

SI-DRIVE
Social Innovation: Driving Force of Social Change

SOCIAL INNOVATION IN ENVIRONMENT AND CLIMATE CHANGE

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1 INTRODUCTION

1.1 AIMS, OBJECTIVES AND LIMITS OF THIS REPORT

This is the summary of Deliverable 6.1 “Policy Field Report: Environment and Climate Change” and provides an overview of a policy field specific study on social innovation and the related governance system. It addresses recent challenges, corresponding practice fields of social innovation as well as social innovation projects. Thereby, the European, national and global levels are all taken into account.

This is a summary of the first report based on the empirical work conducted and underway within the work package 6 Environment and Climate Change of the SI-Drive project. It aims to provide a first point of reference for ongoing discussion within the SI-Drive project, the SI community and the policy sphere. Thus, it discusses the most important challenges in the field of environmental and climate policy and the role social innovations may play to address these challenges. It is not the intention of this report to provide a full-fledged screening of social innovation projects and practice fields at this stage.

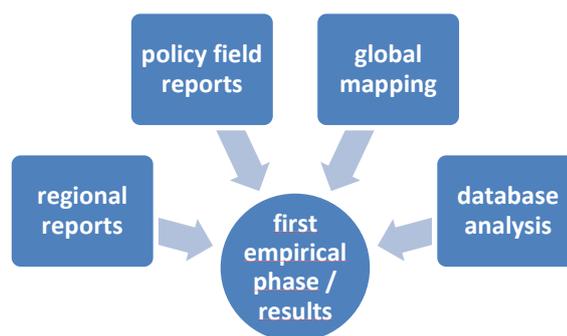
The central research questions are: What kind of social innovation practices can be found in the policy field? Which challenges and social needs are they responding to?

Based on the overall research question and related to the SI-Drive key dimensions¹, concepts of social innovation, societal needs and challenges, the first objective refers to the co-evolution of governance structures and social innovation practices and projects within the policy field. This report provides a first review the context of social innovations. The second is to find out what kind of social innovation practices can be found in the policy field, thereby building a structured bridge between the challenges at hand and the multitude of responses by way of social innovation that can be observed today. The third refers to the policy field's distinctions across different geographical levels. The role of different levels in the policy field's governance system and social innovation practice fields and projects on the EU, national and global level are analysed.

With its emphasis on the (governance) context of social innovation in the policy field, this report is complementary to the SI-Drive mapping which asks for details of concrete social innovation practices and projects, as well as to the SI-Drive report on social innovation in the different world regions, which elaborates main strategies and distinctions of social innovations according to a geographical context.

The report has to be seen as a part of the baseline mapping activities of SI-DRIVE consisting of four pillars:

1. Policy field reports
2. Regional reports
3. Data collection for Mapping 1 (Database of 1.000+ SI cases)
4. Social Innovation Database Screening (compatible with the mapping 1 database)



All in all, seven policy field reports are under way in the present round of this project, addressing: education; employment; environment and climate change; energy; mobility and transport; health and social care, and; poverty and sustainable development. This report (deliverable 6.1 of the SI-Drive project) covers the policy field environment and climate change.

¹ The key dimensions are described in the literature review developed in work package Theory of SI-Drive: Howaldt, J., Butzin, A., Domanski, D., & Kaletka, C. (2014). *Theoretical Approaches to Social Innovation - A Critical Literature Review*. A deliverable of the project: 'Social Innovation: Driving Force of Social Change' (SI-DRIVE). Dortmund: Sozialforschungsstelle.

Due to the iterative approach of SI-DRIVE, the report represents an initial attempt to describe the policy field background and context for social innovation. A second version will be further elaborated on the basis of the results of the first empirical phase (global mapping) and the regional reports, completing the missing countries and regions as well (beginning of 2016). A third and final version will be established after the second empirical phase of in-depth case studies at the end of the project (end-2017).

1.2 INTRODUCTION AND KEY CONCEPTS

This summary covers the policy field of environment and climate change. Numerous environmental challenges stand to negatively affect the lives of billions of people around the world. Changes to the environment are naturally interconnected with developments in other policy fields, such as education, employment and poverty. Moreover, there are strong inter-linkages with the policy field energy, covered by work package 7 of the SI-Drive project, since many environmental impacts such as CO₂ emissions are caused by the current fossil fuel dominated energy supply system. To avoid duplication of effort and overlaps, WP6 Environment focusses on social innovations in the field of environment and climate change, including the demand side of energy but not energy supply. The main interest of this work package are social innovations that are aimed at reducing society's environmental impact. Thus, the empirical work focuses on social innovations with the potential to reduce the environmental stress caused by human activities. Such social innovations could address several environmental challenges such innovations to reduce CO₂ emissions, more resource efficient production and consumption or the protection and conservation of nature.

By social innovation this summary follows the working definition of SI-Drive which **understands social innovation as**

- a new combination or figuration of practices in areas of social action;
- prompted by certain actors or constellations of actors;
- better coping with needs and problems than is possible by the use existing practices.

An innovation is therefore social to the extent that it varies social action, and is socially accepted and diffused in society. Depending on circumstances of social change, interests, policies and power, social ideas as well as successfully implemented SI may be transformed and ultimately institutionalized as regular social practice or made routine (Schroeder, et al., 2014).

Moreover, this summary uses the terms social innovation projects/initiatives and practice fields, which are defined as follows:

A **project/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, different car sharing projects or activities at the regional-local level).

A **practice field** is a general type or "summary" of projects and expresses general characteristics common to different projects (e.g. micro-credit systems, car sharing) (Schroeder, et al., 2014).

This summary provides an overview concerning 1. Policy Challenges, 2. Governace of the policy field 3. Emerging practice fields of social innovations 4 Social innovation and the role of policy and 5. Implications for future Research.

The full report is structured as follows: Chapter 2 initially presents an overview of relevant policies at the European and global levels, focusing on current challenges and governance structures in the field of environmental and climate policy. This is followed by an analysis in how far the term and concept of social innovation is already acknowledged by current policy approaches at the European level. Chapter 3 provides a comparative analysis of challenges in the policy field based on national reports of Austria, Bulgaria, Germany, the Nordic countries, Turkey and the Gulf Cooperation Council (GCC) states. After a comparative analysis of the

governance structures and actor constellations, Chapter 3.2 presents emerging and established social innovations structured around so-called “practice fields” (see definition above). The identification of practice fields is based on the individual country reports, but should cover a large majority of social innovation activities as well in other countries and regions. However, this will be subject to further research in the next phase of the SI-Drive project, namely the global mapping, which will go beyond the countries covered in this initial phase. Chapter 4 elaborates on the initial research questions discussed above, and derives first results based on the baseline mapping presented. In addition it will reflect on the lessons learned from this initial context analysis and mapping exercise that can be used in the further stages of the research. The Annex of the full report comprises in-depth national and regional reports addressing the countries and regions in greater detail, taking into account the specificities of policy challenges, governance structures and emerging practice fields in the specific country/region.

2 SYNTHESIS OF THE MAIN FINDINGS

This synthesis discusses the preliminary results with regard to the overarching research questions presented in the introduction. These first results will be subject to further research in upcoming phases of the SI-Drive project. Please take into account that these findings represent first hypotheses to be scrutinized and probably modified over the course of the project, following the iterative research design of the project.

2.1 POLICY CHALLENGES

The main challenge in the field of environment and climate policy is to address the following environmental problems:

- climate change mitigation and adaptation, energy efficiency,
- resource efficiency,
- air pollution,
- water pollution
- and an increasing loss of biodiversity in almost all world regions.

Other challenges which affect specific countries to a different extent are for instance sealing of soil through new infrastructures, or infrequent crop rotation leading to soil degradation and erosion. Many European countries address these environmental challenges through the development of sustainability policies, thus applying a holistic approach taking into account the interaction of environmental challenges and emphasizing the importance of balancing environmental, economic and social needs and challenges.

Moreover the research conducted revealed that many social innovation projects are addressing several environmental challenges and other societal challenges and needs (related to energy, poverty or unemployment). Thus, the environmental challenges above and social and economic challenges are re-framed as a more general sustainability challenges which is addressed in rather holistic way by various social innovations.

2.2 GOVERNANCE OF THE POLICY FIELD

The analysis of (policy) approaches to address the aforementioned environmental challenges, revealed different approaches. For all EU member states, European policy approaches are the main references with regard to targets, aims and principal approaches regarding how to address an environmental challenge. In the Eastern European member states the implementation of EU policies has led to a considerable improvement of environmental legislation and standards, even though problems with enforcement and compliance exist in some areas. EU environmental policies and standards also have had a large influence on the Turkish environmental policies and have led to a strengthening of a number of environmental regulations (see country report Turkey).

Most of the policy approaches in the EU member states and the Nordic countries refer to the concept of sustainability. Moreover, these countries have strong public institutions to address environmental and climate issues. This typically includes a number of ministries and government agencies, but also strong NGOs and research institutes working on monitoring environmental issues and/or innovative solutions to address these challenges. Many of these organizations, such as environmental agencies or dedicated research institutes, represent the interests of the environment in stakeholder processes. In addition, the most recent policy approaches aim – at least in theory – for a broad participation, or at least representation of stakeholders, including civil society. This holds true for the Nordic countries, such as Sweden, which have a policy system based on the principle of consensus, as well as Austria and Germany where social dialogues and stakeholder processes are part of many policy approaches. Nevertheless, it should be noted that the level of ‘real’ participation of the civil society is subject of ongoing discussions, since many other interest groups may have a stronger role and more resources to influence these processes than civil society actors (Coen, 2005).

The Nordic countries, Germany, Austria, Bulgaria and Romania have organizations in the field of environmental and climate policy, with a strong focus on technology and innovation in order to address challenges in the

field. In particular in Bulgaria, civil society and citizens are generally seen as important actors, not in the least to avoid protests and to improve social acceptance of policies. However, civil society and citizens are seen as a target group of policies only, whereas their role as co-creators and contributors to solutions to address societal challenges is not sufficiently acknowledged.

There is an increasing trend towards participatory policy approaches and public engagement observable across Europe. Nevertheless participation and inclusion in the governance processes differ between the European countries. Whereas the Nordic countries, such as Sweden have developed a policy model based on broad participation and encouraging local engagement, other national policy approaches for instance Bulgaria perceive the civil society rather as a target group of environmental policy and not as co-creator and contributor to governance processes and developing solutions.

The specific governance structure depends largely on the specific environmental issue/challenge and differs considerably between climate policy (a global challenge) and waste management (a rather local/regional issue).

However, only a small number of policy approaches and related documents refer to the term and concept of social innovation. A closer look at the content however shows that many national policies refer implicitly to actions and practices which can be described as social innovations. The main EU policies, such as the 7th Environmental Action Programme (EAP) however, do not explicitly refer to the concept and term of social innovation. Nevertheless, a number of EU policies incorporate processes and actions which could be labelled as social innovations, in particular in the area of recycling and the realisation of a circular economy, but are not labelled explicitly as social innovations.

2.3 EMERGING PRACTICE FIELDS OF SOCIAL INNOVATION IN THE POLICY FIELD ENVIRONMENT AND CLIMATE CHANGE

The following social innovation practice fields could be identified (see below). This is however a preliminary list, which is expected to be extended after the global mapping exercises which will be conducted in the next phase of the SI-Drive project. Many of the practice fields below are related to an environmental challenge; however it should be noted that there are frequently other societal challenges not related to the policy field environment and climate change which are also addressed by these social innovation practice fields. The sharing economy for instance can contribute to an increase of the resource efficiency of our societies, but in addition it offers financial benefits or makes certain products affordable for societal groups which could not afford to buy a certain product otherwise. It appears to be a pattern that most of the social innovation projects captured and summarized by the practice fields below address environmental and other social challenges and needs simultaneously.

- Practice field: Repairing, re-use, extending life time of products

This practice field primarily addresses the challenge to achieve a higher resource efficiency, often in combination with employment and educational aspects (e.g. providing opportunities for long-term unemployed or disabled people to repair electronics).

- Practice field: Sustainable (strategic) consuming, sharing economy

Social innovations related to this practice fields address the issue of resource efficiency and energy efficiency, which are both as well related to climate change mitigation, by strategically consuming products and services with an lower environmental impact and sharing products, which lowers the overall need for production of these articles, eventually increasing the resource efficiency of the whole society ("doing more with less").

- Practice field: New forms of sustainable living

New forms of sustainable living are a holistic and most probably the most radical approach to address numerous environmental challenges (climate change mitigation, energy and resource efficiency,

water and air pollution) at the same time. Many of these initiatives are a response to a dissatisfaction of the current societal system and the perceived need to develop radical solutions, thus proponents of these approaches question the current societal and economic system as such (even beyond its environmental impact).

- Practice field: Urban gardening

This practice fields can be interpreted to address the issue of biodiversity. However as stated above, the main motivations for most of the projects in this field are probably related to the lack of green spaces in cities or the desire to produce food by yourself. Other projects are focussed on enabling intercultural change by setting up urban gardening activities. Nevertheless many of the social innovation projects identified at this stage of the project explicitly or implicitly aim to address the issue of biodiversity.

- Practice field: Protection and restoring of eco-systems

As the name of the practice field already indicates, the protection and re-storing of ecosystems are the common aims and characteristics of social innovation in this field. It addresses primarily the increasing loss of biodiversity.

- Practice field: Eco-labelling

This practice field comprises the labelling of environmental friendly products and services to enable consumers to make conscious choices. Thus, eco-labelling aims to enable new social practices potentially addressing all environmental issues listed above.

- Practice field: Alternative sustainable food production and distribution (organic in combination with new organisation models, such as cooperatives, direct distribution to customers)

Social innovation activities summarized in this practice field aim to lower the environmental impact through sustainable food production and distribution practices. Social innovation in this field are frequently addressing several challenges beyond environmental concerns, such as improving public health or addressing (food) poverty. A number of projects make use of food surpluses and avoid throwing away food by providing it to people who would be starving (or in danger of) otherwise. By doing so these projects address challenges related to the environment and poverty at the same time.

- Practice field: Reducing waste of raw materials & recycling

Relation to challenges: This practice field clearly address the challenge of resource efficiency as well as the challenge of an efficient system to collect waste which is a particular problem in Eastern and Southern Europe. Similar to the other practice fields, many social innovation projects address other societal challenges which could be related to poverty or employment.

- Practice field: Energy advice and consulting - with focus on enabling low-income groups to save energy / costs

Addressing the challenge to increase the energy efficiency, this practice fields simultaneously relates to the societal challenge of poverty.

- Practice Field: Socio-technical innovation addressing societal challenges, new forms of research and development

This practice field could address all environmental challenges, where existing technologies are causing the environmental challenges discussed above. New forms of developing and implementing new technologies could contribute to the emergence of new kinds of socio-technical innovations with

the potential reduce environmental impacts. Thus this practice fields is potentially related to all policy challenges, issues such as climate change, energy or resource efficiency.

- Practice field: "Historical social innovations" - Sustainable water management approaches

This practice field illustrates "historical" social innovations which were developed to manage scarce resources such as water. However, it is special since these social innovations were imaging in the past, and are currently replaced by non-sustainable practices. Currently environmental problems arise since these "historical" social innovations are increasingly abolished and replaced by modern, less sustainable practices. Thus interesting lessons are expected with regard to the life cycle of social innovations and the decline of formerly innovations, even though this practice field has different characteristics than the ones discussed before, which summarize emerging patterns of social innovations.

To conclude, in the policy field environment and climate change social innovation practice fields are often addressing several societal challenges at the same time. Frequently the main motivation of these social innovation activities is not directly related to environmental challenges as such, but to challenges in other policy fields such as poverty reduction, employment or education. Thus, a clear cut distinction to which societal challenges social innovations are responding to is not possible as such. It seems to be a pattern that many social innovation are developed to address a specific issue, but the actors developing them, want to implement their solution in a sustainable way, thus addressing environmental challenges as well.

As a first hypothesis it can be concluded that there is a particularly high potential (and need) for social innovation in the field of resource efficiency, respectively the realization of a circular economy. In order to reach this vision, new social practices which enable the recurrent use of resources are to be developed and implemented to supplement socio-technical innovations, such as new recycling technologies.

The practice fields and hypotheses listed here are the result of a first empirical screening and will be adjusted, defined in more concise way and in some cases re-labelled based on more empirical material which will be available through the mapping exercises in the upcoming working phases of the SI-Drive project.

2.4 SOCIAL INNOVATION AND THE ROLE OF POLICY

In some countries, in particular in the Nordic countries, Germany, Austria and to some extent Bulgaria and Romania social innovations are encouraged by policy, even though the activities are not referred to as social innovations. In Turkey social innovations are not actively encouraged by policy, but recognized and acknowledged. In how far these different contexts influence the nature and development of social innovations cannot be assessed at the current stage. This report primarily provided an analysis of the context of social innovation and an initial screening of emerging social innovation practice fields. However, there is not yet sufficient information available about specific projects and how the context discussed in this report, influence each other. How the context and the different policy approaches influence social innovation will be analysed when more empirical information about the projects as such is available. The same holds true regarding the relation between social innovations and social change. More empirical data is necessary to judge in how far social innovations in the field are actually a driving force of social change. As a first hypothesis however, many social innovation projects appear to operate on a relatively small scale and are not (yet) a driving force of social change in this policy field. This does not mean that specific social innovations have a large impact in certain spatial context or with regard to specific environmental issues as some of the examples presented in Chapter 3.2 demonstrate².

2.5 IMPLICATIONS FOR FUTURE RESEARCH

There are two main conclusions for further research:

First, the concept of practice fields proved to be useful to summarize and describe social innovation projects with similar characteristics. It enables us to describe patterns of social innovations beyond single social

² E.g. TEMA and its re-forestation campaigns have a rather large impact in Turkey in the field of re-forestations

innovation projects. The collection of practice fields presented and discussed within this summary will be useful for the upcoming mapping and compilation of a database of 1000+ social innovation cases. On the one hand it will be helpful to have an initial set of categories available to summarize this large number of single social innovation projects and on the other hand it will provide guidance about the wide range of possible social innovation projects taking place all over the globe. Nevertheless, it is important that this list is preliminary and will be extended and/or adjusted taking into account the results from the mapping. It is important to take care that the initial list will not pre-determine and limit the selection of social innovation cases which will be mapped; therefore the database will provide the opportunity to capture additional practice fields.

Second, another important finding is that, it became clear that practice fields are frequently addressing numerous societal challenges, in many cases challenges related to different policy fields at the same time. This as well has implications for the coordination of the research during the upcoming mapping exercise.

This summary focusses on the description and analysis of the context of social innovations, thus not all research questions, in particular those focusing on the interaction of context and social innovation projects can be answered at the moment, since we did not study the social innovation projects in detail yet. This will be done in the upcoming global mapping. The next step of analysis will include a more detailed analysis of the context (focus of this summary) and its relation and interaction with social innovation activities (focus of the upcoming research).