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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.

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Policy Briefing on Deliverable 4.3 Contribution of social innovation to systemic change

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CRESSI Deliverable 4.4



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The responsibility for the analysis rests on the authors.

Contribution of social innovation to systemic change

1. Introduction

Systemic change will go along with tackling today's grand societal challenges such as massive urbanisation as part of globalisation, climate change, decarbonisation and digitalisation.

As there will be winners and losers in the transformation process, the main policy challenge addressed by CRESSI, which is **to enhance the lives of the most marginalized and disempowered people**¹ is closely related to it.

This policy brief responds to the increasing insight that systemic change will not be driven by technology only but that it also depends on social innovation, which consequently impact on capabilities and practices as well as on institutions, social networks and collective cognitive frames.

We provide policy makers with a heuristic to better understand **through which processes social innovation contributes to wider systemic changes**. This will allow identifying where in the process to intervene with social innovation policy and how to facilitate the policy design as well as the coordination and orchestration in the governance processes.

From Cressi's historic case studies in WP2 and WP5 we have learned that social housing not only brought people out of the slums, in which they had to live in during the early phases of industrialisation, but out of marginalisation. Given this learning, we will draw on the case of social housing in the early 20th century in Vienna as an example of systemic change.

2. Capability Heuristics

For the theoretical underpinning of the heuristic, we are referring to the capability approach developed by Sen (1987) as well as the Social Grid approach by Beckert (2010) and Mann's dimensions of power (1986), as extended by Heiskala (2014).

The capabilities heuristic can be summarised in the matrix below. It shows that there are different kinds of social and technological innovations and solutions, we can clearly differentiate at the three socio-structural levels on the one side and on the other side, Sen's conversion factors (personal, social and environmental²) (Sen, 1987).

¹ Marginalisation can take place with respect to social class background, ethnicity, place of residence, age, gender, sexual orientation, as well as mental and physical capabilities, both at the level of lives of individuals (citizens and non-citizens such as migrants) and of groups of people (e.g. minorities). Whereby, disempowerment can be experienced in many ways: lack of social status, lack of access to public services, lack of access to labour market, lack of access / or (intellectual) capability to information / media / social media, lack of access to education and training, lack of (factual) right or access to public deliberation and decision making, lack of public support etc.

² The environmental conversion factor includes technology and infrastructures.

More specifically, in the Cressi context, the conversion factors can be understood as:

- Capabilities of individual humans
- Social relations in which marginalized groups are embedded
- Access to infrastructure and technology

Those conversion factors are the triggering factors for improving the capabilities of the marginalised and for their empowerment.

As already outlined in D4.2, we distinguish three socio-structural levels, at which appropriate and effective solutions might be introduced:

- At the micro-level, solutions can aim at directly improving/changing human capabilities or social relations. Categorising social and technological innovations at micro-level helps to better analyse and identify those factors which provide the opportunity for social entrepreneurship and to take a co-evolutionary approach on social, infrastructure and technology aspects of the innovation process. Hence, it becomes easier to come up with more comprehensive and systemic social-innovation-policy recommendations.
- At the meso-level, solutions can aim at changing institutions, social networks and collective cognitive frames (i.e. the fabric of the social grid according to Beckert (2010))³. Although such innovations are ‘only’ indirectly impacting human capabilities and social relations at micro-level, social innovations impacting on the social grid (institutions, social networks and cognitive frames) can have long-lasting effects, once path dependencies and lock-ins have been overcome.
- At the macro-level, solutions can aim at framework conditions leading to changes or triggering innovations at micro and meso-level. These conditions can be of legislative nature including changes in constitutional right and laws which are reaching further than the social grid at meso-level. Policy measures at macro level will in most cases have even more durable effects than on meso-level as the decisions are harder to reverse and thus investing in social innovation on micro- and meso-level is less risky.

3. What we can learn from Social Housing in Vienna in the 1920s

Applying the capability heuristic we provide some examples to illustrate which kind of social and technological innovations in social housing and which legislative measures were taken in the case of Vienna⁴. Ex post this can be identified as based on an orchestrated and systematic policy design during the 1920ies with durable impact on the situation of previously marginalised groups.

³ The empirical evidence in the policy brief considers the economic, political and social systems involved in social housing as the field for systemic change. Thus the social grid referred to at meso-level is defined by specific field considered.

⁴ More information on historic cases of social housing from Austria as well as The Netherlands and Germany can be found in Deliverable 5.1 (Scheuerle et al. 2016).

Together those measures regarding social and technological innovation and changes in the framework conditions formed the space for co-evolution which led to systemic change from a broader societal perspective and to concretely enhance the lives of the most marginalized and disempowered people in Vienna.

Workers, coming from all regions of the Austrian empire, who were attracted by the economic boom at the turn of the 19th century, formed the most marginalised group. After WW I the working class in Vienna became part of society. In the sense of Mann and Cressi's concept of power workers were empowered in terms of artefactual power, political power, cultural power and economic power.

This transformation was strongly supported through the social housing policy in Vienna and formed the fundament for further improvements for the working class after WW II.

4. Capability Heuristics for Social Innovation Policy Making; examples from Social Housing Cases

In the following we briefly outline improvements and changes of the capabilities of the marginalised group of workers in Vienna using the capability heuristic. The field in which innovations took place in the Viennese case are thereby described for each of Sen's three conversion factors.

The capability heuristics **suggest for social innovation policy makers to consider all three conversion factors** when aiming at systemic change.

Improvement of capabilities of individual humans

measures at micro-level:

- Training courses were provided by Settlement cooperatives for unskilled workers and soldiers returning from war in order to reduce unemployment. In kind contributions to building houses "Muscle mortgage" were accepted instead of payment, which helped lower social classes to improve the living conditions.
- Job creation programs were implemented through communal housing in the construction of 'super-blocks' such as Karl-Marx-Hof, Goethe-Hof etc.
- The social housing projects improved the quality of life of the dwellers by providing less humid living conditions, better air, running water and toilets. This also substantially improved sanitary and health conditions for the working class.

measures at meso-level:

- A network of libraries was established in the super-blocks all around Vienna. Building libraries provided the institutional support for less educated and low-income groups to access information and literature openly.
- Establishment of kinder gardens as day-care institutions for working class in 1920ies in super-blocks allowed women to enter the job market. Even modern education-concepts like Montessori were already applied in some cases.

measures at macro-level:

- The cognitive frame provided by feminism led to the active and passive voting right for women in the First Austrian Republic (1918) and changed the composition of the sovereign.
- Constitutional rights and laws with an impact on individual capabilities for inclusion were introduced. Particularly the voting right for women led to more emphasis on social issues in legislation at large.

Improvement of social relations in which marginalized groups are embedded

measures at micro-level:

- Through large scale Communal Housing (e.g. super-blocks like Karl-Marx Hof in Vienna⁵ - which providing affordable housing with significantly improved sanitary standards, more light and space - the status of dwellers improved significantly as people get out of the slums. Identity building and solidarity of the working class also took place through living close to each other.
- Voluntary personal engagement in housing cooperatives is experienced in order to provide and manage all kind of services including kindergardens and libraries. This also creates new identity of the formerly marginalized group.

measures at meso-level:

- As architects became aware of the needs of working class without coming out of this class, they form new alliances with the working class.
- Building cooperatives as effective form of institutional cooperation allows for easier access to resources and risk sharing. Some 50 cooperatives emerge out of the settler's movement representing more than 80 local groups.
- New social networks in the form of workers associations (Arbeitervereine) profited from the local proximity in the super-blocks. This helped in coordinating political activities and improves political influence.
- For identity building within the working class the cognitive frame of architectural elements of aristocratic and bourgeois' life-styles and design-concepts were cited and used in order to give the feeling to live within a palace (e.g. large court-like patios, flats are built with small entrance halls).

measures at macro-level:

- Legal reforms of building cooperative law helped working class improve the inclusion, social acceptance. It primarily helps to get organised for housing projects, as well as to improvement of their bankability.
- The autonomy status for City of Vienna (1921), allowed the city government to set its own legislation in social policy.

⁵ or Het Schip (The Ship) in Amsterdam

Improvements in the access to Infrastructure and Technology

measures at micro-level:

- Social housing projects in Vienna were possible through new technologies such as clay bricks or slag masonry which made social housing construction more affordable.
- Adolf Loos, a famous architect of the time, developed the 'house with one wall' to build row houses in a system with only one load-bearing wall. This helped on the one side to make construction cheaper, but also simplified the work to build houses in large parts even by unskilled workers.
- One of the few famous Viennese female architects, Margarete Schütte-Lihotzky developed a new type of kitchen based on principles of rationalised workflows. Called the Frankfurter Küche (Frankfurt Kitchen), which displayed new interior design principles, aimed at improving work condition in household work.

measures at meso-level:

- In the 1920ies standards and norms are adapted to the situation of social housing. In order to reduce cost and allow for mass production room heights, width of staircases, material from bricks were redefined to fit to the new technologies, materials and capabilities of the working class and the housing cooperatives.
- In order to change the way houses and cities are built and building on new social networks, architects established specific journal for urban planning dedicated to social housing.
- In order to substantially change the cognitive frames within architecture, schools of architecture were established, e.g. by Otto Wagner, whose students later became key players in the social housing movement.

measures at macro-level:

- The autonomy status for City of Vienna (1921) allowed the city to set its own legislation in zoning (Bebauungsplan), which allowed the administration to systematically plan new construction areas and provide urban infrastructure with better anticipation for social housing.
- The autonomy allows for more flexibility in public spending by redistributing financial means through taxation on buildings ('Luxussteuer').
- The City of Vienna becomes owner of many dwellings and provided it to the marginalised groups.

Figure 1: Examples for social innovations / solutions at micro-meso and macro-levels from the systemic change in Social Housing in Vienna in the 1920ies

	Conversion factors (Sen 1984)		
Socio-structural level	Individual Human Capabilities	Social Relations	Infrastructure, Technological Environment
Micro-level: directly improving/changing capabilities	<p>Living conditions improve health of working class</p> <p>Unskilled workers are trained by settlement cooperatives to learn crafts</p> <p>New jobs created though building the super-blocks</p>	<p>Social status of workers rises significantly through getting people out of the slums</p> <p>Identity building of the working class through shared space in super-blocks</p>	<p>Construction more affordable though</p> <p>+ new technologies such clay bricks or slag masonry which made social housing</p> <p>+ new architecture and construction principles (e.g. Adolf Loos' 'house with one wall')</p> <p>New interior design principles trying to improve work condition in household work, (e.g. Frankfurter Küche)</p>
Meso-level: indirectly improving/changing capabilities by changing the fabric of the social grid (institution building, new social networks, new cognitive frames)	<p>Providing day care (kindergartens) in super-blocks allowing women to enter job market (institution building)</p> <p>Providing institutional resources to access information allowing for continuous education (institution building) e.g. A network of libraries was established in the super-blocks all around Vienna</p>	<p>Taking advantage of building cooperatives as institutions allows for easier access to resources (institution building)</p> <p>Formation of workers associations (Arbeitervereine) in super-blocks improves political influence (new social networks)</p> <p>Architects and working class form a new alliance improving living conditions (new social networks)</p> <p>For identity building aristocratic and bourgeois concepts / life style element were cited and used (new cognitive frames)</p>	<p>Construction standards and norms were applied in order to reduce cost and allow for mass production (1920ies) (institution building)</p> <p>Architects published in specific journal for urban planning to discuss the new era of social housing (new social networks and new cognitive frames)</p> <p>Establishment of architectural schools (e.g. Otto Wagner) (new cognitive frames)</p>
Macro-level: changes in framework-conditions indirectly leading to changes or triggering changes at Micro-level or Meso-level	<p>Constitutional rights and laws with an impact on individual capabilities for inclusion</p> <p>The cognitive frame provided by feminism lead to the active and passive voting right for women in the First Austrian Republic (1918) changed the</p>	<p>Changes in constitutional rights and laws improves the inclusion, social acceptance and access to social networks. e.g. legal reforms of building cooperative law helped working class</p> <p>+ to get organised for housing projects, as well as to improvement of their bankability.</p> <p>Autonomy status for City of Vienna (1921), allows the city government to set its own legislation on social policy</p>	<p>Autonomy status for City of Vienna (1921) allows the city</p> <p>+ to set its own legislation in zoning-plan (Bebauungsplan)</p> <p>+ to plan urban infrastructures for the purpose of social housing</p> <p>+ to redistribute financial means through taxation on buildings for City of Vienna (1921)</p> <p>+to become owner of many dwellings and provided it to the marginalised groups</p>

5. Policy implications and recommendations

The **capability heuristic** presented in this Policy Brief provides an analytical framework that makes it easier to communicate and orchestrate between actors willing to contribute to social change in favour of marginalised individuals and groups.

Looking back over more than one century, the systemic change which took place in cities like Vienna or Amsterdam with respect to social housing led to empowering the marginalised group of working poor in early phases of the industrial revolution. What has been achieved particularly in the 1920ies is impressive and changed the identity of individual people, the working class as a social group and the identity of the cities which are still shaped by the built-environment established in that time period.

Learning from this historic case, we can draw the conclusion that **systemic social change requires changes at multiple levels** (micro-, meso- and macro-level) and types of social and technological innovations as well as changes in the framework conditions enabling for these innovations.

At micro-level social change can be achieved by innovations directly addressing and **influencing the capabilities of marginalised individuals and social groups** and provide them with appropriate technologies and infrastructures to make the change happen. Direct policy interventions would be to make resources available for social innovation providing better or cheaper access to technologies (e.g. frugal innovation) and to build infrastructures matching the needs of the marginalised (e.g. by applying the principles of user innovation).

At meso-level social change can be achieved by **innovations in the social grid** in which marginalised individuals and social groups are acting through changes in social networks, collective cognitive frames and the institutions. Policy measures could focus at supporting marginalised groups in establishing working social networks and new alliances. Furthermore participatory forward looking processes could help in changing collective cognitive frames of the group of marginalised. This can help them in coordinated action and to build or transform institutions in order to better support their capabilities.

At macro-level the systemic change can be fostered by providing the **framework conditions for innovation and empowerment** at micro and meso-level. However, as this goes beyond the competences of social policy makers, a broader consensus within society and between political parties will be needed to change those framework conditions and rules of the game. Social policy makers might have to prepare themselves for windows of opportunity to shaping the broader framework conditions in alliance with actors in other policy fields.

For social innovation policy making it is important to highlight **technological aspects and access to infrastructures as being important conversion factors**. Both technologies and infrastructures are built for and made available to the mainstream. As a consequence, they are often not accessible to marginalised groups. Social innovation policy should target those conversion factors, as those aspects are often shaped by technological innovation policy.

Impact assessment of social innovation policy: Once social innovation policy strategies are developed and measures are planned, policy makers are faced with the question of democratic legitimization of the measures they want to implement. Therefore an important question is: How can the impacts of social innovation policy on the marginalised and on tackling the societal challenges be assessed ex post and ex-ante?

One indication of the social change – and thus potential indicator for assessment – is the rising power of the marginalised individuals and groups. This could be assessed with respect to nearly all of the forms of social power (i.e. cultural/ideological, economic, political, artefactual, security related and natural) as we have defined them in CRESSI (Mann 1986 and Heiskala 2014). However further research is needed to establish such an impact assessment framework including indicators and intervention logic.

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