SISCODE CO-DESIGN FOR SOCIETY IN INNOVATION AND SCIENCE

DELIVERABLE 1.3:

THEORETICAL FRAMEWORK AND TOOLS FOR UNDERSTANDING CO-CREATION IN CONTEXTS

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Glossary of used terms

Acronym	Definition
EU	European Union
RRI	Responsible Research and Innovation
STI	Science, Technology and Innovation
WP	Work Package

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Executive Summary

SISCODE's overall aim is to better understand co-creation-as a bottom-up and design driven phenomenon. In analysing co-creations favourable conditions that support its effective introduction, scalability and replication, RRI practices and policies are striven to be cross-fertilised on the long-run. Therefore, diverse co-creation ecosystems are to be described in their effective dynamics and outcomes of the respective forms of integrating society in science and innovation. In WP1, a theoretical and empirical background was developed, that relies on an extensive literature review as well as the exploitation of recent scientific discourses on co-creation in RRI and policy making as well as on design for policy.

D1.3 summarizes these findings to prepare a pattern for further research to be done within SISCODE. One key assumption deriving from theoretical and empirical knowledge on co-creation is related to its context-specificity. To further examine environments, where co-creation takes place in everyday live, chapter 2 enriches previous findings by adding the theoretical perspective of social innovation and social innovation ecosystems (***chapter 2***). To create a transition from theory and existing knowledge to our research in WP2, an analytical grid, or search pattern has been developed (see ***chapter 3***) which will be the heart of three research phases defined in the proposal: knowledge base, case-studies, and biographies. This empirical work will be carried out in WP2. Key aspects from D1.1 and D1.2 were translated into seven observation units that lead the research, reaching from gathering factual knowledge to information on existing networks and partnerships to contexts and environments of the cases of co-creation. In order to enhance understanding of the way initiatives take to become who they are, individual pathways and drivers and barriers are queried, too. Special focus lays on processes and practices of co-creation, e.g. how participation processes were introduced, how stakeholders were engaged etc. Tightly connected are tools and instruments used to shape co-creation and to generate results. A last unit relates to the lessons the initiatives learned. In ***chapter 4*** practical guidelines and principles for our research are presented to pave the way for starting into the field work. Also, the research agenda and overall working plan can be found. ***Chapter 5*** is a first step towards a knowledge base as it contains a brief recall on how the selection criteria of cases were developed in the SISCODE consortium. On this base a handout and a list of possible sources to identify and choose cases of co-creation was developed. Both documents, meant to be a supportive element for the partners, can be found in the Annex of this document.

1 Introduction

This report has been compiled to meet the objectives of Task 1.4 within the first Workpackage of the SISCODE project: namely, to triangulate knowledge produced in Task 1.1 (RRI Research Landscape) and Task 1.2 (Co-creation in RRI practices and STI policies) as well as Task 1.3 (Comparative analysis on co-creation methodologies in RRI practices). Task 1.4 is meant to build up a coherent framework for the empirical phase in WP2. In other words, the deliverable at hand presents a *bridge between the status quo in theory and literature* and its inherent methodological derivations for the empirical research foreseen. Against this background we collected and discussed implications for the theoretical and practical framework of SISCODE. Chapter 1.1 introduces the function and placement of D1.3 within SISCODE and briefly sums up the key aspects from WP1 to provide a common knowledge base for all readers.

1.1 Context, placement and function of D1.3

Co-creation in policy making is able to create an "enlargement of the opportunities for civic collaboration, including citizens, stakeholders, and public issues" not involved before (Firmstone and Coleman, 2015; cf. also D1.2). In a process of mutual fertilisation, different sectors and stakeholders interact and combine their knowledge resources from lays as well as from experts. Their aim is to create innovative solutions in order to conquer new and old problems and to tackle the structural problem of managing the implementation phase of policies.

The current discourse on this issue is working on reconciliation between the two dominant thinking schools of bottom-up and top-down approaches. But there is a lack of consistent and suitable definitions and frameworks on how to effectively create an environment where co-creation can unfold its full potential. It is a challenge to find appropriate ways to align relevant dimensions of co-creation and the inherent repositories of knowledge from different characters as well as mind-sets and concepts that come to light in the process. In SISCODE, cases of co-creation in different surroundings are examined to learn from the practices and procedures carried out in order to draw conclusions for the assessment and creation of policies.

In the deliverable at hand main results from theoretical groundwork of WP1 are used to identify parameters to be examined within explorative research in WP2. This is done by assuming a comparative perspective to better understand the role of co-creation in building systems of mutual trust and 'spaces of possibilities' for all stakeholders involved to effectively represent their respective demands and needs. The function of Deliverable 1.3 is therefore threefold: *First*, it synthesizes preceding results, *secondly*, these are translated them into a learning framework for empirical research (analytical grid) and *thirdly*, first requirements are produced to start into the field work of WP2.

1.2 Key aspects from D1.1 and D1.2

One important premise is to recall the results from D1.1 and 1.2 that will be translated into a research matrix and analytical grid later in this report. We will do this by showing the interlinkages found and key aspects taken from the deliverables mentioned mainly in chapter 2. For a brief recapitulation of what has been concluded in T1.1, 1.2 and 1.3, these are the main findings of D1.1 and D1.2:

CO-CREATION IN RESPONSIBLE RESEARCH AND INNOVATION (RRI). A REVIEW OF POLICY AND PRACTICE.

Main findings of D1.1 at a glance (D1.1, p. 2, emphases added):

- "The EU has funded a range of projects and produced a number of policies that identify co-creation as an important part of RRI. In particular, they argue that **involving citizens in shaping technology and innovation is a key way of bringing science and society closer together**".
- "Projects working on **conceptions of RRI aspire to citizen-led practices**, in which **citizens become the decision-makers and exhibit higher levels of control**. Within this approach, science, as much as the public, are problematized and subject to debate and contestation."
- "In practice however, the **level of participation** adopted by projects that operationalize RRI **range from co-creation to consultation**, with **many tending to fall towards the consultation end of the spectrum**."
- "Throughout policy, theory and practice, there were **calls to institutionalise co-creation processes such that participants are sufficiently rewarded** to take part and that it becomes embedded in the innovation process."
- "**Methods and objectives of co-creation need to be explicit and carefully selected to be appropriate** to the subject, context and people. There may be differences between the national-level institutional, regulatory and industrial policy making structures, making certain types of co-creation activities naturally more successful in certain contexts."

CO-CREATION IN RRI PRACTICES AND STI POLICIES

Main findings of D1.2 at a glance (cf. Deserti, 2018)**:**

- Policy formation and implementation

- "the **gap between ideation and implementation** […] has been closed by well-established practices, techniques and tools in the traditional domains of design […] [,] in the field of policy making this gap is still to be closed"
- "the mismatch between intentions and results emerges as one of the core problems"
- **"top-down and […] bottom-up approaches alone proved ineffective".**
- **"co-creation is emerging as a new approach** but its introduction is a great challenge and its efficacy is still to be demonstrated"

- The role of citizens

- **"citizens can take up different roles in the co-creation process**, that range from exploration, to ideation, to design and diffusion", they "can be **co-designers**, **co-implementers** and **initiators**"
- "the involvement of citizens challenges established practices and calls for a **shift of power**"
- "co-design more recently looks at a **vast system of actors and stakeholders** to be engaged in the research and innovation process"
- "cases […] in […] **public service and welfare innovation**, and […] **urban planning and territorial development**" might provide particularly relevant examples

- Experts and lay people

- "the designation of **'expert' is a function of how** particular actors understood the world, **rather than what** they understood"
- "recently **citizen science** focused on the role of citizens in the construction of scientific knowledge"
- "there's a **gap in the involvement of the public in framing the problems** to be solved"
- "the **value of the opinion of non-experts** needs to be established"

- Issues with (STI) policy making

- "**acceptance of co-creation is a quite relevant question**" for policy-making
- "there is a **need to involve policymakers in the whole co-creation process"** for achieving more "acceptance and trust" for co-creation
- "measuring impact on policy is complex and requires a long timeline"
- "context matters: policy making practices differ in different contexts, and **one size does not fit all**"

- Policies as objects of design

- "looking at policies as objects of design" can "introduce an innovative approach to policy making, transferring working practices in a contextualised fashion"
- Implementing "**experimentation, prototyping and modification towards the "final" configuration" in "the policy making process** […] would offer the possibility to better connect design and realisation to achieve higher degrees of implementability"

2 Lessons learned: requirements to examine co-creation in contexts

Chapter 2 first shows the interlinkages of the key aspects laid out in the introduction. Paragraph 2.2 then draws first conclusions related to the context-specificity of co-creation, to be able to draw conclusions for the overall approach of the empirical research in chapter 1.3.

2.1 Interlinkages: co-creation in (STI) policy making through design

Co-creation is believed to hold the potential to enhance mutual understanding between different stakeholders in the field of science, technology and innovation (STI) policy. However, the efficiency of co-creation is yet to be proven in practice (cf. D1.2) and it must be stated that especially the end-user's perspective is not yet sufficiently integrated in practices of co-creation in policy making. In order to develop purposive strategies, the role of citizens as key actors in the process of co-creation must be strengthened (c.f. D1.1). Furthermore, empirical research showed that especially diverse and interdisciplinary working groups are vital to come up with innovative solutions that are better adapted to actual societal needs.

Creative design driven policy processes, following the design course from ideation to implementation, might contribute greatly to reach a better alignment between policy purposes and their practical implementation. Design as the process of creating "new integrations of signs, things, actions and environments that address the concrete needs and values of human beings in diverse circumstances" (Buchanan, 1990, p. 20) is believed to be able to provide "a whole new way for policy-making to be done" (D1.2, p. 45). But yet, in order to explore co-creation's full potential for policy making and in responsible research and innovation (RRI), an initial step must be to broaden the knowledge on co-creation itself, as there is a lack of consistent and suitable definitions and frameworks on how to effectively create co-creative processes and environments where these processes might unfold their potential impact.

It is a challenge to find appropriate ways to align relevant dimensions of co-creation and the various characteristic repositories of knowledge as well as mind-sets and concepts that come to light in the process. In order to operationalise co-creation, SISCODE elaborated a

working definition. Co-creation "is […] currently emerging (or re-emerging) as an innovation paradigm in urban planning, social innovation, public services and welfare innovation, and territorial development" (cf. SISCODE website) and the variety of understandings throughout these different disciplines and beyond is not contributing to a clear and shared concept. However, SISCODE found that there are common themes connecting different perspectives on co-creation, suitable enough to be elements for a shared basis of understanding: ***"Co-creation is a non-linear process that involves multiple actors and stakeholders in the ideation, implementation and assessment of products, services, policies and systems with the aim of improving their efficiency and effectiveness, and the satisfaction of those who take part in the process." (ibid., p. 1, cf. SISCODE website).***

Originating in the fundamental assumption of an existing **gap between the processes of 'inventing' policies and implementing them in a specific system**, D 1.2 points out that there is a need to develop more efficient approaches in bringing the intentions of policy to realization in the 'real world' of everyday practices. Historically anchored in the policy making debate (Hill & Hupe, 2002; D1.1, p. 13), the subject of finding new ways of policy making to reach a better alignment of intentions and outcomes of policies is now in the focus of various scientific and non-scientific disciplines. Most of these share a disposition to favour a participatory approach and the perception of a "rising need to engage diverse actors and stakeholders in the policy making process" (D1.2). One stream of these disciplines dedicated to policy making is focused on design (cf. Howlett, 2011; 2014) with the working principle "to have a number of policy actors work together in an organized fashion, with the aim of improving the policy making process to realize better outcomes" (D1.2, p. 17).

The actual forms of using design knowledge and activities in terms of applying tools and instruments from design studies remains an open question, just as the forms of knowledge to be acquired does (i.e. the integration of lay and expert knowledge). The close relationship between 'good' and promising cooperation among different actors and on how to arrange such a process and the perspective of design studies was a main focus in D1.2. It can be concluded that both policy makers and designers alike strive to find the 'right' ways of facilitating processes of co-creation to construct better solutions.

In a similar way, RRI also aims to enable all stakeholders from an early stage on to gather information necessary to assess "the outcomes of their actions and on the range of options open to them" (Expert Group on the State of Art in Europe on Responsible Research and Innovation, 2013; cf. D1.2). Another target is to design and develop new research, products and services in form of a "collective, inclusive and system-wide approach" (ibid.).

Several approaches of finding these right ways are already tried and carried out in everyday practices of policy making and RRI. Co-creation is clearly predominant in public services reform / reconfiguration as well as in welfare innovation and in urban planning and territorial development efforts (cf. chapter 4, D1.2). What can also be said is that co-creation tends to come to halt in its first stages of policy making, and a dominant 'science to the rescue' perspective can be made out in relation to RRI approaches. Moreover, the analyses of projects in SISCODE's D1.1 revealed a tendency of participatory measures to limit the involvement of stakeholders to some kind of consultation, i.e.: stakeholders are sometimes not fully included into such processes to the fullest, hence truly participatory, extend. Furthermore, also a "mismatch between intentions and results" (D1.1, p. 2) was found to cut down the potential of full stakeholder-involvement via real co-creation in practice. It is necessary to broaden the focus and to observe co-creation beyond the field of policy making and RRI by looking out for examples of co-creation where social and lay knowledge is equally valued as the expertise of people professionally dedicated to the target of the co-creative activity. Non-experts can be "co-designers, co-implementer, initiator" (D1.2, p. 66; cf. Voorberg, Bekkers & Tummers, 2015). One initial question must be how contexts of co-creation may be considered in the empirical research on the co-creation.

2.2 Context matters: Co-creation as social innovation

It has been highlighted in the previous deliverables how a possible framework should be tightly connected to the settings where co-creative practices and processes take place. In order to draw conclusions from the observations on the diverse cases of co-creation for the areas of RRI and Policy Making, it needs to be kept in mind, that the successful implementation of co-creation is believed to be "based on the interaction between policy and context" (D1.2, p. 11) whereas practices of policy making might vary due to their respective contexts themselves (cf. ibid). Therefore, it becomes evident that co-creation is "a matter of aligning different contexts, cultures, beliefs and knowledge(s) (for example lay

and expert knowledge) within a frame of collaboration and partnership processes, which enact policy making as nonlinear, open-ended and iterative trajectory" (D1.2).

One research strand connected to co-creation is research on social innovation. The alignment of both concepts points at the potential of utilising co-creation for tackling "social needs", "societal demands" and "social challenges" (BEPA, 2010). When social innovation is understood as a new combination or figuration of practices, prompted by certain actors, with the goal of better coping with needs and problems than is possible by use of existing practices (cf. Howaldt et al., 2014, p. 3), collaboration is essential for realizing innovative solutions to challenges, needs and demands on various levels. Moreover, co-creation can even foster the diffusion of innovative practices as it can ensure a higher relevance for the users who are actively involved in the process. Bringing together co-creation and social innovation is also linked to the importance of understanding the ecosystems in which innovative solutions can flourish (cf. e.g. Domanski & Kaletka, 2018, p. 208).

In social innovation research, the focus on ecosystemic settings is increasingly gaining popularity. It is seen as a fruitful approach to visualise and describe the arrangements of actors, structures, norms and codes as well as regulating entities and policies that set the frame for social innovations, i.e. phenomena of co-creation. When actors from different backgrounds come together to work on solutions in a co-creation process, the potential of joint innovating as explained in the quadruple helix model (Carayannis & Campbell, 2012) can be unfolded. In order to examine specific environments or ecosystems, a simplified model of interacting layers may help to structure all those factors which promote or hinder the successful development of initiatives.

Recent research in the field of social innovation tries to find ways of describing and operationalizing important factors within ecosystems of social innovation that work as impeding or hindering components for the single initiatives or cases. One model was developed within the project "Boosting the Impact of Social Innovation in Europe through Economic Underpinnings (SIMPACT)", funded in the 7th Framework Programme of the European Union. Here, the complexity of ecosystemic factors influencing initiatives was described on four layers - *roles, functions, structures and norms*. Figure 1, taken from the SIMPACT project, visualizes the four layers.

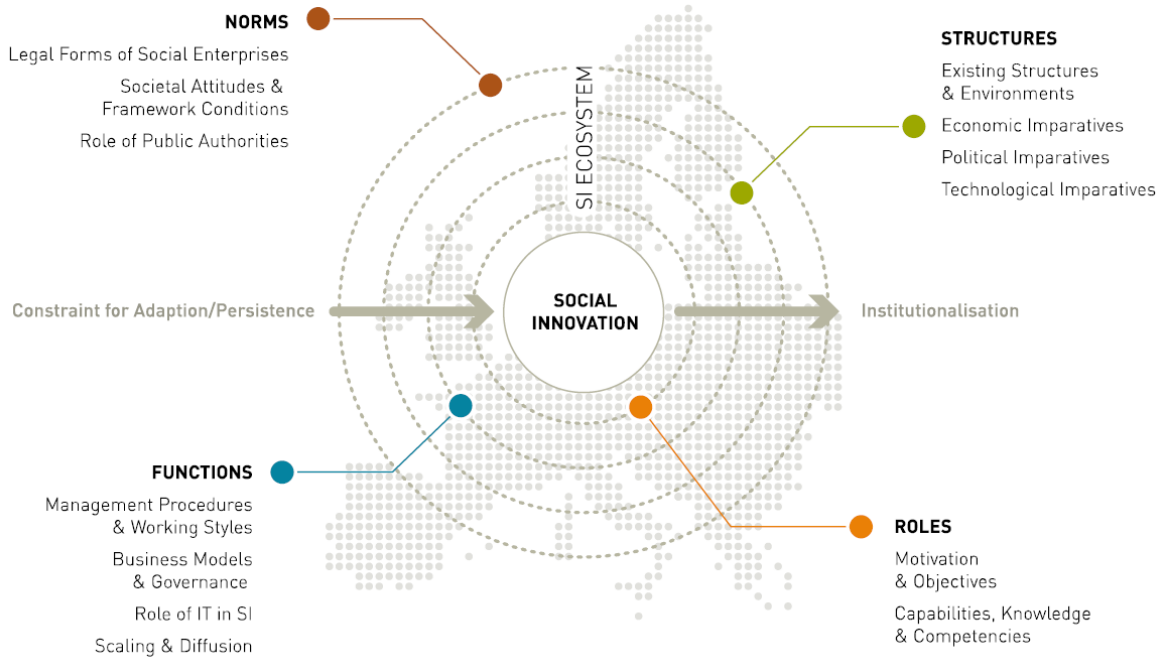

Figure 1- Social Innovation Ecosystem (Pelka & Markmann, 2015)

The innermost layer forms the ***context of roles or actors***, where socio-demographic factors and roles of social innovation stakeholders and beneficiaries are identified. This may also include political and social attitudes, motivations, socialization, self-concepts, capabilities and skills. In the co-creation case, that may e.g. concern the citizen side, where "personal characteristics, intrinsic values, and biographic dimensions (education and family background)" are considered to be deterministic for the willingness and forms of participating in processes of co-creation programs (Wise et al., 2012).

On the level of a ***context of function*** management procedures, business and governance models might be in question. For co-creation we have to ask, how its process has been initiated. It is known from research in the field that already the selection process of relevant stakeholders is highly important for the success of co-creation activities. Descriptions on this level may also affect the way digital devices are handled or if communication channels are suitable for the overridden goal or not.

Shedding light on the ***context of structures,*** constraints and the influence of existing institutions, economic, political and technological imperatives might become visible. Very objectively, one could ask for the resources (e.g. financial, knowledge, etc.) that are available in a specific ecosystem and if existing infrastructures are construed to support co-

creation. Related issues might range from spatial accessibility to legal hurdles or the availability of physical space and so forth.

Lastly, the ***context of norms*** has to be considered to examine contexts of co-creation. Societal framework conditions and challenges are important when trying to find out more about the framework-conditions of co-creation. This normative layer bears hints towards professional and ethical standards, historical and legal conditions and widely accepted social standards or even towards social standards that are questioned within a society. Therefore, it is also providing a fruitful perspective for understanding possible accelerators or hurdles to collaboration between different societal actors on certain issues or in general.

Obviously, observing these layers as standalones is not very promising. It is much rather the effects of their interplay which are of interest for the SISCODE project. These will be in the focus of WP2, which will also contain more detailed explanations on the context-model. At this stage, the potential for creating a descriptive perspective and find a common vocabulary to name processes and phenomena within contexts of co-creation in the SISCODE project is in focus. As a recurring pattern that will be gradually enriched throughout SISCODEs lifetime.

2.3 Summary: Main aspects for the examination

Main findings of deliverables D1.1 and D1.2 led to some important implications regarding the interlinkages of co-creation, policy making and the use and potential of design methods and principles.
It is clear by now, that the examination of co-creative practices needs to operate on different levels by taking several factors into specific account:

- Citizens are the key actors in co-creation: Their role and their interaction with other stakeholders needs to be in the focus of research efforts:
    - How their engagement was initiated, how the briefing took place and how feelings of ownership were created;
    - Who they were and if all affected groups were involved in the process.
- Design plays a crucial role for realizing co-creation. Its principles and their application need to be in focus for both, our empirical research and our own participative activities:

  - Taking a design-perspective and building on design principles and methods can help closing the gap between ideation and implementation. It is therefore important to take design into account for both, within SISCODE itself and in the analyses of cases;
  - Design already proved its potential to help operationalizing co-creation This aspect is considered as particularly beneficial for SISCODE and puts design into the core of our research;
  - Design methods and principles hold potential to generate mutual understanding between citizens, researchers and policy makers – it has to be examined how current practices are implemented. This also emphasizes a need for application of design methods and principles in our own co-creation phases throughout SISCODE.
- It needs to be asked, who profits in which way from co-creation to gain insights into the motivations of stakeholders.
- An often seen mismatch between intentions and results: What were the intentions at all and how did they correlate with the outputs?
- The stage of co-creation is a decisive factor, as co-creation tends to stop at the level of pure consultation – it needs to be asked why that is the case in the SISCODE research efforts.
- A core issue is the alignment of different forms of contexts and knowledge.
- We know by now, that types of co-creation are varying in their success and depend on the context – these have to be examined on different levels, e.g. alongside the social innovation ecosystem perspective.
- We also identified major hurdles and challenges to the implementation of co-design (e.g. selecting the right stakeholders or realizing a full co-creation process beyond simple consultation) leading to important implications for the later research focus in WP2 and the co-creation activities within SISCODE alike.

The implications of D1.1 and D1.2 also guide the perspective on the research's practical procedure and are thus discussed and taken up in chapter 4.1 as well.

Apart from the implications and insights provided by tasks T1.1, 1.2 and 1.3, shedding light on the relevance of a social innovation perspective proved to be important. Social innovation studies highlight the relevance of contexts for any kind of socially innovative

activities; i.e. such as co-creation. It also indicated the importance of co-creation as a means for bringing together the relevant stakeholders and actors for realizing social innovations.

3 Analytical grid

Previous work in WP1 has shown that co-creation cannot be conceptualized in a straight linear logic. In the contrary, it must be captured in its multi-dynamic process-character and context-dependency. Given all the tensions between processes of governance on the macro-level, meso- or intermediate structures (characterized, for example, by organisations and alliances), and individual needs and role-conflicts on micro-level, research in the field must work on finding suitable concepts and methodologies. In order to address the phenomenon of co-creation as exhaustively as possible, the research plan employs a mixed-method approach, combining a quantitative and qualitative research ratio.

In the following, three levels of the explorative study are determined: *description*, *explanation* and *comparison* (cf. chapter 3.1). Paragraph 3.2 will then illustrate seven observation units that function as a guideline for the data collection in SISCODE. These deliver a search pattern and form the grid for the parameters (or variables) to operationalize theoretical and empirical insights from the preceding groundwork of WP1. In 3.3, an extensive table can be found that synthesises the presumptions laid out in this deliverable so far, including example questions to be posed within research in WP2.

3.1 Foci for the explorative study

The different levels of research mentioned above aim on detailing the knowledge on co-creation and its contexts in an increasing manner the further the project is going on. The process starts with an exploration of factual knowledge in order to be able to first describe what is actually going on in the field. The following phases' target, in an increasing manner, the identification of differences within the specific environments related to the respective co-creative process. With the overall aim to generate results in form of a comparative understanding of the interactions between different social dimensions (on macro-, meso- and micro-levels), the last issue to be addressed is to find out as much as possible about the modalities of how stakeholders involved, as well as their everyday practices, interact with environmental factors.

Three questions are of high significance: Who does what with whom in which contexts? What happens on the spot, what are the dynamics in the field? And what are the differences

and similarities in-between the processes? The table below details the meanings of these questions.

Descriptive focus: **Who does what with whom in which contexts?**
Here, factual knowledge is gathered to learn about what is actually going on in the very heterogenic field of co-creation. First, this concerns basic data on projects and initiatives, like the names and descriptions of cases and their locations and classifications in terms of their character as projects or NGOs or single initiatives etc. Cooperation, partnerships and networks they uphold, interacting sectors and the purposes driving the initiatives are of central interest, as well. Of course, it is also important to know how their pathway looked like, that made them into what they are now. Everything that is relatively easy to ask and answer related to the (design) tools and methodologies they use is a topic within this descriptive focus.
Explanatory focus: **What happens on the spot, what are the dynamics in the field?**
From a more systemic perspective and with the factual knowledge as a background, it is possible to deepen the knowledge insofar as the interaction of dimensions comes into play. In order to be able to explain the dynamics in the field, it is necessary to identify relevant factors for which the context-model mentioned within chapter 2.2 of this deliverable becomes an important matrix: this includes the roles of actors that are involved, or the way pre-existing norms might influence the everyday practices. A key question is how different stakeholders interpret 'their' contexts of co-creation and what these interpretations might say concerning the overall structure of co-creative practices.
Comparative focus: **What are the similarities and differences in-between the processes?**
When the everyday practices are examined more closely, first conclusions might be drawn towards lessons learned and overridden structures that influence the phenomenon of co-creation in detail. It might be possible to make statements about specific power-knowledge relations that play a role in the degree co-creative practices are able to unfold in a certain societal context. While the dimensions of roles, functions, structures and norms were examined more as standalones until here, the focus now lies on observing the way, dimensions tend to interact with one another in specific ecosystems of social innovation or co-creation.

Table 1 - Research foci and their guiding questions

3.2 Observation units

From these different strands and aspects laid out in the preceding paragraphs, different structuring units for observation become evident. A first complex is dedicated to gather

factual knowledge to form an initial starting point. Deriving from that, it is possible to take a closer look at the partnerships and networks the initiative/project upholds to then gain insights into concrete environmental factors playing a relevant role in carrying out the initiatives.

To broaden the knowledge on pathways of processes and practices of co-creation, one unit of observation is dedicated to the shape of the route the cases took to reach their specific status quo. This includes the drivers and barriers they encountered on their way and also some characteristic interfaces and turning points. The specific form of co-creation in each case is an extra unit within the framework. Thereby, the concrete processes (e.g. how the participants were selected, motivated and briefed) are likewise in focus, as are the tools used by the cases to guide through the co-creative processes. As this is another key aspect of SISCODE, the tools and instruments form a unit for themselves. In a final step, the 'lessons learned' from the individual pathways will be examined. The following table gives an overview on the units of observation identified:

Block	Designation
I	Factual knowledge concerning the cases
II	Networks and partners
III	Context and environment
IV	Pathways, drivers and barriers
V	Processes and practices of co-creation (incl. role of design)
VI	Tools and instruments
VII	Lessons learned

Table 2 - Observation units

To complete this preliminary framework, the seven observations units are underpinned by a series of parameters to guide the process of explorative research in WP2.

3.3 Summary: Parameters to be examined

The table below gives a first overview of the parameters that become important in the examination of co-creation processes in their specific settings. The column on the left refers back to the observation units laid out in the previous chapter. The centre column exemplifies parameters that let the researcher investigate the process of co-creation in a

structured manner. To assure a coherent recourse onto the manifold theoretical and empirical basics that were laid out in D1.1 and D1.2 and that were reflected in the course of the deliverable at hand, the column on the right contains very brief back references to the results gained in WP1 so far. After every observation unit, a column can be found that contains example questions to illustrate the topics from interest as well as the form questions might look like throughout the field study in its different phases.

The open character of this list must be stressed at this point – it presents an initial grid to start into a multi-level process of getting closer to the ecosystems of co-creation and the processes, people and social practices that characterize this process. The mixed-methods approach, which will be further elaborated in chapter 2.2, starts with a quantitative analysis of at least 100 cases of co-creation. The list of parameters sets out the first requirements to construct a suitable online questionnaire to start working on the database.

Observation unit	Parameters	Concepts and description
Factual knowledge	Name, location, webpage, contact, activeness, start (end), funding, sectors, societal challenges	*Explorative, descriptive part of the survey to build up the database*
	Overall objective, policy fields addressed, key concept	
	Characterization of the case as (e.g. as a project, NGO etc.)	
	Localization of the engagement process (e.g. in policy making, RRI)	E.g. PROSO-project division: agenda-setting and policy formation; consultative participation; impact assessment procedures; scientific knowledge production; CSO involvement; events; grassroots approaches (cf. D1.1)
	Classification of co-creation alongside the working definition	Co-creation: within communities; inside companies/ organisations; between companies and their business partners; between companies and the people they serve (Sanders & Simons 2009) or other, not yet defined forms (cf. SISCODE webpage)

Example questions: What are the names and titles of the initiatives and projects? Where are they located? How can the cases be classified? Are they rather single initiatives or do they have a (collaborative) project character? Who is in charge, who is included? What are the main purposes and visions? How is the initiative financed?		
Networks and partners	Networks the case operates within, existing partnerships	Meso-organizational arrangements (i.e. network of public organizations, consortium of NGOs and stakeholders strategic alliances), and local needs and variables (cf. D1.2)
	Focus of the supporting action through partners	E.g. financial, infrastructural, personal, human resources support – this also gives first hints on what initiatives of different character might need
Example questions: What cooperation, partnerships and networks exist? Which sectors interact? Which "types of knowledge" are involved? Which are predominant? When is external support needed? How are the possible partners/ stakeholders identified?		
Context and environment	Grade of institutionalization or external incentives	Change in roles or leadership may weaken commitments in PE and may become inconsistent if not formalized (Ahmed et al., 2017; Hahn, et al., 2017). That calls for an overarching strategy/ shared understanding of roles supporting co-creation of policy and public engagement (Domanski, Kaletka, 2017).
	Spread and diffusion, Level of operation (local, regional…)	Local, regional, national, international contexts, motivations to scale the own approach
	Significance of public engagement	The manifestations of public engagement within a society, a "tradition" of public engagement and the societal mind-set towards it influences
Example questions: What are the local needs? What are the most relevant actors in the local context? Are there incentives to support co-creation? Is the context rather stable and reliable or not? How do functions and norms compile to the practices?		
Pathway, drivers and barriers	Stages and intersections of the co-creation process	Sustainability of equality of voices – and decision-making power (Arnstein 1969; D1.1, p. 19 f.)

	Intensity of collaboration, hindering and impeding factors	May allow insights in both the relevance of co-creation in sustaining the trust in the public administration, and the ability of specific stakeholders and citizens groups to be effective representative in the definition of policy measures (D1.2, p. 33)
Example questions: What were the initial motivations to start the co-creative process? Who started it? Was It e.g. a single, motivated person or a municipal institution? What were the intersections and/or fracture points? What is the grade of institutionalization? What are the drivers and barriers?		
Process and practices of co-creation	Selection process (self-initiative or selection by someone else?)	In the most relevant case studies, co-creation is confined to small groups of informed and well educated people, thus neglecting citizens with a lack of cultural and social capital, and reproducing social and economic inequalities among citizens (Norris, 2002; Coleman & Firmstone, 2014;. cf. also D1.2, p. 33)
	Briefing/ preparing of stakeholders	Participants need accurate, adequate and trusted briefing material; robust, open, inclusive, contextualised and sourced from a variety of different stakeholders from different regions of the spectrum (Edler, Randles & Gough 2015; c.f. D1.1)
	Mediation and evaluation	In order to create better dialogue between researchers and the public, there is a need for people who are able to play the role of a mediator between the two. (D1.1, p. 13)
	Specific goals	Co-creation is treated as an exercise used to: - Define societal issues; - Guide research orientation; - Create dialogue around policy making; - Crowdsource ideas; - Gather data for science projects: - Policy making.

	Role of design	Designing in terms of *designing design*, designing *together* or designing in *between/among* (SISCODE 2018, p. 85)
Example questions: What level of citizen engagement was involved? What are the key features of co-creation or RRI activity? Is co-creation/RRI seen as a process or an outcome? At what phase of the process did co-creation take place? Which (design) tools are used for realizing co-creation? What is produced/what is changed as a result? What is at stake: what is open for discussion and what is not?		
Tools and instruments	Methods and their assessment	E.g.: Focus groups; workshops; written communication; development of storyboards; ethnography; science cafe; conferences; pop-up science shops; incubation activities; scenario workshops; dialogue; other
	Specifying design tools, assessment if possible	I.e. problem definition canvas; idea card; personas; stakeholders map; business model; customer journey; report / documentation
Example questions: Which tools and methods were used? At which stages of the process were they used? How did the co-creation process benefit from the use of design tools? Were the tools appropriate? Was the use of methods successful? How were the tools accepted?		
Lessons learned	Final remarks and conclusions, systematization	*Exploration of what the initiatives and cases can contribute to enlarge knowledge on what works and what not*
Example questions: What lessons were learnt? How can lessons learned and overridden structures be systematized? What are the limits of co creation in a respective instance? What can be done to heap co-creation from consultation to implementation?		

Table 3 - Analytical grid

4 Practical procedure

In the following, a brief overview of the framework is presented to illustrate the overall process of data-collection (2.2.1). In the next step, short explanations concerning the strategic goals of each research phase are given (2.2.2). All visualisations were part of the workshop on WP2 Kick-off in Barcelona during the second progress meeting. They are used as recurring images to keep track on the progress within the research efforts.

4.1 Access to practices of co-creation

Practicing what we preach?

SISCODE is combining research on co-creation while following co-creation principles itself. Building upon such an approach means that findings from theory and scientific analyses of empirical results are combined with the benefits of co-creation for the involved stakeholders and the project. Tools and methods which have proven successful in other co-creation and co-design projects will be considered for the case-study activities in SISCODE. I.e.: If a case of co-creation has established a certain, effective form of user-centric interview to formulate a problem, we should use it within our own research if adequately applicable in the respective context. In result, such tools will also be used for co-creation and co-design in the experimentation phases, enhancing the activities based on empirics. In practice, design tools have proven to be effective for operationalising co-creation (e.g. European Commission, 2012; Deserti & Rizzo, 2015; Terstriep et al., 2015) and to close the gap between ideation and implementation (cf. D1.2).

Hence, SISCODE is consequently featuring an interactive research design right from the start which is taking design methods and principles into account not only for co-creative measures but also beyond, keeping in mind the prevailing gap between ideation and implementation in policy-making (cf. D1.2) which will exemplary be tackled by design-led co-creation. The overall project design will, therefore, aim at exploring 'research through design' (RTI). Hence, researchers will be forced to "focus on research of the future, instead of on the present or the past." (D1.2; see Zimmerman, Stolterman & Forlizzi, 2010).

Furthermore, research on co-creation within the literature reviews and the quantitative and qualitative analyses of cases collected by SISCODE is not limited to examining tools and methods. The focus will also be on questions of diversity and the level of participation. As elaborated in paragraph 1.1, in some cases participation in co-creation might not be realized to a reasonable extend. However, SISCODE's report on design for policy informs that in the cases analysed, user-involvement has been a very strong point on the agendas (D1.2). Hence, for our work user-involvement must also be a main focus even more. Moreover, it must be ensured to involve the relevant ('right') stakeholders of the respective issue as it was aimed for by the most cases collected and analysed in the report on design for policy. So when SISCODE calls for user-involvement of all stakeholders in co-creation

processes, including the consideration of underlying perspectives like diversity, it has to take these issues into account for its own activities as well.

One the one hand, this approach will be realized by integrating such issues in the analytical framework. Gender and diversity, for instance, will therefore be part of the cross-cutting themes used for case analyses in WP2. On the other hand, achieving diversity and the realization of real participation, e.g. of non-experts as "co-designers, co-implementer, initiatior" (D1.2, p. 66; cf. Voorberg, Bekkers & Tummers, 2015), have to be the aim of the co-creation and co-design activities within the project. If users connected to the topics of the collaborative measurements were excluded from these activities based on whatever reasons, SISCODE would not achieve the status of a good example for co-creation itself.

Iterative research process

As stated above, SISCODE's overall research approach is inspired by design principles. An often seen method already established outside of the world of designers and already framing processes of ideation and innovation (Brown, 2009) is design thinking. One of its core principles is iteration which provides a bunch of benefits for a process from ideation to implementation. Findings of SISCODE's review of European projects and policies focussing on co-creation and RRI point at a necessity of "understanding and integrating co-creation as an iterative process" (D1.1, p. 15). It was found that static processes for development and implementation fail to reflect the diverse and changing knowledge bases and perspectives as well as norms. In contrast, an iterative process can react on changing framework conditions within a co-creation process. Hence, iteration is not only beneficial for refining prototypes with deficits not recognized or anticipated before, but also for taking contextual changes into account within a follow-up iteration loop.

Besides the question of changing framework conditions for co-creation, an iterative research design also helps to improve the outputs on all levels as they are interlinked to one another. By employing a 'meta-design approach', as suggested in the report on design for policy (D 1.2, pp. 83ff), SISCODE tries to establish design-led, iterative learning cycles for its co-creation processes (esp. in WP3 and WP4) in order to achieve a connection of "the design approach with the organizational learning experience, through the integration of appropriate design tools, the co-creation of solutions, the introduction and integration of

new knowledge and the connection with policy making." (D 1.2, 86). These learning cycles will feature four stages (ibid):

I. "**Concrete Experience**: the learner encounters a new experience or situation, or re-interpret an existing experience. This phase focuses on analyzing the context."
II. "**Reflective Observation**: the learner reflects on the experience on personal basis, trying to map the gap between experience and understanding. This phase focuses on reframing the problem."
III. "**Abstract Conceptualization**: the learner elaborates new ideas based on the previous reflection or on modifications of the existing abstract ideas. This phase focuses on envisioning alternatives."
IV. "**Active Experimentation**: the learner applies the new ideas to her surroundings to see if there are any modifications in the next appearance of the experience. This phase focuses on development and prototyping of solutions to the problem."

On the superordinate level, the cyclical (iterative) approach is designed to follow this route: Empirical findings will support practical exercises of co-creation while they are also supported by the outputs of the co-creation activities themselves. In particular, the case studies will inform the co-creation labs of successful approaches for co-creation which will then be the basis for experiments and assessment afterwards. In a next step, policy experiments will be made after the approaches have been reshaped subsequently to reflecting on relevant context factors.

The implementation of successful approaches in STI policy making will then provide additional successful examples. This feedback-loop is an important element of the reflective framework that forms the background for research efforts in SISCODE. Overall "the iterative involvement of users through feedback loops of insight, input and prototype tests helps support the […] hypothesis that *design approaches can help bridge the gap between ideation and implementation and achieve higher levels of citizen engagement*" (D1.2, p. 15).

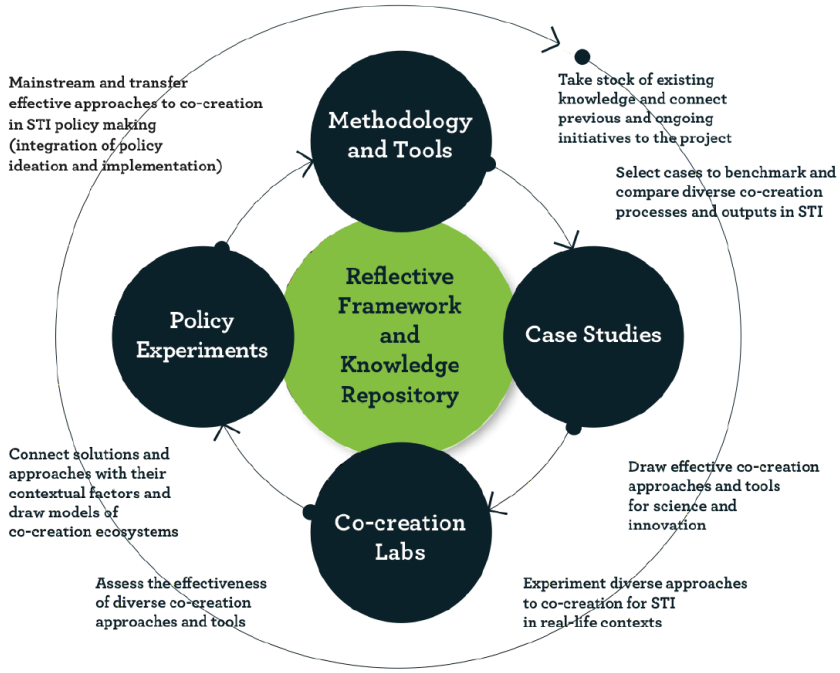

Figure 2 - Iteration cycle of SISCODE (SISCODE Description of Action, 2017, p. 13)

In summary, the research design of SISCODE is building on elements from design studies. These elements concern the process of ideation as well as the process of implementation and the overarching and connecting feedback-loop as well as the underlying feedback-loops within single tasks or work packages. How design principles will underpin research on cases will be defined together with the criteria for the case-study selection in WP2.

Using tools everyone knows and understands

Another major finding of SISCODE's deliverable 1.1 reveals the importance of understandable practices throughout the process of collaborative research. Starting from these insights, participants in co-creation activities not only need to understand the overall purpose of a project but also the design of processes and the progress of a project. In order to achieve these aims, projects following the principles of RRI should find sufficient strategies to inform participants about why progress is happening and in which way it has been achieved. On the one hand, findings within such projects should therefore be accessible and understandable. There is hence a need for transparency – not only by publishing results but by presenting results and methods in a comprehensible and accessible way. On the other hand, findings which are based on very complex methods might lack understanding and possibly even acceptance by the users. This situation should be avoided by making them sufficiently transparent. Even though complex tools have

already proven themselves through a long tradition of academic research, they might not be applicable for research striving to realize true user involvement. Of course, the right tools for accessing findings hidden in the field cannot always be simple or be easily understood. But if complex methods are necessary it is important to realize as much understanding as possible.

Therefore, for SISCODE it is important (1) to build upon comprehensible methods and to explain to users the benefits of complex research tools as well as to achieve acceptance for the tools used. This does also mean selecting the right methods for each purpose. It is (2) also important to present findings of SISCODE's research in a comprehensible and transparent manner in order to achieve comprehensibility and acceptance for the research activities.

Putting a strong focus on the comprehensibility of methods or tools and their usage is particularly important when users are directly confronted with them. This will especially be the case when co-creation workshops are held or when users are asked to participate in any kind of survey. For SISCODE this will be of relevance throughout the whole project and especially for work packages 3 and 4 where co-creation and co-design activities will be used. For the general aim of achieving understanding of tools and methods it is irrelevant whether it is policy-makers, citizens or third sector organisations participating in measures like the survey in task 2.1 or co-design and co-creation workshops. No matter which group is participating or addressed, the tools for action research, co-creation and co-design should be understandable and suitable for achieving the highest possible level of user involvement and acceptance. When looking at the interrelation of tools and methods and the realization of participation and acceptance, it becomes clear that the suitability of tools and methods is not limited to their comprehensibility in terms of understanding their outputs and their purpose. Participative research seriously aiming at RRI and striving to be social in its ends needs to take into account the diverse capabilities of the stakeholders. Therefore, it needs not only to treat each individual equally, but also according to their context-specific capabilities (for background information on the capability approach, cf. e.g.: Deneulin & Shahani, 2009). Otherwise, it might not be able to realize the involvement of all groups affected by the activities, resulting in inequality of (participation) opportunities. Users should be able to participate. First, this means the tools must be available to all users addressed. But secondly, the users also need to understand how a tool

works. For instance, if a virtual tool is used for involving citizens with a low level of ICT experience, the aim of participation might fail due to an inappropriate selection of means.

For participative research in SISCODE it is therefore important to find tools for participation that are accessible and which consider the capabilities of the addressed populations. Exclusive tools must be avoided wherever possible.

Moreover, the selection of tools which are not meeting the criteria of inclusiveness can put the SISCODE's diversity and gender sensitive approach at risk. It is therefore particularly important for all participatory measures to keep the diversity of participants in mind. In this context, it does not matter which dimension might be affected and possibly lead to a risk of vulnerability, marginalization or exclusion. Any inequality of opportunities needs to be avoided by the selection and application of tools and methods. Beyond the perspective on choosing tools that are understandable, participative research can also benefit greatly from choosing tools enhancing the understanding of the users. For instance, the decision for prototyping is an important building block for achieving the aim of better understanding; also regarding understanding of consequences. While prototyping is, of course, done for realizing testing measures it is also providing the tool for achieving the users' understanding of what could be the consequences of which (prototyped) approaches. It thereby fosters a "critical decision-making process […] which allows different stakeholders to consider the ethical impact of their proposed solutions" (D1.2, p. 86).

4.2 Overview on the research agenda

As mentioned, SISCODE follows a mixed-methods approach to examine co-creation in contexts in order to better understand co-creative ecosystems. One goal is to explore the circumstances under which the impact of co-creative processes in policy and/ or RRI might be optimized. The framework for the research efforts in the first step – that means in WP2, Task 2.1 – is based on the theoretical outline produced in D1.1 and D1.2, which anchors the whole process in these theoretical insights. D1.3 contains the key aspects and main ideas from these two reports and translates them into a theoretical foundation for a better understanding of co-creation in contexts (the analytical grid from chapter 3). The mixed-methods design, that has already been a part of the proposal, is threefold and can be understood as follows:

1. At first, a ***database*** is created that will collect more than 100 cases of co-creation – that means, the partners identify and select projects and initiatives in line with SISCODE's working definition of co-creation (cf. chapter 2.1). Quantitative analysis will provide first insights concerning the cases' diverse cultural, institutional and regulatory frameworks in which they unfold and the impeding or hindering factors they face. Alongside the seven observation units, descriptive information is gathered via an online questionnaire.
2. Out of the knowledge-base and first quantitative analysis on the status quo in co-creation, 40 projects will be selected to be developed as case studies, whereby the selection process intends to find representative cases with respect to the parameters identified in this deliverable and their further amendments in the course of the project. That should also guarantee a broad range of variety in the case studies.
3. In order to be able to draw further conclusions concerning hidden mechanisms (e.g. knowledge-power-relations), another set of 15 cases that are paradigmatic for dynamics identified will be selected. They help to take the final step of the analysis, where all results will be reflected in their mutual dependencies. In form of biographical narratives, paradigmatic stories will be told.

The following figure illustrates the overall practical procedure:

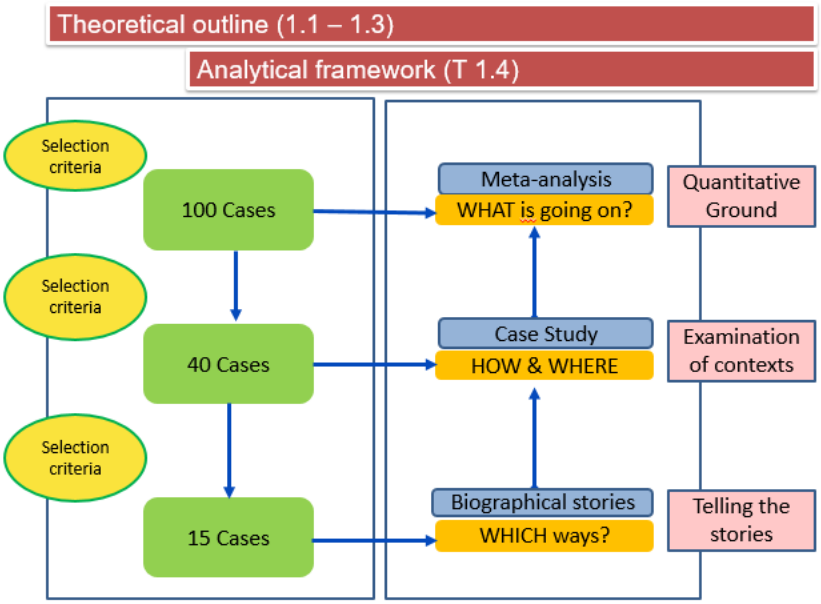

Figure 3 - overview on the research agenda

4.3 Summary: From description to triangulation

As elaborated in chapter 3, also the overview and procedural approach indicate three levels of research, which describe different depths of analysis. While the observation units and parameters identified are of interest in all three phases foreseen, every research methodology has its limitations regarding the results it is able to produce. The four different context layers and their corresponding norms, functions, structures and roles as well as their interplay provide data to fill the analytical grid presented before (cf. chapter 3.3). Figure 4 shows the framework and SISCODE's empirical proceeding once more, while the methodologies and the targeted levels are pointed out clearer.

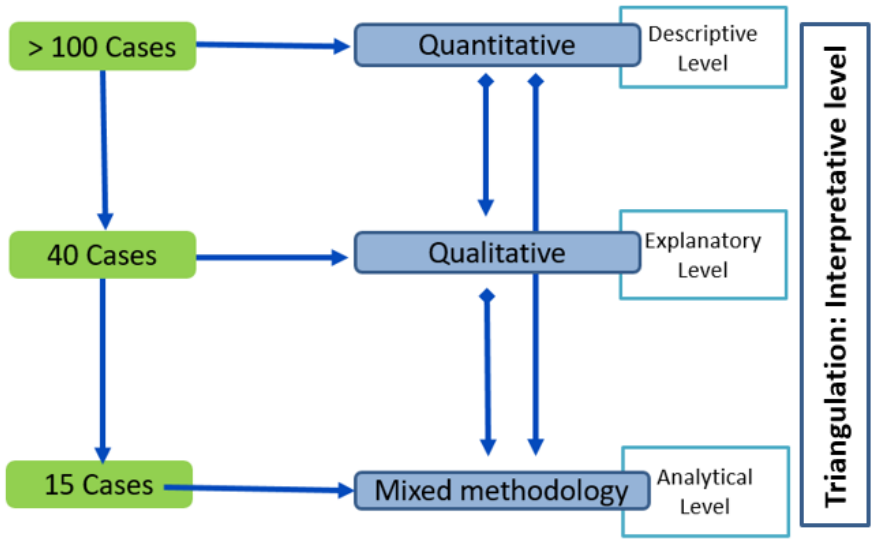

Figure 4 - Methodological approach

All in all, research in SISCODE focuses on a descriptive level to open up the field and to examine first and foremost the status-quo on what is actually happening. To get closer to the context, first explanations are to be found to find first hints towards correlations between everyday practices and environmental factors. In a deeper assessment, an analytical level is reached, whereby first derivations are surmised. But, to reach the long-term objective of comparative insights, an integrated perspective on the results produced in the previous steps of description, explanation and analysis is needed.

In a triangulated overall view, which might also be called "interpretative level" a coherent interpretation of the results should take place. In the sense of a summarizing appraisal the

obtained knowledge is set in a wider context. In result, we will hopefully be able to present a fruitful matrix to further examine contexts and ecosystems of co-creation in the subsequent progression of the SISCODE project.

5 Case selection plan

A careful and target-oriented case-selection can be seen as one condition for SISCODE's succeeding. To find, identify and select cases that meet the purpose and objectives of SISCODE, a number of criteria was identified by the consortium. After discussing and adapting the case-selection draft plan with the consortium in a workshop session during the first progress meeting in Barcelona, a plan for case-selection was fixed (see 5.1). In 5.2 and 5.3 two additional documents are briefly described, which should support the partners in selecting and finding the 'right' cases for SISCODE. The one-page guideline on case selection as well as a list of existing databases can be a useful support for everyone involved.

5.1 What is a case?

The database of initiatives, projects or organisations of co-creation is not intended as an end in itself, but is rather the foundation for further research activities, especially case studies, and useful insights for SISCODE. To ensure a good quality of the database, it is necessary to enable a smooth and reliable process of case identification by the consortium members.

The question "What is a case?" should be answered based on clear criteria. The definition of co-creation alone, as already depicted in chapter 1.1, is not sufficient for this purpose as it only includes the content-related aspects of co-creation. However, the suitability of potential cases for the further research activities is also very relevant and has to be included. Finding criteria also means to balance between the effort to not narrow the focus down with too many or too limiting criteria on the one hand, and a clear 'catalogue of requirements' cases need to meet on the other hand. At the same time, a broad variety of cases is striven, that reflects the heterogeneity of co-creation practices.

In order to establish appropriate, easy-to-apply criteria, a mutual process with all consortium members was conducted, as the work on the question "what is a case" already started during the kick-off meeting of SISCODE in Milan. The following first progress meeting in Brussels included a further session surrounding this issue. During the second progress meeting in Barcelona, five working criteria, derived from previous discussions were discussed within a final workshop session on case selection.

Accordingly, a case is:

1. What an expert defines as a case
2. Within the framework of our working definition of co-creation
3. It has a special focus on policy making and/or RRI
4. It follows design principles ex- or implicitly
5. Sufficient data is available to the expert(s)

From the question, if the SISCODE consortium knew cases, they would like to see included in the database, but which do not meet the criteria, an open discussion on case-selection was started. In this way, both the reliability as well as the validity of the criteria were improved and ensured. Furthermore, a distinction between optional and non-optional criteria was introduced.

In the first place, working criteria 1 and 2 were summarised into one single criterion representing the content-related aspects of the potential cases: *"Follows one or more principles of co-creation and is defined as a 'case' by the researchers".* The wording was also adapted slightly: In place of "experts" the terms "researchers" was used as this matches the structure of the consortium. In the perception of the limiting character of applying all requirements of the working definition, the adapted criterion is more open to cases that do not fulfil all aspects of SISCODE's working definition.

The second non-optional criterion relates to the further uses of the database: a case, which complies with the definition of co-creation, but cannot be further analysed due to a lack of information, is not suitable to be included into the database. The consortium agreed on the importance of making sure that every case should have the potential to be turned into a case study and therefore "*offers enough data to hold the potential to be turned into a case study".*

Based on these two non-optional criteria, it is possible to decide, if a case fits the requirements of the database. However, the composition of the database also plays a role. It would be very gainful for the project to not only have a high number of fitting cases, but also a high proportion of cases which are particularly interesting for a further analysis. For this, the working criteria 3 and 4 were adapted as optional criteria into the new framework.

They are intended to be used as guidelines to make comparative choices to strengthen the quality - not the quantity - of the database.

Criterion 3 is "*Follows design principles, either ex- or implicitly*." and refers to the idea of design thinking and its role within a specific initiative, project or organisation of co-creation. Criterion 4 is "has a special focus on Policy Making and / or RRI". Design Thinking, Policy making and the approach of Responsible Research and Innovation (RRI) are all special alignments of the SISCODE project. Cases which include such aspects are particularly interesting for a further analysis.

The following table summarises the criteria the consortium has agreed on:

A case is an initiative/project/organization, that:	
Not optional	1. Follows one or more principles of co-creation and is defined as a 'case' by the researchers
	2. Offers sufficient data to hold the potential to be turned into a case study
Optional	3. Follows design principles, either ex- or implicitly
	4. has a special focus on Policy Making and / or RRI

Table 4 - Case selection criteria

In order to ensure flexibility and openness of the process, consortium members will additionally, have the possibility to name further cases they would like to see included into the database but do not meet the criteria. In terms of ensuring a broad context-variety of cases, all partners are asked to concentrate on their respective territorial region (e.g. Northern Europe).

5.2 How to identify cases?

To guarantee a common base of understanding concerning the definition of what is a possible case for SISCODE, a 'case selection template' was developed to support all partner organisations in selecting suitable cases for the shared goals in the project. The template is supposed to work as a handout to be spread around within the partner organisations and participating individuals. Together with the list of sources (see 2.2.3), it functions as a leaflet to ensure a joint approach in this important phase of finding, identifying and selecting the 'right' cases for the project's interests. It contains the two not optional and two optional criterions cases have to meet. Furthermore, it also encloses a short explanation

and two examples of 1) what would be a case following the definition and 2) what would not be a case. The full version of the template is to be found in the Annex of this deliverable.

5.3 Where do we find cases?

A collection of database sources was developed to complement the handout on case selection. That list is meant to be a supportive element for all partners in finding and identifying suitable cases. The SISCODE project does not seek to develop a completely new compilation of cases. It does not strive to "reinvent the wheel", but relies on already available and well researched databases and compilations, as well as on the knowledge and wide-reaching networks of the partner organisations. The document featuring the databases was uploaded to Basecamp, the main communication channel of the SISCODE consortium, together with the case-selection template. The extended list can be found in the Annex of this deliverable as well. The collection shows the name of the database on the left side, a description of the focus on collected cases in the middle column of the table, and a link to the homepage of the respective database on the right side.

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Annex 1. Handout: Case-selection in SISCODE

Introduction: We strive to get to know more about co-creation and its potential to be a leading maxim for policy and in RRI. In a first stage, we create a knowledge base on co-creation in diverse fields (not necessarily Design/Policy/RRI related) from a broad range of regions and contexts via an online questionnaire.

To collect ***at least 100*** examples, every partner-organisation should identify ***at least seven cases*** alongside the following criteria:

	A case is an initiative/project/organisation, that:
Optional	1. Follows one or more main principles of co-creation and is defined as a 'case' by the researchers
	2. Offers enough data and the potential to be turned into a case study
Non optional	3. Follows design principles, either ex- or implicitly
	4. Has a special focus on Policy Making and / or RRI

Table 1- Criteria for cases selection

Please start researching within 'your European Region' – e.g. if you are from Denmark, please focus on Northern Europe – but do not limit yourself! When you are sure you have an interesting case, that is located somewhere else, please feed it into the survey, nevertheless!

Clarifications:

1. **Main principles of co-creation:**
    - Co-creation is a non-linear process that involves multiple actors and stakeholders from different backgrounds;
    - Co-creation takes place in the ideation, implementation and assessment of products, services policies and systems with the aim of improving their efficiency and effectiveness, and the satisfaction of those who take part in the process.

The more principles apply to the case, the better it might be as an example for co-creation!

2. **When you choose cases, please check if the case:**
    - Improves/ changes something by applying co-creation;
    - Involves multiple actors and stakeholders from different sectors;
    - Offers enough information (or the info is easy accessible to you) to make a case study out of it.

Annex 2. Initial list of the sources for the case selection

Project	Short description	Website
SIMPACT	SIMPACT covers research on the Economic Foundation of Social Innovation» related to the components, objectives and principles of the social innovation process and measurement of social innovations at micro-level to inform policymakers, investors and other interested stakeholder	http://simpact-project.eu/evidence/sicases/pdf/BCS9.pdf
SI-DRIVE / Atlas of Social Innovation	The Atlas of Social Innovation is a database which resulted from the European and global mapping survey comprises 1000+ social innovation cases derived from different sources such as the 25 SI-DRIVE project partners, social innovators (practitioners) and invited institutions funding or supporting social innovation	https://www.socialinnovationatlas.net/
CASI	Public Participation in Developing a Common Framework for the Assessment and Management of Sustainable Innovation	http://www.casi2020.eu/casipedia/si-pilots/
ProGReSS	ProGReSS is Promoting global responsible research and Social and Scientific innovation	http://www.progressproject.eu/more-rri-resources/
Res-AGorA	Responsible Research and Innovation in a Distributed Anticipatory Governance Frame	http://res-agora.eu/rri-resources/
CORDIS	Community Research and Development Information Service	https://cordis.europa.eu/projects/home_en.html
EC Project databases	List of databases of EU-funded research and innovation projects and results	https://ec.europa.eu/info/research-and-innovation/projects/project-databases_en
EC success stories	A database of projects and success stories of funded research	http://ec.europa.eu/research/infocentre/index_en.cfm
Ashoka	Ashoka builds and cultivates a community of change leaders who see that the world now requires everyone to be a change maker	https://www.ashoka.org/en
EFARRI	The European Foundations Award for Responsible Research & Innovation	http://efarri.eu/
Labs Map I	A *Fab Lab* is a technical prototyping platform for	https://www.fablabs.i

FabLabs	innovation and invention, providing stimulus for local entrepreneurship	o/labs/map
ENoLL	Living Labs (LLs) are defined as user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings	https://enoll.org/network/living-labs/
GenPORT	GenPORT is a community sourced Internet Portal on gender and science	http://www.genderportal.eu/projects
SiS.net	SIS.net is a Network of National Contact Points for Science with and for Society in Horizon 2020	http://www.sisnetwork.eu/
SCIENTIX	SCIENTIX is a community for science education in Europe	http://www.scientix.eu/web/guest/projects
INTERREG Deutschland-Nederland	To support the cross-border cooperation between countries, The European Union has created a subsidy program, INTERREG, to support the cross border cooperation between countries.	https://www.deutschland-nederland.eu/en/project-database/
NRW-Plattform Wirtschaft und Arbeit 4.0 (only in German)	This mapping shows innovative initiatives in North Rhine-Westphalia, Germany	https://digitales.nrw/de/landkarte-digitales_nrw
DSI	Digital Social Innovation is a Network with more than 2200 organizations and more than 1300 projects working across Europe	https://digitalsocial.eu/viz/
CAPS - The Collective Awareness Platforms for Sustainability and Social Innovation	The Collective Awareness Platforms for Sustainability and Social Innovation (CAPS) initiative pioneers new models to create awareness of emerging sustainability challenges and of the role that each and every one of us can play to ease them through collective action	https://ec.europa.eu/digital-single-market/en/collective-awareness
Design for Europe	Design for Europe is an initiative to support innovation in Europe	http://www.designforeurope.eu/
SIKE	SIKE is a knowledge exchange programme to develop new social projects and products through universities across Europe	https://sike-eu.org/
LASIN	LASIN is a network of Universities across the world that wants to make a real contribution to their communities; fostering cooperation to incubate and influence social change and innovation	http://www.lasin-eu.org/en

SEASIN	The South East Asia Social Innovation Network is a project funded by the European Commission which effectively supports and promotes social innovation as a means to achieve sustainable and inclusive socio-economic growth, social cohesion and equity in South East Asia	http://www.seasin-eu.org/

Table 1 – Initial list of sources from where to select potential cases studies


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