatisation described above improved the efficiency of water works but had no direct effect on the marginalised. As water prices were highly subsidised in the communist era, price increases were strictly regulated in the concession contract (Prasad, 2008a, p. 27; Boda *et al.*, 2008, p. 182). Prices were always set by the municipalities. However, access to piped water proved to be uneven by income groups: While households in the highest income decile increased their proportion of being connected to the water network from 97.6 (1992) to 99.4% (2003), households in the lowest decile struggled to increase their share from 75.5 (1992) to 80.7% (2003). 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” (on Hungary see Havas, 2015).

Economic discourse on freshwater supply suggests a “natural monopoly”. This means that the fixed costs are very high while the marginal costs are low, therefore no competition is realistically possible. This makes it a case for state ownership, especially if other social and economic objectives are taken into account (e.g., social security, human rights). These ‘inner economic’ difficulties of the case for privatisation may also explain the difficulty of privatising freshwater from an economic development perspective. From this perspective, according to Prasad, the discourse on the role of government in creating infrastructure for

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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).

In many cases, it became clear over time that privatisation

a. as a discourse put private and public providers under pressure to increase profits, even if this was at the cost of pursuing social (or environmental) goals and associated longer-term investments in the maintenance of the infrastructure. (economic power affecting capabilities as for instance the access to clean and affordable water for all is at risk)

b. tended to make participation and democratic accountability more difficult (due to a lack of transparency and secret contracts when public-private partnerships were entered into) (citizens as well as customers lacked political power) Private, larger co-operations are difficult to make accountable (especially if public-private partnerships follow a secret contract clause like in the case of Berlin). Accordingly, civic participation has emerged as an issue beyond the traditional issue of participation via the established organisation of municipalities and their councils.

c. fostered the cognitive frame 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.

d. led, not only in Italy, to perverse effects, such as the leveraging activities which see privatised firms interested in sustaining a high debt ratio in order to profit from public investment subsidies (on Italy see Jacobi and Fabbri, 2015) (conflict between the economic and the political domain).

Targeted beneficiaries. Marginalised people as well as citizens from rural and urban areas paid the bill for the new development. A recurrent pattern shows that privatisation of functioning infrastructure puts pressure on the water providers to increase their companies’ profits rather than to meet social goals (economic cognitive frame). This affects both safe and affordable access to water for all as well as decent wages within the water companies (lack of economic and political power). Therefore, norms on drinking water and social polices play an important regulatory role (institutions) to ensure access for the marginalised on both public and private management of the water supply.

On another level, privatisation changed the recipient of the service from a citizen having a right to receive a public good to a customer paying for an economic good (new cognitive frame).

In general, privatisation discourse with a view to freshwater can be classified as an obstacle to

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103 Participation is here understood as the say of citizens in water management decisions.
the social innovation in the sense that there is no reliable evidence that privatisation improves access to freshwater to the most marginalised – but rather the contrary (Prasad, 2008b). This point specifically holds in contexts, where public governance of municipalities is in a relatively good condition.

4.6.2.3 Capabilities of the marginalised during the phase of large-scale privatisation in water supply

How far capabilities of the marginalised were concretely affected by organisational changes in the water sector is hard to assess. Where water services were privatised and price increases happened, it was difficult for them to compensate economically the additional expenses. Affordability therefore was an important point in the discussions. In 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). An indicator for this were 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 criticised as creating potentially health-problematic pressure on poor families to save water (ibid., p. 84). Apart from the UK example, this indicates that in the case of disconnections everything which initially had been the idea of the social innovation was challenged.

Also, access to water for all was at risk, and there was a concrete danger of disconnections for marginalised people who were not able to pay their water bills (lack of economic power). Water under the new economic and organisational conditions became too expensive to some of them. There was also the risk of falling into water poverty which means that a household pays too much with regard to its income104 (lack of economic power). Even though most marginalised people in Europe at that time had a chance to participate politically, they still had only limited possibilities to influence their living conditions lasting. Under the prevalent political situation, the marginalised had a low political weight (cognitive frame led to loss of economic and political power). The neoliberal discourse proved stronger (lack of political power).

4.7 Phase 5 – New diversity culture of water management? Developments of the early 21st century

By the beginning of the new millennium, fresh water supply networks were common all over Europe. The social innovation had proven its usefulness and the result was taken for granted by most Europeans. However, the quality and the affordability of the water were contested as

104 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).
were the form of management of the water sector. As we have seen, privatisation had become a big issue in many countries in the late 20th century.

Starting around the turn of the millennium (and somewhat earlier in the “developing world”) discontent with privatisation was increasing and led to re-municipalisation of freshwater supply in major European cities such as Berlin and Paris in the first 15 years of the new millennium.105 The processes 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 organisational forms and networks such as “water tables” (Ziegler, 2015, 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 (in the sense of more extreme weather events) and maintenance costs of infrastructure. Sedlak speaks of an emerging Water 4.0 as a collection of different, mostly decentralised approaches (Sedlak, 2014, pp. 179–186).

4.7.1 Overview of developments

The field of actors in the public-private controversy can be divided into two fractions at the beginning of the 21st century. In response to privatisation and centralisation of water provision, civil society social networks like in the 19th century started to play a role. Now, as a countervailing force, they called for democratic accountability and social as well as ecological standards of freshwater provision. Well-known examples are the first European public campaign right2water106, and the Berlin water table that successfully demanded the re-municipalisation of Berlin water. The global water justice movement (Conca, 2006, pp. 149–151; 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 (social network) and its concern with environmental impact (frequently coupled with an endorsement of local democracy).107 Its pressure has resulted in a restrengthening of the role of municipalities in water management, and their networking (rebirth of a political social network). Aqua Publica Europea (APE), founded in 2008, has the goal to “promote public water management at European and international level”. APE is an international, not-for-profit association under Belgian law with publicly owned water and sanitation services as members.

107 For a chronology of international water network building see: Conca (2006), Tab. 5.1, pp. 134-139.
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.”

Among others, the network’s values consist of water as a human right and a common good that needs to be protected with excellence and from a global perspective (cognitive frame).

The European Movement for Water (social network), founded in 2012 after the Alternative World Water Forum in Marseilles, joins forces from a civil society perspective. It defines itself “as an open, inclusive and pluralistic network of movements, social organisations, 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.” 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).

On the other side, global actors, e.g. multi-national companies, defend and advance their economic interests. Multi-national cooperation such as Veolia and SUEZ want to increase their market share. SUEZ is a founding member of the World Water Council that hosts the World Water Forum, which is an influential forum to discuss and influence the discourse and the policy on water world-wide (economic domain influencing political domain). Critics see it as advancing the privatisation agenda (Barlow and Clarke, 2002).

**Climate change, population dynamics and the rediscovery of urban nature.** The new millennium, however, should not be reduced to the public-private controversy. Climate change, population dynamics and cultural shifts also play an important role for the further development of freshwater supply. Maintaining the infrastructure is a demanding process, which becomes additionally difficult when changes in consumption or population occur. A reduction of water consumption and demographic change (e.g. in areas with high migration in some parts of Central and Eastern Europe) pose difficulties for maintaining a water infrastructure, which has been developed for a specific population density as well as consumption levels (artefactual institution under pressure). While in some European cities the challenge is dealing with reduced consumption and lower population density, the trend in the

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mega-cities worldwide is a rapid, overall increase in freshwater demand (Koop, Steven H. A. and van Leeuwen, Cornelis Johannes, 2016).

The path-dependency of urban water infrastructure may also prove to be cumbersome in adaptation to climate change, with extreme weather having an impact on the urban environment. More heavy rains will pose problems to the capacity of the infrastructure as will longer droughts for the drinking water resources. Especially in Southern Europe, further freshwater shortage can be expected, and hence likely an increase in the use of desalination techniques (i.e. converting seawater into potable water, compare Sedlak, 2014) will be needed. In addition, heavy rains and floods pose a challenge to sewage treatment. Thus, climate change is an important external influence on urban fresh water supply (natural power).\footnote{Different ways to cope with this new situation can be found in Sedlak (2014, pp. 245–246).}

The challenge of wastewater treatment points to another, more general cultural shift. A major engineering challenge (artefactual power) 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 retention spaces are insufficient, the efficiency of sewage systems falls after rainy days and sewage flows untreated into the rivers (see Sedlak, 2014). For example, in Berlin this is expected to happen about 40 times per year. The threat is not so much one to human health. Rather, urban populations increasingly see this circumstance as unacceptable because of environmental and cultural considerations linked to the rediscovery of urban nature, including rivers.

Thus at this stage of development, the innovation exhibits the features associated with current social innovation discourse: innovation for and with citizens.\footnote{See the development of the Berlin Water Table and the focus on complementary direct democracy which the citizens in this case stress (see Ziegler (2015)); for the general link between human right to water implementation and civil society participation see Koenigs (2012).}

\textit{4.7.2 The current phase of fresh water supply through the extended social grid model (ESGM) (early 21\textsuperscript{st} century)}

\textbf{Table 12: Social grid elements during the current phase of fresh water supply (early 21st century)}

<table>
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<tr>
<td><strong>Natural</strong></td>
<td>- Water stewardship</td>
<td>- Environmental NGOs (further specialisations: &quot;European Rivers Network&quot;)</td>
<td>- EU Water Framework Directive</td>
</tr>
<tr>
<td></td>
<td>- Climate protection</td>
<td></td>
<td>- Urban Waste Water Treatment Directive</td>
</tr>
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</table>

\footnote{Different ways to cope with this new situation can be found in Sedlak (2014, pp. 245–246).}

\footnote{See the development of the Berlin Water Table and the focus on complementary direct democracy which the citizens in this case stress (see Ziegler (2015)); for the general link between human right to water implementation and civil society participation see Koenigs (2012).}
### 4.7.2.1 Motivating agency: motive structures for engagement

The new actors in the field, being water professionals or civic society organisations, are social networks characterised by their intention to share and provide information, by looking for discourse and – in some cases, like citizen’s initiatives (e.g., right2water, Berlin Water Table) – participating in change processes and shaping new solutions.

An important motive for the civic society initiatives is to bring water back to the people and keep it affordable for all (cognitive frame bridging the economic and political domain) The experience of rising prices in cities with private providers or in countries like the UK or France, cases of people not able to pay their water bill, falling into water poverty, threatened by or experiencing disconnections led to discussions, protest and counter movements (social networks, lack of economic and political power). Not just since the economic and financial crisis but enforced by it, these activities grew leading to re-municipalisations of water services in many cities. They are supported by the global recognition of the human right to water by
the UN general assembly in 2010 (*institution*), providing their demands an increased normative status. Inversely, the long and contested history of urban freshwater supply no doubt is a major influence for making this UN recognition in 2010 possible, along with the drinking water norms that are now almost taken for granted in Europe.

### 4.7.2.2 Shaping agency: Social grid as influential background and subject of change

**Societal responsibility and governance of solution.** It can be considered as a general trend in European countries that people distrust more than in earlier times that legislature will find the right solution on public problems. People therefore often organise in *social networks* to demand transparency and participate more in political decision making processes (*social network aiming at the political domain*). To voice their concerns, they use petitions and signature campaigns, in forums, they exchange nationally and internationally ideas on similar problems. Often they use possibilities of ICT to connect and campaign (*artefactual power to organise, develop and execute political power*).

The *cognitive frame* in general in most European countries since the turn of the millennium could be summarised in the thesis that access to fresh water is considered to be a given. This is enforced by the adoption of the right to water by the United Nations in 2010. But still the way of how to organise this access is contested: by public or private provision?

EU regulations and legislation on the national or regional level set the frame to find solutions to problems on the regional or local level (*institutions reacting on problems in the political or economic domain*). Basically, this always happens in a triangular field of conflicting priorities consisting of a) environmental protection and sustainability, b) cost efficiency, and c) socioeconomic needs. It can be assumed that it will be a future task to mediate between these conflicting priorities to find solutions which satisfy these three aspects.

Reflections on sustainability and maintenance are on the fore too. The supply network has to be cared for, maintained and adapted to new needs and challenges, be it changing population density, ecological considerations or climate change. Therefore, investments have to be made which failed to materialise in many cases in the period of privatisation.

**A general overview of developments in some European countries** is sketched in the following paragraphs.

**France:** In 2003, there were about 29,300 water service companies (14,900 for water *supply*) serving 36,679 French communities (*social networks*). Three larger private players (Veolia, SUEZ and SAUR) accounted for 98% of the private market. As in other continental countries, private water service provision has increasingly been seen as problematic, leading to numerous (re-)municipalisations of water provision, most notable in Paris. This re-municipalisation in turn has triggered new initiatives with a special social impact focus. Celia Blauel, Deputy-Mayor of Paris for environment and
President of Eau de Paris, started a proposal on social tariffing for water in Paris “to ensure the access to water for all in Paris”\(^\text{114}\) (cognitive frame). Eau de Paris started in 2010 after the decision of the city parliament not to prolong the contract with Veolia and SUEZ and to re-municipalise the water supply of Paris (institution). Together with the City of Paris the public provider started to finance a special water solidarity fund as part of housing aids provided by the municipality. As a consequence, about 44,000 low-income households were supported in 2013. The financial relief per household averaged to 70 €. This was possible within the context of the *Loi Brottes* of 2013 (institution, see below) which allows social tariffing to ensure universal access to water.\(^\text{115}\) Different instruments will be combined in Paris, e.g., new support schemes for people facing economic and social exclusion as well as new tariffs based on income, water uses or season.\(^\text{116}\)

Another measure of Eau de Paris to ensure access to water is to keep more public drinking water fountains running during the winter months, explicitly to allow access for people without a fixed abode.\(^\text{117}\)

**Hungary:** Since 1990, the number of foreign investors, partly together with municipalities partly on its own, running fresh water supply networks has increased. The FIDESZ party aims to reverse the privatisation in the water sector and fights with sometimes populist, anti-capitalist, nationalistic, and even xenophobic arguments, as for example in Pécs, against foreign capital in the country’s economy. Because of different operational arrangements, water production costs vary very widely across Hungary (Boda *et al.*, 2008, p. 186). They are not recovered via tariffs because the Hungarian government tries to keep water affordable (cognitive frame). Thereby, the government has to manage a balancing act between the aims of full cost recovery (demanded by the EU Water Directive, institution) and the social demand of affordability. Central government therefore “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).

**Finland:** Since the turn of the century, the municipal water services in Finland have been reorganised. Municipalities have still the responsibility to organise, advance, and supervise the water management in their respective areas. They can arrange water services in various ways as municipal public utilities or by buying services from private companies or from water cooperatives. In the sequel of the Water Services Act 114 http://www.aquapublica.eu/?Celia-Blauel-puts-forward-social&lang=en (accessed 20 April 2016).
in 2001 (institution), which aimed to improve the economic efficiency and planning of Finnish water services, the use of net budgeting was imposed on water utilities. As a consequence, water services have been separated from the municipal organisation and transformed into autonomous municipally-owned companies or joint-stock companies. 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 in 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).

**Germany:** As privatisation of water services in Germany did not fulfil the expectations but rather proved to be unilaterally in favour of private companies, civil society explored new ways of advocacy and organisation. The best example here is Berlin where in May 2006 a Water Table\(^{118}\) (social network) was founded with the intention to re-municipalise the Berlin Water Works. Important actors were Gerlinde Schermer, a tax consultant and member of Berlin’s state parliament, and Dorothea Härlin, a former teacher. They were joined by the local branch of ATTAC and many Berlin citizens from a middle-class background who together used the new forum to organise the protest and demand participation and transparency. This organisational innovation resulted from the diagnosis of insufficient control of communal water services via parliamentary, representative democracy, and called for complementary, participatory instruments and a greater say of employees in decision-making.\(^{119}\) More innovation was demanded not just for but also by the citizens (see Ziegler, 2015).

The most important stumbling block in the agreement between the city of Berlin and the companies RWE and Veolia was the secrecy of the contract and the guarantees for the private companies (see above phase 4). The Berlin Water Table assuming a human right to water and led by the idea of a publicly provided and democratically controlled water supply (including participatory budgeting on company level) (cognitive frame) successfully forced through a referendum in which the majority of the electorate voted for publication of the contract.\(^{120}\) After the successful referendum, the city of Berlin bought back the shares from RWE and Veolia in October 2012 resp. November 2013. An open discussion started on the price which had to be paid for the shares and on the

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\(^{118}\) Following the Venezuelan model of water tables as open forums for discussion.

\(^{119}\) See e.g. Wiesenau (2014).

future organisation of the Berlin Water Works. Water prices decreased finally by 18% after the re-municipalisation, but this happened mainly because of a decision by the Federal Cartel Office (Bundeskartellamt, institution) which investigated and ruled the Berlin water tariffs as too high and enforced the price reduction (see Ziegler, 2015).

The water table has co-initiated the Berlin Water Council (Berliner Wasserrat) (new institution) to further monitor and improve the efforts of the Berlin Water Works: notably via the proposal of a Water Charter proposed as a legally binding framework for managing urban water as a commons. The background motivation for this further development: water is re-municipalised in Berlin, but the company structure still resembles a private for-profit company according to the Berliner Wasserrat. Thus water is still not managed as a commons (cognitive frame).

An interesting analogy to the efforts in the 19th century is that the members of the water table want to protect the rights of the marginalised but these very people do not participate; not because they had no say or possibility to do so but because they could not be reached to take part.

**Institutions and policies.** On the national level, governments are opening up new possibilities to regulate water prices of private companies by introducing social tariffs (like France, UK) or implementing other measures to help marginalised groups to get out or even better not even get into water poverty (institutions connecting the political and economic domain). In Eastern and Central European countries, the side-effects of privatised water services seem to be more strongly kept in line by social policies or agreements within the contracts (political power shaping institution). The ever further development of environmental directives and regulation (institutions) imply that the freshwater supply is increasingly situated as part of a complex urban water governance challenge. Some pressure comes top-down from EU directives (Water Framework Directive, Urban Wastewater Treatment Directive121) (institutions), other pressure more bottom-up from citizens’ initiatives (social networks) that rediscover nature and rivers in the city (new cognitive frame). In both cases, the result is pressure towards a more holistic and integrated freshwater management. This development calls for long-term perspectives, stakeholder participation, smart coordination across sectors, and knowledge-intensive accompaniment (data, monitoring, economic costs etc.) (Koop, Steven H. A. and van Leeuwen, Cornelis Johannes, 2016).

At the centre of resolutions, directives and laws on the national as well as on the international level was the access to safe and affordable water at the beginning of the 21st century. The following survey just shortly lists examples from the UN, the EU, the UK, and France.

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In 2010, the United Nations by resolution 64-292 declared universal access to safe, sufficient and affordable water and sanitation a human right (institution). While this right seems to be self-evident considering biological needs, the question is what this means societally (how does this affect different societal groups?), politically (what have states to do to guarantee access?) and economically (is water an economic good subjected to market forces?).

During the International Decade for Action “Water for Life” (2005 – 2015) some progress was made. The Millennium Development Goals (MDG) in 2000 provided among others for halving the proportion of people without sustainable access to safe drinking water. This Target 7.C was met already in 2010. Now, with the Sustainable Development Goals (SDG) since 2015, the United Nations have set a main objective to “ensure availability and sustainable management of water and sanitation for all” (SDG 6) which conforms to the human right to water.

On the EU-level, the drinking water directive (1998) has to be implemented at the country level via national drinking water directives (institutions). These regulate the minimum quality that urban water providers have to meet. Via effective drinking water norms, the health aspect of drinking water provision, a central concern of the 19th century social reformers in relation to urban freshwater supply, is ensured and protected.

In the UK, the Water Act of 2003 (institution) reformed the regulatory structure and provided an independent consumer body (De La Motte, Robin and Lobina, 2005, p. 206). The Flood and Water Management Act (institution) stipulated in 2010 that the tariff structure for water allowed cross-subsidising the social tariffs for low-income households by tariffs paid by better-off customers (DEFRA, 2012). Whilst water companies are encouraged to introduce social tariffs, they are not legally obliged to. This soft approach leaves ‘vulnerable’ customers susceptible to an underling profit motive. Essentially, water privatisation has transformed fresh water supply in England and Wales 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 being fulfilled or met (Johnson and Handmer, 2002). The Water Direct Scheme which the Department

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125 By April 2015, 14 of 18 water companies offered social tariffs. The remaining four intended to introduce them by 2016 ([http://www.water.org.uk/news-water-uk/latest-news/more-social-tariffs-place](http://www.water.org.uk/news-water-uk/latest-news/more-social-tariffs-place) (accessed 21 April 2016)).
for Work and Pensions (DWP) has established to arbitrate between the concerns on public health and social policy issues raised by water poverty and the private interests and concerns raised by private water companies is another way to help marginalised groups to pay their water bills (Prasad, 2007b). Those receiving certain benefits can apply to have a portion of their social security payments paid directly to water companies. The WaterSure scheme is specifically designed for low-income households with a water meter. To be eligible for the scheme, applicants need to be in receipt of certain benefits and either have three or more children under the 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, by virtue of their circumstance, use a greater amount of water (Edmiston, 2015a).

Several legislation efforts (institutions) were made in France to make fresh water better accessible to marginalised people. So in 2000 already, a social water fund was created (Reynaud, 2008, p. 59), five years later, disconnections of water customers due to unpaid bills became forbidden (ibid., p. 66). Further, the Water Law 1772 specified in 2006 that all users should benefit from water at economically acceptable costs (Reynaud, 2008, p. 57). Law 2013-312 (Loi 2013-312, also called Loi Brottes) allowed municipalities in 2013 for five years to experiment with social tariffs in order to ensure universal access to fresh water.

**Designs of solutions.** The reaction in different countries to the privatisation phase in the late 20th century varies. While in some countries, like Finland, privatisation made still progress since 2000, other countries hold on to private-public partnerships or private supply (e.g. Italy, Hungary, and UK). There seems to be a new development back to public provision, however, either by re-municipalisation (like in Budapest, Paris, Berlin) or by sustaining public services. (For an overview of ownership in EU cities see Juuti and Katko, 2005, p. 224). On the whole, scepticism on selling public resources to privates is growing in many European countries (cognitive frame). Not just since the economic crisis since 2007 it became clearly visible that the sale of public goods to private investors reduces public scope for action and minimises possibilities to react within a narrow timeframe and adequately to changed circumstances and to shape solutions (economic crises, climate change, etc.).

Therefore, the way and matter of course in which the discussion on privatisation and private providers is led (different cognitive frames were voiced in various social networks in

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126 Disconnections are still an issue in France. See [http://eau-iledefrance.fr/temoignage-de-coupure-deau-illegale/](http://eau-iledefrance.fr/temoignage-de-coupure-deau-illegale/) (accessed 19 April 2016) as a digital campaign to move in on it.


discussions on *institutions*) has changed since the millennium. Protests against private water companies have led to a counter movement with numerous organisations world-wide. New *social networks* emerged with new demands and solution approaches. Also, within the political and scientific discourse a change has happened (change in the *artefactual and political power*) and many studies (*artefactual power*) deal with the consequences of privatisations in the water sector (as just one example see the EC project Juuti and Katko, 2005).

**Targeted beneficiaries.** Beneficiaries of the new diversity in water management and the discourse in the public, scientific and political sphere are marginalised groups. This means a recollection of the core objectives of the social innovation in the 19th century has happened or is happening. At the focus of civil society protests and legislative decisions are on the one hand sustainability which matters for all people and on the other hand people having problems paying for their water or having/keeping access to fresh water.

Coming out of the experiences from the last decades and gaining strength through the economic crisis since 2007, access to and affordability of drinking water became central topics – at the same time two of the core concerns of the social innovation itself since the 19th century (*cognitive frames* gaining new *political power*). The problem with affordability originates from the dialectic between the economic principle of cost recovery and a social equity principle of affordable water pricing (different *economic* interests). According to the OECD, 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 because 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 (see above; 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). In *England and Wales*, though, 23.6% of households were spending more than 3% of their disposable income on water in 2009/10. Mostly affected of this ‘water poverty’ were single adult and lone parent households (40%). “Water poverty rates were also much higher among households dependent on benefits: 46.6% compared with 18.8% for those not on benefits” (Huby and Bradshaw, 2012; DEFRA, 2004). These shares seem to be still rising as according to a more recent investigation, about 25% of all households experienced water poverty in the last years (Bradshaw and Huby, 2013). The poorest third of households spend on average 3.7% of their income on fresh water supply (OFWAT, 2011). In addition, almost 12% of households are spending more than 5% of their income on fresh water supply (Bradshaw and Huby, 2013). Since the privatisation of water companies, bills for fresh water supply have risen much faster than overall consumer prices. If this trend continues, water poverty is set to become an increasingly prevalent problem in the UK, especially for low-
income households reliant on benefits (Edmiston, 2015a). 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 which is defined as the cost of fresh water supply relative to income.

In France, most households spend less than 3% of their expenditures on water (Reynaud, 2008, p. 62), but “affordability of water is an important issue” (ibid., p. 55). At the beginning of the millenium 700,000 households wanted to reschedule their water bills. Hand in hand with this goes the issue of disconnections. In 2002, 12,000 disconnections occurred with 10% lasting longer than 24 hours (ibid., p. 56). As in the UK, single adult families and families with unemployed head of family are more often affected than others (ibid., p. 64). According to Reynaud, privatisation has negatively affected the poor and social policy dealing with water poverty is still incomplete (ibid., p. 66), even though a beginning is made.

4.7.2.3 Capabilities of the marginalised during the present phase of fresh water supply

Physical access to freshwater is widely considered unproblematic in EU countries (OECD, 2003). Access to safe and affordable (piped) drinking water is a widely recognised norm across the EU and since 2010 also formally recognised by the member countries as a human right. The impact of water shortage and privatisation on the marginalised, especially the aspect of affordability, is an issue, which is still being discussed and has become improved in many cases. The risk of water poverty is especially hovering over people with a low social status, single parent families, pensioners, and people living on state subsidies or welfare.

Marginalised could gain more than just water security from the new discourse and activities by regaining control over essential resources. But as the case of Berlin showed, it is difficult to reach marginalised people and make them part of the movement. The same is true for participation. There are more opportunities for participation, but they are hardly used by them.

With regard to health and living in a healthy environment, it can be stated that waterborne diseases have largely disappeared in the EU.129 The health discussion has therefore moved to more specialised 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). Also, disconnection has been associated with the risk of disease outbreak and especially dysentery (Robins, 1994).

More problematic is still the health situation in Hungary where the water quality was below EU standards in 365 of 3,200 settlements in 2012. In more than 100 arsenic contaminations

was still a real problem in 2013. This was already the positive outcome of a national programme, which was launched after 2010 to meet EU standards. Before this, people in settlements with contaminated drinking water had to be supplied with healthier water from tank vehicles or bottles or filtering equipment were installed in or contributed to households. Here neglected questions of the past (lack in environmental protection, neglect of certain regions) still demand for further improvement.

5. Financing Access to Education\textsuperscript{130}

5.1 Introduction

Capabilities and education

In terms of this paper, achieving capabilities in terms of Sen’s capability approach (CA) assumes one has the capacities to meet the challenge that developing and fulfilling them presupposes. This, in turn, is as much about funding them as schooling them. Nowadays, this can be readily expressed in terms of whether young people wishing to develop their capacities have access to the right kind of funding for the purpose, a topic that today can be seen and discussed very clearly in terms of the types of funding developed in the last few decades, and that, in this study, culminates in a discussion concerning student loans and ‘curriculum-neutral capitation’.

The social innovation under analysis is therefore the ways found to finance the generalisation of education. This question has been latent or implicit over the centuries, and so we impute it backwards in order to look at the history of financing education, a social innovation that will have policy relevance going forwards. The aim of the case study is therefore to map, especially since the Renaissance to our time, how the financing of generalised education has been developed so that young people can develop their capacities. Those unable to benefit from such an education are here conceived as marginalised in the sense and to the extent that they are not able to participate fully in today’s cultural, political and economic life.

Two Interrelated Topics

Of particular importance to the authors are two interrelated topics: First, the link between state-funding and educational freedom, and second the growing role played by marketised funding. Indeed, the study culminates in how in recent decades educational finance has been gradually marketised, beginning with higher education, so that now in many Anglo-Saxon

\textsuperscript{130} We thankfully acknowledge that the basis of this analysis is material (data, literature etc.) which was collected in WP 2 of the CrESSI project in 2015 by Christopher Houghton Budd, C.W.M. (Ro) Naastepad, Martijn van der Linden, Jari Aro, Gunnar Glänzel, and Thomas Scheuerle. The analysis was done by Gunnar Glänzel. The responsibility rests on the author.
countries in particular student finance is increasingly provided by loans. This system is also spreading into continental Europe. As a result of this students are facing increasingly serious levels of indebtedness.

On the other hand, many students are beginning to seek direct access to funding to pay for (and even design) courses of their own choosing. The question is whether the social innovation of generalised education can be developed further, for example, by way of this study’s proposition of curriculum-neutral capitation.

A universal issue

Although the study looks at the development, diffusion and adoption of the financing of generalised education in the Netherlands and England in particular, its purview is universal as to its topic and Europe-wide as to its instance and initial evolution. It includes the important example of Germany and the Scandinavian case of Finland – both of them providing valuable contrasts to the otherwise prevailing Anglo-Saxonism of free-market thinking applied to education.

It concludes with an evaluation in terms of Beckert and Mann\(^\text{131}\): in terms of cognitive frames or cultural power (e.g. terminologies and cultures in regard to education finance), institutions or political power (e.g. governance), and social networks or economic power (e.g. availability or otherwise of suitable funding organisations and arrangements) that mainstream adoption entails.

5.2 Context and Background

5.2.1 Individuation and the Nature of Education

The Latin educare means to lead out, to unfold innate skills or talents; rather than to inform or instil. In that sense, education is about enabling people to find their capacities, to develop or exercise their capabilities, and then building society out of that, rather than forcing people into society’s requirements.

The notion of individuation has two important meanings: Firstly, it provides a latter-day viewpoint in terms of which all prior history can be seen as antecedent, in the manner not of a process unfolding haphazardly, but in the way that an artist throws away all his earlier attempts until the masterpiece he knows he has ‘within’ him has appeared. Secondly, Beckert’s notion of co-evolution notwithstanding, it provides a common, albeit unseen, driver for the three fields, mentioned earlier, of central relevance to this study – the need to be educated, the rights pertaining to education, and the financing of education.

What matters most is that the resulting adult is morally and practically fit for social existence

\(^{131}\) Sen’s ‘capability approach’ being implicit in its overall premise.
– a social existence that could derive more and more from what is inherent in the capacities of human beings, what they are capable of in both normal and Sen’s meanings of the term, but that is often defined in terms of political or economic objectives, to which education is made subservient.

5.2.2 Sen’s ‘Capabilities’ as the Counterpart to Capital

Sen is addressed by the study overall, with its conception of education as the discovery and nurturing of human capacities/capabilities and the financing of education understood in terms of capital as the counterpart to and enabler of those capacities/capabilities.

The ‘traditional’ concept of capital is narrowly defined in terms of the real economy, essentially the world of goods that meet material needs, requiring savings to finance investment in (physical) means of production. There is a need, therefore, for a wider concept of capital that in addition to this ‘traditional’ notion highlights the emancipatory dimension of capital as the counterpart to and enabler of human capacities in the sense outlined above. In this sense, there is a direct link between this wider meaning of capital and Sen’s CA.

5.2.3 Beckert’s Social Grid Analysis

The study is also conducted and evaluated in terms of Beckert’s social grid, comprising the three co-evolving fields of cognitive frames, institutions and social networks, treated here as synonyms for cultural, political and economic aspects of society, and concretely considered as, respectively, terminologies, concepts and cultures in regard to education finance; rules, policies, instruments, incorporation and other aspects of governance; and appropriate financing organisations and arrangements.

5.2.4 Per Mann’s Powers

The powers relevant to this study are cultural, economic and political. The relationships between ‘financing of generalised education’ and the Mann framework are illustrated with the help of the following table:
Table 13: Relationship of Financing Generalised Education to CrESSI’s Common Framework

<table>
<thead>
<tr>
<th>Michael Mann’s Sources of Power</th>
<th>Marginalisation (1)</th>
<th>Social Innovation (2)</th>
<th>Capability (3)</th>
<th>DUT²</th>
<th>The ‘Education Nexus’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cultural / Ideological</td>
<td>Cm</td>
<td>Ci</td>
<td>Cc</td>
<td>Cultural</td>
<td>The need to be educated; ideas about education, pedagogy; best ways of teaching</td>
</tr>
<tr>
<td>2. Economic</td>
<td>Em</td>
<td>Ei</td>
<td>Ec</td>
<td>Economic / Financial</td>
<td>Financing education</td>
</tr>
<tr>
<td>3. Military</td>
<td>Sm</td>
<td>Si</td>
<td>Sc</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>4. Political</td>
<td>Pm</td>
<td>Pi</td>
<td>Pc</td>
<td>Regulation, including access to funding</td>
<td>The rights pertaining to education</td>
</tr>
<tr>
<td>5. Artefactual</td>
<td>Am</td>
<td>Ai</td>
<td>Ac</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>6. Natural</td>
<td>Nm</td>
<td>Ne</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Notes:
1. See Houghton Budd et al., 2014
2. Delft University of Technology team.

As indicated in the table above, in terms of Mann’s sources of power, education relates primarily to three of them: Cultural, political, and economic.

In the first place, education is pedagogical or cultural, with a number of aspects in terms of cognitive frameworks and how they have evolved particularly in the last 1500 years. Here they are organised as a stylised summary showing how ‘then’ (the pre-Renaissance history of education) what was taught was largely determined from outside the student; until ‘now’ when, the historically recent habit of state provision notwithstanding, the tendency is increasingly for students to exercise their freedom to choose (and even design) their education:

Table 14: Aspects of The Economic Nexus

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Then</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus</td>
<td>Given from outside</td>
<td>Discovered within</td>
</tr>
<tr>
<td>Value</td>
<td>The Creed</td>
<td>My creed</td>
</tr>
<tr>
<td>Standards</td>
<td>Imposed</td>
<td>Unique to me yet universal</td>
</tr>
<tr>
<td>Education by</td>
<td>Society</td>
<td>Learner-driven</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Single</td>
<td>Multiple</td>
</tr>
<tr>
<td>Format</td>
<td>Uniform</td>
<td>Diverse</td>
</tr>
<tr>
<td>Provision</td>
<td>Central</td>
<td>Peripheral (individual)</td>
</tr>
</tbody>
</table>

Secondly, the relationship between teachers and learners presupposes certain rights or political circumstances or institutions to be operative. The basic story is of education originating in ecclesiastical, civic and economic settings, met by a rise in democratisation, so that individuals became the focus but the state acted as the provider.

Seen economically, education is an immediate cost for a future benefit, the basis of its funding is surplus capital, money for which an immediate return is not needed. In terms of
type of funding, to date this has typically been provided in at least one of three ways:

1) Parents/guardians pay directly, presupposing sufficient ‘disposable income’.

2) A third party pays – sponsorship. Sponsors are typically the Church, the state, or private persons singly or collectively (e.g. foundations).

3) Collective funding of education by an entire population through the state using taxation. Only a recent possibility, presupposing universal suffrage.

Nowadays, state-funding (taxation) is becoming challenged by marketised finance, beginning especially with student loans in higher education – a topic taken up later.132

5.2.5 Education, Citizenhood and Social Innovation

As regards the purposes and thus the content (curriculum) of education, one can ask who devises and informs it, and whether its content is to be uniform or diverse? In short, what is to be taught, how, and by whom? Within this are three sub-topics, identified by the study, concerning whether the education is or should be: (a) confessional or faith-based (i.e. intended to instil morality), (b) liberal (intended to educate us to our humanity133, or (c) technical, in the sense of developing life- or transferable skills such as literacy and numeracy in order to be economically useful (rather than for their own sake).

Finally, from the point of view of social innovation, the question is what role does citizenhood play? If we suppose that emancipated citizenry is one of the “goals” of social innovation then it is worth analysing in which way(s) generalised education contributes to its attainment. And then there is also the aspect of whether the way we conduct our affairs (in this case the financing of generalised education) is on the basis of an emancipated citizenry with no external authority, or, refusal of the responsibility that possibility entails and thus abdication of it.

5.2.6 The Rights pertaining to Generalised Education

An enshrined human right

The so-called right to education today is enshrined, for example, in the UN Covenant (United Nations, 1966) as well as in the European Convention on Human Rights (Council of Europe, 1950), which defines the right to education as follows:

132 Although this study is focused on the European Union, this modality is by no means confined to there. The US works extensively in this way, as do places like Santiago in Chile.

133 “A philosophy of education that empowers individuals with broad knowledge and transferable skills, and a stronger sense of values, ethics, and civic engagement ... characterised by challenging encounters with important issues, and more a way of studying than a specific course or field of study.” (“What is Liberal Education?”. Association of American Colleges & Universities.)
‘No person shall be denied the right to education. In the exercise of any functions which it assumes in relation to education and to teaching, the State shall respect the right of parents to ensure such education and teaching in conformity with their own religious and philosophical convictions.’

However, the right to education is a recent development. Until the 20th century, in the Netherlands and England at least, society’s ‘elders’ (nobles, churchmen, politicians, etc.) largely determined who could be educated and how.

But how to fulfil that right?

It is not only a question of people having a right to be educated, however: Education has to be provided and so a key question is who has the right to teach and to teach what, and how should their activity be organised, incorporated? Today we have become accustomed to the state playing a large role in this, but in England’s ‘Oxbridge’ universities, for example, a significant model was apparent at their inception in the 14th century: ‘independent corporations of learned people’, meaning those who taught took on the responsibility for what and how they taught and also ensured they were sovereign in their political and economic existence. ‘Political’ meaning how they contracted with the rest of society; ‘economic’ meaning ensuring they were viably financed.

Finally, the way education was financed, both in regard to its ‘providers’ and those being educated, plays a key part in access, and finance is a rights matter. Thus, generalised access to education is intimately bound up with funding methods. During the 19th century the state came to be the main vehicle for this, coupled with the right to education. Taxation-funded education made it free at ‘point of consumption’, or pre-financed. The financial performance of the right to education was guaranteed by way of taxation (even if that made of education a political football), an achievement now becoming qualified by modern marketisation.

5.3 The Cases

Although the reports focus on the Netherlands and England, it is clear that ideas about education tend to be universal, certainly pan-European, rather than national. Inter alia, the growth of humanism in the 14th to 16th centuries was very important for changing ideas about the content of education. Inspired by old Greek and Roman culture, humanism was a movement of scholars for whom education is much more than just learning a profession or religious worldview, it is a secular way to develop human capacities, to grow into a developed, civilized and sophisticated human being.

The influence of enlightenment

In the 18th century, the worldview of the Enlightenment supported the changing perspective
on education. The Enlightenment motto was ‘reason above ignorance and superstition’. Education could and should contribute to developing human capacities, according to Kant. In an analogous line of thought, Wilhelm von Humboldt that education should be holistic and enable students to become individuals and world citizens. The purpose and task of the human being is to develop his intellectual, artistic, moral and practical skills as far and as harmoniously as possible.

Within the cultural aspect is nested the confessional dimension, a main driver of which was the question of whether god and things divine was ‘on high’ or ‘in me’. The Protestant Reformation also influenced education heavily. According to supporters of the Reformation, the purpose of education was to educate children in Protestant doctrine. And because education was still mainly determined and organised by the Church, a change in the Church meant a change in education across occidental Europe.

5.3.1 The Netherlands

Whereas in the Middle Ages the idea as such of generalised access to education had not existed, it arose with the Renaissance.

Early 19th century: School struggle

From 1806 until 1920, the Dutch struggled with the implementation of the idea of freedom of education and its unconditional funding. The purpose of what became known as the school struggle – schoolstrijd in Dutch – was to achieve overall equivalence (in terms of freedom of underlying worldview and access to funding) between private schools under the responsibility of school boards and parents and public schools under the responsibility of government.

The first phase of the Dutch school struggle started with the enactment of the Education Law in 1806. This law distinguished between public and private schools, while specifying the purpose of public elementary education as “the development of all civic and Christian virtues” (de opvoeding tot maatschappelijke en christelijke deugden). This distinction between public and private schools and the ‘neutral’ worldview would dominate Dutch politics for over a century and become the heart of the Dutch school struggle. The subject of the first phase would be the implicit assumption underlying a system of centralised state-funded ‘neutral’ public schools, namely that knowledge is objective.

Supporters of freedom of education defended the right to determine the religious or philosophical worldview underlying their children’s education. According to them, ‘neutral’ education does not exist, because in the end all knowledge is rooted in and to some extent directed by religious or philosophical convictions, and therefore endorsement of one particular, so-called ‘neutral’, worldview by the state is not only unjust, but even dangerous. On the other hand, opponents of free education argued that the state has a duty to support children to rise above a particular religious or philosophical conviction – even if this is their
parents’ worldview. Freedom of education with a diversity of doctrines was in their opinion a danger and could even destroy the unity of the Netherlands.

In the second phase of the school struggle from 1857 till 1920, the focus shifted from the right to establish private (special) schools, to getting the equal right of state funding for both public and private schools. It began in 1857 with the enactment of a new Education Law securing freedom of education with two exceptions: (1) supervision and (2) examination of the competence and morality of the teachers, both of which remained with the government. Although a clear definition of freedom of education was not formulated and different interpretations existed, the Dutch people were now officially allowed to establish and operate schools based on their religious or philosophical worldview. For a short period the supporters of freedom of education thought that the school struggle was over. However, in practice it was hard for free schools (without state funding) to flourish in an environment with public schools funded by the state. In 1900 a new law made elementary education compulsory; children between 6 and 12 years had to attend schooling of six grades.

The struggle ends with a new law

This second stage and the school struggle ended in 1920 with the enactment of a new Elementary Education Law recognising (1) the right to establish, manage and operate a school regardless of religious or philosophical worldview, (2) equal access to public funding for all schools, and (3) that “all schools are accountable to the government regarding education quality and standards of hygiene and safety” (Wolf and Maceto in Naylor, 2012, 246).

The first decades after the school struggle are called the period of ‘distributive policy’; a period in which the national government and municipalities had a limited role and in which citizens decided the direction (i.e. content, method and organisation) of education. The government looked after the implementation of freedom of education and restricted its activities in education to administrative, financial and juridical tasks. Schools were heavily regulated on input (such as costs, wages) and less on output (curriculum and degree requirements, i.e. content).

Post-WWII Development

After the Second World War the role of the government in education changed gradually into a period of ‘constructive policy’, primarily by developing education reforms. Since the beginning of the 1980s the influence of businesses on education increased gradually, and subsequently a business logic of return on investment and economies of scale entered the education system.

At first sight the Dutch history of generalised access to education looks like a success story. Looking further, we notice that two new problems have arisen. First, today, higher education is only partly state-funded, and increasingly funded by loans; young people increasingly have to borrow to study and, in conditions of high and rising unemployment, many become heavily
indebted. The state currently organises, funds and controls generalised access to education; all three aspects are in the hands of the state. And second, diversity has declined and standardisation has become the norm, with the Dutch government setting standards not only for class size and facilities, but also for curriculum subjects, teacher certification, and tests.

5.3.2 England

Ambivalent role of increasing state involvement
In England, the more education was perceived as good for society and good for individuals, the more the state became more involved in, indeed charged with, the definition and provision of education. As noted earlier this gives to the state a mixed role. On the one hand, it can be the vehicle, through legislation, of bringing into social fact generally held values. On the other, although it is not self-evident as to why, the state has come to do more than provide an equitable context for education, and gone on to determine its nature and provision.

The overall story of financing generalised education in England is that by the end of the 19th century this had become essentially a matter of state education, meaning schools were tax-funded on terms, including pedagogical terms, dictated by the state. School attendance would be compulsory from 5 to 14 (15 in certain cases) from 1918 onwards. There were, and still are, of course, private schools (called ‘public’ by a quirk of Englishness), and there were church schools. As the 20th century unfolded, however, the situation changed to being one in which private schools still abound, albeit as charities receiving state subsidies, while church schools have become subsumed in state education with their denominational or confessional specificities reduced to special assemblies or lessons, or else ‘neutralised’. Even so, a salient point to note is that, confessional add-ons apart, nowadays they all pursue a curriculum with a positivist and materialist bias.

20th English education: Four characteristics
More precisely viewed, the development of English education in the 20th century was characterised by four things:

1) Increasing state involvement through the link between state funding and state control of what it is funding. Since in England, the state does not exist in law, as an entity, in practice this means a combination of central and local government authorities (variously named over the period), while funding means a combination of national taxation and local taxation.

2) The continuation in various forms of its tripartite approach, reflecting not only the upper, middle and lower classes as a general social conception, but the deep-rooted notion in England that society should be so composed – of those who rule, the professions, and then everyone else.

3) The maintenance of a mixed economy from 1945 to the end of the 1970s, which
undergirded a largely state-funded educational system with access generally available to all (even if the access was skewed by the tripartite conception), funded by government grants of various amounts and kinds. As a rule, therefore, overall education was state-funded. As just mentioned, even private schools, as bona fide charities, were eligible for substantial state subsidies.

4) The switch under Margaret Thatcher towards marketisation, which is a development that is not as straightforward as it may seem. On the face of it, the idea is to free education from the state and let it be a matter of market forces, meaning parental choice, and, eventually, private funding by those being educated (or their parents), with schools owned and managed as private businesses. Linked to this is the rise of the banking notion of loan-funded education, rather than grants.

Thatcher’s strategy meant denuding the unions of much of their power, removing education from (or directly closing) local authorities which were often typically Labour-led, and by creating national alternatives to state-funding instead of local authority funding, such as the Funding Agency for Schools and local management of schools (LMS), which respectively allowed schools to get their funds from central government rather than locally and made their governors responsible for their budgets and day-to-day management (albeit within constraints laid down by the government).

*Marketisation and ever-increasing state involvement*

The overall results can be subsumed under the headings of state involvement and marketisation: Education was made an increasingly-kicked political football, with 14 education acts since 1976 (out of 21 since 1900), but also with each successive government regardless of its traditional ideological stripe the new status quo of a marketised education system continues. An important aspect of this marketisation is based on commercial models. Part of this concept, therefore, is that the ‘supply’ of education is overseen by government agencies responsible for its quality, but as if education was synonymous with goods coming off a production line. Moreover, it also needs to be noted that while such increased centralisation and deepening of state involvement may, perversely perhaps, be seen as the prelude to getting the state out of education (or education out of the state), as things stand this is far from the case. In England the state has never been so involved in education as it is now.

5.3.3 Germany

*Student economics of higher education*

In comparison to other countries, higher education in Germany bears relatively low costs to students, since the state covers much of it. However, this does not mean that students do not have to have a certain amount of income to pay for their cost of living, books, IT, transportation, etc. So generally, there are two kinds of costs of education: The cost of
providing it, and the cost of receiving it, the latter expressible as either opportunity cost or cost of living and studying. To generate income to cover the latter costs, there are three principle sources: The state, students’ stakeholders in the wider sense (families, employers, etc.), and third parties, such as foundations, businesses, networks, etc. The paper will deal with the first source and how the state contributes to cover students’ living costs by providing subsidies (half in the form of a grant, half as a low-interest loan) within the framework of the Bundesausbildungsförderungsgesetz (BAföG, federal education promotion act). Its enactment in 1971 can be seen as a social innovation in the wider context of the “Bildungsexpansion” (education expansion) in Germany, a process in which the state and other societal actors sought to include more people in higher education, as it became increasingly clear that education is an important ingredient to a nation’s economic and social progress. Depending on student families’ income, the BAföG entitles students to receive subsidies to cover part of their living costs.

**Development and consequences of the BAföG**

The main goal of the act is to increase the level of equal opportunities in the educational system as well as to mobilise and utilise the human resources of economically weaker parts of society. And in fact, its enactment has enabled more people to enter the system of higher education in Germany in a less selective and conditional way (other sources of subsidies discriminate more according to certain criteria, such as confession or high talent), thus reducing the amount of marginalised people in economic terms in general and in terms of education in particular. However, the case also illustrates two other aspects of social innovation: First, it demonstrates practical difficulties of handling the concept of marginalisation, as this kind of social innovation has neither been designed for nor reached the most marginalised in German society. And second, it also underscores that the provision of finance is probably not the most effective way of alleviating the problem of lacking access to education, as the example also makes clear that many are still excluded despite the fact that they are entitled to receive BAföG payments. Instead, other barriers persist, mainly cultural ones, and as a result, part of the social problem remains in place.

**Taking a closer look**

The BAföG support scheme helps many to get access to higher education who would otherwise be excluded for economic reasons. However, the figures presented in the case study represent those who already are in tertiary education and not those who are still excluded. Yet studies show that there are strong influences keeping young adults out of higher education although they would be qualified and ranging from early childhood through primary and secondary education. In all of these development phases, the German education system tends to reproduce the educational status of families: Children, youth, and young adults are persistently evaluated and ranked according to their social status and the educational background of their families. The actual performance of children and youth is of course
shaped by these assessments. That in turn has a strong influence on young peoples’ educational career, and it has been shown repeatedly that decisive decisions are not adequately taken on the basis of pupils’ school performance, but are strongly influenced by cultural factors, such as the teachers’ perception of the educational background of the pupils.

**Barriers to education – beyond financials**

Moreover, not only financial opportunities might affect educational chances. Also social skills transmitted from one generation to the next through behavioural characteristics learnt and copied within the family environment are relevant for education decisions. Such social skills, traits and personality are expressed in a collaborative attitude, ambition, orientation toward the future, sense of personal efficacy, work ethic, risk-taking etc. Such factors might also let young people step back from tertiary education in an academic environment. Although they seem to be far more difficult to be addressed by public policies, they should also be considered as future intervention targets.\(^\text{134}\)

Nevertheless, over the long-term the BAföG scheme is an expression of a changing cognitive frame on a societal level. A hundred years ago, it would have been unthinkable that principally everybody can and even should have access to higher education. Today, this is more or less common sense and a shared taken-for-grantedness. The BAföG scheme is a manifestation of how the cognitive framing has changed over that period of time.

### 5.3.4 Finland

**Two streams**

Before 1970 Finland’s education system was bipartite, reflecting a somewhat conservative view that not everyone can achieve and so there were two streams that allowed the ‘bright’ to go further than the others. In the 1970s the system was changed to be universally comprehensive with a national curriculum, but higher education remains two streams – polytechnics for the training of professional and universities for research. As structural as meritorious, this distinction reflects different tasks of education rather than the idea that some can achieve others cannot.

**State funding and economic needs**

The features of the Finnish educational system that most stand out as regards the focus of this case study are the following: First, the widespread nature of state funding, and second, the strong tie-in of education to the economic needs of Finland:

1) After 1950, when of the 338 grammar schools, 217 were private, meaning not state-funded, but fee charging, state funding was generalised. With that came a

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\(^\text{134}\) For a more detailed elaboration of this argument, see von Jacobi and Chiappero-Martinetti (2015).
generalisation of state involvement – hence a national curriculum that all schools, regardless of their background, follow. Finland today follows an extensive welfare state concept, with not only education fees getting state funded, but school meals, travel, housing and many other benefits, albeit often means-tested.

2) The Constitution makes it clear that education in Finland is strongly related to economic imperatives in particular the need for Finland to compete in the international economy. This has also meant tying education to ‘investment in human capital’ and in recent times, since 1990, seeing education as part of national innovation, requiring a strong knowledge economy. The link to economic imperatives is also in the form of polytechnics training students in response to ‘the needs of the labour market’.

The 2010 Education Act made universities independent legal entities, separate from the state, meaning the beginning of marketisation, with employees being given contracts other than from the state. Their funding base was also diversified, meaning opened up to sources of funding other than state-funding.

A small but strong welfare country
The overall picture therefore, is of a small country by population within a strong welfare society, meaning heavily tax-funded. The state has correspondingly substantial involvement in the content and modality of education, even if administratively schools and institutions have (increasing) autonomy. But this can also simply mean modernisation towards privatisation, if only, at this stage, by way of the state adopting market-like arrangements and cultures in the delivery of its services.

5.4 Conclusion
Three developments observed
From the cases analysed, we derive three main observations:

1) The generalisation of education has traditionally been state-financed.
2) Education is becoming increasingly marketised.
3) Education is still very much state-controlled.

These developments are not unique to The Netherlands. This is why several authors, including Sen (2001), Houghton Budd (2004) and Nussbaum (2010), argue that today’s society faces a ‘silent crisis’ (Nussbaum, 2010); our education system(s) is (are) increasingly not aimed at the free development of capacities of young people, but subordinated to economic efficiency and/or political demands – preparing young people for employment in the economy or in government is the key purpose of schooling. The demands of economic and political life are dominating cultural life. In particular since the rise to dominance of free-market ideology in politics and the subsequent marketisation of education in the 1980s values like efficiency,
effectiveness, return on investment, assessments according to standardised criteria, measuring, hierarchical and management take precedence over values such as freedom, diversity, pluralistic, spirituality, citizenship, solidarity and independency.

*Financing generalised education as a social innovation*

Seen as a social innovation financing generalised education is at once incremental, institutional and disruptive, meaning the whole of society is as affected by it as shaping of it. Different countries have distinct colourings in line with their histories, but a clear circumstance is emerging that they all have in common, namely the challenge to the generalisation of education represented by state-funding being conditional upon a state curriculum, on the one hand, and by marketisation, on the other. This development is, in that sense, pan-European or universal.

*Concluding theoretical aspects*

In terms of the perspectives of Beckert and Mann, the studies suggest revisiting cognitive frameworks and cultural ideas, which cannot be done either in theory or in practice without also looking at the institutional / political and social network / economic aspects.

Thus, our study of the history of financing generalised education helps to identify in more concrete terms:

a) aspects of marginalisation (following the definition proposed by Jacobi, Edmiston and Ziegler (Jacobi *et al.*, 2017, p. 5)) in terms of ‘culture’, ‘politics’ and ‘economics’;

b) how capacities as the foundation of ‘capabilities’ entail establishing one’s own value system, one’s own governance, and one’s own funding.

**6. Key findings**

Based on the application of the ESGM to the data from the comprehensive case studies, findings provide several insights regarding the empirical as well as the theoretical-conceptual dimension of this work. We will first provide a synopsis of the relevant SI dimensions as derived from the case studies. Based on these differentiations, we will then provide a set of empirical findings in the form of propositions. Further, we establish references to theoretical models from WP 4.1 and others where suitable.

**6.1 A synopsis of relevant dimensions: Precursor of an SI typology**

Before discussing some empirical findings regarding influential factors in the ecosystems and lifecycles of social innovations, we derive a synopsis of the relevant dimensions of social
innovations from the empirical data. The comprehensive scope of the ESGM (also from the individual cases) shows that SI can have various characteristics that are more or less pronounced from case to case, and that these characteristics can also vary over time and context. For example, a solution can be more market-based from one aspect or at one point in time (such as subsidised rents instead of housing allowances in social housing), whilst the core social mission (providing secure, clean housing to people in need) remains the same.

Instead of a rigid typology, we argue that a set of spectra in which (different manifestations or stages of) SI can be sorted therefore is more helpful. These characteristics can also help to develop more precise propositions about relations between SI characteristics and their ecosystem and lifecycles. For example, a SI with high physical infrastructure needs, such as a freshwater system with its pipes and sewer systems, might be more a subject to path dependency than other SI e.g. in the field of education, where fundamental changes do not necessarily need new physical infrastructure. At this stage, the relevant dimensions suggested constitute an open list that should be further refined and amended. We suggest distinguishing two inductively derived types of SI dimensions, namely the mission and the mechanisms of the social innovation. The social forces as defined by Jens Beckert (Beckert, 2010) determine the manifestations in each category.

What is more, the fact that social innovations co-evolve with innovations in the technical (artefactual), political, economic and other domains (cf. D 4.1 and next chapter) implies that the latter do not only have the functions of supportive or complementary drivers, but they can also be means in pursuing the social mission themselves. Accordingly, they can even be part of the SI in all types. Thus, the synopsis provides an approach to account systematically for the relation between socio-economic structures and SI characteristics.

6.1.1 Mission of social innovation

- Problem focus – separated vs. integrated: Social innovations can be designed to purposefully address either a single cause, such as fresh water provision or secure and clean accommodation, or several causes at once, e.g. when social housing facilities provide opportunities for education and community building equally. As stated in the notion of ‘wicked problems’ (Neck et al., 2009; Rittel, Horst W. J. and Webber, 1973), social issues often are highly complex. A poor housing situation is a consequence of scarcity on housing markets, but also relates to poor education, lack of workers’ rights, or missing knowledge about the importance of hygiene. The same is true with regard to fresh water supply. To provide marginalised people with access to clean water was also considered an appropriate means to prevent epidemics, to preserve the worker capacity, and to boost moral. Often several causes are addressed with one approach to achieve a more sustainable improvement of

135 Which does not mean that there are not any spill-over effects in improving other capabilities, too.
the situation (i.e. beneficiaries’ capabilities).

- **Beneficiary focus – broad vs. narrow:** Further, the targeted beneficiaries of SI can be very different. In broader and more general beneficiary approaches, the SI rather addresses society as a whole. This means that also people who are not severely affected by a problem (i.e. who are not really marginalised) are addressed with the SI activities and/or can benefit from them, for example for the sake of a good social mix in social housing. The set-up of freshwater supply in European countries and the infrastructure needed resulted in a situation where society as a whole profited from the SI, not just the marginalised. As epidemics could be spread by anybody and affect anybody, a broad focus to reach the designated target made more sense. Water and hygiene mattered to all, and thus an inclusive approach was adopted.

Other SI take a narrower approach and focus on specific communities or even individuals. In early social housing approaches, the ‘skilled and responsible workers’ as well as the ‘deserving poor’ were targeted (in contrast to the most marginalised ‘undeserving poor’; a differentiation that did not matter when it came to fresh water, see above), which was, however, also to reduce social tensions and epidemics and to improve worker capacity. Later on, due to resource scarcity or legislation, social housing focused more on those really in need, i.e. taking a more residual approach. Additionally, ideological influences can result in the focus on (or exclusion of) a specific ethnic group, like under the Nazi regime in Germany.

6.1.2 **Mechanisms of social innovation**

- **Support approach – self-help vs. patronising:** There can be different approaches of support. In line with the CA, offers of help can be addressing mostly the preconditions for individual agency of people in need, leaving their autonomy to them and strongly building on their own initiative for the improvement of the situation (e.g., the settlers’ movement in Vienna in the 1920s.). A socially innovative approach could also just mitigate symptoms of a social problem instead of searching for an approach that at long sight could be conducted by the beneficiaries themselves. Of course, this also depends on the nature of a social problem. For instance, tank vehicles can provide communities with potable water but the people there stay dependend on timely delivery and the amount available. The way the SI is delivered limits their capabilities as it imposes certain behavioural expectations on them. Another example could be villages that are provided with food deliveries instead of a water supply which would allow people to grow their own vegetables or to water their fields. However, approaches can also be more paternalistic, even going so far as to heavily trim the autonomy of the people in need (as in social control approaches during earlier phases of social housing or compulsory school attendance). Both the potential exclusion of target groups as under the Nazi regime as well as the paternalistic approach in early social housing illustrate the potential ‘dark side’ (Nicholls et al., 2015) of SI (cf. Havas, 2016). This refers to the fact that social innovations not necessarily always have a positive impact, at least regarding more or less common sense
criteria. (Yet, also self-help approaches could be alleviatory and mitigating rather than systemic in approach – e.g. when structural unemployment is framed as a supply-side issue of just lacking skills of the unemployed without acknowledging low wage economies and poor distribution and recognition of labour (see also below for the discussion of this aspect).

- **Responsibility – public, private, civil-society, community:** There usually is a particular good or service at the heart of a social innovation that targets on the improvement of human capabilities, even when these are intangible such as participation or transparency. Accordingly, there are also providers of these services. As opposed to business-related innovations that focus mostly on private companies or in some cases on the state (Havas, 2016), these services can be invented and provided by all parts of society including public actors, private market actors, communities themselves or civil society actors, or collaborations among them. The obligation to provide these services however is not necessarily determined by the actor background. For example, public actors can equally provide market-based solutions, and private market actors can likewise perform a service on a mutual interest or even benevolence base (e.g. in corporate citizenship). Interestingly, in most SI there is some collaborating arrangement for the provision of social services, such as public-private partnerships which for example in social housing or in fresh water supply became the dominant mode of provision in various countries since the 1970s. What is more, an interesting question regarding the provider is whether the marginalised, i.e. the beneficiaries, are involved as providers as well. This can be a question of social capital.

- **Provision – market-based vs. quasi-market based vs. non-market based:** One way to frame the context of SI emergence is that they occur as a reaction to governance and market failure. The consequence of these failures is that marginalised people do not have the capabilities to achieve certain functionings. Some SI provide goods and services that can rectify these problems. The question is, however, in what way these goods and services are delivered to the beneficiaries. As the data indicates, there is a spectrum for this delivery as well. Given our focus on economic underpinnings, the first important argument is that SI can rely on market forces to different extents. The services in all cases, be it fresh water, social housing or education, were provided partly on free markets, on regulated quasi-markets with fixed fees and possibly a third party that covers the cost for the marginalised, or without a market base at all (at least for the delivery of the core product and services). In the latter case, this can mean that the goods are fully provided publicly, but also on a mutual interest or benevolence base within communities or by private, philanthropic actors (cf. the section on providers). These different modes even occurred in parallel, given local or national circumstances or even the social forces that shaped the agency of the innovators, such as in

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136 The perspective here is different from the one on systemic failure as mentioned in Havas (2016), since it focuses on those failures that create marginalisation instead of those that hamper (business) innovation. However, under the presumption that marginalised populations can also be inventors and innovators, there is a considerable overlap of both perspectives.
early social housing (five percent philanthropy vs. “normal” philanthropy).

- **Physical infrastructure needs – high vs. low**: Some SI depend quite strongly on physical infrastructure, such as the sewer system in fresh water provision. This has some consequences for the flexibility in their adaptation (see below). Housing blocks could be named here as well, although it is generally easier to declare buildings to be social housing facilities, whilst one cannot setup a fresh water provision system easily. On the other hand, some SI can be rather easily changed or displaced because they do not depend as much on a certain physical system. Funding systems for education are an example here. Generally, however, administrative innovations can also be adapted for SI that depend on physical infrastructure.

**Table 15: Relevant dimensions of SI**

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<tr>
<th>Dimension</th>
<th>Spectrum</th>
<th>Example</th>
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<tbody>
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<td><strong>Mission of activity</strong></td>
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<tr>
<td>Problem focus</td>
<td>separated vs. integrated</td>
<td>SH: simple accommodation vs. accommodation with educational and community building aspects</td>
</tr>
<tr>
<td>Beneficiary focus</td>
<td>broader vs. narrower</td>
<td>SH: specific, more marginalised target groups vs. more general (direct or indirect) target groups</td>
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<td></td>
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<td>FW: broadly defined target groups made more sense (e.g. town vs. neighbourhood, whole population vs. marginalised)</td>
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<tr>
<td><strong>Mechanisms of activity</strong></td>
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<tr>
<td>Support approach</td>
<td>self-help vs. patronising</td>
<td>FW: pipe network vs. tank vehicles</td>
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<tr>
<td>Responsibility</td>
<td>public, private, civil society, community</td>
<td>FW: different approaches in governance and organisation (public, public-private, private)</td>
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<tr>
<td>Provision</td>
<td>market- vs. quasi-market vs. non-market based</td>
<td>SH: subsidies/rent controls vs. public housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FW: Payment schemes for marginalised vs. public supply</td>
</tr>
<tr>
<td>Physical infrastructure needs</td>
<td>high vs. low</td>
<td>FW: the sewer system in fresh water provision</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH: housing stocks</td>
</tr>
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<td></td>
<td></td>
<td>FAE: fundings system</td>
</tr>
</tbody>
</table>

N.B.: SH: Social Housing, FW: Fresh Water, FAE: Financing Access to Education

### 6.2 Empirical findings on SI development

The data of the comprehensive case studies also allows for developing some propositions about relevant factors in relation to SI ecosystems and lifecycles and beyond. We suggest to distinguish between **lifecycle and ecosystem propositions** that mostly refer to questions of the emergence, diffusion, and adaptation of the SI, and **agency and impact propositions** concerning the role of innovative activities within the given socio-structural context and their effects on the beneficiaries and beyond.

#### 6.2.1 Lifecycle and ecosystem propositions

Roughly sketched, lifecycle propositions – based on our analyses of the three longterm comprehensive case studies of WP 2 - comprise findings regarding **emergence, diffusion, and**
adaptation of social innovations. Because they often are related to ecosystem factors, this section contains propositions dealing with both aspects at once.

**Proposition 1: Major social innovations do not have a single starting point, but grow from different responses to a social need. These responses are influenced by different social forces and thus create diversity within the SI from the beginning.**

SI literature (e.g. the *adaptive cycle*\(^{137}\) of Frances Westley 2008 or the *spiral model*\(^{138}\) of Murray et al. 2010) often assumes that there is a single locus and starting point of a SI from where an innovation spreads and is adapted in different contexts during the scaling process. Our findings from the macro, long-term perspective are more in line with models such as the *innovation journey* (Van de Ven, Andrew H. *et al.*, 2008) which states that a bundle of complex and divergent developments internal and external to the innovating unit occurs, and that many entrepreneurial personalities in fluid roles engage in this process. Even more, from our aggregated perspective we found that these ideas develop at various points and only over time in the public perception become grouped as being parts of a single major innovation, although variations might remain over time (see below). For example, there were several actors that responded to the need for housing in the beginning. All of them were heavily influenced by cognitive frames and their respective social networks, but also by the (weak or absent) institutions that dealt with the problems (and often created or reinforced it) at the time.

During the development of the SI, these actors built multiple linkages and reconfigurations of these basic ideas. As Levy-Vroelant *et al.* (2008, p. 41) put it, social housing developed as a compromise between different or even opposing philosophies and political understandings of the common good. Actor and network constellations have been highly dynamic and heterogeneous over time, which might very likely be one of the main reasons for the innovative capacity of social housing as a field (Levy-Vroelant *et al*., 2008, p. 42).

\(^{137}\) The adaptive cycle of Frances Westley (Westley (2008), fig. 1) consists of the four phases release, reorganisation, exploitation, and conservation. Westley explains this infinite loop as follows: “Once an idea or organisation reaches the maturity (conservation) stage it needs to release resources for novelty or change and reengage in exploration in order to retain its resilience. The release and reorganisation phase is often termed the ‘back loop’ where non-routine change is introduced. The exploitation and conservation phases are often termed the ‘front loop’ where change is slow, incremental and more deliberate.” Westley (2008, p. 3). In further studies, McGowan and Westley looked on the “roots and developments of social innovations through comparative historical case studies”\(^{138}\) (2015, p. 52) to find out about the key dynamics, different landscapes for innovations and different roles for agents. They were interested in understanding the conditions in favour of disruptive change as well as supportive behaviour, important actors and the life cycle of innovations McGowan and Westley (2015, p. 58).

\(^{138}\) Murray et al. developed a spiral with the six stages of social innovation Murray *et al.* (2010, p. 11): prompts, proposals, prototyping, sustaining, scaling, systemic change. They state that „many of these stages overlap and may be undertaken in a different order … feedback loops exist between every stage, which makes the process iterative rather than linear” The Young Foundation (2012, p. 34).
Proposition 2: A broader diffusion of social innovations is more likely when advantages reaching beyond the target groups to society at large become visible.

SI literature often explains the emergence and diffusion of social innovations by “faith, hope and a sense of calling” (Westley et al., 2007, p. 82) of proactive inventors. However, this might only be one part of the story, at least when it comes to a large-scale adaptation of the SI. The tensions in the context of the ‘social question’ in the 19th century are a good example of this. For a social innovation to be developed and scaled, the interests of different stakeholder groups beyond the actual beneficiaries are important too (such as politicians, representatives of the middle-class, or industrialists that are interested in productive working capacities and the reduction of social tensions and epidemics). This also indicates that the social innovation develops through a process of social construction in some respect (cf. Bijker, 2009). Obviously, there is some interpretative flexibility in the question of the value of social housing. The altruistic rationale of improving the living situation of the poor was not enough for a large pervasiveness of social housing activities. The rationale more prevalent within other decisive social networks, such as amongst industrialists and some conservative politicians, was to reduce social tensions and ensure a productive workforce and contributed to this spread considerably. Similarly, in the case of fresh water supply, it was a combination of hygienic, moral, and economic arguments, which raised the acceptance of the SI in the whole society and helped the social innovation to gain momentum.

All our comprehensive case studies deal with key innovations in the history of the modern welfare state. Fresh water supply, social housing and financing access to education address key areas of its development. Being large scale models of societal integration, their trajectory was characterised by an ethos of equality (cognitive frame). Our proposition fits well in scholarly debates on the social state (e.g. Wagner, 1995), but have not yet been discussed in the area of SI. (1) The analysis of our data exemplified that there is always an incubation phase that lasted until the innovation had proven its usefulness. Afterwards, the innovation was enshrined in the social state. Thus, an interplay between innovation and policy becomes visible. Both are necessary and influence one another as societal guidelines intertwine. François Ewald showed this with his analysis of the social insurance as a societal invention (1993). (2) The broad adaption of a SI is facilitated if it not only brings advantages for the marginalised but for large parts of the population, which sometimes is at the cost of a strict focus on the most marginalised. (This has been discussed with regard to the emergence of the welfare state e.g. by Karl Polanyi 1977 or Christoph Sachße and Florian Tennstedt 1986.)

Proposition 3: Broadly adapted social innovations continuously stimulate, accommodate, or flexibly exploit economic, artefactual, and policy innovations (co-evolvement).

From the empirical data, the clear picture emerged that the development of a social innovation that moves into mainstream is multidimensional. There are continuous innovations not only in
the economic domain (new modes and business models of service provision), but also artefactual innovations (construction material, techniques and styles, household devices), policy innovations (regulations and subsidies), or overarching innovations (new organisational forms with co-planning and co-management, economic, cultural and political) that co-evolve with the SI. Regarding the particular relations, some differentiation is necessary. Innovations in other categories can become necessary on the one hand and are thus stimulated by a specific need arising due to changing demands or efficiency pressures, e.g. the need for cheap construction material or building techniques in social housing to meet the demand at reasonable cost. On the other hand, SI also are open to accommodate innovations from other contexts, and even can become a field of experimentation for new societal ideas (such as the “Frankfurter Küche” or new electrified household devices influenced by the feminist movement and Fordist ideas in social housing). New scientific findings and technological innovations on water storage or infrastructure building influenced the development of fresh water supply; they were incorporated and utilised. Both developments interacted and intensified each other. Generally, this means that a comprehensive picture on SI has to cover different (sub)units of analysis (cf. Havas, 2016), such as goods and services, organisations, and institutions.

Proposition 4: Social innovations carry a continuous variety in their local manifestations mainly because of three different factors (all influenced by different types of social grids and the resulting power distribution):

(a) permanently evolving circumstances and social needs (marginalisation),
(b) the variety of actors and beneficiaries involved, and
(c) permanent state of flux of resource availability.

This proposition is very fundamental and covers basically the essence of the ESGM. It further deepens the finding of ongoing renewal and variety within SI. Levy-Vroelant et al. (Levy-Vroelant et al., 2008, p. 42) expressed this nicely as for the context of social housing:

“Social housing was never dominated by one actor for a long period. Private and public interests, central governments and local authorities, left wing and right-wing ideologies, individualism and collectivism, big estates and single family 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.”

However, the statement can be confirmed for all major innovations examined. Under the
umbrella of a major social innovation and its basic idea, a pluralism of goods and services, policy instruments, organisational models etc. evolved (see also the synopsis of SI dimensions). This occurred for a variety of reasons, including different characteristics of beneficiaries, external developments in politics or on financial markets, normative resource allocation issues in the societal discourse and policy making, etc. Like this, and particularly due to its normative dimension, SI are constantly challenged and re-negotiated by competing social forces on different levels and around different related topics. This can be illustrated by the discourse before and during fresh water privatisation promoted by neoliberals. Citizens became customers, the target changed from the society to the individual, and social tasks became personal burdens.

Accordingly, our data suggests that innovation lifecycle models acknowledging such complexity are particularly suitable for SI, such as for example the multi-channel interactive learning model of innovation (Caraça et al., 2008) that radically departs from the linear innovation models and stresses the involvement of different types of actors, knowledge, and interaction for knowledge creation. As Havas (2016) points out, for SI the selection processes are even more complex since more actors (innovators, beneficiaries, policy makers/politicians, media etc.) claim their stakes in the process.

**Proposition 5: Solution approaches of social innovations can become mainstream when there is a “window of opportunity”**.

As in other fields (e.g. policies), new developments and adaptations in social innovations are usually not developed instantly when a social need arises, but have been existing on a small scale (niches) before (e.g. the combination of social housing with non-landlord services). They achieve a broad adaption only when a window of opportunity occurs, often because of war consequences, an economic crisis, or challenges such as the current asylum seeker crisis. This finding is theoretically more or less predicted in the multi-level perspective (MLP) approach (Geels and Schot, 2007) in the debate on transition towards sustainability (for an introduction see also Giesecke and Kubeczko in Budde et al., 2016c). As a heuristic concept, the MLP distinguishes niches where the innovations emerge and remain on a small scale, possibly over a long time horizon, the (socio-technical) regimes, which form the mainstream and would be the level of broad adaptation, and the (socio-technical) landscape where the enabling crisis occurs. Through the ESGM, it is also possible to show that the crises can often be explained as an endogenous development out of the social grid rather than by an external shock.

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139 Giesecke and Kubeczko also show that the basic social forces, i.e. social networks, cognitive frames and institutions, are also basically considered in the MLP, although under a different terminology.
Proposition 6: Institutions created in the development of social innovations are not completely reversible because of legitimacy issues that would occur otherwise.

For example, during the development of social housing, solutions often were seen as temporary with the ambition to restore the previous state and return to business as usual when a certain crisis (WWI, World Economic Crisis 1920s) was overcome. However, data shows that it was difficult to reverse the already set up institutions and related expectations (cognitive frames), because this would have been hard to explain even by conservative societal groups.

6.2.2 Agency and impact propositions

Proposition 7: Social innovators smartly arrange their activities to benefit from change dynamics in social forces.

Data from the long-term cases show that successful social innovators understand higher levels of dynamics in social forces and try to align their activities in a suitable way to benefit from certain dynamics for their purposes. As Westley et al. (2007, pp. 60f.) put it, they “stand still and understand deeply the dynamic they seek to change” and then “use the momentum” because “(t)here are forces in the natural power of things that are the real source of transformation”. For example, the home economists after WWII acted as bridge builders and mediated across social networks between functionalist architects, governments and the beneficiaries. They did not create new social forces accordingly, but adapted more general, societal social forces to more specific social forces around the social innovation in question. The environmental movement has also made use of the right moment since the 1970s. By acting after incidents or accidents, demanding new or stricter regulations, pointing out and even scandalising existing conditions, they used successfully public attention to reach their goals. As a new social network they gained attention for their cognitive frame, transported it through action and media and co-shaped and co-built institutions.

Proposition 8: Disruptive changes through social innovations do not occur as a consequence of individual ideas, but of major societal incidents such as wars, economic crises, defeats of political systems, or technological breakthroughs.

This proposition is closely related to the “window of opportunity” proposition, but focuses on the preconditions for a strong impact of and on SI. The CrESSI framework acknowledges that there are different degrees of SI effects, which can be either incremental, structural, or disruptive and have different implications across a social grid (see table below).
The core idea of major social innovations is implemented usually at the beginning and remains relatively stable along its development (since it would lose its legitimacy otherwise). Nevertheless, given changing social forces that constantly impose new challenges, there is continuous adaptation. However, with our data we argue that in normal times, this change is usually incremental and mostly structural. Disruptive effects, however, do only occur as a consequence of major societal incidents such as wars, economic crises, defeats of political systems, or – in some cases – technological breakthroughs occurring outside the SI. Only under the impression of the consequences of such events (e.g. WWII and the extreme damages on the housing markets), powerful actors form the political and economic domain undergo fundamental change regarding cognitive frames, social networks, or institutions. The social innovation in consequence is adapted accordingly, with potentially disruptive effects in the influential area of the SI. The vice versa disruptive effects of SI that change fundamental social forces appear to happen less often. Such an effect usually only becomes visible after a social innovation becomes mainstream. An example can be found in political changes brought forth by the consequences of generalised education, such as social movements for democratic participation (in the 19th century) and social liberalisation (post-WWII). However, these disruptive effects on major social developments usually cannot be attributed to one single social innovation. For example, it is often stated that the Golden Age of social housing after WWII contributed considerably to a “social elevator” effect (Levy-Vroelant et al., 2008, pp. 38f.), which, however, also was fuelled by economic progress etc. Referring back to the MLP that distinguishes different mechanisms (or degrees) in change processes (Geels and Kemp, 2007), one could state that real “transition” (i.e. the change from one regime to another) can only occur when the major social forces change as a precondition of SI. Otherwise only “transformation” (i.e. adapting and re-orienting the regime) or “reproduction” (i.e. incremental changes supporting stability) occurs.

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140 Major SI usually comprise a certain involvement of the public sector (see Proposition 11).
Proposition 9: Social innovations are always a matter of collective agency because of the need to address the systemic nature of social problems.

This proposition from an agency perspective is the counterpart to Proposition 4 on the variety withing an SI along its lifecycle. Change agents (i.e. proactive individuals with a normative or instrumental motivation and attitude to address a social need) aim to influence the dynamics within all social forces in the described way, and are influenced by specific institutions, networks, and cognitive frames in this process. However, because of the systemic and co-evolving nature of SI, usually several actors are involved to contribute towards change by mutually (although not always coordinated) reinforcing activities. Concepts such as the innovation journey (Van de Ven, Andrew H. et al., 2008, p. 8), which states that “many entrepreneurs, distracting fluidly engaging and disengaging over time in a variety of roles” are participating, or the multi-channel interactive learning model of innovation (Caraça et al., 2008) which stresses the important role of many different types of actors (“suppliers, consultants, brokers, partners, distributors, competitors, users”, education, training and R&D organisations, providers of information and finance, regulators, …) and their mutual learning processes (cf. Havas, 2016) acknowledge this collective activity as well.

Proposition 10: The most marginalised are usually not the innovators, because their power positions do not allow them for initiating change.

The empirical data suggested that the most marginalised tended not to be the change agents in social innovation. The social forces that had been causing their marginalisation also were reason to the fact that they did not have sufficient power to initiate social innovations on a notable scale. In self-help approaches, e.g. in social housing, in some case there were “mixed” arrangements, where social reformers took the lead. The participating working class representatives were not the most marginalised, however. Yet, when the working class started to recognise their importance (cognitive frame), strengthened their inner social networks, and became increasingly institutionalised, their influence e.g. in policy making increased, although working class leaders were sometimes “absorbed” by the elites. Further, in more recent times when co-participation became a more prominent paradigm, this also increased the power of the marginalised who were addressed. A similar case is fresh water supply. In the 19th as well as in the 21st century, it is hard to find the marginalised in the social networks trying to improve the situation of the marginalised in the water sector. Participants in social networks as well as innovators more often have a middle-class background. However, there is also a notable exception to this assumption. In Vienna, the settler’s movement of marginalised populations that started to building houses and infrastructure from self-made clay bricks at the city margins (see chapter on social housing in Vienna in this deliverable) laid the foundation for one of the most differentiated social housing systems until today.
**Proposition 11:** For social innovations to reach a major part of affected populations, public actors must get involved to compensate for market failure and resource constraints, especially when there are high infrastructure investments.

For major social innovations to be provided on a broad scale, such as general access to housing, fresh water provision, or generalised access to education, public resources are necessary. Private actors usually cannot provide or generate the needed resources sufficiently, given the scale of such tasks when they become a generally accessible good. For example, fresh water supply became a public assignment in many European countries at the end of the 19th / early 20th century, when it became clear that private providers would not build up the supply system as fast and inclusively as expected. In many cases, marginalised inhabitants were not connected to the supply system if there was no obligation for all to do so. In social housing it quickly became self-evident, particularly after WWII, that the extensive need for accomodations required governments to take the lead, since the task was beyond the competence or willingness of the (barely functioning) private market industries. The same holds for the vast investments required for the infrastructure of generalised education; interesting to note in this respect is that the forces currently at work to marketise education build on that initial public investment without which they could presumably not get momentum. Social innovators pave the way to this understanding, and create or modify solutions that are adaptable for public entities. The involvement of public resources bears some consequences, e.g. that they are usually subject to allocation debates of different political parties and other societal actors with their different ideological backgrounds and motives.

**Proposition 12:** Social innovations are framed in different argumentative ways to be adaptable in and across different social networks.

Social innovations are often framed in different ways by change agents. For example, in social housing in Italy, the Christian Democratic Party was convinced from the *INA Casa* plan by arguments that focused on economic recovery and unemployment reduction, although its purpose was actually coming from a more left-wing idea of housing provision. Another example from our empirical evidence are the different arguments on the side of the proponents of generalised education in the Dutch school struggle that were employed differently depending on the varying social contexts in which they operated. This again refers to what is described as “interpretative flexibility” in the SCOT approach (cf. Bijker, 2009). Thereby, the difference to technical innovations might be that the process of “stabilisation and closure” is not as relevant in social innovations. Given that they are usually a subject to a variety of stakeholder interests with different normative, respectively ideological perspectives, it might rather be the nature of SI to uphold “interpretative flexibility” to be acceptable by as many stakeholders as possible.
**Proposition 13:** The more public policies ignore the complexity and local specificity of social problems, the more likely the solutions will create new costly problems in the long run.

For example in social housing history it became clear that in the course of social innovations, the solutions and policies from previous periods often contributed to new problems in later periods. In the case of social housing, ghettoisation and a loss of a social mix, stigmatisation of inhabitants, and poor housing quality were such problems. This held particularly true when decisions were taken under time pressure or using scarce resources, such as after the economic crisis in the 1970s. The complexity of social problems (Westley et al., 2007, pp. 21–22; Neck et al., 2009; Rittel, Horst W. J. and Webber, 1973) is then often not considered adequately, or negated by the active entities. The more distant the service providers are from the local reality of the beneficiaries (e.g. major top down implementation programmes of social housing), the more likely these negative effects are. Privatisation in the water sector on the other hand has created economic problems for marginalised people among other things because of different policy-making levels: pricing happened locally, if carried out by private company or public entities, but the laws or regulations (e.g. concerning social benefits) were made on the national or supranational level. The more political levels are acting within a complex field, the more difficult it becomes to limit the unintended effects.

**Proposition 14:** Because the social grids around social innovations are embedded in more general societal social grids, social innovations can be subject to ideological manipulation.

There usually are cognitive frames, social networks and institutions that refer more or less directly to social innovations. However, there mostly are more fundamental social forces around questions such as the role of the state in mitigating social needs or even more general political and ideological aspects. Given this fact, SI usually can not be seen independently from political ideologies. As for example social housing under the Nazi regime shows, this can have also strong negative impacts from a capability perspective. Under these circumstances, racism became manifest in the selection of beneficiaries (“Volksgenossen” and “Aussonderung der Gemeinschaftsfremden”) as well as in the style of dwellings (rural and poor quality small units). The same goes for the arguments in the Dutch school struggle, which went way beyond the pro’s and con’s of the social innovation per se and underscore this finding.
7. Discussion. Comprehensive Case Studies through the Extended Social Grid Model and other case innovation literature models

Based on the empirical findings we will now discuss the implications on the theoretical-conceptual model. In the first place, this means that we discuss the explanatory power and consistency of the ESGM against the background of our long-term data. We will then briefly discuss the innovation literature in relation to SI (eco)systems and SI lifecycles and close with some recommendations and concluding remarks.

7.1 Explanatory power and consistency of the ESGM

The application of the framework to the cases ought to reveal findings regarding the explanatory power of the ESGM, whose ambition is as follows (Nicholls and Ziegler, 2015, p. 2):

- “The aim is to develop a novel but appropriate set of research lenses well suited to the empirical examination of the key themes in the overall project, including:
  - How markets as socio-economic institutions relate to the poor, marginalised and vulnerable
  - What are the drivers of, and barriers to, social innovation in various institutional settings market and non-market
  - What is the role of public policy instruments in developing finance structures and wider eco-systems to support the development and growth of social innovation
  - How can the impact of social innovation be captured and measured at the organisational and national level”

Our focus here is particularly on the first three questions. Further, we also take a look at the consistency of the ESGM, i.e. the meaningful structuration of categories and constructs to describe the phenomenon in question.

Generally, the ESGM provides a comprehensive (multi-level and multi-dimensional) and theoretically well-grounded analytical tool to cover the most important economic and wider societal underpinnings of marginalisation and SI. From the analysis of the empirical data, several key statements can be made regarding (1) comprehensiveness of relevant factors, (2) explanation of ariances in the lifecycles of SI through ecosystem actors, (3) linkages between the different levels of analysis, and (4) the grasping of the social in social innovation:

1) The ESGM covers the relevant (power) aspects and domains influencing (eco)systems and lifecycle dynamics for marginalisation and social innovation on the macro and the micro level, but it does not easily integrate organisational and individual aspects.

Most of the data we analysed could be structured along the categories proposed in the ESGM.
It became clear that marginalisation and SI cannot be explained solely by economic arguments, and that the extension of the power sources for social change according to Mann (1986) and Heiskala (2014) allows for covering various further relevant aspects. For example, in social housing as well as in fresh water supply, the initial social need and the related marginalisation were caused by a variety of effects that went beyond economic causes. They comprised issues from the artefactual, cultural, and political domain as well (i.e. new production technologies, poor medical and hygiene knowledge, free-market paradigm, migration, middle-class life-styles, gender issues, undemocratic political system, and missing regulations). Distinguishing different categories to cover the societal influences contrasts e.g. the SCOT approach, which conceptualised technology and society as a “seamless web” (Bijker et al., 1987, p. 3) and moved away from approaches that make distinctions between technical, social, economic, and political aspects of technology development. The approach does so to avoid bias from socially constructed oppositions such as technical/social or pure/applied science (cf. Budde et al., 2016c, p. 24). To account for difficulties in categorisation, Mann makes the methodological implication of the “functional promiscuity” of organised power networks (1986, p. 17), stating that, for example, the administration of a nation state is not purely focused on politics, nor is the administration of a corporation purely focused on business. Rather they are likely to embody a variety of ends and means: political and economic, but also ideological etc. (ibid., cf. Nicholls and Ziegler, 2015). This implication is particularly helpful in the analysis of social change, but also contributes to a strong complexity when the power sources framework is combined with the social forces (see below).

Also, the analysis of the social forces and the relation between the prevalent cognitive frames, social networks and institutions (also across different domains) was helpful to understand the relevant dynamics (e.g. the free-market paradigm’s effects on contemporary legislation in social housing or fresh water supply). The analysis allowed also comprising different levels of relevant social forces, i.e. those more related to general societal questions (landscape), those more directly related to the subject of the social innovations (regime), and those carried by the innovations themselves. In addition, social forces often span across different societal domains (i.e. capitalism as emerging paradigm with groundings and manifestations in the political, economic and cultural order). Furthermore, the interaction between social forces could be acknowledged. For instance, the interaction between institutions and cognitive frames came into view when analysing the consequences of sanitised cities in the late 19th and early 20th century. While the process of sanitisation reinforced itself and resulted in a further sensitisation (Schott and Skroblies, 1987, p. 85), it connected the political, artefactual and security-related domain and influenced new institutions. Finally, a new cultural cognitive frame emerged. (See above 4.5.2.) An example of how new social networks get a chance to influence institutions or cognitive frames relies on a window of opportunity. If, for example, environmentalists and politicians of “green” parties attracted public attention to a certain
degree, maybe pushed by incidents, a realistic opportunity existed for them to *co-shape institutions* and *cognitive frames*.

Finally, the CA allowed to provide a differentiated picture on what the marginalisation looked like, and how different effects caused each other (*spill overs*), such as e.g. weak labour protection that caused high fluctuation in dwellings and diminished the ability to be politically active. Through the notion of *internal conversion factors*, there was also the possibility to identify the most vulnerable populations, such as very young or elderly people, women or single-parent females, besides the socio-economic structures as *external conversion factors*.

However, in the application of the framework we also found some concerns regarding comprehensiveness and consistency of the ESGM. First, it could be outlined more clearly in the framework that the marginalised are “carriers” of social forces likewise elites, and do not only face them from outside. For example, they clearly can also have problematic cognitive frames. In social housing or fresh water provision, they often did not really acknowledge the need for clean, hygienic living conditions; similarly, one of the core problems of lacking education is as a result of a vicious circle that the most marginalised often do not appreciate the value of education and thus refuse to educate themselves\(^\text{141}\). Actually, all – the marginalised as well as the innovators – are parts of several social grids which influence them and at the same time are influenced by them. In discussing a specific institution, they might share the same cognitive frames or belong to the same social networks but overall they all have to deal with the same institutions, trying to shape or influence them.

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\(^{141}\) It is an interesting question whether such cognitive frames then actually become *internal conversion factors*.
Second, the ESGM allows seeing that SI actually grow along with a set of developments and innovations in different domains, e.g. policy innovations, artefactual (technological) innovations, or economic innovations such as new business models. Our data for social and also other innovation studies for technological innovations have shown that those can hardly be introduced without innovations on the organisation level, termed organisational, managerial, administrative, or marketing innovations (Van de Ven, Andrew H. et al., 2008; Pavitt, 1999; Tidd and Bessant, 1997). The latter are indeed vital for the success of the former ones (cf. also Havas, 2016). In the ESGM, such organisational innovations could be framed as changes in social networks or institutions. Another question would be if the organisational level could not be understood as an artefactual power in the sense of Mann. Procedures especially in management and administration are often strictly formalised to guarantee smooth operations. This could be understood as the equivalent of a technical infrastructure. Overall, the organisational level seems to remain somewhat unconsidered in the ESGM.

Third, a detailed analysis of a specific situation gets easily more complex because of the different factors that are covered in the ESGM. This is the case for different reasons. The “functional promiscuity” that Mann describes regarding “multiple overlapping and intersecting socio-spatial networks of power” (Mann, 1986, pp. 1; 17) actually not only holds for social networks, but also holds for institutions and cognitive frames. Liberalism, to stick with this example, is a paradigm in the economic, political or cultural domain likewise. Examining the interrelation between the three social forces then can quickly get overcomplex. For instance, in some cases and regarding some aspects of the problem solution (e.g. who has the main responsibility to address the social need), cognitive frames can be relatively stable across different social networks. Regarding other aspects (e.g. the concrete solution approach to address the social need), cognitive frames even within relatively homogeneous social networks can differ, and lead to the development of different institutions. Also, both the socio-structural aspects as well as the capabilities can take different roles within the analysis. On the macro level, the social forces in and across the different domains can take at least three roles: as (pre)conditions for marginalisation, as (pre)conditions influencing the characteristics and development of SI, and as indicators signalling the change effects resulting from SI on social forces in society. On the micro level, the capabilities can describe the consequences of marginalisation on the one hand through deprived capabilities, while improved capabilities are (in the best case) the consequences of the social innovation. What is more, capabilities also co-determine the inventors and innovators capacity to act. Under this impression, it is difficult to identify and isolate the most relevant influence or consequence in the social forces related to marginalisation and SI.

Fourth, regarding consistency, it is important to note that artefactual and in particular natural power are somewhat distinct from the other power categories since they can only be interpreted in the sense of a social category through a constructivist perspective. This means they are perceived, interpreted, and dealt with through societal cognitive frames, social
networks and institutions regarding natural force and structure or technological artefacts (cf. also Nicholls and Ziegler, 2015, with a finely different nuance of argument on environmental power).

Fifth, the ESGM framework is fuzzy at some points when a decision has to be made of whether some observation qualifies as a cognitive frame or an institution. Implicit norms and societal or cultural values may have an institutional character without strictly speaking being a law or an institution.

(2) The ESGM helps to detect variances in the lifecycle of social innovation (or more generally “change”) through ecosystem factors, but does not explain them.

Regarding the question of HOW SI develop, the ESGM guides the analysis to different relevant factors. It draws attention on competing social forces, such as different actors or social networks with different cognitive frames (which might be, however, heterogeneous also within specific networks) on how to understand and approach a social need (cf. the notion of interpretative flexibility in the SCOT model, Bijker, 1995). These actors fall back on established institutions or create and develop new ones. In addition, more general social forces that shape SI can be detected by means of the framework, illustrating for example that social forces can compromise the integrity of the social idea, such as through extreme market liberalism or resource scarcity as a consequence of certain incidents. The ESGM also allows tracing the impact of major incidents that mark turning points in the lifecycle of SI. For instance, it illustrates that industrialisation (as a consequence of increased artefactual power together with shifting power in the cultural, economic or political domain), wars, economic crisis, or climate change are actually not really exogenous shocks, but events that can be explained out of long-term dynamics in the social forces. We found it difficult though to explain where these changes came from and how they affected the development of the SI according to the model. Did institutions change first and affect social networks and cognitive frames? Was it social networks that adapted to new situations and triggered changes in cognitive frames and institutions? Or did new situations lead to change in the cognitive frames which was followed by changes in institutions and social networks? Maybe the rule here could be that there is no rule at all. Change might be happening at any of the three dimensions of the extended social grid model depending on the specific historical situation. Depending on where change occurs first the other two dimensions follow. However, the model itself just sets the framework for examining such relations and for describing change processes. The framework itself does also not make any predictions about WHY social innovations occur or are adapted. Thus, the ESGM can rather be seen as a theory-guided analytical tool than a theory in itself.
(3) The ESGM rather illustrates the effects of the macro on the micro level than innovative agency.

The ESGM generally provides the linkage between the macro and the micro domain. It is very valuable to illustrate in a differentiated way how general social forces determine specific capabilities, and how interrelations and spillovers on the macro level are mirrored on the micro level. For example, when the housing situation improved due to a general acknowledgement of public welfare provision with social housing as an embedded topic, the capabilities not only regarding secure accommodation, but also social recognition, community building or participation improved. The same can be said about generalised education which helped building/enhancing capabilities such as emancipatory citizenship and self-determination which in turn reflected back onto the macro level. However, with the CA, it is difficult to describe innovative agency, since although it departs from the individual level, the CA more refers to a typical than to a specific individual. Individual or collective change agents and their particular motivation structures, backgrounds, personal traits, or individual reflections are not so much in the focus of the framework. The overarching social grid dynamics provide the background for their activities, but their personal motivation remains still open, as it often deviates from the mainstream. Their influence on specific social forces as key enablers, bridge builders, attractors, however, can be described through the lens of the ESGM. A concept that has considerable conceptual overlaps and thus might be worth some further application here is the one of ‘institutional entrepreneurship’ (e.g. Battilana et al., 2009; Maguire et al., 2004) in the context of the ‘paradox of embedded agency’ (e.g. Seo and Creed, 2002). It is used for explaining change in the interplay between structural determinism and autonomous agency of individuals within the sociological structure-agency debate. Institutional entrepreneurship distinguishes strategies for institutional change such as developing a vision (in the sense of diagnostic, prognostic and motivational framing by “theorisation” of new practices in emerging fields), mobilising allies and bridging stakeholders (to gain legitimacy and achieve access to and mobilise resources), or institutionalising new practices (by connecting new practices to stakeholders’ routines and values). These are obviously closely linked to cognitive frames (developing a vision), social networks (mobilising allies), or institutions (institutionalising new practices).

(4) The ESGM provides a promising path for grasping the “social” in social innovation, but some conceptual challenges remain.

The ESGM uses the CA and marginalisation to conceptualise the social element in social innovation. This way it overcomes many tautological definitions stating that social innovation targets “social purposes”. However, there are also conceptual challenges. For example, what if SI improves some capabilities and worsens others (e.g. access to secure, clean accommodation versus autonomy). Or if the SI improve the capabilities of some whilst they
worsen those of others (as was the case for example under the Nazi regime)? Should then a balance of different capability changes be attempted? Moreover, is an innovation also social when the capabilities of well-off members in society are improved (e.g. earlier, improved and constant access to fresh water supply)? Probably not. Thus, these considerations underline the importance of actually addressing marginalised populations, even for defining SI. Proceeding from here, the question arises of how marginalisation is understood?\(^{142}\) Kröger and Weber (2014) suggest an understanding that social value is created when the well-being of those who are under the average level under a certain aspect in their relevant environment is improved. Such a single-dimension would be easier to measure, but would lose the detail of its explanatory power. What is more, in the historic consideration of the case studies, the normative grounding of the capability approach (autonomy, freedom, and preconditions to act) proves to be basically a contemporarian one. The enforced paternalistic control system in the 19th/early 20th century in social housing with its concern of social hygiene is absolutely unacceptable from such a perspective. However, at the time this system at least to some extent corresponded with the social values and was thus perceived not as problematic as it is today. This also shows that capabilities are not a fully objective concept, but also a matter to public discourse and can thus be contested.

### 7.2 Social Innovation Ecosystems

There is comparably little research on social innovation (eco)systems in relation to technical innovation literature.

Many concepts in innovation literature like Open Innovation, User Innovation, Innovation Communities, Open Source or Crowdsourcing proved to be too business-oriented for our objective. Because of their implications, they were not applicable to our case studies of historic SI.\(^{143}\) Innovation system literature from economic geography instead might provide the most suitable concept to discuss social innovation (eco)systems.

Our findings that change occurs at different levels and within different areas of the ESGM fits well with observations of innovation systems. Each of them “has different components and a set of idiosyncratic interactions among its actors (elements, or nodes), and thus it also develops its own unique dynamics. Changes could, and indeed do, occur at various levels:

- actors (routines, strategies, …)
- knowledge bases (or knowledge infrastructures)

\(^{142}\) We consider marginalisation to be “the result of a social process through which personal, social or environmental traits are transformed into actual or potential factors of disadvantage” Jacobi et al. (2017, p. 5). This definition builds upon the discussion and definition proposed in the CrESSI project by Chiappero-Martinetti and Jacobi applying the capability approach (2014a, pp. 3–4).

\(^{143}\) For more information on these concepts, see Budde et al. (2016b, pp. 11–14).
Technological paradigms and trajectories, (or ‘search and problem solving heuristics’, ‘technological guideposts’, ‘dominant design’, …)

- sub-systems (e.g. R&D performers; STI policy governance sub-systems; financial, management, legal, IPR, S&T information and other service providers specialising in meeting the needs of innovators …)

- institutions (legally binding and voluntarily set regulations and codes of conduct, unwritten rules of the game, commonly respected norms, …)

- functions (see section 4.3)

Changes at these various levels all could be decisive on their own, and their co-evolution (co-occurrence) is of special significance for analysing system dynamics. Again, these ideas can be used as a starting point – a sort of analogy – when identifying various levels of change in social innovation processes, as well as the co-evolution of these changes.” (Havas, 2016, p. 30, emphasis in the original)

Innovation system literature defines the system boundaries in different ways (Havas, 2016): national (NIS) and regional (RIS) innovation systems are geographically demarcated and comprise economic, social, political, organisational, institutional, and other factors that influence innovation processes, as well as the relations between, and co-evolution of, these factors. Sectoral innovation systems (SIS) are defined by a certain good and the level of aggregation and sub-sector depends on the research questions (Malerba, 2002, p. 17). Technical innovation systems (TIS) finally can similarly refer to a knowledge field (e.g. digital signal processing), a product (e.g. industrial robots), and a market (e.g. health care) (Carlsson et al., 2002, p. 238).

These innovation system concepts root in understanding innovation as a cumulative and interactive process and focus on different types of connections and interactions at different levels (Havas, 2016). Multiple data from the case studies shows that such interactive processes can also be traced for SI. The concept of innovation systems could also be a useful ‘focusing device’ (Lundvall, 2007, pp. 98–99) when identifying actors, interactions and institutions (cf. Havas, 2016).

Adaptation might make sense more for SIS and TIS, because there is often a certain topic-related community around issues such as social housing and fresh water supply that cannot be located in a certain geographic area.

However, regarding NIS for example, national welfare policies provide an important context factor, but also a field for innovation itself. RIS could be relevant as well, as often the local importance and specific preconditions are the reasons for specific local adaptations of SI (cf. the case of social housing in Vienna). The question whether it is a suitable concept for understanding preconditions of (and fostering) social innovation depends on the actual paradigms and institutions in these systems, i.e. the question whether they value and explicitly
support SI.

As social innovators have to deal with several levels, the regional, sectoral, technological and national innovation systems can principally all be suitable approaches for analysing them (Havas, 2016, pp. 35 f.).

It is a common fact in state of the art research that innovation is not an endeavour of single heroic personalities but rather developed by a variety of actors and subsystems and their collaboration (see above); however, it is worth to state that this fact holds true (even more) for SI according to our data. Our long-term case studies confirmed this perspective: innovators, innovation supporters (and beneficiaries) came from different systems (entrepreneurs, policy makers, social reformers, researchers, financial, management, legal service providers etc.), met in different social networks and collaborated in different ways. As a reason for this variety, innovation system literature emphasises the requirement of various types and forms of knowledge, which are rarely possessed by a single organisation (cf. Havas, 2016). The key difference of SI in comparison to other types of innovation seems to be that civil society actors play a more important role in SI, be it as innovators, lobbyists, or resource providers (Evers and Brandsen, 2016)\(^{144}\). There are probably two main reasons for this: first, a more detailed knowledge of community related problems, and second, incentives that do not follow only profit-related considerations.

However, it is important to state that social innovations are not disentangled from economic motives but that there are many hybrid constellations, and that especially in public-private partnership constellations, economic motives are tried to be fostered for the social good. How well this works essentially depends on the institutions in the field, e.g. contracts between communities and private water suppliers formulating rights and duties. The dynamics among actors in social innovation systems though is not solely based on collaboration, but can also comprise elements of competition.

The role of knowledge creation and exchange has not been at the centre of SI research so far (rather the question of resources), but seems to provide various opportunities for connections, and at the same time, future research paths of SI.

In innovation systems literature, a distinction between two modes of innovation is made that can be linked to these understandings (cf. Havas, 2016, p. 28):

\[\text{\textquoteleft\textquoteleft Jensen et al. (2007) made an elementary distinction between two modes of innovation: (a) one based on the production and use of codified scientific and technical knowledge (in brief, the ST[I] mode), and (b) another one relying on informal processes of learning and experience-based know-how (called DUI: learning by Doing, Using and Interacting).\textquoteright\textquoteright} \]

\(^{144}\) Innovation models like the quadruple helix (state, market, universities, and civil society) already acknowledge this role Carayannis and Campbell (2012).
Adopting an understanding that only covers the STI mode is already criticised as too narrow for NIS in technical innovation literature (Freeman and Soete, 1987; Nelson, 1993), but would be even more problematic for SI (cf. Havas, 2016), where DUI seems particularly important. However, science-based knowledge also proved important for SI (e.g. in the developing housing science; the meaning of scientific findings of germs or problematic chemical residues in drinking water leading to new treatment. NGOs or policy makers build their discourse on research analyses, some approaches develop directly out of (social) sciences (incl. drug prevention, pedagogics, etc.).

Knowledge can come from different sources and play different roles in the ecosystem as well as in the design and implementation of SI. In RIS, for instance, analytical knowledge (existing scientific knowledge), synthetic knowledge (new combinations of scientific knowledge), and symbolic knowledge (tacit, context depending cultural knowledge on aesthetic attributes of products and designs) are distinguished. Future research processes could examine the knowledge creation processes in these multi-actor constellations in more detail. The findings of the WILCO project point to the direction that knowledge from various sources, connected in a new way may be of great importance not only for the beneficiaries but also for the social innovators (Evers et al., 2014; Evers and Brandsen, 2016).

Evolutionary Economics is the economic school of thought that fits best to the arguments made so far. It emphasises the role of knowledge, but particularly of skills and learning capabilities for pulling together and exploiting available pieces of information. Further, it acknowledges that learning costs in a trial and error process usually cannot be spared, and considers various types and forms of knowledge, including practical or experience-based knowledge. An uncertain, cumulative and path-dependent nature of innovation is the consequence of this, progressing with unequal speed (cf. (Havas, 2016).

7.3 Social Innovation Lifecycles

The normative dimension in social innovation which is strong(er) as compared to other types of innovation makes the diffusion and adaptation process even more complex, e.g. because of resource allocation issues between policy makers and civil society actors. Also, it certainly makes a difference in experimenting with different solution options “when the ‘subjects’ are human beings: ethical, societal and political considerations become vital (as opposed to a number of technological experiments, notwithstanding the significance of these issues in those fields, either).” (Havas, 2016)

Conventional SI models (Bates, 2012; Murray et al., 2010; Westley, 2008) seem to fall short on some relevant aspects of SI, e.g. multiple sources of innovation, variety of ideas involved that are more or less mixed and adapted in different contexts, variety of internal and external actors involved, or different types of innovators.
Coming from business innovations, Bates proposes a three stage model (investigation, innovation, and implementation) (Bates, 2012), but does not handle the further trajectory of a SI like the stages of spreading, scaling or diffusing (Howaldt et al., 2014). It also assumes a linearity of development which can not be found when analysing SI in the long-run. Finally, first results from the SIMPACT project\textsuperscript{145} pointed out that surprisingly investigation does not necessarily play a decisive role for social innovators (Terstriep et al., 2015).

The Young Foundation introduced the model of a spiral with the six stages of SI (Murray et al., 2010, p. 11): prompts, proposals, prototyping, sustaining, scaling, and systemic change. It was also adopted with qualifications by the TEPSIE project\textsuperscript{146} and outlined that „many of these stages overlap and may be undertaken in a different order … feedback loops exist between every stage, which makes the process iterative rather than linear” (The Young Foundation, 2012, p. 34).

\textbf{Figure 3: The spiral model (Murray et al., 2010)}

It has been questioned, though, if scaling can really be considered to be a stage on its own. Also, not every SI can and wants to reach systemic change. Both in fresh water supply as well as in social housing, systemic change was only a minor issue among few innovators. Instead, most of them aimed at system stabilisation and solving the social need without dissolving the state. Scholarship on innovation processes shows that the way from the idea to the diffusion is not a smooth and predictable one but a rather bumpy road with unexpected twists and turns. It does not “follow a predictable, staged pattern” (Howaldt et al., 2014, p. 61). Further, it is to wonder how this model accounts for different streams that only add up jointly to a social innovation. Finally, changes in the aims, meanings and instruments of a social innovation are

\textsuperscript{145} \url{http://www.simpact-project.eu/}
\textsuperscript{146} \url{http://tepsie.edu}
not sufficiently reflected in the spiral model.

The adaptive cycle (Westley, 2008, p. 3) tries to avoid connotations of linearity. Borrowing from resilience studies (Gunderson and Holling, 2002) it consists of the four phases release, reorganisation, exploitation, and conservation, forming an infinite loop. “Once an idea or organization reaches the maturity (conservation) stage it needs to release resources for novelty or change and reengage in exploration in order to retain its resilience. The release and reorganization phase is often termed the ‘back loop’ where non-routine change is introduced. The exploitation and conservation phases are often termed the ‘front loop’ where change is slow, incremental and more deliberate” (Westley, 2008, p. 3). Also making use of comparative historical case studies to find out about „roots and developments of social innovations“ (McGowan and Westley, 2013, p. 3), McGowan and Westley were interested in understanding the conditions in favour of disruptive change as well as supportive behaviour, important actors and the life cycle of innovations (McGowan and Westley, 2013, p. 6).

![Figure 4: The infinite loop of social innovation (Westley, 2008)](image)

Positive in this model is the acknowledgement of different levels (intellectual landscape and niche) affecting a SI as well as the insight on different roles and functions for actors complementing each other. An element resembling the cognitive frame in our ESGM is the result that SI „is driven by the changes in ideas and discourse over time” (McGowan and Westley, 2013, p. 3). Further, the model stresses the on-going process of social innovation which fits well with our insight that SI seem to stay dynamic and no closure is happening. Finally, McGowan and Westley point out that SI are not timeless, but the support for marginalised people has to be taken from the point of view of the contemporaries (McGowan and Westley, 2013, p. 9). This reflects well our criticism on the concept of capabilities as part
The conventional SI models resemble each other as they suggest a certain order of things. Our empirical findings contradict this view.

Several innovation lifecycle models seem to prove particularly relevant to describe different aspects of SI lifecycles. Among these, models acknowledging complexity and departing radically from linear models are most suitable to describe our data, e.g. the innovation journey (Van de Ven, Andrew H. et al., 1999; Budde et al., 2016b) or the multi-channel interactive learning model of innovation (Caraça et al., 2008). Although these models usually take an organisation into focus as well, they also acknowledge the role of external actors.

The idea of innovation biographies adds a dynamic perspective to innovation research (Butzin et al., 2012, pp. 11–12). They are useful „to study the time-space dynamics of knowledge and ways of knowledge integration within innovation processes” (Terstriep, 2014). Building on narrative interviewing methods and triangulation, a biography of an innovation can be written. This method was adjusted by the SIMPACT project to be applied to SI. Unfortunately, for obvious reasons, it is not applicable to historic case studies.

Constructivist approaches as SCOT (social construction of technology) (Bijker et al., 1987; Bijker and Law, 1992; Bijker, 1995) offer interesting possibilities for studying the lifecycles of SI. Starting from the study of technical artefacts in many case studies, SCOT broadened to include the meso and macro level as well as to study the impact of technology on society (Heßler, 2001, p. 25).

SCOT threw light on the interpretative flexibility and the social capacity to form technology and give it meaning, especially during the first stage of development (Degele, 2002, p. 99). It consists of the elements artefact, actors and social groups, meaning, and closure and stabilisation. Artefacts, in this context, are not understood as firmly established but they are being interpreted; they get new meaning and have different meanings for different actors. The stage of closure means that different social groups agree upon a form and a meaning of an artefact, while stabilisation is reached when a consensus on the meaning of an artefact exists within a social group (Degele, 2002, p. 101).

While SCOT recognizes the interaction of social groups as a part of the innovation process as well as multiple streams of development (Budde et al., 2016b) it still remains artefact oriented. It deals little with social structure and power relationships (Kline and Pinch, 1999, p. 114; Budde et al., 2016b), two things important if we want to find out more about processes, power relations and change.

A SI, one could argue, ‘learns’ especially at the beginning of its life cycle. Meaning, intentions and experiences of the actors flow in, developmental paths evolve and can be traced by looking back. Nevertheless, contrary to the SCOT theory where the learning and adjusting process ends with the occurrence of closure and stabilisation (Kline and Pinch, 1999, p. 114), SI seem to stay more dynamic. From our data we could say that some manifestations of a
social innovation gain more acceptance than others, like certain ways of financing social settlements or the decision on flume water sewerage influencing the way fresh water supply networks were built, and became dominant. However, we found also that due to normative claims and resulting resource allocation it might be a characteristic of SI that interpretative flexibility is upheld instead of reaching stabilisation and closure.

The multi-level perspective (MLP) offers a “middle-range framework for analysing socio-technical transitions to sustainability” (Geels, 2011, p. 24) and introduced “the understanding of innovation as a life cycle” (Budde et al., 2016b, p. 28) into the debate. The MLP model in Dutch transition school research is helpful to understand that different societal levels are relevant for the move of a SI from niche to mainstream. Social grids exist on all levels of the MLP (landscape: general societal contexts; regimes: social housing context; niche: new social housing ideas, developed by “small networks of dedicated actors”), and these are interlinked. This is confirmed by our data. Different levels (macro, meso, micro, or landscape, regime, niche) need to be considered for lifecycle analyses of long term SI. These levels need to be distinguished when asking questions on the development of the SI, on the discussion about the social need as well as the SI, on actors and networks, on cognitive frames and on institutions.

The dynamics described in the Dutch transition school are also helpful to understand major changes, i.e. the importance of strong landscape impact (war, economic crisis) for the transition (shift from one stage of a regime to another, e.g. from the cesspools to sewers in the Netherlands Geels and Kemp, 2007, pp. 446–450) in comparison to transformation (i.e. adapting and re-orienting the regime, e.g. in the Dutch waste management Geels and Kemp, 2007, pp. 450–453) or reproduction (i.e. incremental changes supporting stability)\textsuperscript{147}. The MLP offers a “theoretical framework that understands change as caused by both systemic processes and agents and their decisions” (Geels and Kemp, 2007, p. 454). A question to be discussed is whether landscape shocks really are external.

Again, the most suitable economic basis according to our findings is Evolutionary Economics (EvEcon), since it is concerned with several key notions for analysing SI. Havas (2016) lists the importance of dynamics, uncertainty, differences among contexts, learning, various types, forms and sources of knowledge, path dependence, processes of generating variety, selection among diverse solutions, networking and co-operation among actors, co-evolution of various types of changes. The consequential diversity of social innovations is reflected in the data, too.

EvEcon also acknowledges the highly uneven speed of progress, that is, performance improvement, in various fields (e.g. space exploration, drugs, medical imaging and telecommunications, vs. education). According to EvEcon this can be explained mainly from different underlying knowledge bases and the types of knowledge required (Nelson, 1977, \textsuperscript{147} This differentiation can be also applied in principle for innovation system concepts (cf. Havas (2016)).
Understanding knowledge bases as institutions, from our data we have to add that also the cognitive frames (on what is important) and social networks (which however are acknowledged at least for the innovators on the notion of collaborative innovation development) are of particular importance, too.

In analysing the material, we looked at specific paths, streams, twists and turns over time to understand the lifecycles of SI. By doing so, we gained insights on how SI gain durability and scale to generate broad social impact – or wither, faint and disappear.

One finding was that life cycles of SI do not run linearly, and are significantly more complex than most of the outlined models suggest. Not accounted for in an adequate way in most of the life cycles models so far are (a) failures and (b) breakpoints of SI. Instead of reaching a level of consolidation, a SI might also break off, not being able to recover after an economic crisis or get to a halt. Changes in meaning, technology or implementation affect SI at different levels. They call for adjustments and for exploring new ways. They might even result in surrendering an innovation if hurdles were to become too high or implementation too difficult. However, it is also possible that these changes will have a positive effect on SI in opening up new legal or financial possibilities, in changing the social climate or offering new ways of technological implementation.

When policy decisions in social housing in the 1970s led to ghettoization and therefore to new problems, new approaches had to be developed to improve the situation. In a similar way, the neglect of the social need resp. the constraints of marginalised people in privatisation efforts in the 1980s/90s created problematic situations followed by discussions and the exploration of new ways of organisation.

If one would like to make a model for SI, it would probably best be oriented at the multi-channel interactive learning model. This suggests an analytical grid with flexibility rather than a universal description of SI processes, which seems to be confirmed by the data (cf. also our SI dimensions synopsis).

The multi-channel interactive learning model

“provides a set of flexible generalisations upon which to base our thinking when trying to explain the sources and stages of the innovation process. It points to the ubiquitous experience-based learning processes taking place within firms, as well as at the interfaces with users, suppliers and competitors. In addition, (…) the daily exchange of knowledge involving scholars and students in an interaction with firms is more important than when universities act as business enterprises selling knowledge in the form of patents. (Caraça et al., 2008, pp. 865–866; see also Havas, 2016)

Amongst the historic data obtained we could not find life cycles of SI as suggested in the SI literature. The developments of SI runs neither linear nor does it follow certain curves or loops. This is in line with the findings of van de Ven et al. for innovation processes of companies (1999, p. 4). SI do not develop all in the same way. A social innovation evolves
within or adapts to a certain social grid. It reacts to pressure coming from the landscape level and its trajectory is subject to many influences. If a social grid does not develop in a way that determines the SI or makes it redundant, its way of development may resemble more a large river delta or a meander. There might be a principal current but also many tributaries and outlets. Some of them may fizzle out, some flow back into the principal current at a later point, some become an own current.

All in all, it can be stated that social innovations in the long run stay permanently dynamic and renew constantly. They do not evolve in the same manner but each one has to adapt to local, regional or national conditions and resources (ecosystems).

7.4 Recommendations and concluding remarks

Taking the long view on social innovation shows that diverse actors and social networks were involved in developing and implementing social innovations. Most of them were not coming from the marginalised groups but had a different socio-economic background, multi-faceted interests and mixed motives, ranging from benevolence, self-interest, economic interests to political interests. From this, several recommendations can be derived.

**Value the niches.** To make a long story short, the quintessence of our analysis is that we should promote a new cognitive frame, which values the niches. Applying the multi-level perspective revealed that a quick spurt for the mainstream does not hold a solution in the long run. As in technology, in social innovation too there is no one best way. Depending on resources available locally, constellations of interests and cultural preferences what works here might not be very useful there. Path dependencies and lock in effects make corrective changes difficult and costly. Therefore collecting experience by thorough tests is needed. More important is to keep niches as scopes for divergent solutions and variants. These niches could be understood as a reservoir of elaborate ideas, which remain in standby mode for further usage. The education system in Germany, for example, on the one hand is highly regulated, but on the other, it leaves leeway for private schools. Out of this niche for private, often non-compliant schooling reforming stimuli emerged, across the years influencing the public education system (Preuß, 2016). A SI may well remain in a niche and does not have to become a regime. In the worst case, it is an island solution. In the best case, it is a solution for the problems of tomorrow. And even if they never reach that stage and never make it to mainstream, they can provide helpful support and insights for those that do.

**Expect the unexpected.** Our research demonstrated that social innovations develop not all in the same way or timeframe but dependent on the specific ecosystem they are embedded in. They undergo permanent change and adapt to new context conditions. Against this
background, it seems a good idea to stimulate exchange between solution developers, as well as to respect the specifics of local circumstances in scaling and transferring solutions. It is not recommended to expect SI to follow linear trajectory.

**What goes around comes around.** A third finding is that social innovators should have a possibility to get access to infrastructures and funding. To have a variety of providers increases the solutions for problems in the future. Like in the discussion on biodiversity, we do not know now which social innovation will cure the problems to come. Therefore, policymakers are well advised to formulate regulations in a way that leaves space for alternative approaches and do not implicitly favour a certain standard implementation.

**Resilient societies back several horses.** Policies and regulations should allow for different models of financing and organisation. It is not only necessary to fund the creation of new ideas. It is also important to keep open the possibility to quickly implement good ideas in an emergency. This is an investment in the future, which allows for the societal stability and innovation capacity of society to come. Project funding is no good solution. It is more important to open up the regular paths to funding. Do not expect social innovations to pay off in the short run. No other start-up does.
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D5.1 Part 1 Three major social innovations as viewed through the lens of the extended social grid model (31 March 2016)


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D5.1 Part 1 Three major social innovations as viewed through the lens of the extended social grid model (31 March 2016)


PART 2
Community Housing in the City of Vienna – 100 years of social transformation – a Case Study for the Social Grid Approach

Susanne Giesecke, AIT
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1. Introduction

This paper builds on the understanding of two different theoretical approaches to illustrate change and transformation in social innovations: First Beckert (2010) noted in his social grid model that common analyses of markets as social structures fail to integrate established approaches that tend to focus exclusively on one explanatory theory alone. This siloed thinking fails to give a full account of the social enactment of economic structures and social exchange relationships and, as a consequence, typically does not acknowledge socio-economic exclusion as a product of market arrangements.

Second, we will utilise a multi-level-approach, helping to analyse how an innovation starts from a niche position, becomes a regime and finally a social transformation. During this process, many success and failure factors are influenced by “landscape” developments (Geertz, 1973).

For a more adequate analysis of such an unusual theoretical combination, we focus on one longer-term case study: social housing in the city of Vienna. Social housing – at times also called municipal or community housing – today is still a response to severe social challenges we are facing today in the EU, even though we witnessed massive changes and even social transformation on the field of homelessness and shortage of adequate housing during the last 100 years. We will show in our case study how social innovation was able to reintegrate economically marginalised parts of the population into society and thus attempted to alter the anticipated path of unregulated capitalist development.

Beckert contended that the formation and continuation of social grids is not a neutral process but (re)enacts existing power relations and social structures, resisting changes in social relations that disrupt extant benefit regimes. Finally, Beckert saw the three analytic elements – social networks, institutions, and cognitive frames – of his model as being closely related within multiple interactions and feedback loops.

Social grids have a formative character in different domains, for example in the political, economic, cultural or legal domain. In our study, we want to distinguish these different domains on the basis of the power structure provided by Michael Mann. The distinction of the different domains seems necessary to better understand the dynamics of change and stability on the one hand, and interconnectedness and complexity of the social grid on the other hand. This understanding is prerequisite for the later discussion of the governance of social innovation.
Accordingly, in the following analysis we will distinguish the domains at the levels of:

- policy
- economy
- law
- culture
- ideology.

What Beckert’s model does not explain in enough detail however is how change actually occurs or what the inhibitors of change are. This is why we apply the approach of Schot and Geels to use a multi-level perspective on the social grid and developments at the landscape level that allow for a significant change in some niche innovations to establish a new regime or even lay the basis for a social transformation with long-term effect in society.

Especially in the city of Vienna, this case is a good example of social transformation, and today still determines to a large degree the integration policy of the city. By the same token, the focus will be on the significance of this case to build resilience within its specific social context and against the laws of the market economy. Thus, the theoretical part of this paper will discuss how to govern social innovation in order to build a more resilient society, especially improving the living situation of marginalised groups in our society - in the past, the present and the future.

2. Historical Context

This case study deals with the development of social housing in the city of Vienna from 1919 to the present, covering almost 100 years.

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.

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 a 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. To speak in Beckert’s term: the social networks of the feudalist and industrialist ruling class had established collective power to shape institutions (such as banks) which in return influenced the structure of the institutions. The turn of the century marks an era of industrialisation in some of the bigger cities, the bourgeois class became more established economically and politically and these developments forms in part the cognitive frame of that era. At the other end of the social scale, 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 where the kitchen was to be entered directly 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’ (bed lodgers). The tenants of a flat sublet some beds for the night/day to people who were unable to afford a flat of their own. As much as the ruling class had the networks, institutions and cognitive frames to maintain their social grid, the working class was lacking such structures, which in turn contributed to the maintenance of their misery. Referring to Michael Mann’s terminology, this setup constitutes the economic power structure.

![Figure 1: The Social Grid (Beckert, 2010, p. 612)](image-url)
This housing situation was particularly widespread in the suburbs, i.e. the districts that had been 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 (today one of the 23 districts). It lies north of the Danube and had seen a terrific economic upswing, thanks to the machine manufacturing industries located there. Industrialisation began rather late in Austria, about 100 year later than in Great Britain. Similarly, the influence...
of unions or even their degree of organisation was rather low. By law, it was forbidden for a long time to form labour representing organisations and workers had almost no voice to speak out for their interest and an improvement of their situation. The situation was different for the ruling class who showed a high degree of organisation, for example in chambers and guilds. This is an important aspect for the Social Grid formation at that time on the side of the ruling class – and the lack of it on the side of the working class.

At that time, 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, 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 WWI (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 was an additional burden for the marginalised groups of which many people were homelessness (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 lent their property with an eye to maximising their own profits. At the outbreak of WWI in 1914 Vienna already had a population of two million, of which the poorer sections lived in appalling conditions: so-called bed lodgers who couldn’t even afford the rent for a room but merely had the possibility of using 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 programmes 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.

**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 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 organisation 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 organising mass demonstrations against housing shortage and rent usury. The demonstrations are suppressed bloodily.

- **1912** The first workers’ home as designed by 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, which was founded in 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.

### 3. Case Study Overview: Community Housing Development in Four Phases

#### 3.1 Settler’s movement - Grass-roots movement gains momentum in a political vacuum

The settlement movement was essentially a grass root movement where the deprived people took action to build their own shelters and engaged in some rudimental farming. Those people who had a room or an apartment in a tenement house were 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.

#### 3.2 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 and improvements of hygiene but also an emancipatory
undertaking including a cultural mass movement and a new lifestyle, a shared notion of “belonging” for the working class and for the marginalised (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-organised working class active in the industrialised 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 resilience 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).

3.3 Reconstruction era and corporatist housing policies after WWII

After World War II social housing and the Superblock 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 centred work society with social insurance and a subsidiary system of social benefits, complemented by social housing (among other community financed activities) (Reinprecht,

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148 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 it 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 realised. 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 more resembled 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 deal with the continuous housing shortage was compensated by the inhumane ariyation 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).
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 if they have Austrian citizenship. Others are not included. Immigrant groups entering the country (and city) in the mid-1960s were excluded until 2006, after that a change was imposed by a new EU directive (Reinprecht, 2012, p. 211).

3.4 From post-corporatist welfare state to neo-liberal economisation

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 a 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 and undergo change toward more pluralisation, and 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. The standards of furnishing and several new housing blocks are increased and react to individual needs rather than meeting standardised construction. The increase of single households on the one hand and 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.
4. Theoretical Excursion: What the Multi-Level Perspectives can do for the Social Grid Approach

The debate on transition towards holistic sustainability at the turn of the millennium gave rise to an understanding of innovation as a lifecycle, developed by Geels and Schot. It is connected to the terminology of ‘multi-level perspective’, meaning that transition is seen as an ‘outcome of alignments between developments at multiple levels’ (Geels and Schot, 2007). The MLP (multi-level perspective) approach is meant as a heuristic concept distinguishing the three levels niche, regime and landscape. Here, multi-level does not stand for the policy levels region, nation, supra-nation. Rather, the heuristic approach describes the scope of an innovation: operating restricted to a niche market; is the scope of the innovation at the level of a socio-technical regime; and how do innovation activities react to the transformative pressure from the socio-technical landscape.

Figure 3: Multi-Level Perspective on Innovations (according to Geels and Schot, 2007)

Origins of this approach are rooted in the classic innovation system work of Nelson and Winter (1982) who coined the term technological regime. This refers to shared cognitive routines among a wide community of technicians, e.g. engineers. While Nelson/Winter stuck to the technological paradigm, sociologists of technology have broadened the scope towards
society, because technology is not an end in itself but a result of social production, thus social actors should be acknowledged for their impact as well (see Bijker, 1995). This broadening of the MLP approach also opens it for Beckert’s social grid approach as applied in the CRESSI project. For example, the understanding of socio-technical regimes manifested by cognitive routines that lead to lock-ins is very similar to that of cognitive frames in Beckert’s approach as one of the three social powers responsible for reconfiguration and reproduction of an existing social grid.

The differentiation of three levels puts the regime in the sandwich position between the niche or niches and the landscape. We could also say micro, meso and macro level but this terminology is often used in more established contexts and discourses and might lead to confusion. The technological niche thus signifies the micro level where new developments occur. The niche is a room of experimentation; some experiments are more successful than others are; some disappear, some are able to prevail on the market and can be classified as innovations. Interestingly, as Geels and Scot point out, niches are “carried and developed by small networks of dedicated actors” (2007, p. 400), thus here already we encounter the network as a social power in Beckert’s understanding. Similarities occur with the development of social innovations. In general, they start as a niche just as technological innovations do and are at the beginning minor alternatives to a dominant social practice.

The term landscape describes a contextual system in which regime and landscape are embedded and experience influence of such landscape. Changes at the landscape level take place slower than at niche or regime level. Geels and Schot do not explicitly say how change occurs and why. The question of if or how changes at regime level also affect the socio-technical landscape has not been discussed so far (e.g., how 20th century consumption patterns accelerated climate change). This interpretation is supported by Geels’ and Schot’s explanation for transition, which happens through interaction at all three levels. Both niche innovations and changes at landscape level (e.g. demographic change) create pressure at regime level and might lead to a transformation of that regime and give a niche technology the chance to install a new regime. This transformation could even be radical. Landscape pressure is also crucial for the development of a social innovation. If and how a social innovation can become stable, grow in scope and scale and succeed at regime level depends to a large degree on the opportunities induced by changes at or pressures from the landscape level. Pressure on the incumbent regime might open up opportunities for niche solutions and expand to become regimes themselves.

Additional theoretic threads to explain change were introduced by Smith et al. (2005) who also regard change as the outcome of a selection process on the regime by – what Geels and Schot call – landscape and niche forces. Pressure from niches can be of economic origin (e.g. competition) or from landscape level of political, social and economic developments.
(globalisation, neoliberalism). Pressure can be internal and/or external, whereas the landscape level usually exerts external pressure.

For the link to Beckert’s social grid model it is also interesting to consider the differentiation of types of transformation processes, which attempt to explain change from internal vs. external resources. This typology was introduced by Berkhout et al. (2004). There are some unsolved issues with this typology, which are not of interest in the context of CRESSI. In Beckert’s social grid the question of how change occurs and is ignited remains not totally answered. One option given by Berkhout’s et al. terminology is endogenous renewal, resulting from within the regime, from its actors who make conscious and planned efforts in response to pressures. Another type is the reorientation of trajectories, resulting from internal or external shock, followed by a response from regime actors. Thirdly, emergent transformation is the result of uncoordinated pressure outside the regime. And finally, purposive transformations typify intended and coordinated change process from outside the incumbent regime.

Table 1: Typology of change according to Berkhout et al. (2004)

<table>
<thead>
<tr>
<th>Type of change</th>
<th>Origins of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>endogenous renewal</td>
<td>resulting from within the regime; actors who make conscious and planned efforts in response to pressures</td>
</tr>
<tr>
<td>reorientation of trajectories</td>
<td>resulting from internal or external shock</td>
</tr>
<tr>
<td>emergent transformation</td>
<td>result of uncoordinated pressure, outside the regime</td>
</tr>
<tr>
<td>purposive transformation</td>
<td>intended and coordinated change process from outside the incumbent regime</td>
</tr>
</tbody>
</table>

Freeman and Perez (1988) introduced a differentiation of innovation according to its impact. Scholars of MLP and life cycle analysis make use of this typology to define change through innovation in a more refined way. The typology distinguishes incremental, radical, and system innovation and techno-economic paradigm shift. Incremental innovations are minor alterations of an existing product or process but do not alter the power constellation within a regime and are usually independent of landscape changes. Radical innovations affect firms and industries. System changes go beyond that level and affect user practices, policies, and cultural meanings (e.g. introduction of book printing, introduction of PC).

A more recent understanding of technological innovation and its causes and effects in the context of MLP puts emphasis of studying the change not only triggered at niche level but as a result of ongoing processes at regime and landscape level and mutual interaction as well. Thus niche developments cannot be analysed isolated or out of context.

Scholars of MLP assign niches and regimes to the same or similar kinds of structures; differences exist, though in size and stability. Both have communities of interactive groups, also called ‘organisational fields’. For niches, they are smaller than regimes and less stable. Their communities share certain rules that coordinate action. This is another theoretic
similarity with the Beckert social grid. According to their different character, niches have less articulated and less stable rules than regimes. Just as in Beckert’s understanding, in MLP (and based on Giddens, 1984), “actors are embedded in rules and structures, but at the same time reproduce them through their action” (Geels and Schot, 2007, p. 403). Rules are much harder to change for actors of established regimes than for actors in a feeble or ephemeral niche. “Niche-innovations can become regimes, when social networks grow larger and rules become more stable and constraining, leading to a reversal in their relation to agency” (Geels and Schot, 2007, p. 403).

Landscape changes can also influence the developments of niches and regimes. But since landscapes are structured differently, they do not determine directly the developments of the other configurations but make some actions easier than others. Generally, socio-technical landscapes are relatively static and solid and change only over much longer periods of time and more at a macro scale (e.g. global). One exception is an external shock such as war. Actors of regimes and niches can usually not influence developments at landscape level.

To categorise differences of transitions Geels and Schot (2007) introduce a typology of four pathways, differing from each other in terms of timing of interaction and in terms of nature of interaction. Timing is important with regard as to when landscape pressure hits regimes and in which state the niche developments are at that point: “If landscape pressure occurs at a time when niche-innovations are not yet fully developed, the transition path will be different than when they are fully developed” (Geels and Schot, 2007, p. 405). Landscape pressure on the regime can at times open up a window of opportunity for niche developments to stabilise and substitute - or at least alter - the old regime – if the niche developments are ready for this.

Different natures of interaction can be distinguished by the school of MLP:

- **Reproduction process:** This is business as usual. The absence of landscape pressure reproduces the incumbent regime. The regime is dynamically stable, thus incremental change is possible. It has sufficient problem solving capacity to react to pressure from niches or minor pressure from the landscape level.

- **Transition path:** In case of moderate landscape pressure at a time when niche innovations have not yet been sufficiently developed, the regime actors might reorient their strategies and alter parts of their actions but the niche innovations are not ripe enough to take advantage of the landscape pressure and cause a substantial turnaround. Some will be absorbed, other will disappear, and some will co-exist. In the Geels/Schot terminology, the transformation path is the only one which acknowledges the impact of outsiders such as societal pressure groups and social movements who target specific issues and demand solutions, e.g. with regard to tougher regulations. This gives also opportunities to niche innovations that respond to the demand of such pressure groups more appropriately than the incumbent does who serve a mass demand, e.g. organic food as opposed to conventionally produced food. Food
scandals, coverage of the press and tougher regulations imposed by the government (landscape) create a supportive structure for a broader adoption of the niche innovation. This development might take some time as outsider protests and landscape pressure to not automatically lead to a regime change. There is usually some resistance in the old regime. However, we do not talk about a total turnover of the old regime here. Rather, the traditional regime actors will “use their adaptive capacity to reorient development trajectories” (Geels and Schot, 2007, p. 407), thus they will survive the turbulence but in an altered way. Most regime actors are still part of this altered regime, although some changes may occur in social networks, external knowledge might be integrated and absorbed. The basic architecture of the incumbent regime remains intact.

- **De-alignment and re-alignment:** Accompanied or even triggered by a massive and sudden landscape change, regime problems occur and cannot respond to the disruption. Traditional regime actors lose faith and turn to new options or resign. “This leads to de-alignment and erosion of the regime. If niche-innovations are not sufficiently developed, then there is no clear substitute. This creates space for the emergence of multiple niche-innovations that co-exist and compete for attention and resources. Eventually, one niches-innovation becomes dominant, forming the core for re-alignment of a new regime” (Geels and Schot, 2007, p. 408). This pathway is often accompanied by a vacuum of some sort, a power vacuum, a regulatory vacuum, a market failure, etc.

- **Technological substitution:** Here we are also speaking of a massive landscape pressure of the same quality as in the de- and re-alignment case, but at a time when niche innovations have sufficiently developed and can breakthrough on the market. A new regime is substituting the incumbent regime. Such innovations have been developed over time under the old regime but could not yet break through because the old regime (and the landscape) was still stable.

- **Reconfiguration pathway:** A new regime grows out of the old one through radical innovations that have initially been developed in niches. They have symbiotic relations with the incumbent regime without endangering the traditional actors, can easily be adopted and improve existing technologies, processes or systems. Originally started to solve a local problem, this reconfiguration alters the basic structure of the regime substantially. Reconfiguration pathways are especially typical in distributed systems or sectors with multiple technologies involved (agriculture, retail, hospitals). Change in one sub-system might trigger another change and so on, leading to new overall organisations of production and redistributions but not necessarily the actors. Parts of the system might be exchanged while the majority adapts the new innovations and complies with its new system logic.

- **Sequence of transition pathways:** A combination or sequence of transition pathways occurs if slow but continuous pressure is being exerted from the landscape to the regime level. The initially moderate reaction of regime actors to cope with the changes imposed by the landscape level eventually becomes more disruptive as more and more problems occur at regime level. If adjustments from within the regime are sufficient,
the change can be characterised as “transition path”, see above. But if such adjustments are sufficient, niche innovations are adopted and find their way into the incumbent regime. This change will bring about even more adjustment measures. **If the regime architecture is changed during the course of this transition, it can be characterised as a reconfiguration path.** If landscape pressure and regime problems continue, radical niche innovations, new firms, entrepreneurs etc. enter the scene and can set foot on the market. If the incumbent regime is able to make sufficient adjustments before such new actors and developments become prominent on the market, the traditional actors will survive, if not, a lot of the traditional regime actors, products, processes and systems will be substituted by new ones. Depending on further pressure from landscape level and readiness of niche development, technological substitution and/or de-alignment and re-alignment mechanisms change the configuration.

5. Zooming into the Four Phases of Community Housing with a Theoretical Looking Glass

Geels’ and Schott’ analytical framework for multi-level perspectives on socio-technical transitions and environmental sustainability (2007) introduced above can also be used for identifying streams of developments in social innovation. In summary, 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 frameworks in which the niches, the regimes and the transformation processes are located and they can hardly be changed “from the bottom”, only through major developments uninfluenced by niches, regimes or landscape, e.g. globalisation. However, landscapes do change over time and might open up windows of opportunities for niches and regimes to experience change or even a societal transformation.

For our case study here, we can say that these three levels almost occurred in a consecutive way. We first observe the niche characterised 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.

**Figure 4: Dynamics of Innovation Life Cycles**

5.1 Transitions of the Social Grid during the Period of the Settler’s Movement

5.1.1 Coping with Homelessness

**Figure 5: Zooming into Phase I**
Our ambition with this paper is to not only sketch the change from one level to the next and demonstrate the improvement of living situations of the marginalised with the social innovation of social housing; but we also want to understand this transition and the determinants that made it happen.

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 (Bobbeck and Lichtenberger, 1966, p. 126; Schaffhauser, 1993, p. 143; Zimmerl, 1998, p. 62).

5.1.2 Equal Voting Rights as a Fundamental Institution

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. We have to acknowledge this as an important aspect of institution building according to Beckert to strengthen the part of the working class and change with the old pattern. The legal changes with regard to the voting rights are in fact breaks with the perpetuation of the old regime.

This change ushered in the rise of the Social Democratic Party and with the elections for the mayor of the city of Vienna they rose to power – at least in the capital. One of the biggest political challenges the new Social Democratic municipal government faced was the housing shortage.
Figure 6: Social Grid of the Capitalist Housing Regime: Constitution of Political Power

Figure 7: Social Grid of the Settlers’ Movement: Constitution of Political Power
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 an estimated 60,000 (Novy, 1981b, p. 46; Novy and Förster, 1991, p. 26; Bauer, 1923, p. 171; Förster, 1980, p. 406). The settlement movement was indirectly supported by the new laws on the eight-hour work day (Hoffmann, 1982, 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 emerged (Hoffmann, 1982, p. 200). The movement became stronger 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 Kleingärtner 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). This movement marks an important network factor as seen from the Social Grid perspective. It was one of the first movements giving the marginalised a voice and actually doing something to improve their living situation. It is important to note that this was actually a bottom-up movement initiated by the deprived people themselves and only later was taken up by more influential groups.

These settlements were located mostly at the urban periphery where land was still available but not easy to reach.149 On account of illegal logging in parts of the Vienna Woods that bordered the city, new building ground became available for settlements.150 Within the city, former parade grounds were turned into small gardens and areas for shelter151 (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). This is an important change marking the transition from one regime to the other as the new institutions built and run by the Social Democrats responded to the needs of the underprivileged and made those illegal movements not only legal but socially acceptable. This did not only strengthen the networks of the marginalised but also change their cognitive frames. Suddenly they were a group with an identity and had rights to claim on their behalf.

149 Floridsdorf, Kagran, Stadlau, the later 10th, 11th, and 12th district.
150 Wolfersberg, Salzberg, Biberhaufen, Schwarzlackenau, Strebersdorf, Lainz, Bruckhaufen.
151 Schmelz, Prater.
Figure 8: Social Grid of the Capitalist Housing Regime: Constitution of Legal Power

Figure 9: Social Grid of the Settlers’ Movement: Constitution of Legal Power

D5.1 Part 2 Community Housing in the City of Vienna – 100 years of social transformation – a Case Study for the Social Grid Approach (31 March 2016)
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. **This is an example of the deterioration of former institutions and networks.** This circumstance opened up the window of opportunity to new networks and institutions. As an effect of the new labour law, workers had more time after work to engage in the cooperatives and built houses and the necessary infrastructure.

**Picture 1: Illegal shanty town settlement during the 1920s in the district of Kaisermühlen (Photo: ©ÖNB Archive)**

5.1.3 Networks Compensating Political Vacuum and Market Failure

As indicated above, 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, **marking the absence of key institutions.** During the first republic, cooperative housing began in Vienna (the number increased every year) (Förster, 1979, p. 119).

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 not-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, streetlights, waste collection, etc., was within the responsibility of the settlers. In the beginning, the municipality had no financial means to provide such services. **Here, new forms of institutions and networks emerged, which complemented each other and could thus build new sustainable structures.**

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. In order to control military potential behind the discharged soldiers and their vanishing networks, institutions and cognitive frames, it was necessary to give them at least shelter and employment. 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 had 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), thus building new institutions.

**5.1.4 Mass Demonstrations and New Cultural Values as Expressions of Cognitive Frames**

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 hegemonization 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 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).

While the mass demonstrations and especially the associations organising them mark the rise of new recognisable networks in this era, they give account of the forming of new cognitive frames at the same time. The settler’s movement gave the working class the idea of a cultural and legal identity and the strong popularity this movement gained, e.g. reflected in the mass demonstrations and in the press, contributed to the movement’s strength and to the settlers’ self-esteem, unprecedented before.

![Social Grid Reinforcing the Capitalist Housing Regime - Cultural Power](image)

Figure 10: Social Grid of the Capitalist Housing Regime: Constitution of Cultural Power
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, pp. 37ff see below). **We see already here the beginnings of academics from a more affluent class of society supporting the interests of the settlers and we will witness this more so in the next phase where the social innovation of social housing was much stronger attached to a movement of architects designing and working for the working class.**

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\(^{152}\) (Frei, 1991, p. 135; Neurath, 1922, p. 41; Novy and Förster, 1991, p. 46). All this is exemplary for the 1\(^{st}\) period.

5.1.5 Institutionalising Financial Resources

In April 1921, during the 1\(^{st}\) 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. It is an example for the set-up of new institutions in the construction of a social grid making the change from one regime to the other. This fund was not only crucial for the settlers but marks an important milestone for the continuation of the social innovation of social housing. While in this first phase we see the emergence of a new housing model – at the beginning still a niche - in competition with the old model it can be interpreted as a first step towards the establishment of a new regime.

The general regulation as to financing the community housing of the settlers during the 1\(^{st}\) 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).

\(^{152}\) In the construction areas Heuberg, Lainz, Rosenhügel, Hoffingergasse, Laaerberg and Straßäcker Rukschcio and Schachel (1987, p. 286).
Figure 12: Social Grid of the Capitalist Housing Regime: Constitution of Economic Power

Figure 13: Social Grid of the Settlers' Movement: Constitution of Economic Power
Settlers as construction workers

One additional characteristic of the settlers’ movement was the settlers’ engagement in the construction work and **this was also crucial for building a network among the settlers who became construction workers and for the cognitive frame of this social class.** As from 1921, the settlements were supported by the city of Vienna under the 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, pp. 126; 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 competing practice of co-operative housing, exercised also 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 of social housing was regarded as a much more just approach that 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 equalled 1,600 working hours. The working hour rate equalled 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).
Social Grid Reinforcing the Capitalist Housing Regime – Ideological Power

Figure 14: Social Grid of the Capitalist Housing Regime: Constitution of Ideological Power

Settlers’ Movement: Ideological Power

Figure 15: Social Grid of the Settlers’ Movement: Constitution of Ideological Power
5.1.6 Organisational 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).

In order to reduce the costs of the settlements it was necessary to reform several provisions of the Vienna building regulation. This was also a field of further institutionalisation on the basis of changed construction norms and rules, made possible through the increased political influence of the Social Democrats either directly or indirectly. For example, fireproof 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 located 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 (Schacherl, 1926, pp. 21–25).

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 (Schacherl, 1926, 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 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 to not only save building material but also labour force, because the houses could be constructed mainly by unskilled workers\textsuperscript{153} (Cremer, 1992, p. 37).

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 by 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.\textsuperscript{154}

A couple of social innovations accompanied the settlers’ movement of the 1\textsuperscript{st} period, which increased the functions of the networks of the rising working class and also catalysed the constitution of a proud class identity as part of a cognitive frame: Kindergarten, playgrounds, sports activities, day care, youth clubs, theatre and music groups etc. emerged. They were 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).

Further innovations of that time occurred on the organisational level. The settlers’ notion that their joint undertaking could only work out if they formed 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 remodelled 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, 1981b, p. 134).

On the economic side, we see innovations as well. Due to high unemployment, settlers were

\textsuperscript{153} E.g. the Heuberg-Siedlung.
\textsuperscript{154} Landengasse in Simmering, Jedlesee and Jägermais in Floridsdorf, in Wolfsberg and the settlements Eden and Friedensstadt (Kernhausgasse).
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 organised 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, pp. 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.

5.1.7 The end of the settler's movement

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 located at landscape level such as 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. Internally, 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).

As we will see in the next sub-chapter, the social innovation of settlements to solve the problem of homelessness remained a niche. But the social grid that was formed along this social innovation was a crucial starting point for the next generation of social housing projects and their upscaling towards a level of social transformation.

5.1.8 Type of change: De- and Re-alignment

According to the types of change in the MLP approach, the phase before 1919 would be classified as a reproduction process where low pressure or the absence of pressure
reproduces the incumbent regime. In phase one, after 1919, we however witness a de- and re-alignment process that is triggered by the lost war, the loss of major (agricultural) parts of the former empire and by an economic crisis. Regime problems occurred and could not respond to the crises of homelessness. Instead, the culminating problems lead to the erosion of the old regime. Niche solutions were not yet sufficiently developed to step in and substitute the old regime. But the vacuum situation created space for the settlers’ movement to point to new directions for policymaking that were then taken up in a strongly modified way by the Red Vienna Social Housing policy.

5.2 Transitions of the Social Grid during the Superblock’s Period

5.2.1 Institution Building from Niche to Regime

Institutions are crucial for a social innovation to develop from a niche to the regime, to use the terms introduced by Geels/Schott, especially when these institutions are legally grounded. 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. This was a framework condition for the subsequent development of the city of Vienna.

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 and the short era of the settlement solution for the housing shortage slowly came to an end. However, the settlement period was crucial for all phases that followed, as it constituted the social grid of a new type of housing regime. Like the earlier programme of the settlement support, 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. In turn, this institutionalisation contributed to a further strengthening of the cognitive frames and social networks, thereby reinforcing the new social grid of a publicly sponsored social
housing regime and circumventing traditional market forces to which the housing problem had been left in the former regime that had failed.

By the end of 1924, a year of serious economic crisis in Austria during which the stock exchange had 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 the year 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).

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, amongst those political tensions, the failure of the Bank of Austria in 1928, and the worldwide 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, 61,175 dwellings had been completed. This period ended after the Austrofascist coup of February 1934 (Czeike, 1959, p. 53). As we can see, the window of opportunity to establish a new social housing regime in Vienna had opened up at landscape level during the 1920s.

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 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 by the city’s annual income (Czeike, 1959, p. 53).
5.2.2 Networks Strengthening the Social Democratic Clientele

The Social Democrats in Vienna had made housing policy one of their priorities and regarded it as a socially and economically fundamental issue, thus strengthening their own clientele and political support – at least in the city of Vienna. The newly formulated right to housing led to big municipal housing programmes and thus to a major cultural leap in the working class, again an important factor for the rising class consciousness and the constitution of the cognitive frame in this social grid (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 by 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, like the building programme, made tenant protection a long-lasting institution. So, even though the tenant protection law can be classified as an institution as part of the newly formed social grid, the fact that the Vienna Social Democrats made their
point clear in the national parliament is a case for the formation and strengthening of networks, as they could credibly show that this law was crucial for the whole country.

5.2.3 Cognitive Frames Adapting Progressive Values

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 by the social democratic movement has to be understood as a dynamic process. It was not static and there also were other options. Nonetheless, it enlarged the network of the Social Democrats and their political support among the settlers and their sympathisers. 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. However, it also marks the start of the end of the autonomy of the settlers, and what had started as a grass-roots movement now became co-opted by party politics.
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, pp. 34–40). 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).

5.2.4 Co-developments: Circumventing Traditional Market Forces

Many of the city’s communal facilities – hospitals, counselling centres, libraries, playgrounds, kindergartens, youth centres, gymnasiums, 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. The co-developments were also...
signs of a social transformation showing the limits of traditional market forces which could not cope with the challenges of the interwar period. The new housing regime and the co-developments, circumventing market forces, showed that alternative models could work well (at least to some degree) and they reinforced each other in the new type of social grid.

The year 1921 marks the zenith of the settlement movement during this 1st period, which faced 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, pp. 29; 53).

Figure 19: Social Grid of the Red Vienna Housing Regime: Constitution of Economic Power
5.2.5 **Protective Institutions stabilising the new Cognitive Frame**

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 let to big municipal housing programmes and thus to a **major cultural leap in the working class and is worth to be mentioned here again in the context of cognitive framing** (Pirhofer, 1982, p. 230; Förster, 1980, p. 105). **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.**

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![Red Vienna Housing Policy: Constitution of the Social Grid: Social Grid - Ideological Power](image)

**Figure 20: Social Grid of the Red Vienna Housing Regime: Constitution of Ideological Power**

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5.2.6 **Financial Institutions for Scaling up Social Housing**

Against prior intentions of the first period described above, the majority of the finances were not invested into bigger settlements but in tenant houses (super blocks). 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. 103). **We have already identified financial resources based on legal provisions as one of the key – if not the key – factor for a substantial change from one social grid to another one or from one regime being succeeded by a new one, coming out of the niche position.**
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 became chief architect and 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, organised 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. All these formal institutions and their budgets were important cornerstones for the social grid of the super block era. And even though they were out of function for the biggest part during the “Ständestaat” and the Nazi regime, these institutions came into operation in a similar way after WWII because of their landmark positions.

Role of the cooperatives

One noteworthy characteristic of the Vienna 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. Here we have a merger of networks and institutions, reinforcing each other. 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 1,430,000 m² 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; 1933, p. 19).

Central to the new housing policy of superblocs 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 superblocs. 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 (see above; Brahams, 1987, p. 34; Hautmann and Hautmann, 1980, pp. 31 /nopar #2490; 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 to 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, a 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, thus reinforcing the new formation of a cognitive frame among the working class (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 – showing that public policy could limit free market forces and find alternative paths to find solutions for the housing problem (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 remodelling of existing social housing (Kampffmeyer, 1921, p. 33).

The tenant protection law had resulted in 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 m² of construction land; by 1930, the city already owned more than a quarter of Vienna’s land property (Brahams, 1987, p. 35).

5.2.7 Architectural and Interior Design Reflecting new Cognitive Frames

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 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, pp. 76–80). As part of a changing cognitive frame, cultural identity was not only formed in various common social activities, co-operatives at all levels and educative institutions but also through cultural artefacts and a new style in housing, furniture and ornaments.

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 organised by the city administration. The visitors remarked that the new apartments were too small. City officials responded immediately, announcing that in the new building programme set up for 1927, four new apartment types would replace the old 38 and 48m² units. The 38 m² units only held a niche for the kitchen whereas in the bigger unit the kitchen was a separate room opening up to the bedroom.

In addition, the installation of gas pipes, stoves and portable showers in the kitchens were planned. This was only made possible by the technological progress in the energy and

Picture 2:
Metzleinstaler Hof was the first superblock, built between 1916 and 1925
(Photo: Thomas Ledl 2012, licensed under the Commons)
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, 1999, p. 198). It had also more than just a kitchen and 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 scullery, wash area, and toilet that had been a feature of many of the early apartments were eliminated. In the new floor plans, the toilets all opened off the small entrance hall.

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 of 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 movement from room to room resembled the bourgeois Ringstraßen palace architecture and similar well-to-do family homes of the 19th century, which in turn idealised the design of the emperor’s palace (e.g. Schönbrunn). 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, pp. 52–57). This innovation in design reflects the cognitive framing of rationalisation of work, the acknowledgement of the housewife as working woman with a working space of their own, similar to workshops and factories of the (mostly) male proletariat.

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155 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.
5.2.8 The Red Vienna Period comes to a Hold

In February 1934, the ban on all political parties except for the Christian Social Patriotic Front (Christlich Soziale Vaterländische Front) led to a civil war, during which many of the social housing superblocks were damaged. Vienna lost its federal independence and came under Austro-fascist rule. The social housing programme was put on hold. The only exceptions were the settlements for supplementary income (Nebenerwerbssiedlungen) 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 was lifting the tenant protection and expelled Jewish inhabitants from more than 70,000 homes. Even though the regime at the beginning announced that 60,000 new homes were to be built in Vienna, in fact only 300 per year were constructed.
5.2.9 Type of change: Re-alignment or Substitution?

The type of change we see in the second phase does not fit in any of the pre-defined categories of the MLP approach. We are rather dealing with a mixture of types in this case. There is a re-alignment in so far as a niche innovation such as the superblocks and the funding model attached to them became dominant, forming the core of a new regime. The superblocks were also a substitution of the pre-war model and of the settler’s movement (the latter was never a dominant regime, though). The massive landscape pressure was almost the same in this phase as in the previous one. Other than the settlers’ movement, the superblock model at one point became sufficiently developed to make a breakthrough on “the market”. However, other than in Schot’s and Geels’ definition, the superblock model was not a typical technological substitution because it did not develop over time under the old regime and was just waiting for a breakthrough. Rather, it was born out of the settler’s movement in a scale-up version and with a newly established social grid providing an ideal situation. The change further also is an expression of a reconfiguration pathway as the change in one sub-system, e.g. equal voting rights, triggered another change, e.g. in the constitution of the municipal government, subsequently in the taxing and funding model etc., leading to a new overall organisation of production and redistribution.

5.3 Transitions of the Social Grid during the Era of Corporatist Housing Policies

5.3.1 Reconnecting to the Remnants of Former Social Grid

During the Ständestaat period and the subsequent Nazi regime in Austria, social housing was marginalised. However, after WWII when a lot of houses were destroyed and many Austrians came as refugees from the last parts of former Austria to the remnants of the country, homelessness and the need for immediate housing became urgent again. 20% of all housing units in Vienna were destroyed, i.e. some 87,000. In Vienna alone, 35,000 people were homeless.
The solution approach after WWII was a reconstruction period from 1945-1959. The social grid was re-established (or: recovered) and similar policies as during the Red Vienna Era were again taken up, not only for Vienna but for larger parts of the country, although most housing construction was concentrating in the capital.

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 signalled 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.
Typical for that phase are the duplex apartments, which could be combined later, making one bigger apartment out of two small ones. When Franz Jonas, 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 eight 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 increased from 42 to 55 m².

5.3.2 Incremental innovations on the basis of new laws stabilising the social grid

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 centred 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).
Figure 24: Social Grid of Corporatist Housing: Constitution of Legal Power

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 smaller unit to 56m$^2$, and from 70m$^2$ to 80m$^2$ for the bigger unit (Brahams, 1987, p. 77). One year later, the Housing Improvement Acts (Wohnungsverbesserungsgesetz) were implemented at national level. It was the prerequisite for the refurbishing of the 1$^{st}$ and 2$^{nd}$ 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).

As these examples show, several institutional arrangements were installed by policymakers to continue the social grid set up of the 2$^{nd}$ phase and to adapt to present challenges by incremental innovations in the field of social housing.

5.3.3 Reproduction of the Dominant Resources on the Basis of Sufficient Resources

Financial resources as institutions of the social grid were – next to legal provisions – the most important cornerstones of the continuation and expansion of the social housing regime. In the following section, we introduce the most important acts securing the public funds for social
housing in this third period.

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 built 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 subsidising municipal housing followed during the subsequent years (see chapter 5.3.2 above).

Subsidies for social housing programs were reorganised 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.

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**Figure 25: Social Grid of Corporatist Housing: Constitution of Economic Power**

- **Institutions**
  - City planning & Support for Public Housing
  - Commission of Enquiry
  - Database for Statistical Analysis

- **Social Networks**
  - Corporatism

- **Cognitive Frames**
  - Plan to improve living situation

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**CRESSI Working Paper no. 29/2016**
D5.1 Part 2 Community Housing in the City of Vienna – 100 years of social transformation – a Case Study for the Social Grid Approach (31 March 2016)
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 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 and the new Vienna housing subsidy program was 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 Stadtneuerungsfonds 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).

### 5.3.4 Incremental innovation from the reconstruction period onwards

From the reconstruction period on, 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 also found their expression in the modernisation or modern design of social housing projects in Vienna. *Institutions, networks and cognitive frames reinforce each other. Nowhere can we observe this better than in social, organisational and technical innovation*. In fact, the secure financing gave new housing ideas room for experimentation and offered the chance to take up innovations in the private housing sector as well.

**Rationalisation through duplexes and pre-fabrication**

In 1962, the first prefabricated elements made of concrete were produced for the Vienna social housing programme. During that time, a database of social housing applicants became established, including a statistical analysis. Especially the pre-fabrication of construction parts strongly increased the construction capacity. For this purpose, the company ‘Montagebau Wien’ was founded. This also helped to decrease construction costs. Between 1961 and 1970, 4,500 housing units were built each year. New neighbourhoods 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 symbolises the mindset of rationalisation by standardised 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 (*Fernwärme*). The houses were heated by one central power plant (Eigner *et al.*, 1999, p. 20).

Reinforcing the social network through tenant participation

The 1970s represent the era of remodelling of housing and urban renewal and were thus a fruitful ground for incremental innovations in various fields, including administration and tenant participation. Tenants were now asked for their opinion in certain questions of the housing areas.

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156 In Kagran and at Erzherzog-Karl-Straße.
Between 1972 and 1973, the beginning of the automated rent calculation and rent collection can be observed (Mietzinsverrechnung and automatisierter Mieteinzug).

A new law concerning the urban renewal was introduced in 1974 as already mentioned above. The focus was on eliminating infrastructure damages.

Two years later the first municipal housing consultancy was started in the 1st district, Doblhoffgasse. During the same time the project ‘Dachterrasse 16., Haberlgasse’ started the first effort of tenant participation.

**Hollowing the social housing model**

However, even the fair Austrian housing finance model experienced severe changes over recent years and is in part turning toward a more market-oriented model, albeit to a much lower degree than most other countries. As Springler points out, the change started already in 1968 when a law reform for housing finance started to shift funds from object funding to subject funding, which means that public money funds more the individual tenant or home owner, e.g. by social benefits for housing or rent at the expense of investing into the construction of new (social) housing projects (Springler, 2012; Czerny, 1990, p. 9). Another move toward market liberalisation is the change of competence between the federal state and the regional (states) with regard to housing budgets, starting in the early 1990s. The regional
states in most cases preferred the subject funding which for the most part did not flow into social housing projects but into cooperatives that subsidise individual home ownership. What is more, a change of the law at the turn of this century ruled that the profits made from such investments need not necessarily be reinvested in future housing projects and so the regional states used this money to plug other financial holes. During the 1990s when no acute housing crisis was noticeable and demographic change projected the decreasing need for homes, neo-liberal economists saw no need to invest in social housing and in many regional states of Austria such funds were reduced. As a consequence, housing in Austria became less and less affordable, especially for the low-income quartile (Beer and Wagner, 2012; Springler, 2012).

Cultural landmarks to challenge cognitive frames

A landmark is constructed in the three subsequent years: the Hundertwasser-Krawinahaus, one of the best-known examples of social housing, located in the 3rd district, Kegelgasse, containing 52 units, 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.

One innovation that came along with the advancement of ICT was E-Procurement, which made funding and allocating of housing units easier.

5.4 Transitions of the Social Grid during the Neo-Liberal Economisation

5.4.1 Resilient Social Grid Adapts to Various Pressures of Landscape Level

After the fall of the Iron Curtain in 1989, immigration from Eastern Europe increased, as in Vienna as in other cities. At the same time, the number of single households and the demand for more space per person increased. Apart from more space, tenants wanted to have housing that is more comfortable. The municipality responded to the developments by subsidising up to 10,000 newly constructed housing units per year. The well-established social grid for publicly funded social housing provided a functioning infrastructure to deal with the new housing demand. Institutions, networks and cognitive frames had by then become a dominant regime that had already gone over the zenith of its overall development, as we will see in this phase.
New urban enlargement projects were developed at the boundaries of the city, e.g. Leberberg, Wienerberg, Langobardenstraße, Donau City, and Wohnpark Neue Donau. Most of the property that the city owned was already used up for housing project or used for open, public spaces such as parks. On account of the remodelling 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 2012 only 1% were in the lowest category (figure below).
In this last period, similarly to the one before, we observe mostly incremental change when it comes to publicly funded social housing. Parallel, however, the alternative model of cooperative housing became more and more dominant, due to changes at the landscape level.

5.4.2 Social Housing Regime at its Zenith

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.
In 1974, during the expansion period, a new law concerning the urban renewal was introduced, not the least to prevent demolition speculations, thereby reinforcing the institutions in practice of the dominant social housing regime. 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 the same vein, additional laws were passed to expand the programme, secure funds, and strengthen the network and cognitive frame among the benefactors.

In 1981, a new tenant law was introduced and the new Vienna housing subsidy program was established. Since the end of WWII, 200,000 housing units had been completed. Tenant participation was expanded; 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, allowing the municipality to demand some financial support for the maintenance of the buildings (Eigner et al., 1999, p. 26).

Softening of the Corporatist Welfare Regime in Response to Landscape Pressure
Several organisational innovations of incremental quality improvements accompanied the technical and social innovation of the expansion era and the subsequent era of incremental innovation and neo-liberal reforms. We see already the beginnings in 1995 with the
introduction of *Bauträgerwettbewerbe* (competition for construction contractors) and *Grundstücksbeirat* (land advisory board). Their task was 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 was introduced as the 4th criteria in the evaluation of construction contractors’, putting emphasis on affordable housing, suitable for everyday use and promoting community-friendly living quarters. These criteria were first applied in the competition for the Sonnwendviertel (10th district). Two years later, an organisational innovation occurred: several municipal administrative departments were merged, and in accordance with §72 of the Wiener Stadtverfassung (municipal constitution) the division ‘Magistratsabteilung 17 – Wiener Wohnen’ was created, i.e. the managing authority for social housing in Vienna.
5.4.3 Resilient Social Grid as Test bed for Various Innovations

Social housing and cooperative housing arrangements at times served as a test bed for different kind of innovations as investors did not have the risk of financial failure and the municipality was backing the enterprise. Thus new options for sustainability in housing construction and other innovations, also on the organisational side, could be explored. If they proved successful, they could actually lead the way for expansion and even legal provisions to be considered for all new housing constructions – even those financed entirely by the private sector, e.g. low energy building which are required today. **This could only function in an established social grid that was dynamically stable and where landscape pressure from the top (such as the need to be more energy efficient) and innovations from the bottom could be absorbed in a way to contribute to the overall stability of the dominant regime.**

One example is the first housing complex heated with solar energy. It was completed in a complex at Johann-Gottek-Gasse in 1982. In 1993, the first low energy housings were subsidised by the municipality, in the 22nd district, Am Hirschfeld. From 2004 on, innovations in construction boosted low energy and passive buildings (‘Neue Siedlerbewegung’, Orasteig/Brünner Straße).

A few years later, in 1998, we observe an organisational innovation: The ‘electronic file’ for the allocation of housing units was introduced. With the progress of ICT, e-procurement was introduced, in 2001, as well as cash pooling and electronic banking. Wiener Wohnen launched its first internet site. Visitors of this site could from now on deposit their request for a social housing unit. Again, **these incremental changes were part of the regime’s reproduction process.**

**Increased participation from the tenant’s side was also adopted by the dominant regime and contributed to the reproduction process by strengthening the network and the cognitive frame.** 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 the limited budget for the building has to be invested. 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 subsidised housing units**

The municipality intended to improve housing through (incremental) innovation. Modern (thematic) approaches emerged 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) was established in 2000. It was the central division for construction, management and allocation of subsidised new housing. In alignment with § 71 of the Wiener Stadtverfassung (Vienna municipal constitution) this division was managed as an enterprise. The Mieterinnen- und Mietermitbestimmungsstatut (tenant participation statute) was 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. Obviously, this move was the result of an intense bargaining process among the members of the network of the social grid, including the tenants. The more people of those being affected were integrated in the bargaining process the more stable the network could become and at the same time, the cognitive frame became adaptive for flexible solutions responding to the challenges of those times. The new statute comprises several possibilities of all tenants and was supposed to support the exchange among the different generations living in a municipal housing complex. What has been new since 2015 is the active participation of adolescent tenants and the possibility to participate in a wide variety of matters not only for the main contractors 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, organises 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 neighbourhood (Wiener Wohnen, 2015).

Since 2010, several competitions for construction contractors have taken place: for developing Gerasdorfer Straße under the motto "living safe and secure"; Nordbahnhof; and Mautner Markhof Gründe. The two latter ones had to develop new ideas under the motto "living with cultural diversity". Seestadt Aspern was intended to do the first move towards a climate neutral living quarter. What is more, Eurogate was supposed to 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 took place, among them a welcome service for new tenants. In addition, Wiener Wohnen started the decentralised approach “Wiener Wohnen vor Ort“ to complement its general client services and became now located directly within several community buildings. Further organisational changes during the last decade comprised:

- **2009**: the common enterprises Stadt Wien – Wiener Wohnen Außenbetreuungs GmbH and Stadt Wien – Wiener Wohnen Hausbetreuungs GmbH were merged. The new entity was named Wiener Wohnen Haus- & Außenbetreuung GmbH.
- **2011**: Wiener Wohnen adopts a new credo: Clear targets based on a new vision are supposed to turn Wiener Wohnen, which is located at a central location, into a modern service enterprise in order to effectively and efficiently serve its clients’ needs.

5.4.4 On the Path to Transition

From 2004 on, all of Vienna’s subsidised housing was transferred to common housing cooperatives, responding to a new EU directive and marking the beginning of the neoliberal period. These changes at the landscape level opened up a window of opportunity for different models of funding new homes – on the private sector and on the public-private sector. New regimes, which formerly had been niches, could be established. These new developments also mark the end of the traditional social housing regime since the 1920s (or the post WWII variant).
The neo-liberal turn that has prevailed since the financial crisis and the property bubble has led many governments to press for more self-reliance and income-related subsidies to support poor households and policies favouring a residual social housing model. The funding of social housing in accordance with the EU subsidiary principle is subject to national housing policy. In some strongly federal EU countries such as Germany and Austria, specific regulations differ in the various states. However, over recent years, a number of EU directives have caused some discontent among housing policy makers and related actors due to attempts to restrict national sovereignty in the field.

EU regulators – and also some free market advocates in the housing sector – see EU Competition law and state aid rules infringed by national and regional housing policies. They claim additional breaches against national laws to implement climate protection and energy directives, capital market regulations and procurement laws as well as some macro-economic alert mechanism that some states have implemented in response to the real estate crisis (Streimelweger, 2014).

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157 Article 107 of the TFEU rules:
1. Save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the
As of 2000, when a right-wing populist 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 channelled 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). We can interpret this development as a change at landscape level where specific pressure is being exerted on the regime level, giving alternative, formerly niche solutions, the opportunity to become more important.

![Figure 34: Social Grid of Neo-liberal Economisation: Constitution of Cultural Power](image-url)

production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market. ([http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12008E107&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12008E107&from=EN)) Subsidies for the social housing market fall into this category. However, in order to make social housing possible in spite of this regulation, Article 106, paragraph 2 of the TFEU foresees an exception:

2. Undertakings entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly shall be subject to the rules contained in the Treaties, in particular to the rules on competition, in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them. The development of trade must not be affected to such an extent as would be contrary to the interests of the Union. ([http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12008E106&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12008E106&from=EN))
However, in his new election campaign the mayor of Vienna, Michael Häupl (SPÖ), 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 built especially for young people just starting an education or an employment.158

5.4.5 Type of change: From Reproduction Process to Sequence of Transition

The phases three and four described previously are examples ranging between “reproduction process” and “sequences of transition pathways” because we do not see major breaks in the life cycle of the social housing innovation, at least not until 2004. Rather changes occur slowly and in an incremental fashion. Landscape pressure reproduces the incumbent regime until a certain degree and eventually slow but continuous pressure is being exerted from landscape level to regime level. Reactions from the incumbent regime are for the most part sufficient to adopt niche innovations. The regime architecture is changing slowly over time toward a pro-market approach, similar to a reconfiguration path. Whether a new regime will indeed take over the incumbent regime, whether several will coexist or whether the traditional social housing model will be substituted by a more EU conform one, remains to be seen in the future and is also subject of diplomatic adjustments between municipalities, nations and the European Commission.

Figure 35: Zooming into Phase IV

158 http://rathausklub.spoe.at/sp-klubtagung-rust-wien-baut-wieder-gemeindewohnungen
5.5 Looking at Social Housing Today

5.5.1 Status quo of the SI

The last housing units under the social housing regime were built in 2004. 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 (see explanation above).

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).

![Figure 36: Property ownership (City of Vienna - Wiener Wohnung, 2014, p. 13)](image)

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 cooperative, not-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).

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 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 uninterruptedly from then on – though obviously not always in quite such a spectacular fashion. As the graph below shows, the average living area in m² per capita expanded from 22m² to 38m² between 1961 and 2001.

![Figure 37: Living area in Vienna (City of Vienna - Wiener Wohnung, 2014, p. 11)](image)

Nowadays the benchmark standard is 40m² per capita, not least, because the number of single-person households has mushroomed, shooting up from 22 to 48% 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 some 6,500 dwelling units per annum built with public funding, especially designed for young families, single mothers and students. 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).
5.5.2 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 an estimated 60,000 (Novy, 1981a, 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 one-eighth of the total population of Vienna was living in municipal dwellings built almost entirely by means 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 remodelling 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.

6. Conclusion

From a theoretical perspective, the social grid approach from social economics in combination with the “sources of power” from historical sociology constitutes as feasible model to explain stability and reproduction of social structures in various domains. However, it does not sufficiently explain change of the social grid. The STS and innovation studies multi-level approach helps to explain change but the categories or types of change offered by this
approach are insufficient to differentiate different kinds of change in social innovation. However, by help of the combination of these models we understand that change is ignited either externally, such as war, or internally, such as the neo-liberal turn.

This unusually composed theoretical model also shows how major changes at landscape level are disturbing the incumbent regime, as in phase I; how major changes at landscape level lead to incremental change and reform of the incumbent regime, as in phase III; or how major changes at landscape level slowly undermine the incumbent regime as in phase IV.
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PART 3
Analysis of individual case Kiútprogram (‘Way out’ programme) for microcredit and self-employment using the extended social grid framework

György Molnár
Institute of Economics, CERS, Hungarian Academy of Sciences
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1. Introduction

In this study, I will analyse the explanatory power of the theoretical framework, the extended social grid model developed by CRESSI WP1 for a specific case of marginalization and a related social innovation, Kiútprogram. Regarding the theoretical framework, I will basically rely on the Report of Houghton Budd, Naastepad and van Beers (2014); particularly the studies by Nicholls and Ziegler (2014), Chiappero-Martinetti and von Jacobi (2014), Scheuerle, Schimpf and Mildenberger (2014), Heiskala (2014) and Lodemann (2014), and will not go back to the original sources unless it is necessary. I will not provide a summary of the theoretical framework assuming that it is well known.

For CRESSI WP2, I wrote a detailed case study on Kiútprogram (Molnár, 2015a) that will simply be referred to as ‘case study’ in this paper. Since the content of the case study is probably less known, I will summarize some of its important implications wherever necessary; verbatim quotations from the case study will not be noted for easier readability.

The target group of the programme are in the first place, but not exclusively, people of Roma origin and in productive age who live in deep poverty and are long term unemployed. The main objective of the programme is to facilitate self-employment (including agricultural primary production) applying a complex methodology, within which microlending is just a tool. The programme can be identified as an employment and not a microcredit project.

The location of the programme is Hungary, a postsocialist transition country. This particular context differs from mature market economies in many aspects; these differences must be considered during the analysis, requiring sometimes a more detailed explanation. However, a full review and analysis of postsocialist transition would far exceed the scope of this study.

When examining the explanatory power of the theoretical framework, I will mostly focus on critical deficiencies or the discrepancy between the current state of the theoretical construct and the actual case. Two specific topics have not been analysed sufficiently so far, I will cover them in more detail.

The first topic is the definition of social innovation. To my opinion, it has not been clarified yet if there was a difference between social innovation in general and social innovation for marginalized groups, and if the latter has any particular characteristics.

The second topic is about ‘creating economic space’. A separate work package focuses on the social innovation policy for the weak and marginalized; however, in theoretical analysis, little emphasis was placed on the controversy that social innovation policy is formed by the same political power structure and institutions that might be partially responsible for marginalization. The theoretical analysis of this problem would also exceed the scope of this study; however, I will prove that this statement should be declarative instead of conditional in case of the Kiútprogram in Hungary, and will show the consequences of this fact.
In the first part of this study, I will analyse the marginalization process on its own for two reasons. First, without a detailed examination of the marginalization process, it is impossible to identify the appropriate intervention points of social innovation correctly, i.e., finding a way to stop the dynamics of mutually aggravating effects. Second, I wanted to examine how theoretical frameworks created so far can be applied to the marginalization of the target group of Kiútprogram, if these frameworks enhance a better understanding of the processes and if any changes should be requested.

2. The process of marginalization

In Hungary (and several other CEE countries), the majority of the Roma are disadvantaged in almost all aspects of life: education, employment, income, housing, land ownership, or health condition. Moreover, they face discrimination mainly in the fields of education and employment. Open or covert prejudices against the Roma are visible in everyday life and in the media.

The case study discusses the interrelation of these factors in detail; here I review them from the aspect of the extended social grid model. During this analysis, I separate two phases at the socio-environmental level: how this current marginalized position came to exist and the mechanism of the reproduction of poverty. I will analyse both processes with consideration to Mann’s power resources and Beckert’s social grid models. Although both models are relevant in both processes, it should be noted that Beckert’s model, the interrelated institutions, networks and cognitive frames, is more suitable for describing a given status quo, while Mann’s power resources model is a more apt approach for structural changes.

2.1 The formation of the current marginalized position of the Roma

Before World War II, the Roma were at the periphery of the predominantly agrarian society of Hungary, still, they had some sort of organic connection as service providers: musicians, peddlers, manufacturers and repairers of articles and accessories. They were part of the division of labour; however, these products and services did not have a central role in the production cycle.

The everyday life of the Roma was separate from the rest of the society, having a strong and well organized internal set of rules and social network. There were people within the Roma society responsible for being in contact with the outside world, too. Their separation, unique culture and different language of some groups created a special cognitive frame regarding the
Tzigane within the majority of the society\textsuperscript{159}.

Considering Mann’s original IEMP model, the Roma had no ideological, economic, military, or political power in the Hungarian society. Their unique, specialized products, particularly music, can be evaluated as some kind of artefactual power, and I believe that their internal social network nourished by this self-esteem and collective pride can be viewed as a power resource which cannot be fit into Mann’s structure.

Two factors played crucial roles in the shattering of the Roma society: due to industrialization, many traditional Roma products and services got excluded from the market (effect of economic power); and the genocide during World War II (military power) partially crushed the social fabric of the Roma society.

World War II, the following regime change and the introduction of state socialism fully redesigned the structure of the Hungarian society. In this initial period, political and ideological power played a crucial role; later on, the significance of economic power gradually grew. Just to highlight some important details regarding the situation of the Roma: forced industrialization put an end to the significance of traditional products once and for all. Only the Gipsy music service survived, eventually to be diminished by rock music. The Roma did not benefit from land distribution, thus they could not participate in the agricultural cooperatives, a new organizing power of the transforming Hungarian countryside.

The extensive industrialization of state socialism required a large mass of unskilled workers with a low education level. The majority of the Roma became the members of this social group. The majority of village dwellers commuted to the closest industrial towns. During state socialism, it was obligatory for men to be employed. Thus the Roma became a part of the system – even if in a marginal position. Some opportunities for upward mobility became available depending on individual performance. Workplace networks were formed including both Roma and non-Roma members. Due to the limited yet regular income, many Roma families accumulated economic power resources, especially skilled workers.

The state did not take any consideration of the culture, customs or language of the Roma in any form. As a result, the majority of the Roma underperformed at school and did not exceed primary school education. Prejudices against the Roma also played a role in this. Both in case of the schools and the prejudices, the effects of ideological power can be discovered. However, the equalizing ideology of state socialism also had positive effects. As the education of the poor was supported, learning made it possible to break out of the marginalized position for the most gifted and motivated children. Workplace networks could also serve as a motivation to support the children’s studies.

\textsuperscript{159} In the case study, I discussed in detail the question when the terms ‘Roma’ or ‘Tzigane’ are used Molnár (2015a, p. 15). When discussing the cognitive frame of the majority of the society, the term ‘Tzigane’ is appropriate.
Regarding housing, two important developments took place; both of them became very significant from a marginalization aspect after the regime change. As a part of the elimination program of Roma settlements, the state built new houses in villages for the Roma with a lower comfort level. These houses were healthier than the old slums, but lacked many features. On the other hand, more and more Roma – mostly skilled workers or those with higher education – could afford to move to newly built, privately owned houses due to state-sponsored, low interest loans.

In summary, the Roma started to get integrated into state employment and – to a lesser degree – education. Networks with both Roma and non-Roma participation were developed. These connections influenced the cognitive frames of both sides as learning about the others reduced prejudices. From the Roma’s perspective, the attitude towards education started to change, affecting their integration into the labour market.

At the same time, networks within the Roma society were almost fully destroyed and most traditions were lost; this will become a significant aspect later on. Due to the commute, formerly tight family relations also weakened. The fact that most Roma employees were at the bottom of the employment hierarchy had a negative effect on their self-esteem. The formerly existing collective self-esteem as a power resource disappeared.

Using the analytic tools of the capability approach it can be stated that despite their marginalized position, upward social mobility became possible for those with adequate personal traits, primarily through the education system.

2.1.1 The effects of the regime change

The shock caused by the regime change, the transition from centrally planned state socialism to democracy and market economy radically changed the political and economic power relations; although it was not rare that former political power became converted into economic power. New ideologies became dominant. The entire institutional system has transitioned and former social networks have changed to a great degree. On the surface, there were huge changes in the cognitive frame, too, but time has shown that this social force was the one transformed the least. The demand for paternalism, a caring state is still very strong in Hungarian society.

The unfolding of democracy, political and entrepreneurial freedom set free large amounts of energy, mostly among the highly educated, those in low or mid-level managerial roles, and urban youth – but for a considerable part of the Hungarian society the regime change first of all meant the emergence of mass unemployment. Within months, several hundreds of thousands lost their jobs, mostly poorly educated workers of non-profitable factories; the Roma constituted the highest proportion among them. Transition to the market economy inevitably introduced unemployment, but its extent was increased by the ideology of the elite...
of the transition, i.e., that non-profitable factories should be eliminated as soon as possible and that for the sake of future development the sacrifice of mass unemployment was to be made. Once again this is an example for ideological power in action. Together with the example mentioned above (the regime change following World War II, into the opposite direction) it proves that Mann’s original concept of ideological power is more adequate for the Hungarian situation than the cultural power version.

The fast and large drop of demand for unskilled workers created a competition within this group. Prodding prejudices against the Roma led to a competitive advantage for the non-Roma. Thus the institutional changes of the labour market resulted in the transformation of cognitive frames. For the Roma, losing their jobs meant that they lost their existing social networks with the non-Roma, while their own former networks essentially had vanished earlier.

Besides changes in the labour market, the marginalization of the Roma was expedited by the institutional changes of three other areas: local government, education and the housing system. The direction of institutional changes was greatly influenced by the cognitive frame of the ruling elite – or less scientifically, the extreme narrow-mindedness and superficial understanding of new ideas such as democracy, political freedom and free market. The fragmented state of social networks also had a role in the course of social changes: relationships between the winners and losers of the regime change became relatively rare. Regarding Mann’s power sources, ideological power had a significant role in the local government and education systems while economic power was important in case of the housing system.

During the regime change, transformation of the former council system into real local self-governments was a very important step. Because of ideological reasons, a very fragmented local government system was created (with 3600 municipalities) having a very wide range of competences. Due to economic difficulties, central financing of the municipalities was not satisfactory, so this new system aggregated the formerly existing regional inequalities, which in turn even further increased due to the economic transformation. Regional segregation strengthened and became extreme in some cases.

Changes in education led to similar outcomes. The elite transformed the educational system according to its own interests. The right to free choice of schools – claiming freedom and diversity – became free selection between students on the schools’ side, leading to early segregation and the fact that middle-class children became increasingly separated from the children of the poor. Financing of the schools greatly depended on the financial resources of the local municipalities. Along with the municipal reform mentioned above this increased school segregation and resulted in segregated education for a significant segment of the Roma. Because of the poorer financial circumstances of the schools with many disadvantaged children, teachers also became adversely selected, further increasing disadvantages.
I discussed the transformation of the housing system in Molnár (2015b) in detail. After the regime change there was pressure, mainly from upper middle-class tenants living in better apartments, to buy their dwellings at a low price. Local municipalities considered privatisation a good way to get rid of the maintenance burdens. It was strongly advised also by experts of international organisations, for example the World Bank. As a result, the share of public rental housing shrank below 3%. We can observe the mixed effect of economic and ideological power resources. The shortage of rental housing limited the possibility of regional mobility – moving from the countryside to cities for a job – to a great degree. Private rental up to now is very expensive and almost unavailable to the Roma because of the prejudices.

Before the regime change it had been typical to receive house-building loans at no or very low interest rate. After the regime change, following the increased inflation, the interest rate reached even 30%. According to the law, for those who could repay their mortgage in one amount, half of the remaining loan was waived. This means that while in the case of the better-off families a huge financial gain was obtained by early repayment, the financial burden on the poorer families increased dramatically. Such a situation, exacerbated by losing the job, frequently led to losing their homes. These processes hit the Roma especially hard.

In summary, we can say that all important structural changes after the regime change proved to be detrimental to the Roma. They found themselves at the intersection of several marginalizing processes – further worsened by prejudices: unemployment, lack of education, loss of housing and mobility options, regional and educational segregation. In all this, the effect of combining ideological, economic and political power resources can be discovered. Lacking appropriate social networks and collective self-esteem, i.e., their own internal organizing power, most of the Roma could not withstand these processes.

We can also observe that while enforcing ideological power, several social changes led to unintended consequences. Even politically liberal decision makers (who did not share prejudices against the Roma or the poor, being theoretically even sympathetic with them) brought a number of political decisions that produced grave consequences for the Roma, with the support of self-identified left-wing or liberal intellectuals.

The decisions leading to these long-term consequences were based on the narrow interpretation of liberty, in contrast to the freedom concept by Sen. “The distinction between the process aspect and the opportunity aspect of freedom involves quite a substantial contrast. […] It is necessary to avoid confining attention only to appropriate procedure (as so-called libertarians sometimes do, without worrying at all about whether some disadvantaged people suffer from systematic deprivation of substantive opportunities) […]” (Sen, 1999, p. 17, emphasis in the original). Although most of the elite of the regime change cannot be considered as libertarian, the process aspect almost fully outweighed the opportunity aspect of freedom while creating new institutions during the transition.

Sen distinguishes five “types of instrumental freedoms: (1) political freedoms, (2) economic
facilities, (3) social opportunities, (4) transparency guarantees and (5) protective security.” (ibid., p. 39) Economic facilities and social opportunities as types of freedom are still missing in the cognitive frame of the majority of Hungarian society, and more closely, the politicians or other decision makers.

2.2 The process of the reproduction of marginalization

As a result of the already described changes and processes, a significant segment of the Hungarian Roma is undereducated, dropped out of the formal labour market and lives in permanent poverty. They live in the villages or at the outskirts of cities in the least developed regions; their children go to segregated schools. The exclusion of uneducated people from the primary labour market, their poverty and the poor education their children receive is not limited to the Roma only; however, in their case, prejudices make their situation even worse.

I have reviewed the mechanisms of the interfering and cumulative effects of the political, ideological and economic power resources leading to the current situation above. Now I will examine the interactions of Beckert’s social forces in this specific case. These “can be conceived, within Sen’s framework, as a sort of collective endowment on the one hand. […] On the other hand, social structures can also work as conversion factors, or factors that somehow affect the rate (efficiency) with which an individual is able to convert resources into desirable outcomes.” (Chiappero-Martinetti and Jacobi, 2014, p. 4)

For the reproduction of the marginalized situation of the undereducated Roma, the following contextual factors are the most relevant: labour market and employment policies, the structural characteristics of businesses by location and size, state-coordinated regional development policies, regulation of launching a business and market access, social policies, school system, self-government system, housing market and rental housing policies.

Social innovation for decreasing marginalization is greatly being complicated by the high number of institutions and their interference already mentioned earlier here and in the case study. This raises the question if it would be necessary to present the interferences of the different, market-oriented and non-market-oriented institutions in the extended model explicitly when trying to extend Beckert’s original social grid model – intended for the markets – to non-market areas. While analysing this specific case of marginalization, the answer seems to be yes.

Here it should also be examined if e.g. labour market and employment policies should be handled as separate institutions at all, since the employment policy of the state is part of the rules governing the operations of the labour market. This is an argument against separation. However, if we consider Mann’s power resources, then it is clear that the actions of the buyers and sellers operating in the market are determined by the economic power in the first place, while the state regulating or directly influencing the market is determined by political
or ideological power. If the employment policy of the state uses non-market approaches, too, then the separation is absolutely valid.

The Hungarian policy intervenes with powerful non-market tools into the market mechanisms. In the case study, I discussed the operation of the Hungarian public works system in detail (section 1.3.3). Since the completion of the case study, the number of people employed by the public works programme has further increased, the average number of participants being 230,000. A secondary labour market was created that has very little connection with the primary labour market, with a whole different set of ‘rules of the game’. It is possible that it does not make sense to distinguish between market and non-market institutions with the same functions in mature market economies, but there are very convincing arguments for doing so in case of the transition economies. Without this consideration, finding the best points of intervention and studying the impacts of social innovation may become problematic.

### 2.2.1 Institutions \( \rightarrow \) social networks

Most people with a low education level were excluded from the labour market; consequently, their related social ties have disappeared, especially the relations to more educated people. Regional segregation further reduced the number of social ties between the Roma and the non-Roma.

The public works system and the scarcity of available options turned the long-term unemployed within the same settlement into competitors. This was detrimental to the relationships between the Roma, too, increasing isolation and lack of trust in one another.

Since public works employees are usually employed within their own circles, this construct does not at all make up for the lost work ties. The negative impact is worsened by the prohibitions and sanctions of taking up a job in the informal sector. The public works system, its foundation, the municipality system and the social welfare system created a new, hierarchical network instead of the lost ties where the fate of the long-term unemployed depends on the mayor and the municipal leadership. This is a feudal-style system of relations between one or a few patrons and a number of clients (see Eisenstadt and Roniger, 1981).

The regulations of starting a business and accessing the market (see section 2.4 of the case study for more details) have a fundamental effect on the market networks. In Hungary, the proportion of small and micro-enterprises is very low in general, especially in disadvantaged regions.

School segregation and the low quality of schools in disadvantaged regions eliminate the possibility of forming ties between various social groups already in childhood.

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160 [http://kozfoglalkoztatas.kormany.hu/havi-tajekoztatas-a-kozfoglalkoztatasrol](http://kozfoglalkoztatas.kormany.hu/havi-tajekoztatas-a-kozfoglalkoztatasrol)
2.2.2 Institutions → cognitive frames

The permanently high unemployment rate of the Roma and their exclusion from the labour market created or increased prejudices against the Roma in a significant segment of the majority of the society, i.e., that the Roma do not want to work. As I mentioned above, low demand from undereducated workers created a competition in this group. The severity of anti-Roma prejudices created a competitive advantage for the non-Roma.

Being excluded from the labour market and from quality education and the virtual impossibility of starting a micro business lead to learned helplessness, even self-hatred in some cases (see sections 2.1.3 and 4 of the case study). In addition, the current public works and social welfare systems reduce the willingness to get employed on the primary labour market.

With the already mentioned characteristics of the education system, students do not gain a respect for knowledge and recognize the significance of learning. Disadvantaged students, especially the Roma, have hostile feelings about schools. The curriculum contains almost no relevant knowledge for solving everyday problems or knowledge even vaguely related to those. There are no elements that could enhance positive self-identification for the Roma, and teachers are not trained to use the techniques of integrated education. Consequently, hostility is the strongest in places where segregation is not yet complete. Specific cases show that under these circumstances, Roma parents start to prefer segregated education.

As a result, disadvantaged children in disadvantaged regions finish school early with a low level of competences – especially Roma children. This means that the institutional system fundamentally determines the actual knowledge, not only the cognitive frame about education and knowledge. I have to add that the lack of knowledge required to participate in the social division of labour cannot be viewed as a personal trait or endowment under these circumstances, even if there are some exceptions in case of exceptionally gifted children or skilled teachers. I find the concept of cognitive frames too narrow for describing the systematically created lack of knowledge of some social groups as a negative social force.

2.2.3 Social networks → institutions

It is known from the theory of weak ties (Granovetter, 1973) that these factors have a crucial role in finding and keeping a job. The dissolution of former workplace networks has a reciprocal, strengthening effect on exclusion from the labour market. Segregated education has a similar long-term effect: the relationships of former schoolmates could be an important source of weak ties.

The formation of hierarchical patron-client networks has a negative reciprocal effect on the institutions and contributed to the fact that the public works system has become a new, different and separate institution from the primary labour market. The patron has an interest in
not letting the best workers, those whose services are the most useful, out of the system, hindering their employment in the primary labour market.

This phenomenon reminds us that the notion on the horizontal nature of networks (CrESSI) should be reconsidered: ‘Networks typically call for a horizontal perspective, giving less weight to hierarchies […]’ (Chiappero-Martinetti and Jacobi, 2014, p. 3).

Besides the lack of capital, the lack of appropriate relations is also a barrier to launching a micro-business for the long-term unemployed. It is almost impossible to overcome the administrative hurdles without external help and appropriate connections.

Inter-community bridges as social ties play an especially significant role. If there are no bridges to non-marginalized communities in a marginalized community, it is impossible to improve on the marginalized status. ‘Inter-community bridges, such as the highly dynamic ‘creative nodes’ […], determine complex systems’ adaptation potential (called evolvability in biological systems). […] Inter-community bridges emerge as crucial determinants helping crisis survival.” (Csermely et al., 2014). I will discuss this later, in connection with social innovation.

2.2.4 Social networks → cognitive frames
The lack of appropriate networks has a negative effect on the parents’ attitudes towards their children’s education, considering their studies in a secondary school after finishing primary school, even supporting the child’s learning at home; all these produce a reciprocal negative effect on the education system.

The lack of social networks leads to a feeling of redundancy, undermines self-esteem and collective self-respect to a great degree and thus contributes to the formation of learned helplessness. The patron-client relation strengthens the demand for paternalism, further increasing dependency in relationships.

The lack of inter-community social ties also has a deep impact on the cognitive frame of the majority of the society. In the case study, I documented the representation of the Roma in public opinion and in the press in detail (section 1.3.2). The lack of knowledge due to the lack of connections increases prejudices and unjustified generalisations.

2.2.5 Cognitive frames → institutions
In the case study I have shown the defective presumptions regarding the causes of unemployment that served as the foundation of the public works system (section 1.3.3). These presumptions resulted from superficial neoliberal ideas, lack of knowledge and prejudices against the poor and the Roma. Workfare is part of the cognitive frame of the majority, i.e., ‘at least they should work for the welfare benefit’. This mixture of ideas led to an institutional
system stabilising marginalization, while the government views the public works system as a social innovation of special significance.

Through employment discrimination, the labour market is also impacted by the prejudices against the Roma. A similar impact is that due to free choice of schools, non-Roma parents do not send their children to schools with many Roma students. If segregation between schools is not an option, often segregated Roma classes are started.

There are often explicit anti-Roma sentiments, not simple prejudices. Radical right-wing organisations have emerged that often hold intimidating demonstrations at places densely populated by the Roma – with indifference towards the state institutions’ role. A number of cases prove that the Roma are prone to police abuse more often and with less ground than the non-Roma. All these illustrate that security-related power resources also play an important role in the marginalization of the Roma.

Cognitive frames of a different nature influence the changes of market institutions that promote the reproduction of marginalization. There is a strong aversion to businesses due to the legacy of state socialism and bureaucratic regulations. This is not mere risk aversion but prejudices are partly deriving from the socialist era, partly from the privatisation period after the regime change assume that dishonesty is part of entrepreneurial activities. Distrust is also present in the regulations of launching a business. As a result, the proportion of micro-, small and (partly) midsize businesses is very low, and launching a new business is very difficult. The structure of the labour market is significantly affected by this and this is one of the reasons for the low employment rate of the undereducated.

2.2.6 Cognitive frames \( \rightarrow \) social networks

Prejudices against the Roma hinder the formation of inter-community ties directly (friendships, neighbours, casual communications), not only through institutional processes.

Prejudices and racism play a big role in the birth and growth of far-right networks. These effects are valid to personal and web-based networks, as well.

The lack of individual and collective self-esteem of the Roma negatively influences their internal networks, too, while the demand for paternalism reinforces the patron-client relations, as discussed earlier.

2.3 Some important conclusions of the analysis of the specific case of marginalization from the extended social grid model approach

1. The formation and reproduction of marginalized status can be described in different ways – although there are many similarities. This separation is important because the current situation often hides the original causes leading to the present. This exploration is important because changing negative cognitive frames about marginalized groups can be one of the conditions of
successful social innovation aiming to help the marginalized.

2. Both Mann’s and Beckert’s approaches can well be applied to both processes. Mann’s approach is helpful for analysing the formation of marginalization during large social changes. For this Hungarian case, ideological power describes the impacts a lot more precisely than the other option, cultural power. Instead of military power, however, security-related power is a more adequate definition.

In case of marginalized groups, collective self-esteem is a crucially important concept amongst ideological power resources. The lack of them significantly contributed to the marginalization process; consequently, one of the essential purposes of social innovation should be to restore them. As we can see from the case of the Hungarian Roma, restoring personal self-esteem is not enough, because they lost their collective Roma self-esteem in addition to the personal dimension.

3. Two important factors functioning as power resources do not fit into Mann’s classification, or do so only problematically. One of them are the social ties. Several examples above illustrated that these are fundamental power sources; however, they cannot be classified under any component of the NAIEMP model.

4. The other factor is knowledge. In a side note on transition management, Lodemann (2014) also raises the question of this aspect of power source. Quoting from Avelino and Rotman’s study, also referred to by Lodemann: ‘a narrow interpretation of knowledge refers to the mobilization of mental resources (information, concepts, ideas and beliefs) to reach a specific goal, which is (by definition) an exercise of power. However […] knowledge not only has a ‘cognitive but also a performativ significance. […] This means that constructing and communicating knowledge, one is exercising power, not only in terms of ‘mobilizing mental resources’, but also in terms of influencing how other actors mobilize all the other type of resources (human, artefactual, natural and monetary). In order to know which resources to mobilize to reach a specific goal, and in order to know how to mobilize these resources, it is necessary to have knowledge about these resources.’ (2009, p. 558)

In case of the marginalized Roma, this lack of knowledge is a fundamental factor and a central issue of social innovation targeting the improvement of their status. Ideological power has a crucial role in the formation of marginalization; but from the marginalized group’s aspect, knowledge as a missing resource is not an ideological power resource and cannot be interpreted as artefactual power either. Knowledge can be interpreted as the personal endowment of the capability approach, as Lodemann (2014) suggests, but this does not resolve the problem since it is not a personal power resource issue. In my opinion, knowledge as described above should be a sovereign component in the extended social grid model.

5. Beckert’s construct for analysing the mutual connections of the three social forces proved to be a potent tool for extending the social grid model to non-market areas. This extension,
however, necessitates the explicit differentiation of market and non-market institutions within the institution system and an analysis of their correlations. Applying the social grid model to the situation of marginalized groups, special attention must be paid to networks containing both marginalized and non-marginalized people and are not part of the power hierarchy (for example, not based on a patron-client relationship). Inter-community bridges play a significant role in these networks.

6. The definition of marginalization by CRESSI should be revisited or rather supplemented with regard to two aspects: ‘Marginalization is a social process through which personal traits are transformed into potential factors of disadvantage’ (Chiappero-Martinetti and Jacobi, 2014, p. 9). As I have shown, the lack of collective self-esteem was an important factor in the marginalization process of the Roma. The prejudices against the Roma and the warped representation in the mass media do not affect the Roma as individuals only; it would be an oversimplification to view the prejudices as contextual factors only. The Roma come across these effects from early childhood on and internalize them in some way. Although not all Roma react the same way, it is a simplification to say that this is personal traits only instead of collective traits in reality. In my opinion, it would be better to refer to this as personal and collective traits.

This improved definition is correct if we are talking about the evolution of marginalization – being born into a marginalized status is quite different. Children born into poverty in disadvantaged areas to permanently unemployed parents and going to low quality schools are being born and growing up in a marginalized status. With exceptional personal traits and/or intensive help, they may be able to break out of marginalization; but being marginalized has nothing to do with their personal traits per se. In this case, ’factors of disadvantages’ cannot be viewed as ‘potential’, but as a finished fact. I have no specific suggestion for the correction of the definition, but this issue should be considered.

3. The Kiútprogram in relation to the extended social grid model

3.1 Points of intervention

The analysis of the reproduction of marginalization shows that the key points where the process can be interrupted are education and employment. Kiútprogram targeted employment: helping permanently unemployed people living in deep poverty return to the primary labour market. Kiútprogram also had two indirect objectives from the beginning: empowering project participants and reducing negative stereotypes about poor and vulnerable groups, especially the Roma.

Choosing the specific tool of facilitating self-employment\(^{161}\) was preceded by the analysis of

\(^{161}\) By self-employment, agricultural primary production is also included.
contextual factors discussed in the previous chapter. The factors behind the decision were the following:

- lack of available jobs for the undereducated\(^{162}\) and employment discrimination against the Roma deterred the designers of Kiútprogram from choosing solutions of different nature;
- failure of state-managed regional development efforts to attract capital to disadvantaged regions;
- failure of state employment policies constituted a barrier but also implied an opportunity;
- low density of micro-businesses clearly offered an opportunity in Hungary, especially in disadvantaged regions;
- self-employment is especially suitable for empowerment and promoting agency, and
- internationally known model of microcredit programmes.

The complex nature of the reproduction of marginalization requires complex interventions. Obviously, non-market tools are also required to help people return to the labour market. This fact and the particularities of post-socialism necessitated the modifications of several important components of the original microcredit model (case study: 22). In our case, an existing social innovation was adapted. From the innovation models – linear, networked and interactive learning models – discussed by Havas (2016), *Kiútprogram clearly shows the characteristics of the interactive learning model.*

### 3.2 A short overview of the Kiútprogram

Interrupting the analysis here, I shortly summarise the most important characteristics of the programme for readers who are not familiar with the case study. Kiútprogram provides small, unsecured loans for starting a business (similarly to the Grameen model) to people living in deep poverty, mostly Roma. Unlike the Grameen model, however, this programme also provides additional financial and social services such as counselling, financial, professional and communication trainings, help in developing business plans and registering the business, bookkeeping free of charge, etc. This support is provided by the well-trained field workers of the programme who are continuously present at the location, and as well by consultants.

The programme is still running and consists of two phases that differ in a number of aspects. In phase one, project participants formed groups of 4 to 6 members and the Grameen-model’s technique of social collateral (sequential lending, contingent renewal) was applied\(^{163}\). This phase was financed by a Roma pilot project of the EU.

After the pilot project ended, the Hungarian government decided not to support the programme; since then, it has been operating from private resources exclusively. This means that the available financial resources have decreased – for this reason, the scope of the

\(^{162}\) There are only two programmes in Hungary – one state and one non-governmental innovative initiative – helping the Roma find already existing jobs; however, these programmes target the college-educated Roma.

\(^{163}\) See Molnár (2015c) for more details.
programme had to be narrowed. Currently only one agricultural programme being cucumber production is running, which has the lowest per capita costs. While in the first phase, everyone could select the type of business to launch, the second phase offers the opportunity to join a given production system. In the second phase, the application of the tools of social collateral was discontinued due to the experiences gained in phase one.

3.3 Potential and actual project participants

Above I described the initial endowment of the project participants in detail: low level of finished education, dropped out of the primary labour market a long time ago, have no savings, live in permanent poverty among poor conditions in underdeveloped regions of the country. Regarding endowment, in the second phase it became important to have some land suitable for cultivation near the place of residence, preferably a garden suitable for growing cucumbers.

There are two of the social conversion factors described in the previous chapter that can differ greatly from village to village. The first is the attitude of the local municipal leadership towards marginalized groups, especially the Roma. Some municipalities try to do their best to help the status of the poorest in the village, considering the available options and their own skills. (This is relative up to a certain point because there are places where virtually everyone is poor.) In contrast, there are villages where the local leadership aims at maximising the dependency of the poor and tries to win the support of the non-Roma residents by being harsh with the Roma. (Of course, there are many situations in between.) This is a very important factor from the aspect of social innovation for overcoming marginalization (SIM).

Another important variable is the degree of segregation, looking at whether the Roma live in completely separated, ghetto-like settlements, or at the outskirts of the village but connecting to it. This plays a crucial role in having connections with the non-Roma or other social groups, e.g., the non-poor (not counting hierarchical patron-client connections).

Conceptually it is not clear how inter-community connections should be classified by the capability approach: personal trait, initial endowment, or social conversion factor. In my opinion, there are elements from all three factors. Regardless of classification, the lack of inter-community connections by itself could cause failure in the first phase of the programme.

Regarding personal traits, although the target group of the Kiútprogram was the Roma, ethnic origin was not a condition of getting accepted in the programme, only poverty. Ethnic-based

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164 The case study mentioned a failed experiment of the Kiútprogram in a district of Budapest densely populated by Roma. The capital needs of a start-up in Budapest exceeded the resources of the project.

165 I use the abbreviation created by Klaus Kubeczko in an internal working paper for the CrESSI project.

166 This is not a general conclusion, of course. It depends on the regional distribution of the given ethnic minority. For example, in the district Shuto Orizari of Skopje, the Macedonian capital, where about ¾ of the population of 17,000 are Roma, the local micro lending organisation, Horizonti has no such problems.
filtering would have had a negative effect on the cognitive frame of the non-Roma from several aspects. First, it would have increased hostility against the Roma because “they are supported again while the Hungarians are not”; second, it would have caused distrust in the programme itself, adding to the suspicion against something new and unknown. All these would have made the strengthening of inter-community connections impossible, i.e., there was a trade-off between exact targeting and building inter-community connections, which is a key component of the success of the programme.

Analysing the inhibiting factors of scaling up the impact of social entrepreneurial organizations (SEO), Scheuerle and Schmitz (2015) distinguish three (pre)conditions of the success on personal level: willingness, ability and admission. This classification can also be extended to the (potential) entrepreneurs sponsored by the Kiútprogram. (I need to emphasise that although the Kiútprogram is a SEO, the businesses launched by the programme participants are market-based.) Admission is comparable to contextual factors while willingness and ability are two components of the participants’ personal traits.

This classification can also be compared to the transition management approach by Avelino and Rotmans: „Having defined power as the ability to mobilize resources, we can deduce four conditions for the exercise of power: (1) access to resources; (2) strategies to mobilize them; (3) skills to apply those methods; and (4) the willingness to do so.” (2009, p. 556) Empowerment is about gaining power by this definition. Accordingly, the concept of ability, as defined by Scheuerle and Schmitz, can be divided further; I will analyse these three components of personal traits: willingness, strategies and skills.

The presence or possibility of the potential participants’ willingness is a key component of the Kiútprogram. A prerequisite of successful participation is determination of the participants to change their own and their families’ circumstances. Another important prerequisite is the willingness to take risks. The necessary level of risk-taking willingness is influenced by a number of external factors. Higher risk tolerance is needed to launch an enterprise than to join the cucumber project. Relative risk is increased by the growth of the public works programme: launching a business carries a higher relative risk if there is a high probability to get employment in the public works programme. This risk can also be increased or decreased by the behaviour of the local leaders and their approach to exercising political power.

Determination and risk-taking willingness are not enough though; learned helplessness must also be overcome. There are many individuals in the target group without learned helplessness due to their personal traits, natural optimism or dynamic personalities. But for the majority, this is not the case. Social programmes targeting the marginalized often find that these people do not want to take advantage of the opportunities offered to them, and even if they get involved, they often give up after coming across the first more serious problem. In case of

167 In this case, inter-community connections refer to inter-ethnic connections, but in a general sense, I meant connections between marginalized and non- (or less) marginalized groups.
these incidents, the cognitive frame of the potential participants must be modified, learned helplessness must be neutralised.

As I documented in the case study and Molnár (2015c) in detail, providing unsecured loans is a suitable tool for these objectives. The loan has a dual purpose: it provides the missing financial capital as initial endowment and helps overcoming learned helplessness.

The impact mechanism is based on building trust: unsecured loans mean that the issuer of the loan trusts the character of the client and also believes that he or she would be capable of turning the business into a success. In my opinion, it is a general rule in case of SIMs that building trust between the participants and operators of social innovation is a prerequisite of maintaining participants’ willingness, building and reinforcing their self-esteem and eventually ensuring the success of the programme. Trust can be built in several ways depending on the specific programme; however, promises must be kept, rules set and followed in order to sustain this trust.

Permanent scarcity – of financial resources, time, etc. – helps concentrate on the immediate tasks in view, but excludes everything else and narrows the bandwidth of thinking. Mullainathan and Shafir call this the ‘bandwidth tax’: “Scarcity doesn’t just lead us to overborrow or to fail to invest. It leaves us handicapped in other aspects of our lives. It makes us dumber. It makes us more impulsive. We must get with less mind available, with less fluid intelligence and with diminished executive control” (2013, p. 66). This phenomenon, although similar, is not the same as learned helplessness. Its most important consequence is the limitation of planning and long-term, strategic thinking. Mullainathan and Shafir’s description is very expressive: „Getting out of a scarcity trap first requires formulating a plan, something the scarcity mindset does not easily accommodate. Planning requires stepping back, yet juggling keeps us locked into the current situation. Focusing on the ball that is about to drop makes it terribly difficult to see the big picture.” (ibid., p. 130)

The above effects are not deterministic. Their extent depends on individual personal traits. An extreme case of narrow bandwidth is when the participant uses the resource to launch a business for covering daily living expenses. Facilitating strategic thinking is an important objective of the programme; creating a business plan with the participant is a crucial tool of this, as described in the case study. Filtering is equally important though: candidates who are not capable of strategic thinking at all will not be successful as entrepreneurs.

Another prerequisite – more important in the first phase of the Kiútprogram, less so in the second – is the presence of entrepreneurial skills; being capable of independent decision-making and establishing new relations. These skills cannot be taught within the framework of the programme, candidates must be selected based on their presence. However, there are additional crucial skills that participants learn in the Kiútprogram, e.g., know-how of running official errands, financial and economic knowledge, in more general terms: familiarity with the regulations of the institutional system. The specific trade skills needed for the given
In the first phase of the programme, participants had some – often very limited – trade skills; in the cucumber-growing project, though, many participants had no previous knowledge at all. Because of the reasons described in the previous chapter, most participants have strong adversary feelings towards the education system and formal education. This is why training integrated into work was the only option.

An important difference between the two phases is that there was only one available activity in the second phase, cucumber growing, and the Kiútprogram provided sales – and later – supply channels, too. Another trade-off emerged: the more the programme supports the integration of participants into networks, the less it contributes to agency in the short run.

In conclusion we found that certain personal traits are prerequisites of the participants’ success while other skills can be learned during the programme. Participants’ personal traits are not a static set of abilities; these traits change during social innovation. In SIM, one of the objectives is exactly the modification of the participants’ personal traits. The social grid model should be complemented by the explicit addition of this objective.

3.3.1 Commentary on the definition of social innovation

Another conclusion of the above is that there is a trade-off between the degree of the participants’ marginalization and the necessary costs of the programme: the worse the participants’ initial status, the bigger the costs required, meaning that if the given innovation targets the least marginalized – operating in villages where the representatives of the political power are cooperative, participants already possess the willingness and strategic thinking and have a variety of skills – then the programme would increase the marginalization of the rest of the members of the target group not included in the programme instead of reducing it.

The definition of social innovation given by the CrESSI project: “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.” However, this definition does not consider the possibility that in case of SIM, the improvement of human capabilities of certain marginalized persons/groups may go hand in hand with the deterioration of the social relations of other, even more marginalized persons/groups.

Nicholls et al. (2015) draw attention to this possibility when mentioning the potential ‘dark side’ of social innovation. From the three negative scenarios mentioned there, the second scenario applies to this situation: “Deviant or unintended consequences that achieve negative social effects (e.g., by excluding some groups from the focus of social goods, services or change)” (ibid., p. 5.)

Based on the experiences gained in the Kiútprogram it can be added that an intervention of
this magnitude might even intensify the reproduction process of marginalization. Several studies found that profit oriented microlending to the poor is an example for this phenomenon (see Molnár, 2015c). Therefore, the normative (and not descriptive) SI definition should be complemented with a reference to the Pareto-efficiency regarding marginalized groups:

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 in a Pareto optimal way.

3.4 Making the program

3.4.1 The field workers

The various tasks of the field workers can be summarised in one common notion: they are the inter-community bridge mentioned earlier. Through them, external knowledge reaches the participants, either directly during daily communication, group meetings or trainings, or indirectly by supplying the right experts or finding potential business partners.

It is important that this bridging role has two directions. In case of administrative errands in various offices, field workers are present not only to help with complicated administrative errands, but to dissolve prejudices and counterbalance discrimination. The situation is similar with potential business partners. Field workers pass on information about the lives, ambitions and efforts of the marginalized Roma to non-marginalized people that they were not aware of before.

As a result, new parties become business partners (bank employees, suppliers, buyers, integrators coordinating production) who would not have contracted poor Roma clients earlier. On the one hand, this is a local change in the operation of the institutional system; on the other, the participants of the programme get connected to existing networks. These new contracts and connections in the long run enable independence and success after leaving the programme.

3.4.2 The initiators, the leadership and the inner sponsors of the programme

The Kiútprogram is special in the sense that the initiators and the biggest private sponsors are the same. Since its foundation, they have been leaders and active members of the top decision-making body. The flexibility of planning and execution is an important consequence of this situation.

The main motivation of the founders and private sponsors of the program is the very strong aversion against social injustice (a detailed, interview-based description of this issue can be found in sections 2.2.1 and 2.2.3 of the case study). In some cases this motivation resulted from experiences at elementary school, from the psychological irritation felt because being in
a privileged position in comparison to the classmates from poor families. In other cases the socially inhomogeneous workplace, the good job relations with Roma colleagues played an important role. These facts emphasise again the importance of the intercommunity relations.

In every case the motivation contains also a very conscious element: the Roma are the most seriously discriminated against in the Hungarian society, consequently supporting their social mobility is the most efficient way promoting equal opportunities. The professional composition of the decision-making body is rather mixed, its members however show a common personal trait, namely permanent striving for innovative solutions in their career.

The programme started out as an adaptation of international initiatives. The starting phase of the planning phase was the study of international literature and the experiences of microlending. This was followed by the:

- analysis of relevant Hungarian institutional systems,
- anthropologic and sociological field research, and
- analysis of the sole earlier (unsuccessful) Hungarian initiative.

Following the deductive preparatory phase, the innovation – differing from the original model in many ways – was put in practice. Execution can basically be described as a trial and error process: experiences were analysed continuously and the applied methodology was modified accordingly (cf. Havas, 2016, p. 17). In addition to the lessons learned, the programme had to be continuously modified due to the changes of the external circumstances and the regulatory environment.

To the initiators and leaders, the primary objective of the programme is to be socially beneficial. This means that the Kiútprogram – although it is a non-profit corporation in name – is not really a social enterprise where the social and financial components are in balance. The possibility of breaking even is out of question, even in the long run. The initiators and leaders of the programme understand that their social goal cannot be achieved within the framework of a sustainable social enterprise without continuous external financing. They set a more modest but feasible objective: the financial benefits on social level – taxes paid by the launched businesses and welfare benefits not paid to the participants of the programme – should exceed the costs of the programme. This objective is being met.

The most important dilemma for the leadership of the programme is the trade-off between the degree of marginalization of the participants and the costs. If the programme accepts only less marginalized participants (‘people at the edge of poverty’) the losses can be

168 According to the mainstream view of the microlending industry, loans should only be issued to people at the edge of poverty whom profitable or at least sustainable social enterprises can be based on. For example, see the interview with Tony Sheldon (Executive Director of the Program on Social Enterprise, Yale School of Management): https://www.youtube.com/watch?v=xhkuH30lxco. A similar stance is taken by the training
eliminated in the long run – but the social goal is not met. If the programme works with extremely marginalized participants only, then not only the financial costs but the probability of failure will grow to a great degree, deteriorating the reputation of the programme and eliminating its possibility for further improvement. *This dilemma has no optimal solution in theory either; it requires continuous analysis and discussions.*

This ongoing analysis can only be successful with a *widespread professional knowledge on behalf of the leadership.*

### 3.5 Outer financing

The biggest barrier of the scaling up of the Kiútprogram is the scarcity of available resources. Regarding creating economic space for social innovation, the most valuable lessons were learnt here. I will review three financial resources/sponsors, actual or potential: the EU, the Hungarian state and private sponsors.

#### 3.5.1 Resources from the EU

Between 2010 and 2012, the main financing resource of the Kiútprogram was a Roma pilot project run directly by the EU administration in Brussels (see section 2.1.4 of the case study). The administration requirements of the programme were more logical and smaller, and the internal flexibility was greater than EU programmes run through the Hungarian government. However, it proved to be inflexible from one aspect – it was obvious to all stakeholders that the 2-year duration was not simply unrealistically short but also harmful considering the execution: it forces faster than optimal initial growth and a shorter than necessary loan repayment period. Still, it was not possible to extend the repayment period with the same amount of funds. *The flexibility needed for social innovation and the inflexibility of the support system got into conflict. A more flexible support system would ensure greater efficiency even with an unchanged amount.*

According to the EU assessment, the performance of the Kiútprogram was successful in the first two years; however, there is no EU construction that could ensure the continuation of a successful pilot. There is a microfinance programme of the EU (Progress Microfinance, a formerly independent programme now integrated into the EaSI framework)\(^{169}\) but it is not suitable for non-traditional social microcredit programmes similar to the Kiútprogram that provide very small loans with a high rate of failure. As an example, the upper limit of the loans available in Progress Microfinance is 60 times higher than the average loan issued by the Kiútprogram. A structure with the upper limit that high is built on very different

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**CRESSI Working Paper no. 29/2016**

D5.1 Part 3 Analysis of individual case Kiútprogram (‘Way out’ programme) for microcredit and self-employment using the extended social grid framework

(31 March 2016)
foundations from social microcredit. *The dogma of sustainability as a policy requirement for microcredits is an obstacle to the implementation of inclusive, social microcredits.*

The presumption of the EU institutions in charge is that the continuation of a successful pilot will be granted by the so-called operative programmes of the member countries, by using EU resources eventually. This makes sense in general, but it is questionable if this is the correct approach for the inclusion of permanently socially excluded groups. Is it realistic to assume that a political power structure and the related institutions partly responsible for the reproduction of the marginalization of the Roma would be supportive of a social innovation working on changing that situation? According to findings in general, the utilisation of European funds for the inclusion of the Roma is extremely ineffective and inefficient, not only in Hungary but other post-socialist countries, too. *It should be considered if European institutions could create an economic space for social innovation beyond the current – very narrow – scope of pilot programmes directly, not through the affected national administrations.*

3.5.2 The Hungarian government

According to calculations, Kiútprogram is a more efficient tool than the public works programme. Still, the Hungarian government intentionally denies further support for scaling it up altogether, based on a declared political decision, and will not announce any tenders for social microlending organisations, either. The reasons are twofold. *The first reason is solely political,* namely that the former government supported the programme. Lodemann (2015) describes a similar situation in the case of ‘New Water Paradigm’ in Slovakia. In the case of Kiútprogram, an issue contributing to the problem was that the support of the former government was not normative, but based on an ad hoc decision. As I have shown in the case study in detail, this decision by the former government was brought about instead of the modification of a discriminative regulation (Molnár, 2015a, pp. 55–56).

Based on this incident, the following *hypothesis can be made: the direct or indirect state sponsorship of SIMs must be based on publicly taken decisions.* Ad hoc decisions may cause harm not only in case of changes in the administration but can also negatively influence the cognitive frame of the public about the marginalized group.

*The other reason is ideological* – the Hungarian government committed itself to the public works programme. Closely related to this, the Hungarian government aims at the ‘social catching up’ of the Roma instead of social inclusion. The Hungarian term for ‘catching-up’ clearly suggests that those who need to catch up are at a lower level; their integration can take place only if they have reached the level of others. The biggest theoretical difference – among many others – between the Kiútprogram and public works is that while the latter is

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170 See also Molnár (2015c).
fundamentally paternalist, the main objective of the Kiútprogram is to **strengthen the independency and agency of the participants.**

The state could support the social innovation of Kiútprogram not only financially but also by modifying the institutional background and regulations. This could be achieved with a variety of tools. Here I mention only some examples that were described partly in the previous chapter, partly in the case study in their own context:

- creating specific legal regulations for microlending and non-business-type lending, similarly to the practice of other countries;
- establishing financial guarantee funds;
- reducing the contribution-paying and administrative burdens of start-ups;
- supporting the entry of micro- and small businesses into the market, especially in disadvantaged regions; and
- changing the system of adult education, implementing training through work.

Without exception, these measures are not connected to the social innovation of the Kiútprogram or the integration of the Roma directly; still, any improvements would have been very helpful to both. However, the public works programme has excluded all other active labour market tools in the recent years.

### 3.5.3 Further private sponsors

For Kiútprogram, fundraising is very difficult because it is relatively complex and difficult to classify. The culture of donation is very underdeveloped in Hungary in general. Donating to people or families who got into trouble “through no fault of their own” is preferred. These kind of donors are suspicious because of the business-related approach of the Kiútprogram. Conversely, donors of the business sphere have trouble with the “unprofitability” of the programme and expect sustainability, just like the EU.

The leadership of the Kiútprogram also made some mistakes in the presentation of the programme to the public. An important conclusion is that **social innovation should not only form the cognitive frame about the target group but the social innovation itself.**

### 3.5.4 Financial institutions

The Kiútprogram failed to establish long-term banking relations for its clients despite the fact that one of the sponsors of the programme is a banker with a large professional network. One reason was already mentioned, being the lack of the regulations of microlending. This makes the cooperation with the programme very difficult and creates additional burdens for the
banks. Working with local savings cooperatives was prevented by the repeated state intervention into the sector in the form of nationalisation and then reprivatisation. Due to the permanent implementation of the highest taxation of the banking sector in Europe, the CSR activities of the banks have decreased severely. Finally, a significant part of the financial institutions do not believe that supporting Roma programmes would improve their image in the eyes of their target groups.

As a result, the Kiútprogram provides support to its participants the only legal way available: as commercial credit. This has several disadvantages. The biggest obstacle of scaling up the programme is created by this institutional factor.

3.6 The local political power

The most prominent representation of the local political power is the local government, mainly the mayor, the local government representatives and the administrative apparatus. Additional administrative offices – not necessarily in the same settlement – also have political power: employment centres, tax agencies, authorities in charge of licensing and overviewing various types of businesses. I have already analysed the relationships with these offices from the participants’ and field workers’ aspect. Institutional approaches towards poor Roma clients can be basically classified as 1) deliberately discriminative, 2) prejudiced-distrustful (the most common), and 3) supportive.

Field workers reported that when dealing with the administration the clients faced discrimination in about half of the cases, which without the intervention of the field worker could have resulted in a failure of the procedure. Officials who showed discriminatory behaviour, which is illegal, were not withheld by the risk of being held responsible for it. In the majority of the cases the intervention of field workers could defy discrimination and also generated some sort of learning process on the administration’s or service providers’ side. This experience proves that consistent state action against discrimination could greatly improve the employment situation of the Roma too.

The programme had the biggest effect on the prejudiced-distrustful group in the long run. In spite of their expectations, Roma people living in deep poverty repaid the unsecured loans – and this fact changed their cognitive frame significantly and led to the improvement of our cooperation in several places and helped territorial extension during the second phase of the programme.

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At locations where the local political power felt that their “feudal” influence based on public works and other methods was threatened by the Kiútprogram, no similar changes took place. Nevertheless, in a village where the cucumber project had relatively numerous participants, the participants had a role in getting a new mayor elected eventually, who promised cooperation during the campaign. This brought a “revolutionary” change in the life of the village where the Roma are in minority: on the one hand, this was the first time that they influenced local public life in effect; on the other, the candidate was not deterred by fearing that the support of the Roma would scare non-Roma voters away.

*There is an important trade-off here too: the second phase provided much less decision-making freedom for the participants than the first phase; however, it enabled collective actions and empowered collective agency as a trade-off for less individual agency.* A necessary component of this is that participants are not competitors. The volume of their production does not influence the cucumber market in any sense.

### 3.7 Further stakeholders

Mainly the business partners and consumers of the micro-businesses belong here, but the direct environment can also be included. Because of the lack of trust, a part of the business partners would not have contracted with the Roma without the cooperation of the Kiútprogram. Positive experiences have a twofold effect: first, they *changed existing prejudices – i.e., changed the cognitive frames of people in the immediate surroundings –; second, they enabled entrepreneurs to join horizontal networks.* Because of the heterogeneity of start-ups, these remained isolated events and did not have a ripple effect.

In case of the cucumber project, the Kiútprogram reached the critical size when it was able to become the competitor of some of the local integrators (coordinators of primary producers, see Molnár, 2015a, p. 30), and could also get better shipping and buying rates from the shipping companies and the canning factories. Local integrators often abuse their monopoly power. Consequently, the Kiútprogram met a new challenge this year: individual cucumber producers outside the target group, even local governments running a cucumber-producing public works programme want to contract the Kiútprogram as an integrator, on pure business terms. It is an advantage that the acceptance of the programme by the local environment strengthens the social integration of the participants and increases the income of the programme. At the same time, the diversification of the field workers’ roles may endanger the integrity of the programme. This is an interesting phenomenon from a theoretical point of view because *the organic development of social innovation led the programme to a new field, unforeseen by everyone earlier.*

Wherever participants were successful, the programme had a clear positive effect on the cognitive frame of the non-Roma environment and the local relations of the participants. A one-off but very telling thing happened in a village with several grocery shops: one of the shop owners tries to get more customers by providing interest-free consumer loans until the
next harvest to participants who repaid their loans to Kiútprogram. This means that the fact that the loan was repaid becomes a moral collateral for other lending transactions.

Although they are not stakeholders directly, the interest of the media and other, socially oriented non-governmental organisations is crucial for the cognitive frame modifying effect of the Kiútprogram. The press coverage of the Kiútprogram is fundamentally positive – except for some media outlets airing direct government propaganda. The programme is regularly mentioned in public debates as an example that Roma people in deep poverty are capable of running businesses or producing agricultural products successfully if the necessary conditions are met.

3.8 Changes of the Kiútprogram over time – life cycle

Kiútprogram was preceded by a long, interdisciplinary process of planning and preparation based on experiences described in the literature and the analysis of the Hungarian environment. During implementation, the initial model was modified several times. One of the modifications was caused by the reduction of the financial resources, as mentioned earlier. However, the rest of them were results of a continuous learning process consisting of the following recurring steps:

![Interdisciplinary learning process in the Kiútprogram](image)

**Figure 1: Interdisciplinary learning process in the Kiútprogram**

The analysis of experiences is twofold: analysing the impact on the participants and the changes of external conditions. Since the fundamental goal of the programme is to enable participants to improve their situation with dignity, the analysis of this impact is vital. The
collection of experiences is a multi-level process where the Kiútprogram uses five methods:

- analysing the business data of the participants’ enterprises and repayment data;
- getting field workers’ feedback on the participants’ opinions and their own experiences;
- getting the professional leader’s feedback on the participants’ opinions and the field workers’ performance;
- getting direct feedback from the participants (surveys, interviews);
- commissioning external consultants for analysis.

The identification of conclusions is not a theoretical question in some cases, but very often, decision-making comes down to assessing trade-offs. If there is a trade-off between two objectives, the weights to be attached to both outcomes should be considered. The theoretical problem and the process are similar to the weighing of capabilities described by Sen: ‘However, interpersonal comparison of overall advantages also requires “aggregation” over heterogeneous components. The capability perspective is inescapably pluralist (emphasis mine). First, there are different functionings, some more important than others. Second, there is the issue of what weight to attach to substantive freedom (the capability set) vis-à-vis the actual achievement (the chosen functioning vector). Finally, […] there is the underlying issue of how much weight should be placed on the capabilities, compared with any other relevant consideration.’ (1999, pp. 76–77)

‘It is of course crucial to ask, in any evaluative exercise of this kind, how the weights are to be selected. This judgemental exercise can be resolved only through reasoned evaluation. […] This is a “social choice” exercise, and it requires public discussion and a democratic understanding and acceptance.’ (ibid., p. 78-79)

An important component of Kiútprogram is to have ‘reasoned evaluation’ by the leadership and consensus-based decision making.

The plurality of objectives is an important characteristic of SIMs. Creating economic space for social innovation has a non-economic condition, ‘public discussion and a democratic understanding and acceptance.’

Several significant changes have been made to the step of modification of rules and processes, I will highlight two of them here that have theoretical importance. The first was the erasure of social collateral techniques (any form of common liability, sequential lending, contingent renewal), an established technique in microlending. According to the experiences of the Kiútprogram, social collaterals contradict to free and sustainable agency and also eliminate the positive effect of trust between the committed clients and the programme. If we want to avoid psychological coercion, the selection of clients can only be the result of a carefully built process of several years’ duration, which, however, has additional costs. (Further details can be found in Molnár, 2015c).

The other important change was that the programme started to facilitate the connection with
market networks directly. Consequently, the Kiútprogram took over a significant part of the integrators roles in the cucumber project, reinforcing the entrepreneurial component of the programme. The Kiútprogram buys seedlings and chemicals from wholesalers and provides credit for current assets in addition to investments. The Kiútprogram organises the collection of the product and shipping to the canning factories, too. The inspiration behind this change was that integrators enjoying local monopoly power due to cartel activities often sold chemicals to poor participants at usury prices. This change became possible because the leadership of Kiútprogram approached a freshly retired top agricultural manager committed to the Roma cause who then joined Kiútprogram, ensuring the professional background.

This shows that during the life cycle of the programme, the innovation and diffusion phases cannot be separated. The programme emerges in a continuously evolved form in new villages, or spreads on within a given settlement.

3.9 The most important conclusions about the extended social grid model and social innovation

1. If Beckert’s all three social forces and their interactions play a role in the reproduction of marginalization, then we can logically assume that it is not enough to intervene at one point only. If social innovation aims at changing only one component, then the other two social forces can act to reproduce the original situation in the long run.

Figure 2: The reproduction of marginalization in case of unsatisfactory intervention

Step 1

![Diagram showing the reproduction of marginalization](image-url)
Examples for this include profit-seeking or even sustainable microlending to the poor. This social innovation intervenes with the cycle at one point by changing the institutional system.
of lending. In the newly created institutional system (e.g. Grameen Bank) clients earlier not qualified as bankable may get a loan. However, there are more and more experiences proving that this intervention did not reduce poverty, and often even increased marginalization (Bateman, 2010; Ghosh, 2013).

*It is my hypothesis that in case of the continuous reproduction of marginalization, social innovation must target all three social forces – institutions, social networks and cognitive frames – directly. Institutional changes are not satisfactory by themselves.*

2. In case of SIMs, it is helpful to separate three types of cognitive frames; attention should be paid to modify all of them:

- the cognitive frame of the environment about the marginalized group;
- the cognitive frame of the members of the marginalized group about themselves, with special regard to personal and collective self-esteem and learned helplessness;
- the cognitive frame of the environment about the social innovation itself.

It can be hypothesised that changing the cognitive frame of the participants, namely reinforcing their agency and independence is a necessary condition of the success of a SIM. *It is questionable if novel social programmes targeting marginalized groups without targeting the strengthening of the agency of the participants could be considered as SIMs.*

3. An important role of SIMs is building networks, especially *inter-community bridges between marginalized and non-marginalized groups*. Conceptually it is not clear how inter-community connections should be classified by the capability approach: personal trait, initial endowment, or social conversion factor.

4. Building trust between the participants and operators of social innovation is a prerequisite of maintaining participants’ willingness, building and reinforcing their self-esteem and eventually ensuring the success of the programme.

5. The analysis of the Kiútprogram has shown the role of economic, political and ideological power. The technology of cucumber production is an example for artefactual power (see the case study for more detail). At the same time, *social ties and knowledge* proved to be important power resources, which is not present in Mann’s model.

6. In case of Kiútprogram, the innovation (eco)system approach did not seem applicable perhaps because of the diverse and diffuse nature of the programme (or, at least, I was not able to apply it to the programme). In contrast, the concepts of *transition management* –
knowledge, as a meta-condition, access (or admission), willingness, strategies and skills – was very helpful in the analysis, primarily from the participant’s side. There is a strong correspondence between transition management and the capability approach.

7. In case of a SIM it should be considered that it may have different effects on various marginalized groups. If a social innovation targets the least marginalized only, then the marginalization of the others could even worsen. In case of a normative social innovation definition, it seems practical to expect the Pareto-efficiency.

8. There is a trade-off between the degree of marginalization of the participants and the costs of the social innovation. The dogma of sustainability as a policy requirement for microcredit is an obstacle to the implementation of inclusive, social microcredit. To my hypothesis, this statement is true for all social innovations targeting the most marginalized groups. However, the removal of sustainability as a requirement may lead to irresponsible spending of external financial resources. This danger can be reduced by co-financing from public and private funds.

9. The CrESSI definition of social innovation includes the possibility that the social innovator is the state. The Hungarian public works system could be an example for this, since its declared goal is to improve the circumstances of permanently unemployed, undereducated people. At the same time, we could see that this system only reproduces marginalization and strengthens paternalism instead of agency. ‘We consider social innovation as relevant phenomenon of bottom-up change’ (Chiappero-Martineti and Jacobi, 2014, p. 6). The comparison and the conflict of the Kiútprogram and the state public works system prove the validity of this bottom-up approach.

10. From the innovation models, Kiútprogram clearly shows the characteristics of the interactive learning model. During the life cycle of the programme, innovation and diffusion phases cannot be separated. It may be hypothesised that in case of social innovations where the modification of the cognitive frame of the target group is one of the objectives, this is a general feature of the innovation’s life-cycle.

11. The plurality of objectives is an important characteristic of SIMs. Creating economic space for social innovation has a non-economic condition, needs public discussion, a democratic understanding and acceptance.

12. In case of programmes supporting social innovation sponsored by the EU or national administrations, a more flexible support system would ensure greater efficiency even with an unchanged amount.

13. It should be considered if – in case of the most marginalized, e.g. Roma – European institutions could create an economic space for social innovation beyond the current – very narrow – scope of pilot programmes directly, not through the affected national administrations.
References


PART 4
Individual case study: “Solidarity Purchasing Groups”

Lara Maestripieri174, University of Pavia

174 Toa Giroletti contributed to the present report with analysis of some of the raw data, as indicated in the text. I also thank Enrica Chiappero for the revision of the report.
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Abstract

Solidarity Purchasing Groups (GAS) movement is a peculiar bottom-up social innovation that has been spreading over the past 20 years in Italy. It is composed mostly of self-organised groups of citizens who collectively buy from small organic producers in Italy. They promote several practices that sustain the alternative food networks in the country, such as: solidarity and critical consumption, organic and km-0 productions as ways to promote environment protection, respect of labour regulation and fair economic relations. Several authors have recognised their role in reducing the marginalization of small and micro farms in the country (Forno and Graziano, 2014; Grasseni, 2014).

The historical foundation of GAS can be traced back to the 19th century, when mutual purchasing groups had been promoted in the experience of consumers’ cooperatives. More recently, the NoGlobal movement and the expansion of fair trade during the '90s have favoured the progressive increase of consumerism awareness among the middle classes (both in terms of purchasing power and in terms of cultural capital) that sustained the progressive growth of the GASs movement. GASs are now in a mature phase of the social innovation cycle and new more institutionalised forms (such as emporiums and formal associations) have now been established next to the original informal groups of consumers.

The aim of this paper is to describe origins, features and transformations of the GASs movement in Italy. Our analysis is based on documents, materials and interviews out of WP7 qualitative phase in order to sketch a case study about Solidarity Purchasing Group. Between September 2015 and January 2016 35 interviews have been conducted with social innovators belonging to 35 GASs, distributed nation-wide. GASs have been selected randomly, stratifying the sample on the basis of a composite index aimed to capture the vulnerability of the contexts, being classified as low, medium and high vulnerable territories. The Italian team has interviewed at least ten social innovators for each type of context. In order to fully understand the life cycle of the social innovation and to trace the historical foundation of GASs movement, starting from the original experience of mutual consumer cooperatives, we have also added up 7 key-informant interviews with national and local representatives of GAS movement and with academic experts.

175 The index is based on three indicators: Eurostat NUTS3 GDP per inhabitants, Istat NUTS3 occupational level, Eurostat NUTS2 at-risk-of-poverty rate.
1. Introduction: what is a GAS?

Solidarity Purchasing Groups (GAS) are “groups of individuals that decide to organise themselves in order to buy collectively food or any other everyday good, selecting suppliers on the basis of solidarity and critical consumption” (Acanfora, 2015, p. 14). There have been numerous examples of collective consumption in the recent history of economy (§ par. 2.0), but what makes GAS peculiar is the attention to the solidarity: the main aim of the group is not to obtain better prices by avoiding intermediation or by purchasing directly from the producers. Their main aim is to have a consumption that is in line with the ethical principles of critical consumption: fair prices for producers, preference for local products, sustainability in production (i.e. organic) and transportation of goods (i.e. preference for social cooperatives as providers of services) (§ par. 1.2).

Even if GASs are part of the global movement of alternative foods networks, they represent a singularity of Italy: MAPs (Mouvement Agricole Paysanne) in France, the “Reciprocal system” in Portugal (Guadagnucci, 2007) and CSAs (Community Supported Agriculture) in the Anglo-Saxon countries are different in the approach as they constitute associations of producers and consumers to cultivate local fields, while GASs are usually mainly composed of consumers.

The more general trend of farmers’ markets (in Italy, one of the biggest association is promoted by professional association for farmers, Coldiretti – Fondazione Campagna Amica), even though it is in line with some of the principles of critical consumption as intermediation is avoided and local products are sold (quite often organic), still is far from the experience of Italian GASs, which is a bottom-up network of citizens that have relations with several producers not mediated in principle by any (private or public) institution. People must be part of the group or member of the GASs association to access consumption, while farmers’ markets are open to all consumers, thus losing the direct relation linking GASs and suppliers.

The first GAS was born in the beginning of the ’90s in Fidenza (a small town of about 25,000 inhabitants in the Emilia Romagna region of Italy, which is well known for its extreme richness in association networks and bottom-up political participation). Its first motivation was to buy organic food bypassing the big distribution (Grande Distribuzione Organizzata, in Italian GDO). Organic food was very difficult and expansive to buy at that time: as declared by one of the founders Mauro Serventi (Acanfora, 2015), the first group had been established around this practical objective, starting from around ten families that progressively built up a purchasing group getting in touch with organic and local producers by the word of mouth. Evolving over 20 years of debate about alternative economic models, the movement has

progressively gone beyond the practicality of accessing healthy food or local products, introducing a strong and coherent manifesto on how to put in practice solidarity within an economic relation (§ par. 1.1).

In the following years, the number of GAS groups have kept increasing and is now estimated around 1,000 unities, mostly concentrated in the Northern part of Italy (about 25% of the total groups are based only in Lombardy, 60% in the Northern regions)\(^\text{177}\). The sustained growth of the last decades has been made possible by the diffusion of ITC technologies that allowed consumers to get in contact with producers more easily as compared to the past. GASs are now a political movement that is estimated to involve 100,000 to 400,000 consumers in Italy organised at institutional level with a national consortium of networks (Tavolo RES, Economia Solidale) and local representatives (RES, DES and INTERGAS), although they still resist a process of formalisation (Guadagnucci, 2007).

**Figure 1:** Distribution of GAS groups by Italian region, absolute values 2015

As previous research made evident\(^\text{178}\), citizens who join a GAS are extremely active and supportive on social and political side. They also have usually a good expense capacity and they use GASs mostly to access food and other basic everyday goods, such as clothes or detergents. The usual *gasista* (the way members of a GAS call themselves) is a middle-age woman with a medium-high educational level, who represents a family composed by children and a partner. Just a minority among *gasistas*’ families belongs to working class or low-

\(^\text{177}\) Estimation is based on a list published on the website [www.retegas.org](http://www.retegas.org). The inscription to the list is completely optional for the groups: studies Forno *et al*. (2013) showed that the list is not entirely able to map the phenomenon under-estimating its diffusion in the country.

\(^\text{178}\) The most important research on GAS movement in Italy has been promoted by the CORES research lab of Bergamo’s University and it is accessible here: [https://aisberg.unibg.it/handle/10446/28934#VuGH5FYihcQ](https://aisberg.unibg.it/handle/10446/28934#VuGH5FYihcQ)
educational level strata of population: GASs are usually an expression of an affluent middle-class dual-workers family, even if they should more be considered part of a cultural elite than an economical one (Forno et al., 2013). Thus, members are frequently counted on the basis of families more than the sole member who is responsible for purchase: the common presence of females thus is evidence of a still strong genderization that characterises food supply in Italian families (59,3% of the time devoted to food and services purchasing is provided by women in Italian families ISTAT, 2012).

2. ICS - Social problem addressed

2.1 Problem area

As published in the GAS official presentation (Retegas), we can highlight the main problem areas addressed by the movement. It regards mainly household food supply and basic good production. Interrelated effect can be highlighted to be prevalent in the following fields

- Labour regulation and health protection of workers
- Sustainable economy
- Supply chain power relations

The main objectives of the movement are:

- To put in practice the critical consumption:
  - by acquiring ethical and organic products (to respect humans and environment, to have healthy food, to improve solidarity among members and towards suppliers, to be sustainable, to be closer to natural rhythms)
  - by informing and improving the knowledge about critical consumption
  - by limiting isolation on the market and frustration towards GDO as individual consumer or producer
- To create solidarity and awareness
  - Creating occupation in local territories
  - To improve working conditions for suppliers
- To promote sociality
  - Creating a network of friendship and solidarity among members
  - Creating a direct relation between consumer and producer
• To use the collective as a political power
  o Promoting local products and small producers
  o Increasing the affordability of ethical and organic food
  o Reducing time devoted to purchasing
  o Maintain local production and local cultural heritage

References: GAS official document (Retegas).

2.2 Targeted beneficiary group(s)

The targeted population is twofold. First, it is composed by a plethora of small and family-run businesses that produce basic good for household consumption (food or everyday products such as clothes and detergents) with sustainable procedures. This target is considered to be exposed to marginalisation in the following several dimensions:

• Their small dimensions might lock them in a subaltern position in economic relations within the market. Intermediaries and GDO are in a power position that is usually used to reduce the buying prices for their goods.

• Again, the small dimensions don’t allow them to access regular markets as they don’t have the production’s volumes required to access organic supermarkets or big retailers.

• The familial management might expose them to possible risks of inefficiency in conducting their business.

• The geographical distribution of some productions (placed in deprived areas as it is the case for examples for oranges or oils, or in isolated territories) might impede access to alternative food networks already established in the most affluent areas, such as farmers’ markets.

• The choice of organic production increases costs and it might result in being less competitive with traditional production (price-based concurrency). At the same time, their small dimensions might impede their access to organic certification.

A second type of beneficiaries can be found in social cooperatives, which usually produce the same goods as the target one, or they are active in providing services for consumption such as food delivery, intermediation or logistic services. In addition to the previous risks, we can add that they usually employ individuals that are exposed to the risk of labour market marginalisation: people with physical or mental handicaps, migrants, women or men that experienced negative episodes in their past (i.e. prostitution, imprisonment, drug addiction).
2.3 Problem background

The emergence of the social problem can be linked to the progressive success of big distribution becoming the main supplier for families’ needs, which can be traced back to the end of the ‘80s and the beginning of the ‘90s (Zamagni et al., 2004). The emergence of big groups – even if they were an expression of more social initiatives as consumption’s cooperatives as in the case of COOP (§ 2.0) – has progressively eroded the distribution channels for small and local producers, who rely mostly on small distribution. The impact of the recent financial crisis has thus only magnified the structural trend of concentration that has already been established in food purchasing in the previous years, with the progressive erosion of market quotas in favour of big distribution retailers.

![Figure 2: Distribution of retail purchasing by type of retails, percentages 2006-2014](image)

Source: Osservatorio nazionale del Commercio (Ministero dello Sviluppo Economico), author’s elaborations.

The GDO also promoted an increasing concentration in the agriculture sector, mostly relying on the system of consortiums or local territorial cooperatives, as long as the standard company dimensions in Italy are very small and family-run based in general (Ranci, 2012): in order to satisfy the volume required by GDO to increase the productivity of soils and cultivations, an increasing use of chemical additives has been documented: in 2012, ISPRA (the Italian institute for the protection and research on environment) has monitored the presence of chemicals in about 60% of its water sample, for a total of 175 different substances. In general, there is a trend for augmentation of chemical pollution in superficial and subterranean waters (ISPRA, 2014). In addition, the preference for organic and sustainable production that it is common among GASs suppliers implies that volumes of production are reduced and more costly as compared with traditional agriculture or food transformation. Small producers who
didn’t follow the trend toward the use of chemical fertilizers and additives neither were substantially able to stay on the market, nor to access the costs of organic certifications that had been established under the European directive (REG. CEE 2092/91).

The system of certification in Italy is run under the supervision of the Ministry of Agricultural, Food and Forestry Policies (Ministero delle politiche agricole alimentari e forestali). Private companies which previously have been authorised by the Ministry provided controls on the procedures of production and emanate the certification. This system guarantees that each company has followed specific criteria about the fertility of soil, fighting against parasites or infesting herbs and the origin of seeds. Each region publishes the names of the organisations that are certified for organic production\textsuperscript{179}.

3. ICS - Solution, influences and relevant context factors

3.1 The historical foundation of GASs

When GASs were born, other experience of critical consumption were spreading, as ethical finance or fair trade. [\ldots] They were different groups, in general made of people who were engaged in different forms and in different domains. There were also some leaders, as Alex Langer, Alex Zanotelli, Francesco Gesualdi in the area that gave birth to Rete Lilliput around the NoGlobal movement. It was a clique that debated on the injustice of actual economic model and that claimed the need for a change. [KII]

The peculiarity of the Italian GASs movement can be better understood in the light of the social and economic history that roots back to the history of cooperation, both secular and catholic. The first example of collective consumption of food and everyday basic goods traces back to 1854, when the General Society of Workers in Turin decided to open an emporium for its members in order to give them access to basic necessities at an affordable price (Zamagni et al., 2004). The idea of the first consumption cooperatives was to buy at wholesale prices and then distribute the products to its members without adding a mark-up on the buyers’ prices. This initiative was part of a more general trend that saw mutualism’s initiatives spreading in industrial areas of the Northern part of the country and that involved housing, access to health and affordability of food. In fact, one of its main characteristics (thus already deviating from the GASs experience) was to make consumption accessible to the lower and most marginalised strata of the population, as working-class or low-educated individuals, thus combating diseases caused by a difficult access to a healthy nutrition. Only during the last

\textsuperscript{179} (See: http://www.coldiretti.it/organismi/inipa/area\%20formazione/cd\%20probio/files/03_Normativa.htm for more information).

decade of the XIX century, the consumption cooperative has been extended to middle-class employees, with the birth of the Unione Cooperativa in Milan (1886) firstly oriented to clothes and only in a second moment to food (Zamagni et al., 2004). At the first general meeting of the Italian cooperative movement (1886), there were already 248 different societies with very different ideological orientations: catholic, socialist, liberal and working class. They were mostly cooperatives for production and consumption (129 societies out of 248), popular banks and mutual aid society, for a total of about 74,000 members involved (Guadagnucci, 2007).

GASs pick the more mutualistic dimension of cooperative experience, but it gives priority to other aspects apart from the economic one. It is not only because their social basis belongs to middle-class, but it is also because in their history they were close to the environmentalist movement. Historically, solidarity was oriented to cooperative members and related only to the economic aspect, while for GASs solidarity is oriented towards environment, towards nature, towards small farmers, towards land. GASs were born from an experience that is similar to the historical cooperative movement, but it finalises its action first in environmental sense and then in a course of social transformation, which is not immediately linked with other experiences. [KI5]

After a period of dismantling due to Fascism, the years after WWII showed an increased success of the consumption cooperatives that started to be influenced by the progressive transformation of the commercial sector, from small and traditional shops to the modern GDO, made possible by the diffusion of durable goods as fridges and cars. Italy was late in this transformation as it lacked a spread wealth that was reached only after the economic miracle in the ‘60s, when consumption started to boom even in this country. However, GDO reached a significant quota of consumptions (10%) only in the ‘80s. Consumption cooperatives followed the trend, reorganising under the brand COOP: just after the war, cooperatives were one of the main instruments to access consumption for the middle and lower classes, also acting as an access to labour market for their workers. In the beginning, they were organised in a network of small and local shops that progressively merged into a national network (the actual COOP) with several big retail stores (Zamagni et al., 2004). At the end of the ‘90s, big distribution weighted about 40% of the food consumption in Italy.
In 2015, the most important operator of the big distribution in Italy is the direct descendant of the agglomeration of the consumption cooperatives originally oriented to the needs of workers and employees (it controls about 15% of the GDO market\textsuperscript{180}). One of the critics that GASs movement put forward against consumption cooperatives is that they have aligned to the logic of GDO, creating big intermediation structures that have forgotten the social principles that had determined their birth. Even if now there are no direct connections with the consumption cooperatives movement (although at local level there is a network of small social cooperatives and mutualistic associations that collaborates with GASs), it is undeniable that principles of solidarity and reciprocal aid have been taken from this strand too.

However, while Italian consumptions were catching up adjusting to the general trends that characterise advanced western societies, several bottom-up movements were establishing to promote alternative supply chains as an alternative to GDO. The first to be established was the fair trade, which has had a strong impact on the following evolution of the GASs movement. Started in Europe around the ‘60s on the route of missions in third world, it reached a nation-wide success towards the end of the ‘90s on the impulse of the rising NoGlobal movement. Fair trade promotes equity in the relations between Northern and Southern countries in the world economic system: affluent consumers from North try to buy exotic goods as coffee, tea or tropical fruits with the shortest distribution chain possible, reducing the profitability of the exchange for final distributors (most of fair trade shops are

\textsuperscript{180} \url{https://www.mbres.it/sites/default/files/resources/rs_Focus-GDO-2015.pdf}
managed by volunteers) but assuring fair prices for producers. The Italian fair trade movement usually prefers suppliers that are cooperatives of farmers or small companies: in order to be included in the process, producers have to guarantee the minimum standard of labour rights for their workers and sustainability in the production, as for example avoiding the mass use of chemical fertilizers or additives (Barbetta, 2006). The same logic has been applied by GASs with local producers: they try to reduce the distribution chain by getting in contact directly with suppliers, agreeing upon a fair price with them and usually preferring small unities or social cooperatives (as an explicit reference to solidarity).

*Italian solidarity economy has a peculiarity: it is strongly political. In fair trade movement, it is extremely evident: it is still a strong radical movement. Among the solidarity economy, it is the most structured one: it has shops and companies that give work to thousands of people, with turnovers that exceed 100 million of euro. But still Italian fair trade refuse the guarantee of fair trade brand, because it sustains that to be sustainable it must be entirely a fair-trade product, because if the same brand is commercialised by Nestlé, then it might be good but it is still Nestlé. Italian fair trade pays a lot of attention to the organisation: if you want to establish a fair trade, you must have a cooperative and democratic organisation in the Southern countries, which produces following determinate criteria and which sell its products to a cooperative and democratic organisation in Italia, then selling on to Italian cooperatives made of members or volunteers. It is the entire process that must be coherent with the fair trade product. [KI4]*

Fair trade is similar to the GASs movement in terms of the strong element of solidarity that characterises the economic relations: it is not oriented to the maximisation of the profit for each of the actor involved in the trade exchange, but it is oriented to create equal opportunities for the producers given the following criteria: respect for workers’ right, fair price, sustainability. With the increasing diffusion of the GASs principles, even fair trade movement started to modify itself by progressively introducing local social cooperatives with strong ethical characteristics (Barbetta, 2006): some of them help marginalized people entering the labour market (i.e. imprisoned or drug addict individuals), some other fight against the local mafia organisations (i.e. *Libera*), and more recently in Milan the fair trade distributors have started to promote fruits and vegetables of local producers through the network of organic suppliers of COOP$^{181}$, the GDO emanation of the original consumption cooperatives. One of the most important shared appointments is the national fair “Fà la cosa giusta” that each year gathers suppliers from fair trade and GASs movement in Milano (the last edition was held 18-20th March 2016); in 2016 it reached its thirteenth edition.

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However, consumption as a form of political activity has also been strongly interrelated with the rise of the NoGlobal movement, which has peaked in Seattle ’99 and Genua ’01 protests. Nevertheless, the critical consumption’s movement was born in Italy before the two mass protests, mostly in the lively environment of Catholic groups. One of the most radical examples, which can be called an ancestor of the GASs movement, is the justice balancers movement (bilancisti, as they called themselves): families that compile detailed templates about the distribution of their consumptions in order to critically redistribute them in a more ethical and sustainable way. They were born in 1993 as emanation of “Beati I costruttori di pace”, a Catholic association of the North-East that sustained the refusal of wars with its most famous representative father Alex Zanotelli (active in the NoGlobal networks and in its local emanation Rete Lilliput) and at the zenith of their prevalence they involved about one thousand families. Although limited in the participation, the movement has been extremely important in the consolidation of the rhetoric that characterise the GASs movement: the concept of sobriety (see as reference the important book of Francesco Gesualdi Gesualdi, 2005) has been one of the pillars around which groups as GASs have oriented their consumptions, relying on sharing durable resources (as cars) or exchanging used goods (as clothes or accessories for children) (Guadagnucci, 2007).

Summarizing, the GASs movement has several ancestors, none of them being entirely representative of the movement’s peculiarity. The similarities that can be found are the following:

1. Early history consumption cooperatives: self-organised collective purchasing, but also a space for a collective reflection on consumptions.
2. Fair trade: consumption as a way to dismantle the unequal relations between consumers, intermediation and production.
3. Critical consumption and Justice Balance: as a stimulus to reduce unnecessary consumptions and improve the sustainability of families’ habits.

3.2 Solution approach

GASs constitute a solution as they allow producers and suppliers to have a direct contact with consumers, based on a trusted and long-term relation. The social problem is thus addressed by an overturning of the traditional logic of economic relation: from the maximisation of profit and reduction of the price to the definition of a fair price that is bargained between producers and consumers without any intermediation actor (that could increment the price for final consumers without giving a surplus benefit to the supplier). The novelty that GASs members propose must be found in the collaborative system of bargaining at the basis of the economic relation. Producers are not usually (solely) selected on the basis of the prices proposed for
their goods (as in the traditional economic model), but on several criteria that pertain the critical consumption’s approach: to respect the shortest production chain, to favour local products, to sustain specific projects considered of social relevance (i.e. integration of people at risks or a conversion towards organic production of a new supplier), to protect the environment and to increase the sustainability of food supply.

Basically, [the GASs movement] has begun from the need of satisfying a demand for goods and services, by logics aimed to create relations instead of the normal logic of demand/supply. […] The activation of a trusted relationship was the fundamental element that generates well-being […]. It was something that we can confirm again, the supporting element in order to start the transformation, which cannot be obtained with contrast or search for the right, but only creating a relational channel of trust that allows generating well-being for the actors involved. [K12]

The main activities to highlight in this sense are:

- Eliminating intermediaries
- Definition of a fair price bargained in a horizontal relation between consumer and producer
- Human and moral support in case any problem might arise
- Share the risk of the production (pre-financing)

An interesting innovation is the system of pre-financing (which is the base also for experiences as MAPs or CSAs, although on the contrary the system of pre-financing does not foresee that gasistas become members or business partners as it happens in CSA). A group of citizens decide to devote a sum to a supplier before receiving the goods; the supplier can thus proceed in increasing the productivity of farms (by acquiring specific machinery) or overcoming a financial difficulty. One of the most important episodes in this sense is the rescue of the cheese factory Tomasoni at the beginning of the years 2000. This factory (which far rooted back to history as it was founded at the beginning of XIX century) had converted to organic production by the end of the ‘90s, while at the beginning of the 2000s it encountered a deep financial crisis, which was linked to the management of a stock of grana cheese. While the production lines were in action (numerous GASs were already clients of Tomasoni), the traditional financing institutions refused to help the factory during its financial crisis. A bottom-up mobilisation made up of several actors of the alternative economy movement, relying on pre-financing from several GASs and a loan from Mag2 (a self-managed mutual aid society active in the financing of projects of solidarity economy), allowed the factory to survive the difficult moment. This system is not systematic and continuous, as it is for community-supported agriculture: it is used only as a solution for temporary emergency situations, although some experience – as the RiMaflow project in Milano or Arvaia in
Bologna – are trying to establish it as their main form of financing.

3.3 Actors and networks

One of the main strong points of the GASs movement is to be found in the capacity to build up a network of local groups, which is extremely adaptable and geographically dispersed. The added value of their organisation is, in fact, the informality and the bottom-up character of their meso-level organism, the so-called DESs (District of Solidarity Economy), which works mostly at province level. They operate by putting in contact the groups at local level and they are usually functional for organising certain purchasing, which are more efficient and effective when operating on a wide basis: for example oranges, detergents, or pasta. Although each group is totally autonomous and there is no obligation for the group to purchase through the networks, the concentration in DES has favoured relatively bigger dimensions of producers that deliver these products, such as for example “Le Galline Felici” di R. Li Calzi for oranges or Cooperativa IRIS for pasta which are not accidentally the biggest companies specialised in GASs supplying. However, DES is not a level of intermediation, but only of coordination: there is no mark-up on the final price but there are only volunteers who take care of the organisation of single shipping toward an area. One of the most effective network at local level is GAS Torino: it works as a second-level group that organises purchasing for the entire city of Torino, leaving the autonomy to the single GAS to decide if they want to purchase through their suppliers network or not.

DESs usually promote also working groups and informative exchange between the group and the general associative environment at local level, while it is very rare that they operate as advisory organs for public bodies (even at local level). Although it is a very effective tool of participation and intervention of local policies, it suffers from its fundamental character of volunteering: it is very hard to have good practices in this sense, because it relies on the participation of the individuals who have to devote part of their free time to the cause.

The evolution is comprehensible: from one side, producers have less need of GASs, from another the age is increasing and the crisis bites, you need availability of time and resource, it is not elitist being part of a solidarity purchasing group, but for sure the young precarious worker have difficulties in being part of a GAS, this is evident. You need cultural capital, you need time, you need things that since 10 years on have become scarce. [KI4]

Another factor that favours the network structure is connected to the fact that GASs tend to prefer to multiply the numbers of groups instead of promoting groups of larger dimensions. In the sample of our research, the average dimensions of groups are about 30/45 families (even bigger than the value observed by Forno et al. in 2013 , which was around 10 to 25 families). One of the reasons is connected to the minimum threshold by which a GAS can have
difficulties in operating and sustaining the cost of periodic shipping that is usually considered to be below 10 families, while over 50 it is increasingly complicated for volunteers to manage the volumes of shipping. The process of gemmation – as they call it – has favoured the creation of the bottom-up network as budded group still usually maintain closer relations with their “mother” GAS. Some of the biggest groups rely on supporting companies as social cooperatives for the service of shipping receiving and distribution of goods. In some cases, the same function is provided by the fair trade shops’ network: especially in the smallest towns, volunteers from fair trade shops and GASs activists superimpose.

The organisation of the GAS network, characterised by strong territorial entrenchment and small nodes, is similar to the one promoted by the Rete Lilliput network, one of the main institutional formalisation of the NoGlobal movement in Italy. This was especially interesting for the GASs movement as long as it draws inspiration for its functioning at national level: it was composed of a second level network of local networks, in which each of the different components that was recognised in the NoGlobal Italian movement (from Catholic to Extreme Left) could have a single national referent. The advantage of this organisational model was the protection of the internal differences, its horizontal expansion (instead of a vertical hierarchy) and the valorisation of the territorial base node within the network (Rete Lilliput, Manifesto).

It is hard to say what came first, if the chicken or the egg – speaking about NoGlobal movement. The Rete Lilliput – who inherited the NoGlobal movement – was a starting base, not really for GASs network, but for their evolution that were the solidarity economy districts. It is on the wave of the same impulse of NoGlobal movement that GASs were born, but with a practical logic and not by events. You can protest against a certain model by programming a protest then the following one and so on, organising an assembly in the middle that is going then to finish with organising another assembly. But the spaces that are left void, they must be filled up with practices, don’t they? And then what in my opinion is going to be inserted in the middle and what we try to insert in the middle is the DES: it is everything you can do between one appointment and another, between one seminar and another. If not, you have nothing to tell if you don’t do anything. Then, NoGlobal movement is for sure connected [with GASs] regarding values and prospective. [K15]

Speaking about individual leaders, those who can be recognised in the GASs movement are Mauro Serventi (who was the founder of the first group in Fidenza), Andrea Saroldi as one of the main spokespersons and popularisers and Francuccio Gesualdi. The last one has been the director of the research centre “Centro Nuovo Modello di Sviluppo” who developed theoretical reflections and handbooks on how to put in practice critical consumption.
Especially, this last person has also been one of the leaders of the so-called movement for degrowth in economy, which prescribes a reduction of consumptions and engagement in the labour market as a radical critique to the sustainability of the actual economic model. In the last years, there has been an increasing closeness between the GASs movement and the degrowth movement, with overlapping of groups especially at the local level. Main representatives of the degrowth movement at national level such as Paolo Cacciari usually participate in the national encounters of GASs movement – as happened in Bergam, March 2016.

Although the main aim of GASs is to create a direct relationship with producers, only a couple of GASs in our sample has succeeded in having strong and systematic partnership with producers or associations of producers, while the rest is mostly limited to the usual commercial exchange that characterises the relation between GASs and their suppliers. Two best practices are to be found in the area of Bologna and Milano. In the first case, local groups are trying to promote the activation of producers via an established network of daily farmers markets (GASs in Bologna supply fresh fruit and vegetables through this project called “Campi Aperti”) and the promotion of a CSA, which is supported by the Municipality. The “Arvaia” association – as the first Italian CSA is called – has been given by the municipality of Bologna the allocation of the first field belt that surrounds the areas, mostly of public propriety. The association of producers are entitled with the management of these areas, while GASs support them by pre-financing their activities and buying the products. In Milano area, it is the system of agricultural production chain that has been privileged: GASs sustain the projects by acquiring their final product as bread or flour (Spiga and Madia for the local DESBRI in northern area and the wheat production chain for DES Parco Agricolo Sud for the southern area), while different producers cooperate all along the production chain (from spike to bread). Local DESs act as coordinators for the producers involved in the production chain and for the promotion through the area.

GASs main collaboration’s networks are to be found in the lively bottom-up associative environment that characterises Italian society at local level. The partners coming from associations are extremely various and they do mirror the extreme variety of the GASs environment: environmental movements, small catholic organisations (local parishes, missionary groups, groups for the promotion of families and vulnerable young), small experience of local promotion and integration. No political societies are to be found in their network and groups only rarely establish a systematic collaboration with public bodies (with the exclusion of political organs): mostly, they are supported by local cultural entities as public libraries, associations’ council or single individuals that want to promote their activities at local levels (as for example, assessors or council members who are particularly sensitive to
these themes). GASs however don’t want to get involved in politics although they recognised that their activities are intrinsically political, because they don’t believe in the traditional system of parties: the only real request to local bodies is to provide a space at affordable prices where to meet and distribute their purchasing, which is not always easy especially in the biggest cities or if a group has not decided to constitute an association.

Thinking about the evolution of their ideological result, the determinants have been the fair trade movement, the justice balance movement and the environmental movement for sustainability (§ par 2.0). However, a determinant role of catalysis has been given by mainstream media who started to speak about GASs from 2004/2005 with the highest peak of media visibility reached in 2009, when REPORT – a well-known broadcast on the public TV station – dedicated an entire episode to the rising phenomenon of GASs. The exposure toward potential members, as REPORT is mostly an inquiry journalism broadcast privileged among aware individuals and political activists, has determined a rapid growth in the diffusion and births of new groups, which the movement has not been able to manage. In fact, the media coverage opened up the groups also to members that were not already being politically active, thus changing the social composition of the groups and starting a period of stagnation and contraction that it is still on-going (§ par. 3.1).

What has worked was the media attention, which at a certain point was very strong: mainstream journals, but above all REPORT with its episode on GASs determined their explosion. This has been for good and for worse at the same time: because it brings in everybody at every level of engagement. That is, how do you react facing this growth crisis? When your numbers expand until you are made of hundreds of families? What is the model that works better? Gemmation or big organisations with supply chains as Aequos or Buonmercato? In my opinion, at that moment there was the mistake: facing the expansion, [GASs] were not able to really consolidate. If that has happened because they really couldn’t consolidate, I don’t know. Maybe there was a course that has not been followed? I don’t know it either. What is certain is that the consolidation has not happened, when GASs movement could become something systemic: cooperatives have made it when they become a system founding COOP, either we like them or not, but they made that jump, solidarity purchasing groups have not, maybe they couldn’t for definition, I don’t know, but this is something that has not happened. And as it always happens when there is a production peak in a non-renewable source the decline has started, because innovation has lacked. [KI4]

While GASs entered their crisis – not accidentally in the same period while Italy was living a strong economic downturn in 2013 – a multiplication of adapters started to establish, although especially lively in the most affluent areas of the country. Firstly, a series of private shops that
sells the products of the GASs suppliers have been inaugurating in the last years, as for example organic or short production chain shops. Some of the shops have emerged directly from GASs experience: as in some cases, they are GAS that institutionalised their role by taking up the form of an emporium or social cooperatives selling the products directly to consumers, in parallel with logistic and distribution services to groups. Secondly, partly promoted by the associative environment, partly promoted by trade association (as Coldiretti) and partly by public bodies, farmers’ markets have multiplied all around the biggest and smallest cities smoothing the access to the final market for local producers. Thirdly, some of the biggest GASs groups – as Aequos in the area of Como, RiMaflow and Buonmercato in the area of Milano – have implemented experience of GASs with easy access, mostly comparable to on-line shops that allow aware consumers to access the GAS purchasing without having to provide volunteer work for their functioning, with just the minimum mark-up for repaying the running costs (§ par. 2.5).

Finally, a series of private actors – some of them applying models developed in France or in the Anglosaxon countries, as Bioexpress, Cortilia or Portanatura – have diffused in the most inhabited areas as Milano, Bologna, Turin or Genoa, providing a door-to-door services of fresh products distribution and relying on the same plethora of small organic producers. Especially the last private services have been strongly criticised by the GAS movement as they’re not transparent in their intermediation (on the contrary of GASs emanation where the mark-up is transparent to the final consumer) and they might reproduce the unfair relation between producers and consumers that has been strongly attacked by the movement in the course of its evolution. This is because the GASs movement is still strongly divided between two main souls: from one side, members have the practical goals of accessing healthy food at affordable prices and from the other, they have the political ambition of intervening in the production chain by changing the power relations between producers, intermediation and consumers. Only for the second soul, private services of food distribution is a problem: for the rest, the least engaged members of the GASs movement services allow to access the healthy consumption, which is their main goal (§ par 2.3).

It is true in the sense that when I associated to a GAS and my objective is the product, now I’m able to access all the alternatives I want, thanks also to the contamination that the movement has produced. But, yet when my objective becomes also the process, that is what stays behind the product, exactly, if I go at those places I’m not able to or I have to put further effort to know where the product come from and how it has been produced. To me, the situation does not create any problem, but to many gasistas intermediation is an issue, as those services are in practice an intermediation. Because you as a buyer have not a direct relation with the supplier. [KI5]
3.4 Narratives and discourses

As said, the GASs movement has developed a strong and coherent discourse along the way in its twenties. Two main discourses can be identified: one coming from the concept of product promoting a more practical goal that is accessing more healthy food, and one coming from the concept of process representing a more ideological strand devoted to the critics of the actual economic system of food production (§ par. 1.1). The two strands are interconnected: the access to food, which was the first that sustained the birth of the movement, was progressively substituted by the second, since the access to organic and local food was made easier by the emergence of similar initiatives such as organic department in supermarkets, organic stores or farmers’ markets.

The more practical aim of accessing food is composed of two discourses being the preference for organic and healthy food and the preservation of local productions, which are often at odds: especially in the area of bigger cities, the closer belt of agricultural production has been in the past contaminated by industrial production and in the present by pollution. Groups divide themselves on the basis of this preference: in general, a priority on local production has to be found in groups from the southern areas of the country, while organic food (although not always certified, as we will see in the next paragraph §2.4) in the most affluent areas. That is also due to the spending capacity of GASs members that changes in relation with the economic disparities within the country.

The criticism on the traditional economic system has in origin mostly revolved around the opposition towards the GDO, in general identified by supermarkets. Gasistas accused the system of unfair treatment of their suppliers, of an indirect promotion of unsustainable production as industrial agriculture and intensive farming, of favouring the lowest price instead of local products. Some groups also affirm that supermarkets favour an unleashed consumerism, as with sales and special offers induce people in buying more food than they need for their sustainment thus being responsible of the increasing diffusion of squandering that affects western societies. As a positive alternative to this system, GASs developed in collaboration with other actors of the alternative economy (as the already cited network of bottom-up associations, fair trade, NoGlobal movement and bilancistas) a proposal revolving around the idea of collaboration in the economic relations to replace the role of concurrency (§ par. 2.1).

However, the strong ideology behind the movement has not always been an advantage for its innovation. After the turning point of the crisis, GASs suffered from a reduction of numbers of members on their base and difficult governance at the national level. The horizontal structure of their network, the substantial autonomy of each group and the rigidity of their positioning towards certain phenomena (as for example the refusal of the institutionalisation
or intermediation) has certainly inhibited a process of incremental innovation that was needed in a context which was strongly modified by the financial crisis, in terms of spending capacity of gasistas and in terms of an increasing vulnerability and concurrency among producers.

Another problem arises with the incapacity of the national movement to develop a spokesperson or a spokes-organ to take up an intermediation role with media or public bodies. At local level, discourses and narratives promoted by GASs could be transmitted through the lively local civil community and through the mediation of DESs. The jeopardised results however depended on the completely voluntary and personal character of the movement: where people could be mobilized and could get in contact with relevant opinion leaders and institutions (as for example in region Trentino or in region Emilia-Romagna), achievements such as the participation to council organs or coherent laws on solidarity economy were accomplished. However, at national level it was not possible to create a structure of governance (the participation to national tables are on voluntary basis and the connection between the local organs and the single group is weak).

The instruments of transmission mostly were centred on the ICT technologies, as website or mailing list (§ par 2.4), but it has mostly been limited to GASs members: only the bigger producers have participated in the national encounters, even if at local level a slightly wider participation of beneficiaries could be improved through the system of DESs. However, the intrinsic functioning of the GASs movement has not favoured a mirrored reorganisation of producers, who persists in being dispersed and individually in contact with the groups. In fact, GASs groups, who perceived it as a potential risk of creating an unnecessary intermediation, have not favoured the creation of organisation among producers.

There is no relationship with producers’ association or network of suppliers: this is also because it is against the gasistas’ logic that is working with single producers, at the local level possible without any agreement at national level. It is one of the reasons why at national level the solidarity purchasing groups’ movement is extremely weak, one of the reasons why the last national encounters have been centred on solidarity economy because groups are extremely jealous of their autonomy and individuality, one of the reasons why succeeding in organising by keeping the individuality at national level has been very difficult since the beginning. Now [the GASs movement] has become more a network of GASs networks, that is Intergas or DESs organised at provincial or regional level, at national level you can spread the culture but it does not create bonds or interactions with other association in order to create involvement immediately apt to be spend locally for the local groups activities. [KI3]
3.5 Rules, norms, and policies

The logic of GASs approach’s development has to be considered an incremental bottom-up process that has been mediated mostly by the periodic national and local encounters among the different groups. Even if the model has been drawn upon the Fidenza GAS’s experience (although some groups have started even before it), the resulting manifesto (§ par. 1.1) has become definite by horizontally sharing experience within round tables and networking, thus preserving the richness and the extreme diversity of the groups that are the expression of different components of Italian societies (from catholic associations to extreme-leftist community centres). Each local best practice has thus been reported to national network and incorporated in the model proposed in several documentation and publications for those who wanted to start a new group (see Retegas; Economia Solidale; Acanfora, 2015). Instruments such as mailing lists have been determinants both in the functioning of the group and in the development of a bottom-up network without any formal structure or hierarchy.

Before 2000, people who participate in GAS were persons that were already active even in other domains, to this activation they added up the activity of GAS, so that groups were in sensitize circles. After 2000, there was Seattle and Genoa, with people getting to GAS without having a previous experience of activism. You could discover a way to engage through this world: it might happen that a person gets involved for very practical reasons and then while participating the person discovers more ideal motivations. Because the horizontal environment of GASs is really favouring participation and ideas’ exchange because teaching goes person to person at equal level, thus it is an environment that it is more favourable to change your opinion and to learn. [KII]

[GASs movement] has been a product that defined itself in time from experiences and needs of the people who started this course. There were medium-class persons, without big economic problems but without being wealthy, persons that had time and culture to do these things, a very slow course without any structure or leadership, but very welcoming and with a lot of autonomy. This has allowed that in the annual encounters there were just the narrations of the single experiences that were offered in a single agora, without having the intention of generating a process for creating shared parameters, but just with the aim of reciprocal exchange of information. This has favoured with a bubble mechanism the emersion of the most significant elements that became the reference’s points. [KI2]

Another interesting example of norms produced by a bottom-up process can be found in the movement for the participated organic certification that GASs have promoted in the last years. One of the biggest obstacles to the diffusion of organic production has been individuated in
the costs of accessing the organic certification, which is provided by private entities in Italy (§ par. 1.3). Even if some regions do subsidize farmers, especially for the smallest companies it is quite difficult to become sustainable in costs. That is, single groups or DESs (especially remarkable is the project promoted by Retina in Brianza area) have sustained what they called participation certification, which is a control mechanism that is operated directly by gasistas on the production in order to check if producers respect the rules of sustainability and respect for the environment that characterises the philosophy of GASs movement. This system has also favoured and accompanied the conversion of producers towards organic farming.

For what concerns the relation with beneficiaries, some of the GASs have institutionalised a template of assessment for the new producers, in order to evaluate how far the newcomers are in line with the principle of consumerism promoted by the group. The template usually revolves around the methods of production, the type of contractual integration offered to dependent workers and collaborators, the transparency in the supply of raw material (when it is the case). It is also usually completed by periodical visits to the producers, which are promoted by groups not only to increase and to promote the trusted relation with the suppliers, but also to control the respect of environment and law regulation among their suppliers.

Speaking about public policies, GASs have persisted in being invisible to public institutions until very recently. The first intervention was related to fiscal treatment (General financial Law 2007, L.244/07) and solved one of the biggest issues for the groups, regarding who was supposed to pay VAT in the exchange between producers, the GAS as an “intermediation” entity and final consumers. The law prescribed that GASs who had formalised in associations could not be considered commercial entities as long as they don’t operate any mark-up in the original price and if they limit the purchasing only to those who are member of the association. The law has actually been promoted thanks to the engagement of a single deputy who could act as a sort of spokesperson in the matter with the general government and it was not the result of a lobby action of the GAS movement. At regional level – as previously said (§ par. 2.3) – when a fruitful collaboration is established with local groups, good laws on solidarity economy could be promoted, mostly not prescribing any intervention in terms of funding or direct preservation, but determining principles and definition of the general character of solidarity in economy. At the same time though, in other regions where the communication between the network and the public entities was less supportive, a series of laws have been promoted that actually used the GASs to open a series of public funding that in practice did not benefit the groups. This situation was mostly derived by the necessity of defining a sort of criteria by which GAS could be identified, which badly collided with a reality consisting of diversity and heterogeneity.
Most of the laws or public calls for funds, public spaces or merely recognition (even included the L.244/07) require a formalisation in association that many groups still resist, thus affecting their capacity to be formally accepted as interlocutor by public entities and entitled with funds or spaces. This situation of course affects their capacity of intervening in tackling marginalisation as long as they sometimes are invisible to institutions, and only on individual basis and initiative they could promote systematic intervention. It inhibits their capacity of acting as a lobby at local level by intervening on food policies; however, this situation is only rarely lived as a problematic point is that most of the groups prefer to preserve their total autonomy from any actor instead of acquiring power and influence on public policies. For this reasons, norms and policies only rarely contribute to promoting a systemic change and only at local level (as it happened in Trentino or Emilia-Romagna), where the fruitful collaboration has also allowed to pose the tackling marginalisation as a central and explicit outcome of the promotion of solidarity economy.

3.6 Resources

GASs mostly rely on personal resources of their members, both in cash and volunteer work provided. Only one among the social innovators interviewed declared to have received in the past a funding from local authorities (a call in region Piemonte offered a reimburse of 60% of expenses aimed to improve logistics and equipment). In general, they don’t require a big amount of money to run their activities (between 90-400 euro per month on average): the expenses are mostly linked to the management of the bank account or the association (if they are a formal group) and the rent for the delivery’s spaces. The highest costs are to be found in Milan, where the lack of public spaces available to GASs forced them to hire private spaces as garages to stock their goods. In the smallest towns, the groups are usually able to access more easily low-priced spaces offered by associations or public institutions through their personal networks.

In most of the cases, each member is required to provide a certain amount of voluntary work in order to ensure the general functioning, although some groups are more hierarchical with a core of activists more active than the mere “buyers”.

<table>
<thead>
<tr>
<th>Table 1 Volunteer work, WP7 qualitative interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours per week</td>
</tr>
<tr>
<td>One hour</td>
</tr>
<tr>
<td>Two/three hours</td>
</tr>
<tr>
<td>Four hours and more</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: WP7 interviews to social innovators, Giroletti’s elaborations
3.7 Social and technological innovation

The main driver of the diffusion of GASs has been Internet and in general the ICT technologies (§ par. 3.1). These innovations have increasingly simplified the direct contact between consumers and suppliers, even if the population of beneficiaries might not always be skilled in the use of Internet communication (some of the groups reported that there is a need of extreme patience and human support to maintain relations with some of their producers, who have no access to Internet or difficulties in accessing it). For the internal communications among members and in order to develop the informal networking at local and national levels, mailing lists and websites have also been pivotal.

Speaking about incremental innovation, most of GASs reported the implementation of new ICT services (as clouds services or management application) as one of their main recent improvements. However, the GASs that innovated their process were a minority among the contexts analysed, as shown by the following table.

Table 2: Incremental innovation activities, WP7 qualitative interviews

<table>
<thead>
<tr>
<th>Type of innovation</th>
<th>No improvement</th>
<th>Examples of innovations</th>
</tr>
</thead>
<tbody>
<tr>
<td>New methods of production</td>
<td>32</td>
<td>Collectively buy old seeds and make flour for GAS needs; social gardens.</td>
</tr>
<tr>
<td>New methods of logistics</td>
<td>28</td>
<td>Changed locations; management of delivery (i.e. new software); collaboration with cooperative for delivery.</td>
</tr>
<tr>
<td>New method of supporting activities</td>
<td>26</td>
<td>Online payment systems (i.e. virtual cards); online modules on clouds services; management software; personalized labels; website; mailing list.</td>
</tr>
<tr>
<td>New methods of business practices</td>
<td>35</td>
<td>-</td>
</tr>
<tr>
<td>New methods of organisation</td>
<td>27</td>
<td>Management committees; elimination of cash payments; distribution of responsibilities; decentralised decision making.</td>
</tr>
<tr>
<td>New methods for external relations</td>
<td>28</td>
<td>Pre-finance; registration in the municipal register of associations; new agreement for prices; social cooperatives for services.</td>
</tr>
<tr>
<td>New methods of financing</td>
<td>35</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: WP7 interviews to social innovators, author’s elaborations

3.8 Social impact measurement

To our knowledge, the GASs movement has not implemented any impact measurement at the present time, neither oriented to groups’ members nor to beneficiaries. The only systematic quantitative analysis so far has been mostly concentrated on GASs groups and their members (Forno et al., 2013), but none of the previous researches have shown interest in the impact of GASs experiences on suppliers’ marginalisation (Forno et al., 2013; Grasseni, 2014; Forno
and Graziano, 2014, 2016). The informal and networked structures that characterise the movement at national and local level might have impeded the formalisation of approaches for impact measurement at institutional level.

It is possible that in the past some experiments of impact measurements have been carried out at local level, but we have not encountered any in our literature review nor in our empirical investigation until the present time.

3.9 Further drivers and obstacles for the diffusion of the SI

The recent downturn of the austerity crisis (2013) has been an important turning point for the GASs movement. It has had several negative consequences on the diffusion of the social innovation:

- It has increased the difficulty for previous members to access the generally higher prices of food and supply through the system of GAS;
- It has increased the difficulty in access and permanence in the market for producers, as long as the demand of GASs has contracted;
- The relative success of the previous years has increased the concurrency among producers with several newcomers that tried to get in contact with already established groups once the traditional selling channels contracted.

Many social innovators and key informants have reported a situation of stagnation, if not of recession in the diffusion of GAS. Since 2013, the national movement is discussing how to face this situation of crisis (INES 2015 “Sconfinamenti”, Tavolo RES 2014 “Colpo d’Ali”). One of the possible solutions is to favour the introduction of solidarity intermediation actors who could promote easier access for the individuals who don’t want (or cannot) join a group for several reasons, but at the same time enlarging the end market for producers.

*GASs were born to address self-sufficient consumers, those who have the aim of improving their quality/price ratio in the context of a redefinition of market’s concept, but inside the economic relations. A redefinition that consists in the production chain, in the direct relation, in the definition of transparency and trust relationship. All these activities have been addressed fundamentally to fully self-sufficient subjects and completely able to afford a higher level of spending and with free time. None put this in relation with the crisis and with the exertion that now affects producers. There is the need for redefining the pact between producers and consumers, in the redefinition of an intermediate role, of a role that allows this pact to remain sustainable and to overtake contradictions. [K12]
4. ICS - Social innovation development and impact

4.1 Development of the SI

As already mentioned (§ par. 0.1), the GASs movement was born “officially” in 1994, with the constitution of the association of GAS Fidenza, even if autonomous groups already started their activity before this year and without any coordination. After 20 years, it is now possible to identify a series of different steps in its evolution, which has been influenced by the economic cycle of the country but also by the diffusion of the ICT technologies among the population and among the producers:

- Before 1994: the precursors phase. Scattered groups were forming in order to collectively buy food or fair trade products; there was no coordination at the moment or a defined model.

- 1994: the Fidenza group – which has already started its activities in the previous years – was born as an association; it defined the name of the experiences (solidarity purchasing groups) and set up the benchmark that was used in the following years to create new groups.

- Between 1994 and 2001: the pioneering phase. In this phase the number of groups started to grow, although with a relatively slow pace. According to Forno and Graziano (2016), the number of groups passed from 2 in 1994 to 54 in 2001. The first article on Altreconomia (the main journal for alternative economy in Italy) appeared in 1999.

- From 2001 to 2007: the sustaining phase. The pace of diffusion of the groups started to increase (from 54 to 358 groups: Forno and Graziano, 2016): mainstream media began to devote articles to and broadcast on the phenomena. This is what has been called the phase of activists by many of the key informants: fairs as “Fà la cosa giusta” were born (2003), the main website got online (2004), the first meeting at national levels started to be organised.

- From 2007 to 2013: the scaling phase. The number of the groups increased rapidly (reaching 977: Forno and Graziano, 2016), also thanks to the increasing attention given by mainstream media and especially by the broadcast REPORT (§ par. 2.2). Key informants reported that in this phase the opening of the social innovation to the general public has put in question the uniformity of their identity, with many persons joining groups only to access a different form of consumption rather than for political activation against the traditional economic system.

- From 2013 to now: Systemic change or stagnation?

It is very hard for the persons actually involved in the movement or for experts to assess what the phase of the social innovation is now. Some of them agreed that a systemic change, at least at cultural level, was achieved in the last years: the increasing success of organic and
local products has leaked out also in the GDO system, with many supermarkets offering more and more space to products that come from sustainable and local production. However, for the most radical activists this constitutes a sort of “betrayal” of the original aims: it is the mainstream economic model that incorporated and normalised the revolutionary spirit of purchasing through GASs, without neither questioning the problem of power relation within the economic exchange nor the traditional forms of consumerism.

The challenge now is how the movement is going to evolve in the next years and if they will be able to sustain the innovation within their functioning, going beyond the simple access to organic and local products. If the cultural impact is evident (although it is not easy to define if the cultural change has been a consequence of the GASs activity or GASs groups have been just precursors or pioneers of the cultural change), consumption in Italy has not inverted the trend towards concentration in the big distribution and there is no available data to effectively assess how many persons do participate in the groups. Forno et al. (2013) estimates that gasistas usually devoted about 10% of their consumption through GASs suppliers, but still this estimation is questionable as long as it is limited to Lombardy (this region is the one with the highest number of groups and also one of the most affluent of the entire country).

Key informants mostly go for the increasing important role of DESs, which are going to be the arena in which the stakeholders (consumers, producers and local institutions) should get together and work collaboratively in order to create best practices, as it already happened in the case of agricultural production chains. However, at national level the movement is still very weak, so what is going to happen in the future is very difficult to foresee.

The GASs movement has reached the goals that resolved at the beginning, to the point that we think that the market has withdrawn many of the principles we have proposed: the need for a direct relation between producers and consumers, the short production chain, the zero KM, the need for transparency and branding, even if we have always rejected the last one since our brand is the trust. I think that these objectives have been achieved, but what we’re now realising is that those are not sufficient anymore today, so that we have numerous encounters of RES table to which all the districts that want to be part of it collaborate. Those districts have been founded 7/8 years ago, as a place of need convergence and a space to satisfy these needs at local level. Producers, consumers and institutions are together at the same table to collaborate to the creation of a new economic model, creating concrete experience to manage such a process of satisfaction of consumers’ needs. We aim at the direct participation of producers and one of the teams of last encounters of RES table is how we can develop such a participation that allows to develop a pact between consumers and producers, a pact to be reciprocally binding and useful. Producers at the present time are suffering a lot.

[KII2]
In my opinion, a transformation has happened both in the collective thinking and in the practice of the people who participated. On the other hand, things to do are still a lot and if one faces the problems of course there is still a lot to do. Twenty years ago, people who discuss about these problems were two in a basement, considered a bit funny. But, yet now a cycle has finished: GASs have given their contribution and now this period has finished, we need to think about something new. To me, these new is the network of solidarity economy, in order to connect GASs with other entities on the territory, in order to create circuits and give answers to go beyond gasistas to reach the other citizens. [KI1]

Another evolution can be the implementation of CSAs also in Italy, where by now there is only one experience in Bologna. This solution could be extremely effective in reducing the marginalisation of producers, as long as it creates a formal bond between consumers and suppliers that sustains them with a real share of risks in production. However, from one side the extreme independency of the single GAS group has until now inhibited the creation of a system of CSA and on the other the difficulty in coordinating the producers has been evident even in the more informal solution of DES.

[With CSA] you obtain the commitment to buy, while GASs is unstable per se, one day is here and the other is there: it has not a liable and structured relation with a producer. [...] The relation between groups of consumers and groups of producers can be done through DESs and even more with the experiences of CSAs. If you took the approach of Arvaia and you apply it as a model to the production chain of wheat, creating a CSA and becoming member of this experience, then the GAS evolves from a consumption cooperative to a consumption and production cooperative, in a single entity – still virtual at this time – there are producers and consumers at the same time. Then GAS put themselves on the line, renouncing to buy bread from another producer and obliging to buy it from you, but you as a producer renounce to a piece of your sovereignty (as you not decide everything anymore, how you sow and where, how you transform and the price), we all decide everything together. This the CSA logic I want to reproduce: in this sense, it is not easy to involve GASs, because GASs are jealous of their autonomies and that’s ok, but if you want to step forward you have to be available in getting in relation with others. [KI5]

4.2 Impact of the SI

The point is that GASs movement at national level is still very weak and actually, it has not elaborated any systemic goal or country-level objective, they are more concentrated on short-range aims as practices. I would say that GASs have not ultimate goals as
other social movements have or even political parties, they have practices to sustain and spread. It might look as a semantic differentiation, but in reality it is a substantial point: if we have a very ambitious list to achieve, then such an objective is clearly unreachable. Then, GASs have never posed systemic goals; they have proposed micro-goals as to expand horizontally at local level to implement sustainable practices, as practices are everywhere and multiply along the time, but no other forms of actions were available and then it is impossible to say if they have reached more ambitious goals or not. [KI3]

In general, it is impossible at the moment to assess if the social innovation has impacted positively or negatively on beneficiaries. Even though the GASs as a political and consumerism movement has been widely studied in the last years, to our knowledge no research has focused on their impact on suppliers, nor on their eventual configuration as a social innovation (§ par. 2.7). However, the impression of the key informants is that suppliers in general had positive returns on their collaborations with GASs, especially those who have been actively involved in DESs: this impression is valid especially if we focus on the biggest GASs suppliers, who have been involved and sustained all along their productive life by the groups, as happened for “Le Galline Felici” or “Tomasoni” who benefitted from the system of prefinancing.

What were the aims of the GASs movement? First, they had the healthy goal for sure and to my opinion they have reached on the point of view that a higher sensibility is now becoming mainstream, but they have also the aim of filling up that S, which was being jointly responsible with small producers. In my opinion, they have reached this goal, but in dispersed manner, that is a GASs who decided to sustain a small producers and then decide to leave for another one and then to another. There can be thousands of motivations and if those motivations are not structural and connected with the ethic of those producers, then you have not reached the objective. Because you could reach the goal of being healthy with an organic production or even with KM zero, that is the nearest producer, but you have not fulfilled the goal of sustaining in systematic manner a model, to my opinion, as you sustained a demand by creating an offer that it is disarticulated. And then here are the numbers of GASs who have decided not to enter or not to be in relation with solidarity economy district, which poses systematically the problem of sustaining the producers and put them in relation with consumers as a collective. In DESs, producers have the obligation of getting together. Another objective was to sustain south world producers and the relation with fair trade. This has been fulfilled in general, but it is not so common to find groups that have a relation with fair trade shops, they just go there individually […] And then there was the protection of the territory, solidarity with nature and environment, again it has been achieved in terms of
culture that has tried to spread, but still I see the limit instead of seeing organisation to reach the objective, of missing relation to fulfil it. And we have still a course to follow, which is, I repeat, the necessary transformation of DES into CSA. [KIS]

Finally, an important impact must be identified looking at the dispersion of experiences, which GASs have promoted and sustained in the traditional economy, such as for example emporiums or solidarity intermediation (§ par. 2.2). These experiences – although interesting only to a minority of traditional consumers, mostly the high-spenders – are particularly interesting as they usually employ persons with marginal labour market profiles or allows GASs suppliers’ products to be accessible to general public without passing through a group. Although a numerical assessment is not possible at the present state, it is our impression that it is a growing trend that might expand the access to market for beneficiaries in the near future.

5. ICS - Discussion and key lessons

Given the preliminary state of our inquiry at the moment, up to now we can summarize the main findings in the following key lessons:

- **Social innovators:** the groups at the moment are mostly dispersed and their activities are jeopardised on the territory. The role of DES should be implemented, especially with a special orientation to policy makers and referents of the local institutions. At the same time, GASs should work collaboratively with the most resourceful producers in order to activate a process of organisations among them that could promote a counterbalance of GAS among beneficiaries. To overcome their limits, bigger groups should overtake the logic of totally voluntary activity in order to create intermediate situations of volunteers and workers, following the model of fair trade institutionalisation.

- **Policy makers:** they should be more aware of the presence of a network of people active in their territory, as they could be activated not only in electoral terms. The participation of GASs representatives in the recent movement for food policy for example should not be neglected. Secondly, a successful project like Community Supported Agriculture, which is standard in Europe and in North America for promoting alternative food networks, should be encouraged and implemented especially in the areas that surround the biggest metropolises. A positive model could be the one promoted in Bologna, where unused agriculture fields of public property have been assigned to farmers through a public competition in order to offer a starting land capital for the CSA activity.
• **Investors and funders** (resource structure): the GASs movement until now has been mostly relying on the individual resources of *gasistas*, a situation that ensured their independence but that, at the same time, demonstrates its weakness in a period of crisis as it is now. However, public investors should go to the direction of sustaining and promoting the organisation of farmers and producers, which represent the weakest part of the relation. Projects like CSA or Agricultural chain should be supported by public or private funding (as for example, Fondazione Cariplo – a private foundation of one of the biggest Italian banks).
References


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Contact person-Project Manager: cressi@sbs.ox.ac.uk