SI-DRIVE
Social Innovation: Driving Force of Social Change

Final Report
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Content

Executive Summary

SI-DRIVE is a global research project on Social Innovation (SI) involving 25 partners from all world continents. 14 partners from 11 EU Member States and 11 partners from other parts of the world joined the consortium in order to conduct research on a topic which has evoked high expectations with regard to solving the complex societal challenges of today. The complexity and diversity of Social Innovation as the object of research required an iterative and cyclic approach.

In four years, SI-DRIVE has extended knowledge about Social Innovation in three major directions:

1) **Integrating theories and research methodologies to advance understanding of Social Innovation leading to a comprehensive new paradigm of innovation:**
   - SI-DRIVE made an important contribution by developing and testing a comprehensive and analytical definition which describes Social Innovation as a new combination or figuration of social practices. This definition of Social Innovation allows integrating the many different (and sometimes conflicting) meanings of Social Innovation and offers a new perspective on the diversity of the concept.
2) **Undertaking a European and global mapping of Social Innovation**
   - Two extensive mapping exercises were conducted. Mapping 1, with 1005 cases of social innovation initiatives analyzed, produced state of the art reports, regional strategies, and resulted in a SI database. Mapping 2 delivered 82 in-depth case studies deepening the understanding of mapping 1 and further addressing mechanisms of social change, actors and networks, process dynamics, and a typology of Social Innovation. Thereby, SI-DRIVE for the first time provided an evidence based overview of various types of Social Innovation in different world regions and central policy areas (education and lifelong learning, employment, environment and climate change, energy supply, transport and mobility, health and social care, and poverty reduction and sustainable development).
3) **Ensuring relevance for policy makers and practitioners**
   - Empirical results have shown that social innovations are first and foremost ensemble performances, requiring interaction between many actors. These findings indicate that cross-sectoral collaborations (in a social innovation ecosystem) are of great importance, whereby, as might be assumed, a general dominance of the civil society cannot be detected.
   - Even though good progress has been made in recent years, important steps remain to be taken in order for Social Innovation to move from the margins of policy to the mainstream. SI-DRIVE has provided policy makers with theoretical and empirical results as well as possible future pathways to take. Key actions by which the policy relevance of SI-DRIVE was ensured include policy roundtables in all seven policy fields and across. Furthermore, SI-DRIVE has issued a policy declaration “Social Innovation on the Rise - Challenges for a Future Innovation Policy”.
   - In a nutshell, policy relevant results show that social innovations require specific conditions because they aim at activating, fostering, and utilising the innovation potential of the whole society. Therefore, a social innovation friendly environment still has to be developed in Europe and on a global scale, not only referring to appropriate funding but also to new participation, collaboration and governance structures, co-creation and user involvement, empowerment and human resources development.

In its final conference, SI-DRIVE has shared and discussed research results with an audience of more than 250 practitioners, policy makers and researchers.
As its final result, SI-DRIVE has edited the “Atlas of Social Innovation – New Practices for a Better Future”, both in print and online (see www.socialinnovationatlas.net). The Atlas gathers leading experts to deliver new intelligence on the diversity of Social Innovation and complements these insights with the main results of SI-DRIVE. The articles reflect the diversity, broadness and usability of Social Innovation in different parts of the world.

Context and Main Objectives

SI-DRIVE extends knowledge about Social Innovation (SI) in three major directions:

- Integrating theories and research methodologies to advance the understanding of Social Innovation leading to a comprehensive new paradigm of innovation;
- Undertaking a European and global mapping of Social Innovation, thereby addressing different social, economic, cultural, and historical contexts in twelve major world regions;
- And ensuring relevance for policy makers and practitioners through in-depth analyses and case studies in seven policy fields (Education and Lifelong Learning, Employment, Environment, Energy, Mobility and Transport, Health and Social Care, Poverty Reduction and Sustainable Development), with cross European and world region comparisons, foresight and policy round tables.

SI-DRIVE is a global project involving 25 partners from all world continents: 14 partners from 11 EU Member States and 11 partners from other parts of the world. The complexity of the topic requires an iterative and cyclic approach characterized by three main pillars and principles:

- First, cyclical iteration between theory development, methodological improvements, and policy recommendations;
- Second, two mapping exercises at European and global level. An initial mapping provides fundamental insights on 1,005 social innovation initiatives from a wide variety of thematic, sectoral, and cultural backgrounds worldwide, leading to a typology of Social Innovation. On this basis, 82 cases are selected for in-depth analysis in the seven policy fields;
- And third, these case studies are further analysed, results discussed in stakeholder dialogues (policy and foresight workshops) in seven policy field platforms and for an analysis of cross-cutting dimensions (e.g. gender, diversity, ICT), carefully taking into account cross-sector relevance (private, public, civil sectors), and future impact.

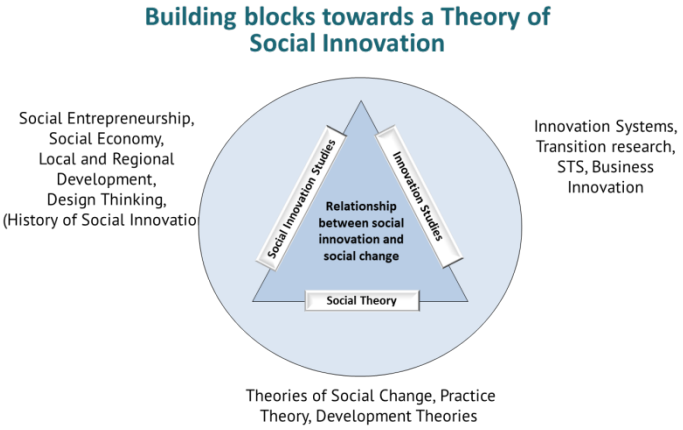
The outcomes of SI-DRIVE cover a broad range of research dimensions, impacting particularly in terms of changing society, improving the empowerment of different stakeholder groups, and contributing to the objectives of the Europe 2020 Strategy.

In a nutshell, scientific research, interactive communication with relevant networks of stakeholders and communities, the analysis of pertinent policy areas and concluding recommendations for policies and practice were guided by the following four objectives and outcomes:

- The determination of the nature, characteristics and impacts of Social Innovation as key elements of a new innovation paradigm (strengthening the theoretical and empirical base of Social Innovation as part of a wider concept of innovation that thoroughly integrates social dimensions);
- The mapping, analysis and promotion of social innovations in Europe and world regions to better understand and enable social innovations and their capacity for promoting social change;
- The identification and assessment of success factors of Social Innovation in seven policy areas, supporting reciprocal empowerment in various countries and social groups to engage in Social Innovation for development, working towards Europe 2020 targets and sustainable development (e.g. Sustainable Development Goals);
- And undertaking future-oriented policy-driven research, analysing barriers and drivers for Social Innovation; developing approaches for policy interventions (policy recommendations).

Theoretical Framework

Social Innovation is a ubiquitous phenomenon, characterized by a high variety, diversity and plurality of concepts and understanding. Therefore, the SI-DRIVE approach is going beyond a narrowed perspective on only one manifestation. The previous strong focus on social entrepreneurship excluded other key aspects and the potential of a comprehensive concept of Social Innovation and its relationship to social change (Howaldt, Kaletka, and Schröder 2017, p. 108).[1] SI-DRIVE elaborated (building blocks of) a theory of Social Innovation by integrating existing theories and research methodologies to advance understanding of Social Innovation - leading to a comprehensive new paradigm of innovation.



The starting point of the development of the theoretical framework was a review of existing theories relevant for Social Innovation (Howaldt et al. 2014): Social Theory, Innovation Studies and Social Innovation Studies form the three building blocks (including the main approaches of each block) for developing a Social Innovation Theory and the relationship of Social Innovation to social change. Based on this critical literature review of existing theories, Howaldt et al. (2016) developed a theoretical framework for the empirical mapping of social innovations based on mainly five pillars relevant for the methodological design and the structure and content of tools (mapping interview, case study template):

(1) Eight research propositions
(2) A comprehensive definition of Social Innovation
(3) Five key dimensions
(4) Differentiation between the macro (policy fields), the meso (practice fields) and the micro level (initiatives)
(5) Mechanisms of social change.

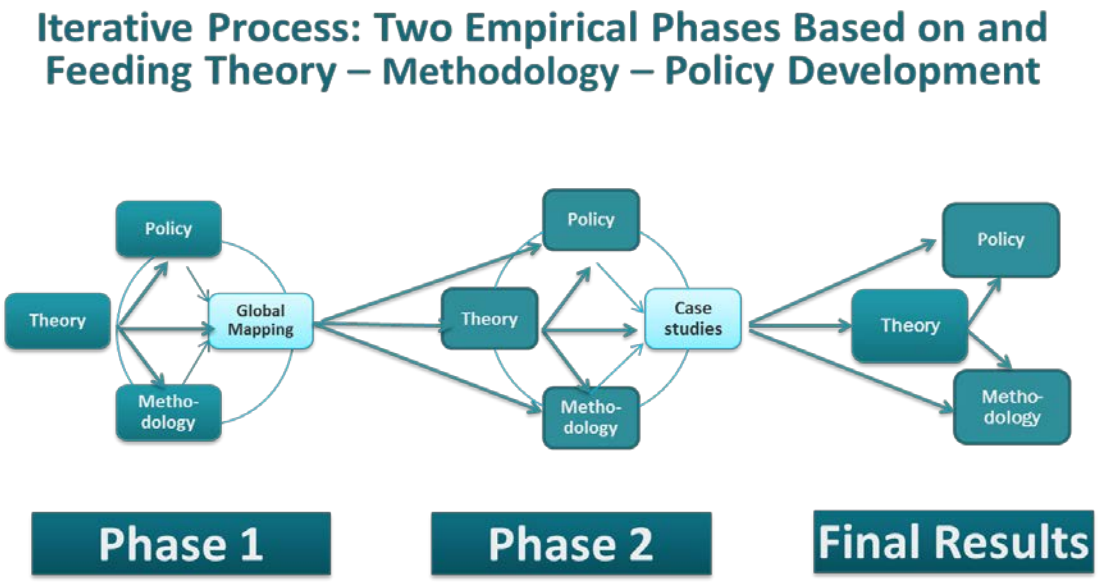
Methodological Design

The methodology and work plan was oriented at the three main directions of SI-DRIVE:

(1) The elaboration of a theoretical framework of Social Innovation in relevance to challenges of social change
(2) The empirical analysis of existing social innovation initiatives and projects to describe a typology, a framework to identify, classify, set-up and scale-up social innovations to become a driving force of social change
(3) The theoretically and empirically based articulation of future oriented policy recommendations, reflecting also the potential, drivers and constraints of Social Innovation in times of economic and financial crisis, to scale-up social innovations and to foster and support methods and means to overcome and achieve social change. In order to achieve a high level of practical relevance, the policy recommendations were developed in a participative manner.

[1] "What is needed is a differentiated perspective of the role of social entrepreneurs within the different phases of the social innovation process and the cross-sector collaboration with actors from the different societal sectors (private, public, universities, and civil society)." (Howaldt, Kaletka, and Schröder, 2017: 95).

Against the background of the described research subject, its objectives and the related main methodological challenges, SI-DRIVE conducted an *explorative* inventory of a growing and varying area, reflecting the diversity, broadness and usability of Social Innovation; proving the variety of actors and their interaction and exploring the systemic character and concept of Social Innovation. The SI-DRIVE methodology was constructed as an iterative and cyclic research process characterised by two empirical phases based on and feeding the three central research pillars of SI-DRIVE: theory, methodology and policy. The tools and instruments were elaborated and structured mainly by the illustrated five elements of the theoretical framework, improving the social innovation theory development by empirical evidence in two stages.



Based on the theoretical and methodological results of the first project phase (theory and methodology framework development), the two main empirical phases were defined:

(1) **Mapping 1 (global or baseline mapping of Social Innovation):** State of the art reports, report of regional strategies, selection of 1,000 and more cases for a Social Innovation database

Step in between: Selection of the most important practice fields and related cases for the in-depth case studies. Therefore, relevant additional information about the cases has been gathered by the policy field leaders in cooperation with the related partners.

(2) **Mapping 2 (case studies):** In-depth case studies focusing on a deepening of the quantitative results of mapping 1 (mechanisms of social change, actors and networks, process dynamics, typology of Social Innovation), based on a selection of at least 82 cases.

Therefore, the empirical phase with its different quantitative and qualitative research methods is embedded in the SI-DRIVE *cyclical approach* in the form of a double *iteration loop* continuously improving theory, methodology and policy after two empirical stages. Starting with a first theoretical and methodological as well with a first policy and foresight framework, this was laying the ground for the contents and methods of the first empirical phase, improving theory, methodology and policy and setting the ground for the second phase (the in-depth case studies) - feeding into the final results for the policy fields, the theory and methodology reports, and the EU policy briefs, recommendations and declaration.

References

Howaldt, J. / Butzin, A. / Domanski, D. / Kaletka, C. (Eds.) (2014): Theoretical approaches to social innovation: A critical literature review (D1.1 internal report). Internet: http://www.si-drive.eu/wp-content/uploads/2014/11/D1_1-Critical-Literature-Review_final.pdf [last accessed 29.03.2016].

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Main Results

SI-DRIVE provides for the first time an evidence based overview of various types of Social Innovation in different world regions and central policy areas (education and lifelong learning, employment, environment and climate change, energy supply, transport and mobility, health and social care, and poverty reduction and sustainable development). The results reflect the diversity, broadness and usability of social innovations, proving the variety of actors and their interaction as well as exploring the systemic character and concept of Social Innovation.

The following chapter will briefly describe the main results of the SI-DRIVE project. To begin with, the report provides a brief summary of the project's distinct methodology. Following the methodological approach employed and its impacts, the report lays out the project's contributions to theory development with a focus on the conceptual understanding of Social Innovation guiding the project's analysis of the relationship between Social Innovation and social change. Based on this understanding, the insights of the global mapping of 1,005 cases will be presented. Then, the report summarizes the main results within each of the seven policy fields under investigation. The project's main results ultimately inform a range of policy recommendations bundled in SI-DRIVE's policy declaration.

SI-DRIVE's Main Findings regarding Methodology

Developing a theory for such a ubiquitous and varying phenomenon like Social Innovation with different understandings and appearances needs a suitable methodological approach. The project SI-DRIVE is illustrating how methodological challenges of such a complex theory development can be solved in an adequate way:

1. The operationalisation of theoretical hypotheses or frameworks into an empirical sound measurement, *interrelation of theory and empiricism*
   - Solution: cyclical approach, iteration loops leading to a common understanding

2. The *limited outrange* of using only quantitative or qualitative methods
   - Solution: combining quantitative and qualitative methods

3. *Different understandings* of the subject of investigation (Social Innovation as a ubiquitous concept)
   - Solution: an overarching but clear definition of Social Innovation, giving leeway to different policy and geographical/cultural contexts

4. The unknown main unit or basic population
   - Solution: explorative reflection of the broad understanding of Social Innovation, selection of social innovation cases by the involved experts from various regions and contexts

The solution for all these four challenges are interrelated and are complementing each other, oriented at exploring the broad understanding and the concept of Social Innovation (Howaldt/Schwarz 2010) within its implementation in the empirical research of SI-DRIVE.

Advantages of the described methodology are the iterative improvement and verification loops of theory development based on an empirical foundation and clarification. The theoretical building blocks (comprehensive definition, practice fields construct, key dimensions and mechanisms of social change) set a sound ground for the empirical examination and validation. The combination of quantitative results with qualitative enhancements (from different sources such as state-of-the art reviews and in-depth case studies) avoids the disadvantages of each single method and improves the reliability and validity of the results to a high degree.

Limitations are due to the research subject itself: the unknown main unit and basic population. In this respect it has to be acknowledged that within SI-DRIVE a case was defined as a relevant social

innovation (project or initiative and related social practice field) by the experts of the involved global regions (project partners, advisory board members) based on the theory based guidelines and instructions provided. Despite the fact that a case had to correspond to SI-DRIVE's definition, the mapping may be biased due to the experts' understanding of Social Innovation, their knowledge and the dependence of publicly available information on social innovation cases. However, the given framework (critical literature review, questionnaire and case study template) and the obtained qualitative research activities (state-of-the art reviews, policy field and regional reviews) together with the methodological instruction led to a *common* comprehensive understanding and a *common* view on the ubiquitous and diverse world of Social Innovation.

Another limitation could be found in the explorative character of the methodology, not leading to *statistical* representativity. In literature on statistical methodology, sound knowledge on statistical dimensions of the basic population and its borders is considered a key quality criterion for empirical social research (e.g. Tachtsoglou and König 2007), especially when it comes to representative random samples. Although due to the theoretical framework and its cyclical and iterative approach SI-DRIVE is going further than previous Social Innovation research and although SI-DRIVE collected for the first time a wide-ranging quantitative basis of social innovation cases all over the world the main unit or basic population is still not commonly defined nor registered. The basic population in its outreach may remain statistically unknown because of the constant changes of the initiatives (not persons are the main unit but initiatives / projects) and the rapid appearance of new solutions. As the character of the new is a distinctive feature of any (social) innovation, their appearance is often not fully foreseeable. Their mapping is hence always limited to a snapshot of the current population in a highly dynamic field. It would be helpful to set up a (European, national, regional) database, which should be continuously improved, not only for research but also for exchanging good practices, ideas etc.

However, with SI-DRIVE's mapping of more than 1,000 initiatives first explorative empirical findings on characteristics of Social Innovation around the world were possible, not making any claim to statistical representativeness. Hence, further research could use the explorative quantitative findings of SI-DRIVE in order to enrich knowledge on the population of Social Innovations around the world, providing a foundation for more representativeness.

The results of SI-DRIVE are seen as setting the ground for an ongoing research and methodology development: starting with a first scope and fulfilling it more and more in the direction of representativeness and completeness. The *Atlas of Innovation* is therefore a good example: not able to present a complete picture of Social Innovation around the world SI-DRIVE compiled an Atlas of Social Innovation starting with punctual spotlights (from a regional and policy field background) added step by step with the perspectives of further experts. The Atlas of Social Innovation is organized around the different foci of SI-DRIVE's theoretical and empirical research: providing an overview of various types of Social Innovation in different world regions and policy fields and providing new intelligence on the diversity of social innovation approaches in different parts of the world used by practitioners, researchers and policy makers; again, reflecting the diversity, broadness and usability of Social Innovation, demonstrating the variety of actors and their interaction and exploring the systemic character and concept of Social Innovation. After a first version, it is planned to further update and supplement the Atlas of Social Innovation in a series of issues (digital and printed) open to contributions from international experts coming from all sectors of society. The whole concept of the Atlas is oriented towards readers from all sectors, creating further awareness for and sharing knowledge on Social Innovation.

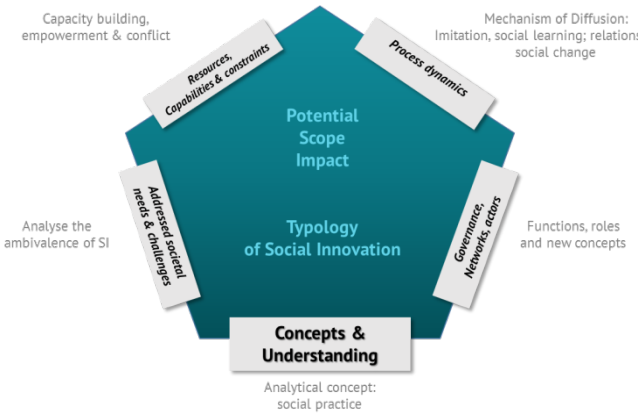
The on-going development of methods for research on Social Innovation is supported by efforts of building a typology in SI-DRIVE's final theory report. Building blocks provided by SI-DRIVE helped elaborating sound typologies, which could then be used to systematically order the diverse field of Social Innovation. Such an approach would help upcoming projects to develop a refined and more explicit perspective on initiatives. While a typology is not a method on its own, it can support the

selection of methodological tools and their usage. The importance of having sound theoretical concepts was proven in the life cycle of SI-DRIVE. Adding such theoretical frameworks with solid typologies is expected to have even more advantages.

SI-DRIVE's Contribution to Theory Development

With the aim to develop a theoretically sophisticated concept of Social Innovation, the SI DRIVE project focused on *social practices* as the central object of analysis. Taking its cue from Schumpeter's basic definition of innovation, Social Innovation is seen as *new (combination of) social practices* in certain areas of action or social contexts. What distinguishes social innovations from other manifestations of social change is that they are driven by certain actors in an intentional targeted manner with the goal of better satisfying or answering needs and problems than is possible on the basis of established practices. An innovation is therefore social to the extent that it is socially accepted and diffused in society or certain societal sub-areas and ultimately becomes institutionalized as new social practice. Just like any innovation Social Innovation does not necessarily provide impact that is 'good' for all or 'socially desirable' in an extensive and normative sense (Howaldt/ Schwarz 2010).

Based on this definition it was possible to develop *five key dimensions* which fundamentally affect the potential of social innovations, their scope, and their impact. Starting from social practices as the central object of analysis, a pentagon of five key dimensions was elaborated: (1) concepts and understanding, (2) addressed societal needs and challenges, (3) resources, capabilities and constraints, (4) governance, networks and actors, (5) process dynamics. These dimensions helped to understand the complexity and ambivalence of innovation and to take a strict scientific approach of looking at and analysing social innovations throughout their life cycles, from ideation and intentions to actual implementation and impact. *Impact* may be discerned quite inconsistently (ranging from 'good' to 'bad') by different social groups, strata, or generations (Hochgerner 2013). The pentagon structure was the basis to apply the Social Innovation concept in theoretical and empirical research to all sectors of society (public, private business, and civil society) and policy fields as well as to European and other world regions.



The advantage of this kind of approach to elaborate a general theory is that it displays the main elements of our theoretical and empirical work. In addition it gives leeway to integrate other main elements to describe social innovations: eco-system, diffusion and imitation, combining different policy fields, policy (top-down) and grassroots (bottom-up) driven initiatives, system related / integrated, system complimentary or subsidiary initiatives, taking advantage of technological developments, etc.

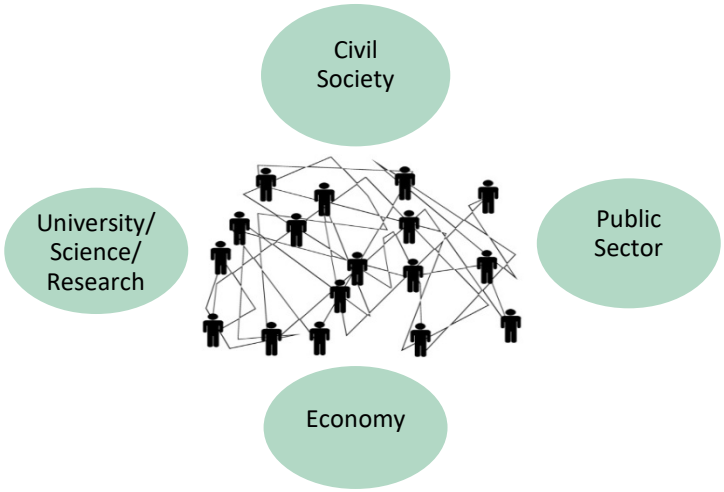
A shared umbrella definition

Searching for "practices" allows covering a broad spectrum of social innovations in different policy fields, including even initiatives which are not explicitly called social innovations. At the same time, the concept helps to understand how social innovations procure new practices (e.g., policy instruments, new forms of cooperation and organization). Particular methods, processes and regulations are developed and/or adopted by citizens, users, beneficiaries, customers, entrepreneurs, politicians etc. in order to meet social demands and to resolve societal challenges better than by existing practices. From this perspective, the research focused on analyzing the

process of invention, implementation (introduction to a context of use), diffusion and institutionalization of new social practices in different areas of social action.

Social Innovation – a joint venture

Social innovations in a sense of new practices are *omnipresent* and appear in a variety of forms *changing the manner in which we live together*. Thereby, a constructive partnership between societal sectors is a very important factor in order to reap the full potential of Social Innovation. Social innovations are first and foremost *ensemble performances, requiring interaction between many actors*. Considering the complexity of innovation processes, we need to focus on the cross-sector dynamics of Social Innovation and the diversity of actors and their roles and functions in the innovation process.



Conclusion

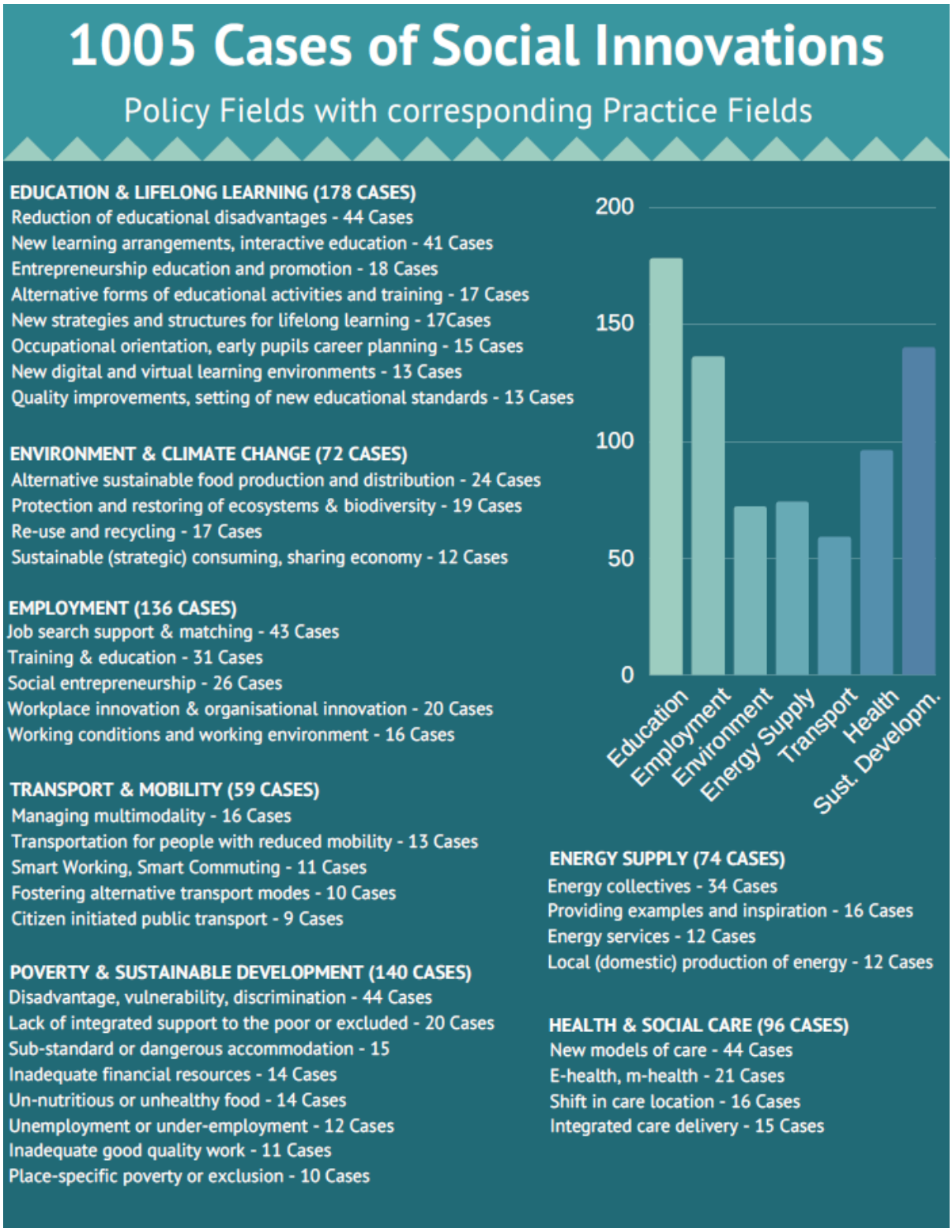
The great challenge for contemporary innovation research lies in analysing its potential in the search for new social practices enhancing a secure future evolution and allow people to live "a richer and more fulfilled human life" (Rorty 2007, p. 108). SI-DRIVE made an important contribution by developing and testing a comprehensive and analytical definition, which describes Social Innovation as a new combination or figuration of social practices.

This definition of Social Innovation allows integrating the many different (and sometimes conflicting) meanings of Social Innovation and offers a new perspective on the diversity of the concept of Social Innovation. Empirical research results of SI-DRIVE demonstrate that this approach integrates the manifold meanings of Social Innovation under a shared umbrella. Moreover, it leads to a common notion and guidance for scientific research, funding policies and practical utilisation in practice on society's micro-, meso- and macro levels.

The Relationship between Social Innovation and Social Change

The societal and governance systems in which the social innovations are embedded are complex and the problems addressed are *deeply rooted in established practices and institutions*. Against this background, SI DRIVE developed the concept of the *practice field* defined as a general classification of different initiatives within one thematic area at meso level for analysing the complex interactions of different innovation activities. While an initiative is a single and concrete implementation of a solution to respond to social demands, societal challenges or systemic change (e.g. Muhammed Yunus's Grameen Bank which lends micro-credits to poor farmers for improving their economic condition), a practice field describes general characteristics common to different projects (e.g. micro-credit systems).

The practice field approach allows analysing the processes of diffusion beyond the micro-level of single small scale social innovation initiatives and a data collection at a more societal level, where wider user groups and a certain societal impact has been reached and where moments of societal change are observable. At the same time, the approach allows us to study the interplay between micro or small scale developments and their merger at the macro-level.



Main Practice Fields of Social Innovation (Policy Fields) (consisting of 10 or more cases)

Social Innovation and social change – a complex relationship

Against this background, the global mapping of the SI DRIVE project revealed the capacities of social innovations to modify or even re-direct social change and to empower people - i.e. to address a wide variety of stakeholder groups, as well as the broader public, in order to improve social cohesion and to allow for smart, sustainable and inclusive growth. The mapping shed light on the great many, often nameless but still important, social innovations responding to specific and every-day social demands or incremental innovations.

However, these initiatives and projects are diverse and complex in their aims and effects. Like any innovation, social innovations too, regardless of their protagonists' intentions, are in principle ambivalent in their effects, and new social practices are not per se automatically the "right" response to the major social challenges and the normative points of reference and goals associated with social transformation processes. With their orientation to the solution of social and ecological problems that cannot be sufficiently dealt with via traditional forms of economic and government activity, many social innovations to a certain extent carry out repair functions without fundamentally changing the prevailing practices and associated institutional structure. Moreover, many projects and initiatives do not develop the hoped-for impact on society and instead often remain limited to the local, experimental level. Other initiatives adopt a wider perspective, and orientate their actions towards the major social challenges and the establishment of related new forms of cooperation between different actors and across sectors, combined with a redefinition of the relationship between social and economic value. They generally aim to modernise existing structures. Only a few initiatives have an explicitly transformative aim in the sense that they want to contribute to a fundamental change in practice formations and the institutional structure of society. Given this, and the fact that the long-term impacts on existing practices and institutions have hardly been examined so far, the question of the relationship between social innovations and transformative change has now also become a key question for social innovation research (Howaldt/Schwarz 2016), already being the basis for other research projects (esp. TRANSIT, see e.g. Haxeltine et al. 2016).

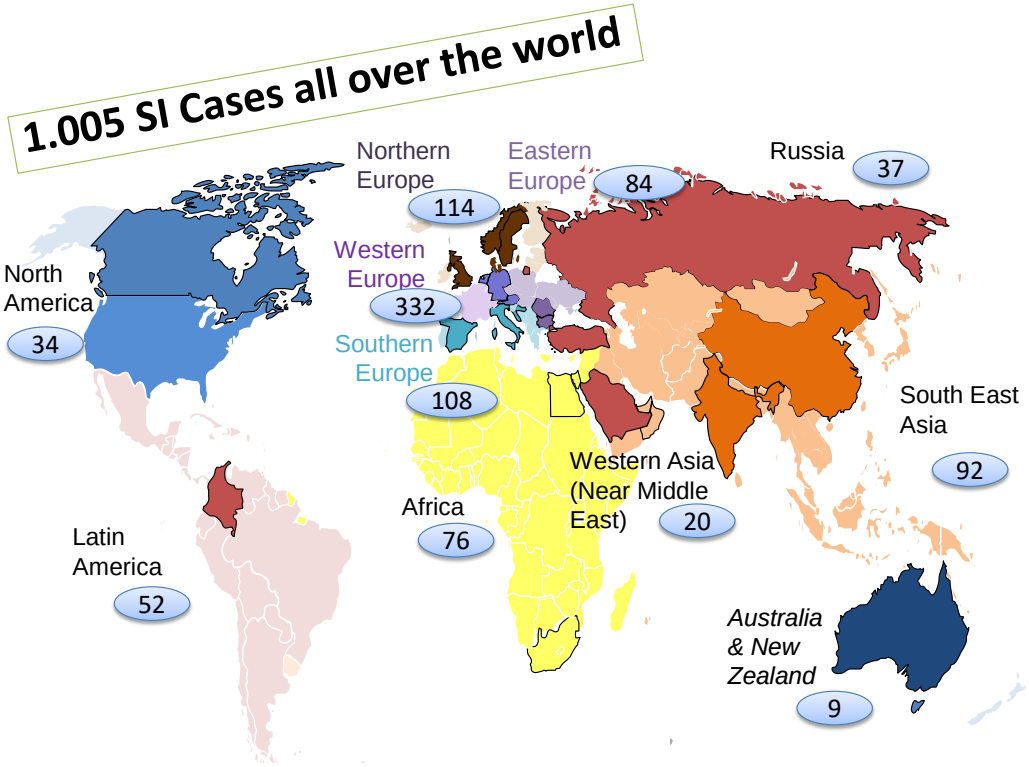
Governance of social change processes

Such an understanding of the role of Social Innovation in processes of social change has implications for the governance of social change processes. A policy informed by practice theory therefore focuses on social practices and social innovations instead of technologies and the external influencing of attitudes, behaviours and decisions. It starts with the disruptive contradictions between established ways of life and forms of practice, and between social problems and existing problem-solving deficiencies and relies on enhancing society's ability to reflect in observing and actively shaping transformation processes. Social practices - and hence social innovations too - are always the result of complex emergent processes, over which no single actor has control. Politics does not intervene in this process from outside, but is instead part of the social arrangements that configure the social practices. It focuses on empowering actors to suspend established routines and patterns and appropriate learning governance formats. Instead of a linear, sequential view of the relationship between invention, innovation and diffusion, transformative change is seen as the social, collaborative reconfiguration of social practices, which is fed from the interplay between multiple invention and imitation (see Tarde 2009).

The shift in perspective onto Social Innovation directs the focus onto the experimental shaping of social learning processes, onto mechanisms of imitation and hence onto non-linear, non-sequential forms of spreading, institutionalisation and routinisation. The question of how social transformation processes can be set in motion steers attention towards "real utopias", understood as "institutions, relationships and practices which can be developed in the world as it currently is, but which anticipate the world as it could be and help move us in this direction" (Wright 2017, p.11) .

Main Results of the Global Mapping

We find a vast and growing number of social innovation initiatives all over the world, reflected by the global mapping (Howaldt et al. 2016) of more than 1,000 cases in the different world regions of SI-DRIVE. The global mapping uncovers countless approaches and successful initiatives that illustrate the strengths and potentials of social innovations in the manifold areas of social integration through education and poverty reduction, in establishing sustainable patterns of consumption, or in coping with demographic change. At the same time, social innovations are gaining in importance not only in relation to social integration and equal opportunities, but also in respect to the innovative ability and future sustainability of society as a whole.



1.005 social innovation initiatives worldwide – SI-DRIVE partner countries are highlighted;
47 initiatives did not provide an answer to the question of geographical location

Social Innovations determined by the region

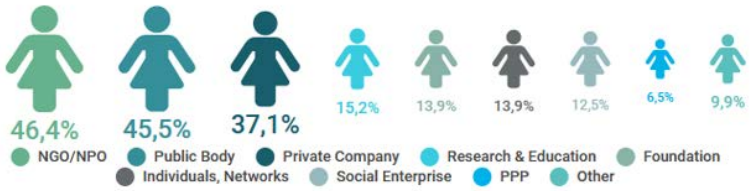
A comprehensive understanding of Social Innovation emphasizes the different societal sectors and the surrounding ecosystem for social innovation initiatives on the scene. The ecosystem of Social Innovation "is in very different stages of development across Europe, however. In all countries, though, the ecosystem is under development and there are a number of important factors enabling the development of social innovation, including important support and impetus from the EU" (Boelmann/Heales 2015, p.7).

At the same time, the mapping revealed an underdeveloped status of conceptualisation and institutionalisation. There is no shared understanding of Social Innovation (including a clear differentiation from other concepts such as social entrepreneurship or technology innovation) and no uptake/integration in a comprehensive (social) innovation policy. Although the European Commission launched "new era of social innovation" (Lisbon Conference 2018), policy field related documents of public authorities such as the European Commission, the United Nations, the OECD, the World Bank, etc. often even do not refer to social innovations (exceptions are Horizon 2020 documents as well as publications of some DGs). Only in a few countries as e.g. Colombia, Germany, Italy, Portugal, Sweden, the United Kingdom and the USA, politics has taken up Social Innovation. However, in most of the countries there are no policy institutions with direct responsibility for Social Innovation. The initiatives and their sustainability are highly dependent on these actors, because social innovations are not embedded in public innovation programmes yet.

Social Innovation – a joint force

A broad range of actors is involved in the mapped social innovation initiatives. The global mapping clearly shows the participation of partners from all sectors. The public, private, and the civil society sector are represented to a high degree in all policy fields and world regions. The majority of mapped initiatives has been developed and implemented in a social network in which more than one sector is

involved. We can say that cross-sectoral collaboration of the public sector, civil society and the private sector is playing a key role, and becomes even more important on the level of practice fields.



Different sectors are involved in social innovations (multiple answers possible)

In this context, a constructive partnership between the sectors is a very important factor in order to reap the full potential of Social Innovation. Social innovations are first and foremost ensemble performances, requiring interaction between many actors. These findings indicate that cross-sectoral collaborations are of great importance, whereby as might be assumed a general dominance of the civil society cannot be detected. The great importance of empowerment of beneficiaries and citizens in the Social Innovation concept corresponds with the fact that almost half of the initiatives mapped by SI-DRIVE state a direct user or beneficiary involvement. However, the rates of involvement differ in the policy fields and world regions. Social innovations aim at activating, fostering, and utilising the innovation potential of the whole society. Empowering the beneficiaries, increasing their capacities to meet social needs and giving them 'agency' is an indispensable component of Social Innovation. Thereby, we find various forms of user involvement from the development or improvement of the solution over providing feedback, suggestions and knowledge to the adaptation of the social innovation idea for personalized solutions.

The mapping activities shed light on the great many, often nameless but still important, social innovations responding to specific and every-day social demands or *incremental* innovations. The distinction between three different output levels is taken up by the SI-DRIVE project, but also has to be modified to some extent. There is a strong relationship between social demands, unmet social needs societal challenges and transformative social change in different policy fields and approaches.

Conclusion

The mapping activities of the SI-DRIVE project depict countless approaches and successful initiatives that illustrate the strengths and potentials of social innovations. At the same time, the mapping underlines the importance of establishing framework conditions for social innovations (through politics) to diffuse and realise their full potential.

Typological Approaches

Based on the findings of SI-DRIVE and on the collection of possible classifications in particular, three typologies for Social Innovation based on the empirical findings and the theoretical framework of SI-DRIVE were elaborated, distinctively focusing on stability and development, process dynamics, and social change. Whereas the results and the vast data of SI-DRIVE would even allow for additional typologies, these three mark a kind of starting point looking at different attributes of social innovations.

Typology: Stability and Development of Social Innovation

The first typology, focussing on the stability and developing strands of Social Innovation, is based on three models:

- Continuous growth
- Step-by-step or stage model
- Up and down, wavelike, alternating success and failure

As the findings of SI-DRIVE revealed for all of these models, support coming from the environment, especially from policy-makers and funders, plays a crucial role. Their support or lack of support is significantly, if not pivotally, influencing the development-trajectories of initiatives. Initiatives showing **continuous growth** revealed are often linked to active interventions and continuous support by policy-makers and institutions from the relevant contextual settings. When the activities of initiatives are characterised by the **step-by-step or stage model**, the influence of players coming from the environment also plays a crucial role. When there is no growth on certain stages, a lack of support is reflected by this stagnation. Therefore, new support can mean a step forward to a next stage of development. Overall, such initiatives tend to be found as part of a permissive and enabling environment from policymakers and institutions. This influence is also key for the growth of initiatives fitting the model of **'up and down, wavelike, alternating success and failure'** as these ups and downs might also be related to either a high amount of support or a lack of support. In general, initiatives characterized by this model are facing a dynamic context with uncertainties influencing their development.

These three models of growth help defining a typology of **formal structure**, containing three ideal-types:

- Highly formal-structural type: typically quite stable, robust and relatively top-down, closed and embedded in policy and regulation, relatively efficient and can be effective, often characterised by incremental innovation. The main example of the policy field Poverty Reduction and Sustainable Development (PRSD) is the income support Practice Field.
- Semi-formal structural type: mixing both top-down and bottom-up, typically quite stable at the macro level but less so at the micro level, both relatively open and closed, generally robust, relatively effective and can be efficient, often characterised by a mix of incremental and disruptive/radical innovations. The main PRSD example is the community capacity building Practice Field.
- Weakly formal-structural type: less structured, bottom-up and small scale, typically quite unstable due to fast changing conditions, more subject to tensions and is shock sensitive, relatively open, can be both relatively effective and efficient but also the reverse, often characterised by both disruptive (if not radical) innovation and 'innovation on the go'. The main PRSD example is the displacement, refugees and good governance Practice Field.

Typology: Process Dynamics

The second approach towards a typology of Social Innovation is addressing the processes or the dynamics of Social Innovation. This typology is hence looking at the important relation between social change and Social Innovation. It is therefore directly related to the key-dimension 'process dynamics' while it is, furthermore, taking the relationship between social change and Social Innovation into account - one of SI-DRIVE's main foci, represented by the methodological pillar five. In result, this second typology is taking an overarching role. Basically, it is building on two dimensions: **societal field** and **modes of interaction**. Based on this distinction a matrix was elaborated presenting nine different ideal-typical process dynamics (see table below).

Societal field / Implementation	Economy/Market	Civil Society	Politics
Fragmented/Niche	1. Company based	4. Temporary Niche	7. Experimental
Fragmented but partially framed	2. Entrepreneurial	5. Community based	8. Embedded
Societal/Global	3. Disruptive	6. Global movement based	9. Top down

Types of Social Innovation from a process dynamic perspective (Rehfeld et al. 2017, p. 92)

These nine different types are not considered to represent all possible types of process dynamics relevant for Social Innovation. They are, moreover, a first summary and typology based on findings of SI-DRIVE, derived from the cases. As their domains are related to policy fields and the respective practice fields, they can sometimes be assigned to a selection of fields in which they are typically or, at least, often found:

Economy/Market

(1) Company Based: Driven by companies, focus on the internal structure of the organisation; low amount of political support, exchange or common platforms together with other projects ; main drivers are demographic change, shortages in the workforce, economic pressures; especially found in the Practice Field 'Workplace Innovation'; low level of process dynamics

(2) Entrepreneurial: Driven by entrepreneurs (esp. social entrepreneurs), focus on economic and social goals; market-driven and competitive; related to networks on all levels; found across several practice fields '; level of dynamics strongly depends on the (regional, political etc.) context and the ecosystem

(3) Disruptive: Based on digital business models; disruptive as they act against given political standards or regulations; based in a competitive market; typical for the Practice Field 'Shared Car Usage'; high level of dynamics due to competition and digitalisation

Civil Society

(4) Temporary Niche: Limited in time and space; driven by highly engaged actors with a focus on specific social need; related to individual social networks, often supported by volunteers, limited political support; might switch to type 2 or 7 when scaling up, because of entering a market or receiving political support; often limited in process dynamics

(5) Community based: Strong focus on self-organization; based on a broader local community, networks lack professionalization; support by local politics; aiming at the local level; relevance of global trends (e.g. trend towards local food); often supported by formal or informal, national or global networks; characteristic for practice fields in Environment and Energy; high and stable local dynamics

(6) Global movement based: Adapted around the world; scarce, as civil societies differ; implemented in very different ways, depending on the context; imitation, learning, and adaption as key modes of interaction; process dynamics of a group of linked projects sharing common themes; found in the practice fields 'Community Capacity Building' and 'Integrated Care'; growing dynamics, limited in scope - with possibly more potential in the future

Politics

(7) Experimental: Projects based on funding programs, limited time and scope; broad range of activities and certain degree of professionalization due to formal conditions; single and fragmented

projects; weak interaction with other projects; examples in the praxis field 'New Models of Care'; limited dynamics, might become embedded in a Practice Field, then shifting to type 8 (Embedded)

(8) Embedded: More or less integrated in a specific Practice Field; funding by a government, maybe related to specific calls for new solutions in a certain Practice Field or in the phase of implementation; fragmented in the beginning, strengthening a welfare system when successful; typical examples e.g. in the practice fields of Youth Unemployment, Mobility of Vulnerable Groups, Reduction of Educational Disadvantages; process dynamics related to the potential of being established in a welfare system, when professionalized, a shift to type 2 (Entrepreneurial) is possible

(9) Top down: Central (often large-scale) political programmes with incentives, support, nudging, regulation and prohibitions; hierarchical mode of interaction; examples in the practice fields of Income Support and in centralized countries like China or Russia; process dynamics depend on acceptance and active involvement of the target group.

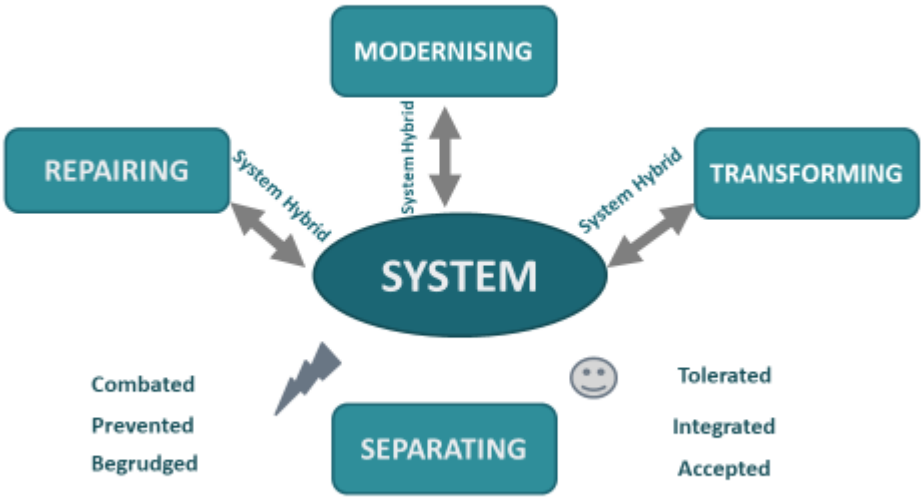
Typology: Social Change through system innovation

The third typology of Social Innovation derived from findings of SI-DRIVE is looking at social change through *system innovation*. It is building on the assumption that socially innovative initiatives are often facing a context with a strong formal system. Therefore, this typology is giving the intended and realized output of initiatives a pivotal role. This was especially found in the Policy Fields Education and Lifelong Learning, Health and Social Care, Mobility and Transport, Energy, and Environment. As these are already five out of seven Policy Fields analysed in SI-DRIVE this finding already reveals the importance of formal systems for social innovations. In Education and Lifelong Learning, initiatives are confronted with highly formalised educational systems whereas initiatives in Health and Social Care are often forced to find access or, at least, opportunities for cooperation with healthcare systems. Similar to these fields, innovations in transport often need to find a way of coexistence with, or even entering, systems of public transport while initiatives in Energy Supply need to cope with existing system for energy supply and environmental initiatives are confronted with systems defining current practices.

The typology for system innovation by initiatives is building upon the findings of the case-study and the general recognition of the relevance of systemic change already named in the BEPA typology (BEPA 2010), continued in the global mapping of SI-DRIVE and the following analyses. It is consisting of four types:

(1) **Repairing**: Initiatives are 'repairing' the system by filling gaps not tackled by the current practices (e.g. lacking educational programmes or lacking healthcare provision).
(2) **Modernising**: Initiatives aim at a modernization (e.g. by providing new practices towards solidary agriculture) or a supplementation of an existing system (e.g. by adding digital solutions to an existing healthcare-system which could also mean a modernization in the long run).
(3) **Transforming**: Initiatives implicitly or sometimes even actively aim at transforming a system by reaching a critical mass in a society institutionalizing a new social practice (e.g. by providing a new service which is replacing a formerly established one or by creating significant impact on a market like e.g. Uber does).
(4) **Separating**: Initiatives establish new practices outside of the system as the given structures do not allow these new practices to be happening inside of them. Such practices might be a radical alternative to a current system (e.g. self-supply without a relation to the dominant market) or a solution for precarious conditions produced by system-conformity (e.g. self-employment instead of traditional dependant employment).

This typology of social change through system innovation is furthermore building on the assumption that social innovations having a significant impact on a system are confronted with tolerance, integration, acceptance or combat, prevention, resentment.



Social Change through system innovation (Rabadjieva et al. 2017, p. 117)

Conclusion

First contours of a typology have been developed with regard to the theoretical framework (esp. the definition of Social Innovation and SI-DRIVE's key dimensions as well as the focus on the relation of Social Innovation and Social Change) - in line with the broad range of social innovations discovered from the global mapping.

In sum, there are different approaches of typologies of social innovations appearing:

a) With regard to existing (innovation) typologies, modifying or complementing them. For example, social entrepreneurship can be seen as a special kind of business innovation.
b) With regard to different central issues (system relevance, static or dynamic in regard to the development stage of the social innovation initiative, leading to Social Change, actor constellation, etc.). The three typological approaches all take one central issue and derive their ideal types in relation to it.
c) Based on existing classifications, which could be further developed in the direction of a typology. For example, the practice fields classified within the global mapping provide the basis for a more elaborated typology.

However, all these distinctions have to be seen as first approaches to develop typologies of Social Innovations; they have to be elaborated in further theoretical analyses and research, underlined by empirical evidence and policy strategies. In their current state, they can already help giving structure for research. As these typologies build on classifications like policy fields and practice fields they already feature a sound and well-tested systematization that proved itself in the research activities.

Main Results of the Policy Fields

In the following chapters the main results of the seven policy fields will be summarised in a glance.

(1) Social Innovation in Education and Lifelong Learning

The policy field of Education and Lifelong Learning is characterised by different national education systems, differing sometimes across the regions of a country and divided into separated regional or area related responsibilities. While the formal (primary, secondary and tertiary) education system mainly is centralised, Vocational Education and Training (VET), as well as Lifelong Learning (LLL) of adults, are mainly decentralized (local municipalities and/or industry sector related). Although there are a growing number of social innovation initiatives in Education and Lifelong Learning a lot of initiatives are not labelled as such. A comparison across global regions demonstrates that policy visibility, awareness, recognition and acceptance of the Social Innovation concept still need to be fostered. This would help unlocking the quantitative (in terms of numbers of initiatives, diffusion and imitation) and qualitative (in terms of success and impact) potential of Social Innovation in Education and Lifelong Learning.

Yet, there is already a great variety of social innovations, mostly related to gaps and failures of the formal education system. The context of social innovations is characterised by the dominance of the (*formal*) education system, affecting tangential societal *function systems* (such as politics, law, and economy), different target groups and *subject areas* (disadvantaged groups, family, employment, rural areas, etc.) and substantive *concepts of reference* (e.g. self-actualisation, individual learner personality).

New social practices in Education and Lifelong Learning are developed in an incremental way, mostly in relation to the formal education systems, its structures, frameworks and policies - serving local demands and using leeway on the regional/local level. The main motivations, triggers and drivers mentioned have been (local) social demands and (general) societal challenges, individuals/groups/networks and, not to forget, charismatic leadership. Nevertheless, about half of the initiatives are intending a systemic change. Brand new practices appear as well as the copying of new solutions with modifications.

Social Innovations are driven by deficits and limitations of the education system

Social innovations are often identifying and solving the deficits and limitations of the education system. A lack of official solutions or programmes for the problem at hand is the main starting point. While knowledge about the impacts and recommended routes of reform (from, for example, the PISA and PIAAC studies, labour economics and also education sciences with an increasingly comparative focus) is widely spread, the institutionally dense education systems with their often interlocked regional, national and federal state-level responsibilities have strong path dependencies and vested interests that encourage the development of **rather compensatory than transformative** social innovations.

Conclusion

Individual engagement, charismatic leadership and communities of practice as drivers of Social Innovation have to be embedded in collaborative governance structure to deal with the multifaceted problems and solutions in a holistic way. Aiming at enriching the top-down governance with a bottom-up perspective social innovations need a development of given structures **from fragmentation** (with separate rationalities and target-orientations, different public responsibilities) **to overarching and connected governance structures**. New governance structures should improve collaboration beyond, across and within the silos and focus on the learners' demands instead of an institutional perspective.

However, an **innovation friendly environment** is important, fostering collaboration between different sectors (e.g. through the implementation of networks as platforms to learn, exchange

knowledge and expand the solution), between research and practice, and guaranteeing the availability of seed funds specialised to support practical experimentation and new forms of learning. This also includes an extended role of universities: knowledge provision and exchange, evaluation, new ideas, process moderation, advocacy for Social Innovation, technological development to support learning possibilities and access, and others.

(2) Social Innovation in Employment

Reducing unemployment is the major social change goal in the policy field Employment. Labour market institutions regulate unemployment. Rules and regulations guide employers to create jobs. Despite these institutions and regulations, unemployment remains high. Specific labour market target groups have great difficulty to acquire paid work or meaningful (unpaid) labour market experiences, e.g. elderly workers, migrants, handicapped people, women and young persons. Due to expenditure cuttings, labour market institutions have scaled back their support efforts, as for instance schooling and training, or wage subsidies for employers. Room has been created for social innovation initiatives and even though the ambitions of these initiatives are high, in practice they remain scattered and isolated. If these social innovations are to achieve social changes, i.e. sustainable employment, they require integration.

The global mapping of social innovations in Employment resulted in 136 identified cases (Howaldt et al. 2016). Analysing all cases leads to three practice fields, namely **youth unemployment** (and other vulnerable groups), **social entrepreneurship** (and self-creating opportunities), and **workplace innovation** (and working conditions). The related EU policy brief for Employment, which reports about the case study research (based on a selection of ten out of these 136 cases), revealed that **youth employment** is strongly related to traditional policy making and employment organisations that already were in place before the term Social Innovation was getting into vogue. Social innovation initiatives face an uphill battle. They seem hardly able to contest the role and responsibility of public policy and the state. The initiatives are limited in nature. Initiators, such as foundations and individuals, for example, organize training and opportunities for target groups to acquire job experience. They are often funded by local or international programmes, however, their sustainability and upscaling is limited once this funding or programs support ends.

Social entrepreneurship is represented by individuals or organisations which use a profit driven initiative to combat a social issue, i.e. by helping others in creating jobs or training persons to enhance their competencies. These initiatives are sustainable for as long as the business case of their social innovation is economically viable. In practice, upscaling is not likely to occur. However, social entrepreneurship and self-creating opportunities seem to become a new normal for participants: platforms and the Internet offer a low threshold for start-ups. Apart from funding start-ups and providing expertise and training for entrepreneurs, public policy plays a limited role.

Workplace innovation and working conditions differ from the earlier two practice fields, and remain mostly an affair at the level of organisations, of employers and employees. Therefore, it is rarely an issue for employment policymakers and employment organisations. Workplace innovation is initiated by organisations in order to improve their performance and their job quality; engagement and involvement of employees is crucial for success. Improving working conditions is a related topic, often driven by legal obligations to at least guarantee minimum levels of proper working environments. Sustainability of work, in the case of workplace innovation, is rather positive because employees, and often unions or work councils, participate in their implementation. Scaling is however not in the interest of individual organisations and competition between organisations can be a barrier for cooperation.

Social Innovation in Employment has an idiosyncratic relation with public bodies. The analysis of the practice fields youth employment and social entrepreneurship suggests a shifting responsibility of social security tasks from public policy to private and civilian initiatives; contrary to these two practice fields, the initiative for workplace innovation came from work organisations and not public

bodies. At the same time, social innovations cannot escape public intervention. The comparative analysis of the 136 cases reveals a dominant role for public bodies. It appears that people ('individuals, networks and groups') are the main driver to lift off social innovation initiatives. But in order to sustain and scale up, these initiatives lack institutions and a solid ecosystem, as youth employment remains entangled in 'old institutions', social entrepreneurship is mainly driven by charismatic go-getters, and workplace innovation solutions are kept hidden behind company walls for the sake of market competition.

Conclusion

Overall, we observe that social innovation initiatives remain unconnected to create a critical mass for sustainable change in employment. To enhance sustainable employment for target groups, policy makers need to conceptualize an integrative view on Social Innovation in employment including all stakeholders. To overcome isolation and stimulate upscaling such an integrative approach could align social innovation initiatives with existing activities and policies in the domain of employment, human resources, and training and education, at the level of work organisations, labour market institutions as well as individuals and their communities.

(3) Social Innovation in Environment and Climate Change

Detrimental environmental impact can take a multitude of forms, many of these, like the deterioration of oceans and marine habitats, the stratosphere or rainforests, cannot be felt everyday by individuals on a local level. It is the ambition of many social innovation initiatives to bring new solutions to environmental problems in providing a local context to often global environmental problems. Social Innovation in the area of Environment combines at least social and environmental goals. However, it seems a particularity of the area that many social innovations add economic goals as well (cf. Schartinger et al. 2017).

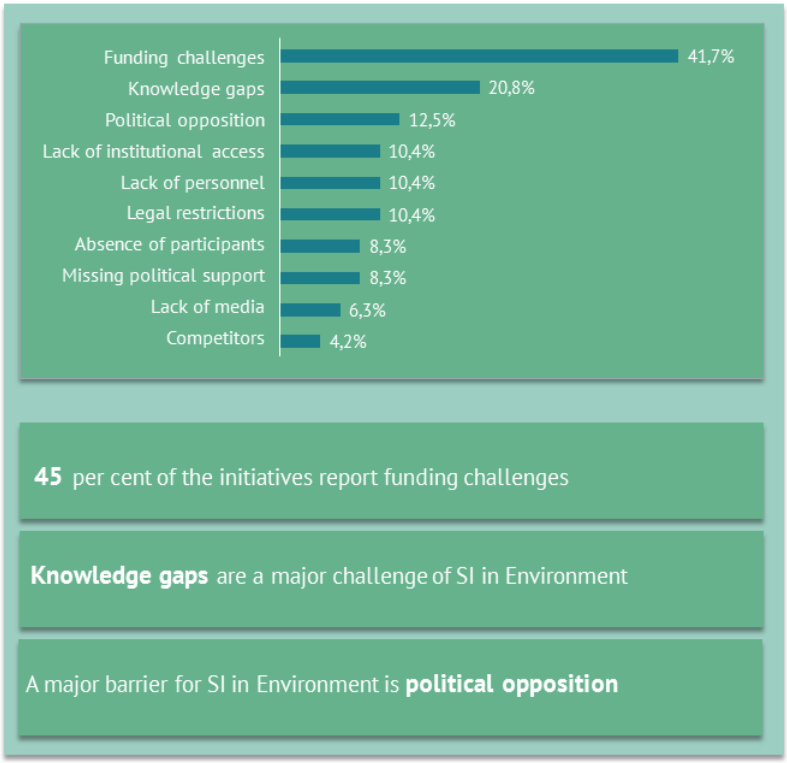
A more sustainable economy is a major issue in Social Innovation in the area of Environment. This is hinged to more sustainable production chains, to all aspects of the circular economy (i.e. long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling) and to consumer patterns and consumer choice. The strong dependence on consumer choice entails increased awareness of (un)sustainable behavior and puts emphasis on citizens' engagement and inclusion more generally. Manifold challenges in the areas of environmental and climate policy are currently addressed at different levels – national, EU and global; and focus on e.g. climate change, air pollution, energy efficiency, resource efficiency and sustainable consumption and production, biodiversity, or water management and water pollution (Budde et al. 2014).

Societal challenges

The societal challenge perspective motivates most social innovation initiatives in the policy field of Environment (Howaldt et al. 2016). It reflects the view that preserving nature seems often against other players' interests, against interests of incumbent industries, against interests of economic growth. The social perspective is integrated in many initiatives through seeking re-employment for vulnerable groups in labor-intensive activities of social innovations that are operating in the market, but it is more often not a first order goal. The realization of win-win-situations lies in the heart of many social innovation initiatives in the field. What may be useless to some people, may be of high value and use to others. To organize e.g. the change of ownership that grants a second life-cycle to goods that would otherwise have been thrown away (environmental impacts), also provides job opportunities for the less advantaged and supports the re-integration of long-term unemployed (social impacts) at the same time.

It seems important in this respect that social innovation initiatives in Environment, more often than in any other policy field, see themselves as part of a social movement, as activists. Accordingly, public bodies are, compared to other policy fields, underrepresented in Environment. In contrast, non-governmental and non-profit organisations are frequent initiators of social innovation initiatives and

political opposition is mentioned as one of the three major barriers. Many efforts to counter environmental damages and the extinction of species were defeated by the vested interests of those that benefit from the current situation. The consequences are absence of political support or outright political resistance.



Main Barriers for SI Initiatives in the Policy Field

Knowledge about what are the environmental challenges, about waste in all forms, and damages to oceans or earth's atmosphere on the basis of reliable statistics, is a major source of learning and awareness of consumers and a frame for legitimacy of action at the same time. Its lack represents a major barrier for Social Innovation in the area. Media contributions on the environment or on social innovations are important vehicles to raise awareness, increase knowledge and enhance demand for social innovation services. Cooperation with media is pursued by social innovators to gain attention and position social innovations. Conversely, lack of media is a barrier for the growth of Social Innovation in Environment.

Conclusion

The future role of Social Innovation improving Environment is very much seen as a bridge between society and government, where governments are in a (governance) crisis and prone to populism. They may provide feasible alternatives to incumbent practices in matching hidden supply and demand (e.g. repair, food waste). Thus, in the future Social Innovation is seen to have an even stronger role in enabling positive changes in behavior and often they have an explicitly local role. However, there is also a fear expressed by many social innovators that the increase of Social Innovation is connected to a withdrawal of governments' responsibilities (austerity policies).

(4) Social Innovation in Energy Supply

For environmental reasons, a transition towards a renewable energy system needs to be made. Social innovation initiatives such as energy cooperatives or other collaborations of consumers, businesses and governments can help to speed up this transition. During the SI-DRIVE project it became clear that the format and amount of social innovation initiatives differ widely between countries (Boonstra et al. 2015; Ooms et al. 2016). In order to be able to understand how Social Innovation can lead to social change, it is important to know the factors shaping it. By addressing these factors, it is possible to create an environment in which Social Innovation can flourish.

Factors shaping social innovation in the energy domain

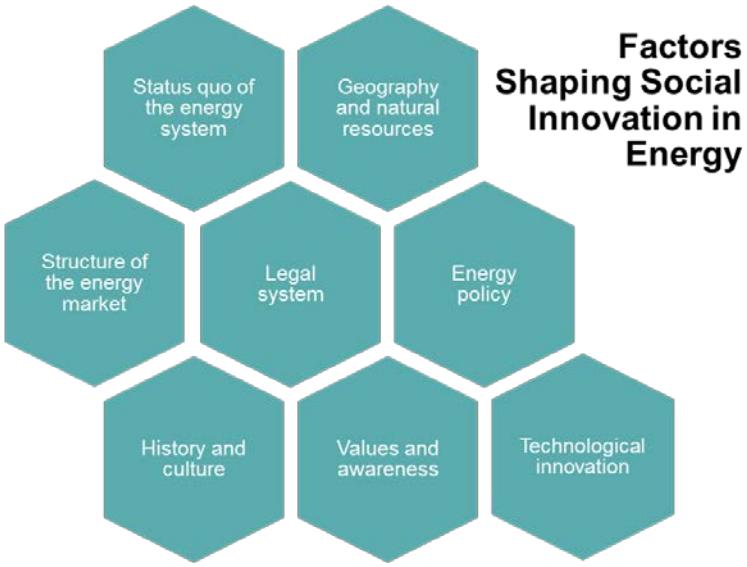
As a starting point for Social Innovation, the existing energy system, or status quo, differs in every country and influences Social Innovation. In France and Belgium, for instance, there are large capacities of nuclear energy. As these are already in place, the costs of abandoning them make it more difficult to stop using them. Existing production facilities can therefore hamper the growth of

Social Innovation and other initiatives for sustainable production. However, this is also a political choice. A related factor is the energy policy in a country. Each EU Member State chooses its own particular way of implementing EU-targets on CO2-reductions. Policies and the attention for Social Innovation therefore differ between the Member States. The research showed that non-coherent or unstable energy policy hinders the growth of Social Innovation. On the other side of the spectrum, funding and public support programmes stimulate its growth. Other stimulating measures are removing administrative barriers and offering institutional support.

The legal system of a country influences the scope of action for Social Innovation. Traditionally, the legal systems of the Member States incorporated regulations designed for top down energy systems with large players and rather passive consumers. In order to create space for social innovations and consumers in general, most legal systems have to change significantly. Another factor is the structure of the energy market. The energy markets of all EU Member States were liberalised following EU directives. These introduced competition into markets, which were previously mostly governed by public monopolies. In a liberalised energy market, small enterprises and citizens are given the same opportunities to enter the market as the incumbents. From the results of the project it can be derived that Social Innovation flourishes more in countries with a stronger degree of liberalisation. In those countries, barriers to enter the market are removed and it has led to the emergence of new market players such as social innovation initiatives. In other countries, incumbents are still dominant, which makes it difficult for new players to enter the market.

The history and culture of a country also influence Social Innovation. For historical reasons, in some Eastern European countries trust among citizens and between citizens and government is rather low and cooperatives have a negative connotation. Because of that, energy cooperatives are less likely to develop there. In Denmark however, local cooperatives are historically and culturally embedded and therefore are an important part of the renewable energy system. Related factors of influence are the general values of people concerning sustainability and awareness of this topic. In some countries, citizens have strong positive values regarding sustainability and high awareness. This can stimulate the growth of Social Innovation since there will be more potential starters and followers of initiatives.

A last important factor stimulating Social Innovation in a country is technological innovation in renewable energy generation options, including solutions, which allow small scale production and stimulate energy efficiency. When these technologies are available in a country, small-scale initiatives have the ability to produce energy which is crucial for the development of social innovations. In countries with higher availability of the latest technology, also more initiatives will develop which make use of these technologies. Additionally, social innovation initiatives can grow and diffuse when these technologies are affordable and attractive business cases can be developed.



Conclusion

The landscape of Social Innovation in Energy is very diverse. Examples are energy collectives producing sustainable energy together, initiatives to raise awareness of the importance of energy saving or governments setting up programmes to collaborate with businesses and civil society to reach local goals. The format and amount of initiatives varies between countries, which is determined to a large extent by the national, regional and local context. The factors status quo of the energy system, geographical and natural resources, structure of the energy market, legal system, energy policy, history and culture, values and awareness, and technological innovation play an overall role in the different countries. By adjusting these factors, it is possible to improve the conditions for Social Innovation.

(5) Social Innovation in Mobility and Transport

Social innovation initiatives for alternative mobility and transport flourish. Surely, the most prominent example is car sharing, which is diffusing all over the world in diverse forms. However, there are many more ideas around: walking school busses, citizen initiated public transport, the critical mass movement, etc. Some of these are well known, while others are not. Within the policy field Mobility and Transport, these different solutions were grouped into three clusters. The clusters are characterised by similar practice fields of social innovations.

Three clusters of solutions

The cluster on ***green*** mobility and transport includes practice fields of social innovations fostering co-modality, e.g. through sharing initiatives implementing new practices related to usership rather than ownership. It also includes social innovations facilitating the use of electric mobility and multi-modality, i.e. the use of different transport modes on the same trip. Many social innovation initiatives are based on ***slow*** transportation. There are no instances of striving for high-speed transport or long-distance trips. Instead, projects use walking or cycling as their starting point and strive to integrate them into daily activities. As a consequence, slow mobility has a strong local emphasis. There is also a considerable ***inclusiveness/access*** dimension assigned to Social Innovation in mobility and transport to establish or increase access to basic needs fulfilment and societal life. These practice fields address the needs of people with reduced mobility, address new transport possibilities realised by citizen initiated public transport, gender sensitive transportation, etc.

The commonality among all these practice fields is engagement of actors different from those of the traditional mobility and transport system. The motivation of actors within these initiatives is to realise their idea of innovative mobility and to address the social problems of the immediate or wider environment by offering mobility solutions. Little is known about these initiatives in terms of actor constellations and roles, drivers and barriers, and the dynamics related to the innovation process. Based on this background, the analysis of this policy field aims to characterise the initiatives as they relate to involved actors and financing, and to draw conclusions for policy making.

Specifics of Social Innovation in mobility and transport

Quantitative data of 128 social innovation initiatives in mobility and transport were compared against data of 877 social innovation initiatives in other SI-DRIVE policy fields. Accordingly, four major distinctions were found to characterise the social innovation initiatives in mobility: the initiatives often have strong economic relevance; a volunteer workforce is still a crucial asset; policy plays an influential role as a driver; and technology is a central complementary factor. This is summarised in detail in Butzin et al. 2017.

Practice Fields in Mobility and Transport

Conclusion

The support of social innovation initiatives as a driver for change in the mobility and transport system implies support from different kinds of actors. The understanding of mobility and transport actors needs to be broadened and go beyond the established sectoral boundaries to spread the many ideas developed in social innovation initiatives. It is one of the central challenges of the European mobility and transport system to realize the potential of merging technological solutions and new social practices. Furthermore, Social Innovation in this field can be supported by creating incentives for companies, schools, and other actors to use alternative transport modes. There are many approaches fostering alternative transport modes that need be better communicated to be spread more broadly. Local decision makers can actively promote the spread of Social Innovation by engaging in the implementation of ideas in their municipalities that have originally been developed elsewhere.

(6) Social Innovation in Health and Social Care

Social innovation in health and social care is a growing field. Some examples of innovations include: (1) 'Physical Activity on Prescription' where patients and health and social care personnel are made aware of and are encouraged to consider physical activity as a complement and/or priority measure, (2) 'Smart Elderly Care' where elderly people can phone a centre and their calls are being answered by staff who use an online platform to put out a call for assistance, and (3) 'Dementia Adventure' which provides training and consultancy in the provision of carefully designed holidays or trips for people with dementia and their carer. Health and social care is a highly institutionalised sector and this can present challenges for Social Innovation. That to have impact, social innovators must leverage relationships and bring together actors in order to meet and/or overcome the social values, demands and expectations which define how health and social care contexts operate.

Barriers to Social Innovation

Health and Social Care is a field which frequently demonstrates high levels of medical and technological innovation. The incorporation of new approaches and learning often occurs across countries, driven by the internationalism of much of the professional community, by the desire for systems to learn from each other, by the expectations of patients for the latest technologies, and by companies which look to sell their - often medicalised - solutions into the global market place for competitive advantage. However, some social innovations, with their focus on changing relationships and practices, appear to face more barriers to absorption and this appears to be strongly related to the 'social' nature of Social Innovation. If we look to socially innovative approaches such as 'integrated care', we can see a clear degree to which an approach which has the potential to yield positive outcomes for patients has been difficult to implement because it requires disruption to existing professional relationships and pathways. SI-DRIVE's case study analysis and policy and foresight workshops have indicated the extent to which cultural change is frequently necessary in order to build socially innovative approaches.

Understanding the role of actors and interaction

The importance of actors for Social Innovation in this policy field was borne-out in the global mapping (Howaldt et al. 2016), where 'networks, individuals and groups' were identified as a driver by 69% of initiatives in health and social care and as the most important driver by 44% (n=148). This finding was also mirrored in the case study analysis, where initiatives across practice fields demonstrated the importance of actors, and in particular collaboration, in driving forward Social Innovation. We found that initiatives are reliant on a range of different assets in order to effectively implement their project. These assets include necessary expertise; ability to impact the behaviour of the target group; ability to create an enabling policy environment where necessary; ability to fund the project; access to resources (such as buildings or technology) which are necessary to create the solution; enough time and capacity to deliver the initiative. We find that collaboration is a key way in which innovators build up these assets which can help them to work within their context.

The work of the SI DRIVE project has also revealed the strong role that charismatic leaders play in disrupting the entrenched cultures of health and social care and initiating innovation. During the case study analysis, it was found that across practice fields and countries, initiatives were often reliant - particularly in their early stages - on a committed individual with great personal motivation to create change. However, it was also found that these individuals were not able to drive change alone. One of their greatest skills was in convening collaboration, either formal or informal, between different types of actors.

Different types of actors can influence different types of cultural entrenchment. Policy makers, for example, frequently have the ability to change the underlying mechanisms of the health care system, they sometimes have the ability to open up funding, and their buy-in can be a great convening force. However, they have less ability to affect the on-the-ground actions of practitioners. The involvement of citizen innovators, on the other hand, can help to drive innovation by (a) creating innovations that work to the existing social values and expectations of patients and (b) creating movements among patients which can change the culture among these actors. Technical innovators have the potential to bring new knowledge and skills to a problem, to improve a solution, or help to demonstrate its impacts. From a technological perspective, they can often help to embed solutions in existing practices thus making uptake easier. Moreover, practitioners can often help to create change through their understanding of existing practices and their insight into the problems being faced within health and social care delivery.

Conclusion

The results have demonstrated the importance of collaboration as a force for creating change in Health and Social Care. The motivation and action of committed individuals can be a considerable

driver, but ultimately a common feature of successful innovations is the collaboration of a diverse set of stakeholders, each of whom offer different and often complementing competencies and insights which are necessary to successfully disrupt entrenched cultures. Findings in Health and Social Care emphasize that stakeholders work best when they work together across existing borders.

(7) Social Innovation in Poverty Reduction and Sustainable Development

Given the multi-dimensional approaches that Social Innovation offers which can integrate across sectors and build collaboration between multiple actors, it is often uniquely placed to find and implement integrated solutions to poverty. Social innovations generally find a significant role for civil society, in addition to public bodies and businesses. However, those that specifically tackle poverty tend to do this even more, as well as draw on a richer ecosystem of partners with very large numbers of 'other' actors, such as foundations, social enterprises, informal groups, social partnership institutions, schools, charities, religious groups, research and university institutions, cooperatives, networks and individuals. Indeed, many of these are typically very close to the poor and vulnerable as they have greater local and contextual knowledge and are more nimble than more mainstream actors - they act, in effect, as 'trusted third parties'. This rich ecosystem characterising Social Innovation for tackling poverty can indeed help reduce poverty as it confronts the poverty of society's imagination when it does not draw on all society's assets and actors.

The predicament of poverty

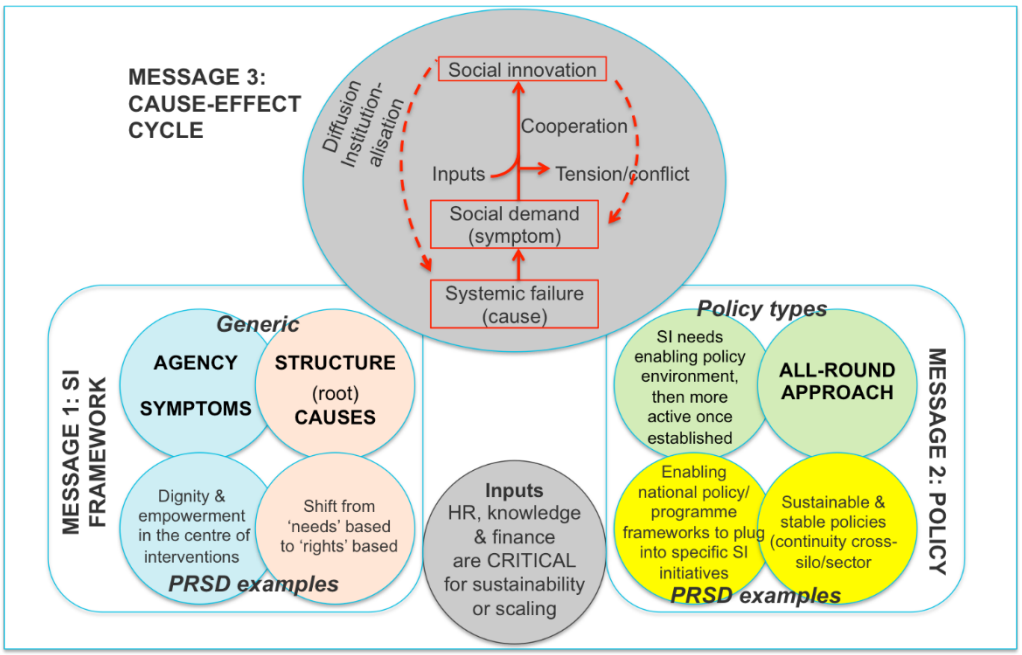
Most social innovations are concerned only to meet immediate needs by increasing the agency and empowerment of beneficiaries, without recognising that typically these are often the symptoms of more structural root causes, which are hardly addressed. Some successful social innovations tackle these issues, though it takes time and patience. For example, an initiative run by an NGO in very poor areas of northern Ghana saw an opportunity to use the talents of local inhabitants possessing some basic education by training them as so-called 'barefoot' teachers to provide basic literacy and numeracy skills to children in local villages. However, it was soon realised that one of the keys to this was to work on changing local power structures through painstaking consensus and capacity building, particularly by empowering women in village life. From this, in turn, other complementary innovations are being enabled, such as involving women in local entrepreneurship schemes and supporting local radio stations and media productions as job opportunities for some of the locally educated youth. This example also illustrates the need to address, as far as possible, some of the structural root causes, in this case local power structures and the role of women, in order to meet a range of social needs (Millard et al. 2017).

Key messages in tackling poverty

SI-DRIVE partners summarised these and other insights into a number of key messages / main elements for Poverty Reduction and Sustainable Development, as sketched in the following:

- Key message 1: Social Innovation Framework
  generic agency symptoms and structure, (root) causes
- Key message 2: Policy
  policy types (enabling policy environment for Social Innovation, all-round approach) and examples of Social Innovation (enabling national policy and programme frameworks), sustainable and stable policies across sectors and silos
- Key message 3: Cause-effect cycle
  social innovations based on systemic failures (cause) looking for solutions for a social demand (symptom) are facing tensions, conflicts and cooperation, and influencing the symptom and systemic failure by diffusion and institutionalisation.

Inputs for these three key elements are human resources, knowledge and finance, critical for scaling and sustainability.



Conclusion

Inputs of people, knowledge and finance are necessary but not sufficient conditions. It is also important to provide a conducive framework that develops the agency of the poor and marginalised as well as ensuring that the structures that surround them do not increase their burdens or mitigate their efforts. In this context, it is essential to ensure that the poor's dignity is respected and enhanced, and that their basic needs are recognised as 'rights' within these structures rather than simply needs which may or may not be met. There is a general cause-effect cycle, for example of system failure leading to acute social demands. However, designing approaches to tackle this is complex and difficult due to the mix of actors involved, the conflicts and tensions that arise and the different collaborative innovations needed across the ecosystem. This means the policy framework should take an all-round cross-sector approach, that both enables the poor's and their communities' efforts to have impact, as well as actively supporting promising innovations from a variety of actor constellations.

SI-DRIVE Policy Declaration

Social Innovation on the Rise - Challenges for a Future Innovation Policy

Beside theory and methodology development and the impact of Social Innovation in the seven policy fields described above policy recommendations to foster Social Innovation could be seen as the final main result of SI-DRIVE. These policy recommendations are based on increasing awareness and promotion of Social Innovation, but even though good progress has been achieved in recent years, important steps remain to be taken in order for Social Innovation to move from the margins of policy to the mainstream. Against this background and based on the theoretical and empirical findings of SI-DRIVE the final policy declaration is summarising the consequences for a Social Innovation Policy of the future.

Social Innovation on the Rise – the Emergence of a New Innovation Paradigm

The developed SI-DRIVE concept of Social Innovation is broad enough to encompass its whole variety and potential, and clear enough to distinguish Social Innovation from other concepts like technological, business or open innovation. Against this background, four important topics are connected to Social Innovation with regard to future challenges of our societies.

1) Social Innovation, democracy and participation: Social Innovation builds on the desire of citizens to participate. With the expansion of the participation repertoire, social innovations challenge the

current content of the whole range of 'democratic' and other types of politics. National, regional or local participation currently does not sufficiently unlock the potential of civil society in co-creating solutions for problems and demands that are theirs. Politics of all types need new ways to empower citizens, to give the citizens responsibility for problem solving, to enable them to design and implement their own solutions, and importantly to dramatically improve their own agency to do so increasingly in the future.

2) Social Innovation and the economy: Social innovations create social and economic value. Social innovators, social entrepreneurs and the social economy can deliver new jobs and new sustainable growth opportunities. The ability of social innovations to foster economic *and* social returns at the same time makes Social Innovation a promising option for creating more sustainable, just and resilient societies.

3) Social Innovation and the ecological transition: Social innovations can also create and increase ecological and environmental value. They have a very important role in moving society through the socio-ecological transition necessary to combat, or at least mitigate, climate change and other environmental stresses and degradations, the challenges of which are set to increase dramatically in the foreseeable future. Many social innovations already act upon the understanding that it is living assets, both human and natural especially working together, which are the only real sources of any type of innovation, including technological and business innovation

4) Digital transformation needs Social Innovation: Digital technology has disruptive effects, dismantling current social relationships. To cope with these challenges, citizens and other actors need to understand how to master the digital transformation and put it to the service of society. Technological innovation needs to be strongly influenced by Social Innovation. Technological and social innovations can work hand-in-hand to create new services and products with benefits for the whole of society, as well as opening up new markets.

New Innovation Paradigm Requires a New Innovation Policy

If Social Innovation can play its full role, our societies can generate new and unexpected benefits. SI-DRIVE has shown that societal challenges can be tackled with social innovations. However, it remains an important task for policy to establish proper framework conditions for social innovations. Current economic, social and innovation policies in the EU member states are too general to create these conditions. Support for Social Innovation requires dedicated policy approaches. This is likewise the case at the national and EU-level. Social Innovation requires better funding and support infrastructures similar to those for technology, and it needs better connecting to technological and business innovation in order to reap the full benefits resulting from the synergies between all three.

SI-DRIVE has developed insights to understand why it is important to foster Social Innovation through policy, and which approaches are most effective, in Europe as well as globally:

We need a clear framework reflecting the diversity of social innovations!

Social innovations deal with all types of issues, including so-called 'wicked problems', i.e. highly complex and inter-related challenges; they are about continuing experimenting with social solutions that not only create economic value, but also social cohesiveness. In addition to directly addressing social problems and needs, social innovations serve to develop the agency (skills, competences, awareness and confidence) of individuals and groups, so they are better able to address their own problems and, perhaps more importantly, create and exploit their own opportunities in the future. A comprehensive understanding of Social Innovation further emphasizes the different societal sectors and the surrounding ecosystems for overcoming such 'wicked problems' as well as exploiting inherent opportunities. One of the most important challenges of the future is finding the right incentives and support schemes for Social Innovation. Funding, sustainability modes and support in-kind formats need to be developed enabling impulses for the development, experimentation and diffusion of social innovations, building on the input of actors in relevant sectors as well as public

funds and supports. We need to learn about differential financing and sustainability models to initiate and upscale social innovations, and about the timely phase-out of public or other funding (for example by philanthropies, businesses and crowd-funding) once social innovations have become mainstream and sustainable. Within these new approaches, we need to interlock the roles of EU, other international organisations and national funding and support.

We need to unfold the potential of social innovations to enable systemic social change!
Social innovations are proven approaches to achieve systemic social change. Such social change requires a fruitful context in which acceptance of social innovations is guaranteed. Three components are essential in this context. First, support for Social Innovation requires a (cultural) climate that helps to understand and support the function of social innovations. Second, Social Innovation is also about changing the rules of the game taking into account that the social order is not to be taken as given forever. Third, and equally important, an enabling climate for social innovations also arises by bridging measures: awareness and support platforms, networks and infrastructures for social innovations to diffuse.

We need new governance of eco-systems to create sustainable social innovations with a high societal impact!
The holistic, cross-sectoral approach of social innovations brings the different societal sectors and a surrounding ecosystem for Social Innovation on the scene. To solve the problems and demands in a social innovation process, activating all the relevant and motivated stakeholders from all the societal sectors concerned (public, economy, civil society and science) new and dynamic governance systems have to be established. This includes a new role of public policy and government for creating suitable framework and support structures, the integration of resources of the economy and civil society as well as supporting measures by science and universities. Policy makers have to have a vision of the role of Social Innovation, and have to include social innovations in their own actions. New governance systems or innovation friendly environments are needed to connect important stakeholders, supported by open governance systems to enable and foster experimentation. Support for Social Innovation requires a *governance* approach, less a 'government' approach. An open governance structure with open assets, services, engagement, structures, organisations and processes from which side or sector ever will link and integrate not only the different responsibilities inside government structures, but also link and integrate these with the worlds outside for specific purposes of creating (public) value.

We need more involvement of universities and research centres to support social innovations!
Currently, social innovations lack knowledge support, especially from scientific knowledge partners such as universities and research centres. Underpinning the development of social innovations with sufficient expert knowledge and professional models can importantly contribute to a more favourable environment for social innovations. These knowledge partners could support social innovators and innovations in manifold ways, including knowledge exchange, the integration of new technologies, monitoring and evaluation, impact assessments including social impact frameworks, pilot and demonstration projects, supporting managerial competences, providing space and processes for self-reflection, as well as introducing and implementing some of the above new concepts.

We need an EU resource centre and focal point for Social Innovation in the form of a European Social Innovation Agency!
Scanning the panoply of EU instruments to focus attention and resources on a transversal political objective and drawing lessons from the experience of other transformative objectives (e.g. gender equality), the appropriate option to explore is the creation of a small and reactive, autonomous institution in the shape of a European Agency. Given the political and administrative investment done so far and the reaffirmed need to find innovative solutions to the challenges faced by European economies and societies an agency would be the natural place to develop counselling on new forms of governance, to make sure appropriate financing is available, to engage with stakeholders and

policy makers on the importance of capacity building and to become a resource centre where the data and case studies researched so far could be documented and made available to feed research and practitioners. The idea is not to discharge institutions of their responsibility to develop innovative policies that work, but on the contrary to support and advise those in their tasks, and to better connect all existing initiatives and policies with an active citizenry.

The next step in Social Innovation Research

Building on the results of SI-DRIVE, future social innovation research must prioritize three major topics:

- The (international, national, regional, cultural, social, economic, political) context of Social Innovation - what is going on pertaining to the modes, dynamics and forces (including real power structures in spheres of economies and politics) of social change?
- Further insight into the possible and favourable outcomes and impacts of new practices, ranging from improving the living and working conditions of vulnerable or disadvantaged social groups to triggering, enhancing or driving favourable social change and/or limiting/compensating the impact of less beneficial social change.
- The relationship to technological and business innovation in processes of transformative change (e.g. the 'digital transformation', the socio-ecological transition, etc.).

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Potential Impact and Main Dissemination and Exploitation Activities

In many respects, the work done in SI-DRIVE has direct or indirect implications for (social) innovation policies, esp. for the seven thematic fields investigated. Taking into account the many-faceted collaborative environments on which the mapped cases and case studies are based, the theory development feeding into policy dialogue at the EU-level will provide a basis for policy makers in order to develop future 'sound policies'. SI-DRIVE's main contributions for future impact can be summarized as follows:

- Building blocks for *a new paradigm of innovation*: SI-DRIVE elaborated on the theoretical and empirical basics of Social Innovation as part of a wider concept of innovation, moving to a general theory enabling fruitful research and learning in practice across world regions.
- Opening the potential of Social Innovation by a *broader, non-normative definition and view* on developing new (combination of) practices for social demands and societal challenges, finally leading to social change.
- *Promotion of Social Innovation in Europe and world regions,* using Social Innovation and its capacity to change societies through stakeholder networks of scientists, policy makers, practitioners and citizens.
- Guidance to implement conditions of effective Social Innovation, particularly favouring reciprocal *empowerment of citizens of various countries and social groups.* Key criteria of success are the targets of Europe 2020 and sustainable development according to the SDGs. Spread of knowledge about success factors will essentially expedite funding, diffusion and up-scaling.
- An overview of the ubiquitous world of Social Innovation gathered in an *Atlas of Social Innovation*. The Atlas provides a synopsis of various types of Social Innovation in different world regions and policy areas delivering new intelligence on the diversity of social innovation approaches in different parts of the world used by practitioners, researchers and policy makers; reflecting the systemic character and concept of Social Innovation.

Besides influencing the world of Social Innovation the comprehensive concept of Social Innovation embedded in a New Innovation Paradigm has also high impact on the traditional technological innovation perspective. E.g. in the RFCS project ROBOHARSH and especially the H2020-SPIRE project COCOP digital optimisation of plant wide production processes is done within a Social Innovation Process integrating operators and other stakeholders in the development process of new digital solutions.

In a nutshell, SI-DRIVE's impact can be ascribed to three different areas described in more detail below:

(1) Advancing the knowledge base that underpins the formulation and implementation of relevant policies enhancing the sustainable impact of social innovation;
(2) Achieving a critical mass of resources in terms of collaboration, networking and mobility of researchers;
(3) Involving relevant communities, stakeholders, and practitioners in the research, with a view to reinforcing inclusive and sustainable growth in line with the goals of the Europe 2020 Strategy and the Innovation Union flagship.

1. Advancing the knowledge base that underpins policies for Social Innovation

Advancing the knowledge base took place in three areas especially (*main deliverables of application and deliverables*):

- New definition of Social Innovation, new theoretical frameworks for understanding Social Innovation (*Critical Literature Review*),

- New empirical knowledge of Social Innovation across Europe and beyond (*Global Mapping; In-Depth Case Studies*) ,
- Main drivers and constraints for Social Innovation: the working of networks and the up-scaling of social innovations (*Cross Case Analysis; Final Theory Report*).

Our knowledge base also consists of:

- Methods for measuring and assessing Social Innovation (*Methodology Report; Final Theory Report*),
- Foresight knowledge (*Policy and Foresight Workshops*),
- Normative orientation and policy recommendations (*Policy Declaration*).

In its iterative approach (see methodological approach), SI-DRIVE transitioned from theory, to methodology, to empirical research, to approved policy recommendations in a cyclic and interrelated way, without losing any of these perspectives. The Social Innovation paradigm must in our understanding integrate these knowledge types to become "programmatic" respectively instructive to many different activities from research, to management, to evaluation, to policy making.

SI-DRIVE has selected seven policy fields (Education and Lifelong Learning; Employment; Environment and Climate Change; Energy; Transport and Mobility; Health and Social Care; Poverty Reduction and Sustainable Development) to specify the context in which social needs and problems can be identified and connected to political, private and civil society action. On this basis the actors of the policy fields will re-interpret and re-contextualise many trends, problems and challenges that characterise their field, as well as the methods applied to cope with them, including public policies. A whole new set of actors and networks was discovered to understand how social innovations may work and may be supported and scaled-up systematically. SI-DRIVE introduced the concept of Social Innovation to policy makers within the different fields (via policy and foresight workshops, conferences and other events), providing them with knowledge, tools, and exemplary social innovation cases for successfully triggering and supporting innovation processes.

In the foresight tasks, we took a forward-looking stance to help anticipate medium-term issues to be addressed by Social Innovation, as well as strategic choices that will influence the way in which Social Innovation will develop. This is necessary given the dynamism of current socio-economic challenges in Europe with its financial and economic crises, as well as globally as we move into an uncertain multi-polar world where threats to the environment, to resources and to inclusive growth are growing. SI-DRIVE had impact on the current discussions on future social trends and the analysis of social change in introducing Social Innovation as a main factor supporting with new innovations, actors and perspectives.

Through our dissemination (16 eNewsletters, Website, conduction of three international conferences and inputs to several international, European and national conferences, publications, etc.) and policy recommendation approach (via Round Tables in all policy fields) we could connect our results immediately to policy and stakeholder circles. In this way, public officials and stakeholders became active participants in our research process; manifold opportunities (mainly forums, policy round tables and conferences, but also the SI-DRIVE homepage) offered to enter into productive reflection and creative dialogue with the research team.

SI-DRIVE itself incorporated many characteristics associated with Social Innovation, e.g. its participative character, its combination of theoretical and practical knowledge, its responsiveness to social challenges and problems. SI-DRIVE impacts the way social change is perceived in society by promoting an *integrative innovation paradigm* that puts more emphasis on cross-sector cooperation, on reflexive assessment of social challenges and problems, and on the possibilities of experimentation, diffusion and up-scaling of new solutions. We are convinced that successfully introducing and establishing this new innovation paradigm will have large-scale and long-term impacts on society, in terms of increased resilience, responsiveness and sustainability.

Another central (long lasting) impact is the provision of an **open online database** and **a visual mapping** for social innovation cases in an interactive map (https://mapping.si-drive.eu). This database was developed further to the **Atlas of Social Innovation** (www.socialinnovationatlas.net), supported by additional funding from the Ministry of Culture and Science of North Rhine-Westphalia (Germany). The Atlas explores the diversified world of Social Innovation in 62 concise articles and is planned as an ongoing and continuous task, collecting further social innovation cases and articles beyond the project time. As a knowledge repository, it portrays experiences, theoretical considerations, and lessons learnt worldwide and across disciplines.

Steps taken to bring these impacts about

Our project selected a cyclical approach to connect our theory development and knowledge base to policy makers and stakeholders. The following steps were taken to bring these impacts about:

Step1: Open knowledge production: The list of deliverables, articles and dissemination activities done shows SI-DRIVE made its knowledge production more open and created a continuous exchange with external stakeholders through its online environment (co-creation in data collection, mapping and theory building) and through policy round tables offline. In this context, we consider them also as "dissemination agents", i.e. persons and institutions that through new knowledge and engagement will further promote Social Innovation in their networks and environments, creating a snowballing effect.

Step 2: Active participation of stakeholders in the definition of our conclusions: Round tables, the policy field platform, and the intermediate and final conference provided stakeholders and policy makers with the opportunity to come into contact with selected representatives of cases to see the results of the project in a 'live fashion', and to discuss possibilities for replication, adoption and/or adaptation. We also actively engaged representatives and stakeholders from countries not included in our project to ensure the dissemination of our results to all countries of the EU.

Step 3: Give stakeholders and policy makers a perspective of the context: Manifold manifestations of Social Innovation were assessed and contextualised, which means relating them to specific policy fields and their main challenges and trends, as well as showing how different regional strategies of Social Innovation are institutionally supported in Europe and the world.

Step 4: Provision of real life case studies and experiences in different policy fields and regions: We used case studies for testing and improving our theories and methodologies, for understanding Social Innovation and its dimensions, and for promoting Social Innovation to specific audiences and the broader public.

Step 5: Give prospective information: 'how to prepare for what is potentially going to happen?': In a cooperative setting, we worked with representatives from the case studies and from stakeholder groups to assess future developments for specific case studies, policy fields and regions, to estimate the magnitude of impacts of Social Innovation in relation to the main social changes. This methodology helped to realise the full strength and potential offered by the breadth of our consortium, the cutting edge knowledge available on emerging trends in social service delivery, and the active engagement of practitioners from all the different policy fields.

Step 6: Building of scientific credibility to our results: Results were published in 46 publications with 15 articles in peer-reviewed journals and in (hard copies of) SI-DRIVE's Critical Literature Review, the Comparative Analysis of the Global mapping, and the final book *Atlas of Social Innovation*, to set out our results for all the different audiences of the project. We presented our work to wider innovation research communities (esp. in collaboration with the Social Innovation Community (SIC) project, e.g. in Summer Schools and Hot-Topic Workshops) in order to make the potential of Social Innovation heard in relevant scientific circles.

Step 7: Link our results to EU-policies and project lines: The outcome of the project provided us with a unique opportunity to obtain insights for designing sustainable policy actions that help strengthen Social Innovation and reshape public services to move closer to the vision outlined in the EU2020 Strategy and the Innovation Union Flagship as well as to policy instruments like Horizon 2020. Our aim is that EU-officials and national policy makers act on our results to bring empowerment, cooperation and social inclusion into the heart of public service delivery. First steps in this direction was made with SI-DRIVE's contribution within the Lisbon Conference 2017 towards "A New Era of Social Innovation" and the integration of the social innovation perspective within the new innovation paradigm to technological development projects like COCOP (Coordinating Optimisation of Complex Industrial Processes - H2020-SPIRE) and ROBOHARSH (Robotic workstation in harsh environmental conditions to improve safety in the steel industry - RFCS).

2. Reaching a Critical Mass in…

… collaboration: Our project team covered eleven EU-member states and eleven other states of all continents, accompanied by thirteen advisory board members, all in all covering 30 countries all over the world. In addition, all of the engaged institutes are well connected to other countries of their global region and beyond. For example: Social Innovation Lab (SIL, Croatia) is a network organisation with links to all Balkan countries. All of our specialists are capable of reaching the main players in the remaining EU-member states. Our project team could build on the work of experienced European network coordinators as for example the Young Foundation (SIE-network), TNO (EUWIN-network), AIT (ETEPS-network, EuSPRI). Using the networks, databases and websites the network coordinators manage all activities and project results were able to achieve maximum exposure. Two of the partner organizations (ZSI and TUDO) are initiators and cooperate in the framework of the European School of Social Innovation (ESSI), collaborating in it with other EU and international universities and research centres. ESSI creates a growing network of scientific and training institutions to hold seminars, workshops, summer schools, conferences and study programmes to convey professional social innovation competence and knowledge on post-secondary, tertiary, and post-graduate levels. SI-DRIVE cooperated intensively with other highly relevant and interrelated social innovation projects (namely TEPSIE, TRANSIT, SIMPACT, and CRESSI), social innovation platforms (namely SIX, SIE, EUWIN) and Social Innovation incubators (BENISI, TRANSITION). Partners of SI-DRIVE are also engaged in and actively connect to the Social Innovation Community (SIC) project.

The *global spread* of the project is not only guaranteed by the international partnership of SI-DRIVE. We engaged regional centers of Social Innovation (Singapore, Australia, New Zealand, South-America, Canada, and South-Africa) to guarantee the biggest chance of snow-balling our outcomes. Not only in Europe we achieve a critical mass, but also at world level we achieved a fast up-scaling of our theoretical and empirical results, still ongoing (by invitations for 2018 from Latin-America, Russia, Asia, and Oceania).

… networking: Our consortium had the right leverage for influencing current debates in the seven policy areas, but also on different policy levels. Our consortium partners are engaged in more than 40 international policy platforms, next to their national platforms. Each of the partners works closely together with regional and national ministries as well at the European and global levels (e.g.: ILO (Dhondt), UNDESA/OECD (Millard), UN (Kaderabkova, Millard), EuSPRI and UNIDO (Weber). The Young Foundation, ZSI and TUDO are core players in the Social Innovation Europe and Social Innovation Community initiatives. Other players have networks in specialised subjects of Social Innovation. The collaboration of these major players guaranteed the exposure of the results of the project.

… mobility of researchers: Most of the consortium members developed means and methods for increasing the mobility of researchers. Consortium members organise regularly Summer Schools on Social Innovation where international participation of researchers and practitioners is actively encouraged and supported by specific reimbursement schemes. The YF summer schools have been

organised in different parts of the world (e.g. 2009 Lisbon, 2010 Singapore, 2011 Amsterdam, 2012 Adelaide) to address regional communities involved in Social Innovation. The ZSI summer schools, a spin-off from a successful post-gradual course in project management and innovation, is regularly organised in Austria addressing international audiences from academia and non-university research organizations. Both consortium partners (together with TUDO) have also been hosting highly successful *international conferences* on Social Innovation ("Challenge Social Innovation" (Vienna 2011) and "The most needed social innovations in the 21st century" (Vienna 2009)) which could be seen as the forerunner for the SI-DRIVE conferences (Lisbon 2014, Vienna 2015, and Brussels 2017) designed to strengthen international research networks on Social Innovation and to develop a common research programme as outlined for the first time in the "Vienna declaration on social innovation".

3. Involvement of relevant communities, stakeholders and practitioners

The EU2020-strategy and the Flagship initiatives are highly relevant to the core concerns of SI-DRIVE's policy fields. Therefore we involved policy makers and stakeholders in our research in four distinct ways:

Overviews: The summaries and the EU Policy Briefs of the policy fields and the International Round Tables have shown our main findings in relation to each of the seven policy fields and across, showing our assessment of the strengths and weaknesses of Social Innovation within the respective policy field and in an overarching perspective. On our policy platforms, we brought together national and European policy makers (dealing with the policy field) with our own specialists and leading social innovators from the policy fields. By discussing the knowledge generated in SI-DRIVE we were able to show to policy makers what the impact of Social Innovation could be in each of the fields, and how it could complement the dominant innovation models across these fields.

Foresight: Our foresight sessions proved to be a major tool to engage the relevant communities and practitioners to explore the future issues to be addressed in the policy fields and across them, the possibilities of social innovations to tackle them, the strategies to be pursued for better use of social innovations, and even 'a new language' to deal with possible underinvestment in Social Innovation.

Policy discussion: 14 Round Tables (encompassing the policy fields Education and Lifelong Learning, Employment, Environment, Energy Supply, Transport and Mobility, Health and Social Care, Poverty Reduction and Sustainable Development, and International Policy and Foresight Workshops) created "safe spaces" for all the engaged experts and policy makers to share their ideas and to help formulate the Social Innovation Agenda as a step forward towards the EU2020 goals.

Conferences: SI-DRIVE strategically cooperated with the main Social Innovation actors all over the world. For instance, SI-DRIVE took the chance of a first common conference "SI LIVE bringing together Social Innovation - Research, Incubation and Action" (November 2014 in Lisbon), conducted its intermediary international conference "Pathways for Social Change" in Vienna 2015 and its final conference "**Social Innovation – Research and Policy of the Future. Towards a Comprehensive Innovation Policy"** in Brussels 2017 as a joint venture with TRANSIT, CRESSI, SIMPACT and Net4Society, bringing together 150-320 participants from up to 44 countries around the world. Theory building forum (see: https://www.si-drive.eu/?page_id=184) and policy platforms (see: https://www.si-drive.eu/?page_id=186) have been started as well. During the **EU-Conference "Opening up to an Era of Social Innovation" (Lisbon 2017) with more than 1,000 participants,** SI-DRIVE was presented with an **LED stand and a video (download: https://drive.google.com/open?id=12t3rX3dw0v8Yi-651R-KBcUt-bvQafuw), and among many others, to the Portuguese State President, Marcelo Rebelo de Sousa, and the EU-Commissioner for Research, Science and Innovation, Carlos Moedas.** In the high level session „The Next Social Innovation Wave" chaired by Peter Dröll (Director of the Directorate General for Research and Innovation), panelist Antonius Schröder emphasized the main results of SI-DRIVE described above.