

SISCODE CO-DESIGN FOR SOCIETY IN INNOVATION AND SCIENCE

D4.1

Design for policy making

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Authors	Nina Mackeprang Bruhn (DDC) Julie Hjort (DDC) Sara Gry Striegler (DDC) Mads Ohland-Andersen (DDC)
Reviewers	Anja Köppchen (CUBE) Carla Sadini (Polifactory) Tedora Aibu (SPI)
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1. Executive summary

Can co-creation be a means of creating better policy? With this report we strive to provide a better understanding of the frictions, potentials and challenges between the strategic level of policy making and the operative level of grassroots experimentation as they engage in co-creation.

Specifically, this analysis dives into the interaction between small-scale experimentation (bottom up) and co-creative practices in policy making (top down). It is explored by connecting the results from SISCODE's 10 co-creation labs and 11 workshops that have engaged policy makers around co-creation.

Through the analysis of 15 interviews, we have explored values, barriers and enablers to co-creation in policy making experienced in two overall researches. Some of the experiences unfolded in the light of parallel practices as well as the grounding knowledge gathered in SISCODE on design for policy making. The purpose of this is to identify applicable recommendations on how to implement and stimulate the use of co-creation driven by design in policy for both policy makers as well as bottom up innovators.

To support the understanding of the overall research approach and the purpose of design for policy making, the first chapters introduce the context of the SISCODE project, the objectives, the methodological approach and the theoretical framework of this deliverable. Values of co-creating with policy makers at the operative level and of integrating co-creation at the strategic level is presented in chapter 5.

Chapter 6 presents the analysis of the interview data, unfolding the barriers and enablers to co-creation within policy making experienced and interpreted in 11 policy workshops, and to co-creating with policy makers experienced in 10 co-creation journeys.

Drawing on the analysis, chapter 7 correlates top down and bottom up approaches to co-creation and discusses how we can create the right conditions for bridging the gap between the ideation and implementation of solutions and policies.

Finally, recommendations to further the use of co-creation are formulated in chapter 8, divided into three sections: **the strategic playground** for policy makers, **the operative playground** for grassroot initiatives, and **the interactive playground** for all parties involved.

Recommendations

This report has led to the following recommendations targeting policy makers and bottom up innovators curious to learn about the opportunities of co-creation and to discover possible ways to implement and stimulate co-creation practices at different levels of policy making.

The strategic playground - for policy makers

1. Create room to experiment and navigate the unknown

The iterative and exploratory nature of co-creation can directly challenge the modus operandi of policy making. As a policymaker, try to identify situations in your daily work where there is room to experiment, test and look for new answers and perspectives. This space will be your starting point for co-creation.

2. Think about the co-creation tools you have available

In a co-creation process you actively listen to and understand user needs and try to find ways to meet these. You make sure to get many different perspectives from both citizens and other important stakeholders and experts to enrich the angles of your project or challenge. Reflect on which tools and instruments that are available to you as a policymaker to act upon the inputs you receive. And be creative. Think past the obvious and classical ways of acting such as legislation and procurement. The political toolbox offers a range of instruments that you can use to influence the outcome: in the way you stimulate or lead new investments, the way you experiment with and provide new services (sandboxes and test beds), the way you steward a sector and build awareness and collaborate with others to build and develop new ideas and in a broad sense co-create change by mobilizing governments, citizens and experts (e.g. mission-oriented innovation).

3. Train and build up capacities for co-creation

The act of co-creating with a diverse stakeholder group calls for careful preparation as well as dedicated planning to genuinely accommodate the needs and demands of users

in new policy. It is not necessary for policy makers to be co-creation experts. Yet, this work demands an ability to build trust and a confidentiality to participate and engage. You need experience, insight and the use of practical tools.

The operative playground - for innovators, labs and grass root initiators

1. Communicate your goal

Co-creation is an open and explorative process that is new terrain for many policy makers and hard to grasp. Don't make it too hard to understand. Be very clear about your project goal and why co-creation with policy makers will enforce the process. What is their role and how can they help?

2. Build relationships

Good relationships foster better collaboration. Do not underestimate the value of creating relationships with the policy makers in your domain. Be genuinely curious about their needs and dreams and try to stay updated on relevant policy initiatives and agendas. Prepare your engagement with them: Identify and understand what keeps them up at night and how participating in your process can make them shine and succeed with their own missions and agendas. Do your best to keep in continuous contact - also outside the realm of your co-creation process.

3. Start out on a local and operational level

Identify which policy makers could be open to and curious about your project and who are most likely to valuably contribute to the process. It is seldom the major or the president, but local and more operational policy makers. They are often the best starting point for your co-creation process. Then, if you process flourishes, they can help you engage the high level policy makers.

The interactive playground - for all parties involved**1. Bring in a third party**

Bringing in a skilled third party as the co-creation facilitator will raise the bar of your co-creation process. A neutral external party will help you create the best conditions for collaborating with a diverse stakeholder group as well across internal departments.

2. Apply design approaches to boost co-creation

Use design as an approach to co-creation. A design process will deploy deep empathy for the user and secure a constant focus on unarticulated needs. As design puts the user as the ultimate reference point, the power dynamic between the participating stakeholders can be altered. It supports moving from insights in a concrete situation in the present to analysis and idea generation towards a new and equally concrete situation in the future. Using visual communication to concretize ideas and interpretation works as boundary objects across different agendas and discourses in the co-creation process, as it enables better dialogue and understanding. Therefore, it gives the participants a common frame of reference.

3. Create neutral grounds for co-creation

Think about where, when and how you host your co-creation. It is important to create an atmosphere where both policy makers, citizens, experts and industry players feel safe and open to engage in the process and where power dynamics are scaled down.

2. Introduction

About the SISCODE project

Policy making in the twenty-first century is undergoing major changes. The rise of a networked world driven by new technologies, new health patterns, new patterns of global trade and escalating climate changes poses unprecedented challenges for policy makers. With the recent COVID-19 pandemic, we have witnessed an extreme stress test of what governments can do. Policy changes that would traditionally have taken years are now implemented in weeks.

As the context in which policies are formed have become increasingly changeable, there is no shortage of interest in improving the effectiveness of current policy making.

Governments and local municipalities must find new and better ways of developing public initiatives and to create more efficient services. Yet, we have no clear picture on how to fundamentally improve how we carry out policy practices (Bason, 2016, s. 33).

What we do know is that the complex challenges of the present call for new approaches and skills on how to develop and implement successful public services. As the world is increasingly characterized by “wicked” societal issues that are complex and open for interpretation, policy makers need to adopt skills and approaches suitable for handling such challenges (Rittel & Webber, 1973).

Co-creation and design approaches bear the potential for policy makers to gain an enhanced understanding of their end user, the target of their policies. 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).

SISCODE - an ambitious effort to mobilize co-creation in policy making

SISCODE (Co-Design for society in innovation and science) is a project funded by the EU's Horizon 2020 program that experiments with co-creation within policy to better include society in science and innovation. SISCODE's overall aim is to better understand co-creation as a bottom-up and design driven phenomenon. By stimulating new ways to solve complex

public problems, the project seeks to encourage and inspire today's governments to integrate design tools and co-creative processes into current models of policy making.

By analyzing and comparing results from local experiments carried out by 10 co-creation labs across Europe, SISCODE examines how co-creation methodologies driven by design can be used to bridge the gap between concrete pilots in the field of science, technology and innovation and local political strategies.

Parallely, SISCODE conducts local, national and European workshops to introduce policy makers to the culture of prototyping and experimentation. The main objective has been to disseminate, train and engage policy makers in the act of co-creation.

This report takes the learnings and outcomes from the labs and policy workshops as its point of departure examining both the top down and the bottom up approaches to policy making.

The interactive playground

By looking at both top down and bottom up approaches, SISCODE explores an intermediate layer between the strategic level of policy making - the strategic playground - and the operative level of grassroots experimentation - the operative playground (Figure 1).

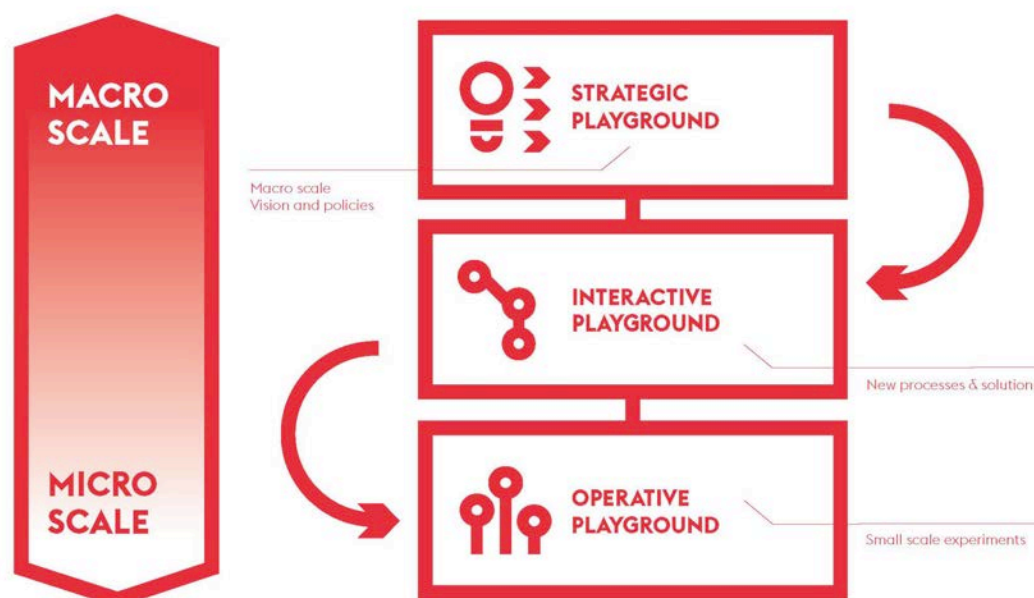


Figure 1 - The interactive playground

With this intermediate layer - the interactive playground, SISCODE aims to explore how to reduce the gap between the high-level policy objectives and governance structures of institutions and the realities on the ground. This intermediate level is meant to function as an interactive playground, where policy makers can engage with grassroots initiatives in which RRI is being concretely implemented with the involvement of citizens, civil society and other organizations that aim at making society meet with scientific and technological advancements.

Policy makers

Throughout this report, the term ***policy maker*** is used as a collective term to describe all people responsible for formulating or amending policy, e.g., civil servants, public administrators, government officials and other kinds of politicians on local, national and European levels. This simplification is chosen as the data collected for this report holds no significant accounts on the connection between specific types of policy makers and co-creation practices. Moreover, all informants have used *policy maker* as an umbrella phrase to describe the group of people attending different co-creation activities.

Objectives

This report sets out to unfold and examine the following questions.

1. What can we learn from the strategic playground? Exploring how policy makers can integrate co-creation into policy practice.
2. What can we learn from the operative playground where local small scale experiments include and interact with policy makers?
3. What frictions, potentials and challenges between the strategic level of policy making and the operative level of grassroots experimentation can be derived? Can we uncover new perspectives on the middle ground - the interactive playground?

By focusing on the value, barriers and enablers of co-creation, this report seeks to uncover concrete and applicable recommendations for how to implement and further the use of co-creation and design in policy making.

To achieve the above, this report will explore the following research questions:

- Which value is created when we co-create policy making with citizens?
- What are the barriers when we co-create policy making with citizens? Which competences and organizational transformation is needed to enable co-creation practices within policy making?
- What are the enablers for the interactive playground? And what are the barriers?
- What can bridge the gap between ideation and implementation to achieve higher levels of citizen engagement?

3. Methodology

The research process for this report has been designed to explore and connect the involvement of policy makers in the co-creation journeys of the labs and the engagement of local, national and European policy makers in capacity building workshops.

Prior to the initiation of the research process, Danish Design Centre delivered extensive support initiatives to empower the SISCODE policy partners and Co-creation labs to create and manage co-creation activities and processes.

In the following we will outline support initiatives provided to policy partners and labs and describe the research design of the report.

Empowering policy partners to conduct co-creation processes

Throughout the SISCODE project, Danish Design Centre has empowered the labs and policy partners to develop and manage the co-creation processes.

The support of the labs focused on empowering local engagement of policy makers. All labs had various experiences with co-creation and consequently also needed various degrees of support. Some struggled to identify and engage the right policy makers, while others faced difficulties seeing the value of involving policy makers in co-creation activities. The latter were particularly significant for the labs with no previous experience on co-creation with policy makers.

To support the various different needs, DDC's empowerment of the labs were organized as bilateral guide sessions focusing on the inclusion of policy makers and the value and approach to such involvement. These guiding sessions were organized as informal meetings that allowed labs to present challenges and specific requests for support from DDC.

The support included concrete tools for identifying stakeholders and relevant policy makers and guidance on how to understand, approach and engage relevant policy makers in the specific local co-creation journeys.

Empowering the policy partners took a different direction as these partners required guidance in developing their workshops. To support this, DDC hosted a half day interactive

workshop on policy engagement helping them to clarify the aim, timing, theme, participants and recruitment of their workshop.

DDC later provided a workshop package, including playbooks, tools, slides and evaluation schemes to be used by the policy partners in their respective workshops. These materials were shared to assist partners struggling to implement concrete co-creation methods as a vehicle for capacity building and training of policy makers. This was later followed up by another interactive workshop to support them in setting up evaluation approaches and uncovering the potentials of the workshop package.

Qualitative interviewing

The semi-structured interview serves as the primary data collection method of this report, acknowledging it as an appropriate approach to gain knowledge about people's understandings and to unfold the meaning of their experiences (Kvale and Brinkmann, 2015, 19). Thus, it is considered to be an adequate method to gain in-depth understanding of different experiences of involving policy makers in co-creation.

In total, 15 interviews have been conducted, five of them with the SISCODE partners who organized the policy workshops and 10 of them with key figures from the co-creation labs. Each interview lasted around 1 hour to 1½ hour.

Through interviews with the organizers of the workshops (UCL, TUDO, SPI, APRE and ENoLL) the aim was to better understand how the policy makers who participated in the workshops responded to the concept of co-creation driven by design and what they experienced as challenging or valuable. The partners were chosen as interviewees because of their responsibility and role in the policy workshops and based on their previous experience with co-creation. This way, they were able to draw on and compare their previous experiences with the discussions that unfolded in the workshops. The policy partners are also considered to be in a position to discuss and articulate both the value of small-scale experimentation in the labs as well as the challenges encountered by policy makers. Given the mutual trust already established between the partners and the interviewer, as well as the scope of the report to connect results from T4.1 and T4.3, the partners were seen as suitable interviewees to provide perspectives to the research questions.

This inquiry omits interviews with participants from the workshops as the thematic focus of each workshop would have made it difficult to compare the statements from the participants. This decision however does hold risk. Arguably, new and relevant insights could have been obtained by interviewing workshop participants. There is an inevitable risk that there will be an extent of filtering and processing of the experiences of a third party by our interviewees. These are risks that we will be alert to mitigating in the analysis, by referencing relevant literature and discussing previous experiences of the policy partners up against experiences of the labs.

The interviews with the labs were conducted to collect empirical knowledge about their experiences with engaging policy makers, focusing on the methods they used, the challenges they faced and the value they gained from involving them in their co-creation journeys. Finally, the findings from the interviews feed into concrete recommendations for co-creating policy.

Organizers of the policy workshops
Melanie Smallman - UCL
Eva Washer - TUDO
Olga Glumac & Tedora Aibu - SPI
M. De Sole, C. Iasillo & C. Bongiiovanni - APRE
Ines Vaitinen - ENoLL

Figure 2 - Organizers of the policy workshops

Co-creation labs	
Marion Real - Fab Lab Barcelona	Disponia Mantziari – Thess-AHALL
Carla Sadini - Polifactory	Goncalo Praca – Cienca Viva
Asger Rasmussen - Underbroen	A. Köppchen & G. Bertrand – CUBE
Agneiszka Wlodarczyk - KTP	Grace Darcy – SDG
Isidora Stojacic – PA4ALL	Matteo Merzagora - Traces

Figure 3 - Co-creation labs

Due to the current corona pandemic, the interviews were done virtually via Teams and other forms of online communication platforms. On one hand, interviewing informants face-to-face is likely to enhance the interviewers' understanding of what is being said. On the other hand, the online format allowed an easier planning process across countries and saved time.

Inspired by Steinar Kvale and Svend Brinkmann's (2015) structure for interviewing, the following figure illustrates the steps of the research process. The theoretical framework mentioned in the first step, *Thematizing*, will be further explained in chapter 4. The rest of the steps will be elaborated in the following section.

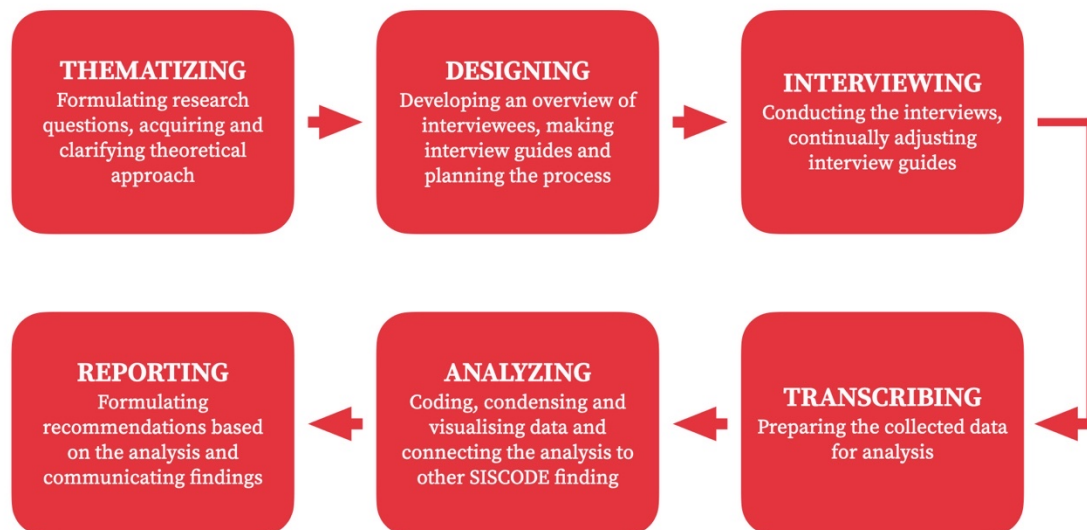


Figure 4 - Research process

Before conducting the interviews, time was invested in developing guiding questions for each interview and doing careful research on the context of each of the labs, the five partner organizations and their work in SISCODE. The individual interview is a commonly used data collection method in ethnographic research that should not be regarded as simple, everyday conversations (Qu and Dumay, 2011, 238). It requires considerable knowledge on behalf of the interviewer to collect data useful for the research purpose, and interviews conducted casually with little preparation can lead to disappointing results (Qu

and Dumay, 2011, 239). Two sets of interview guides were made, following a similar series of themes; one with questions for the co-creation labs, another for the policy partners (see appendix A and B). The scripts were seen as a guiding structure and not to be followed strictly. The semi-structured interview offers a flexible approach to collecting data that allows the interviewer to follow a series of questions, but also permits a free-flowing interaction in which the interviewee is allowed to raise spontaneous issues (Ryan, Coughlan and Cronin, 2009, 309). Open-ended questions were used to share the control of the interview process with the interviewees and let them, as the experts of the matter, address what they found important, while still following a loose predefined structure.

When composing the 10 interview guides for the co-creation labs, case-specific questions were added regarding each lab's individual co-creation journey, focusing on policy maker involvement and engagement. These questions were inspired by the work done in WP3 for deliverable 3.1 and 3.2 about the labs and their co-creation projects (Real et al, 2019a; Real et al, 2019b) and were formulated to deepen certain aspects of the reports. Similarly, case-specific questions were made for each interview guide regarding the policy workshops, derived from the blog posts made about each workshop by the SISCODE partner organizations (APRE, 2020; Ciencia Viva and SPI, 2020; TUDO, 2020; UCL, 2020a; UCL, 2020b). These blog posts briefly cover the aim of the workshops, the participating policy makers, the program and the main results and learnings.

To give the SISCODE partners and labs the opportunity to reflect on the questions beforehand the guiding questions were shared in advance. During the first interview, the structure of the interview guide was tested. On the basis of the following feedback from the interviewee, themes and questions were further assessed and reformulated to provide better answers to the research questions. After new interviews followed, new perspectives and ideas that emerged were continuously analyzed and interpreted.

Data analysis

The interviews were transcribed into texts and coded by adding keywords to smaller segments of the texts representing the main themes of the interviews. Similar code systems were applied to the two types of interviews (for the policy workshops and the co-creation labs respectively). Building on the codes, the individual texts from each interview were compared and analyzed through systematic meaning condensation, a form of data analysis

in which the meanings expressed by the interviewees are categorized and abbreviated into shorter formulations. The main sense of what was said in segments of text was rephrased and thematized into brief statements, depicting how the researcher understands the subject's views (Kvale and Brinkmann, 2020).

The figures below show the categorizations of the central themes identified in the interviews. The categories are illustrated in the colored bars while the central themes are listed underneath.



Figure 5 - categorization of the experiences and knowledge from policy workshops

The four *categories* (barriers, enablers, values, outcomes and learnings) were predetermined before the interviews and were used to design the interview guides to make sure that the data gathered would be in scope of the research questions. The *themes* were discovered during interviews and while comparing the data from each interview. Few of the themes represent statements from only one interviewee, but most of them build on statements repeated multiple times by several interviewees. As an example, the theme “Lack of skills and competencies” was expressed in different ways during the interviews with both UCL, APRE and SPI.

To better understand how the different themes can be interpreted in relation to one another, the online visual collaboration platform Miro was used to create a visual overview of the data. In two separate templates, one for the policy workshops and one for the co-creation labs, the themes were illustrated and clustered in different ways. Connecting lines were drawn between them and text boxes were added to the lines, explaining how and why one theme could be related to another. While processing the data in Miro, new patterns emerged on how different enablers could contribute to resolving some of the identified barriers. As a result, several lines were drawn from enablers to barriers.

It was clear that the barriers are interrelated and can be overcome in different ways, depending on the context and the particular situation in which one encounters the barrier. In this way, Miro was a helpful tool to systematize and analyze the rich amount of qualitative data. To see how we worked with the data in Miro, turn to appendix C of this report. The central themes of the interviews and the connections between them will be further unfolded and analyzed in chapter 6 of this report, one part focusing on the findings from the policy workshops and another part on the findings from the labs.

The reasoning behind the themes will also be examined in light of relevant literature and parallel practices.

4. Theoretical framework

Defining co-creation and design

Unfolding the meaning of design

In one of the most acknowledged definitions, Herbert Simon defines design as the human endeavor of converting actual into preferred situations (Simon, 1996). This definition views design as the process of creating “new integrations of signs, things, actions and environments that address the concrete needs and value of human beings in diverse circumstances (Buchanan, 1990, 20). At its core, design entails an extensive focus on the needs and value of the human beings for whom public innovation is targeted. It indicates that a human-centered approach to problem solving holds a great potential of bringing new and successful answers to current societal challenges. Instead of viewing design as an addition to current policy tools, Bason suggests that design offers a fundamentally different way of creating public initiatives. (Bason, 2016, 34).

In this respect, design holds a unique contribution of solving complex challenges, as it entails new ways and means of stimulating individual and group creativity and can thus facilitate a wide divergence of views and ideas, enabling selection and translation into concrete solutions. Instead of viewing design as (Bason, 2016, 34-36).

Yet, design is not merely focused on understanding needs and values of people but has emerged as a more collaborative field suggesting that solutions to complex issues could be co-designed with the targeted people. This shift emphasizes an extensive focus on the involvement of users, partners, suppliers and other stakeholders through the entire design process (Bason, 2016, 35). This indicates that public initiatives could be increasingly co-designed in an interplay between policy makers, interest organizations and end-users such as citizens (Bason, 2016, 36).

Designing co-creation

The considerable focus on the interplay between different stakeholders in a collaborative process connects the design field with the discipline of co-creation. In essence, co-creation holds great similarities with design, as it can be characterized as a creation process in which solutions are designed with people, not for them (Sanders, 2006, Sanders and

Stappers, 2008; Halse et al, 2010). Bason describes co-creation as a process that entails a different involvement of people. An involvement that holds great potential in bringing a new kind of knowledge to the forefront of public innovation and decision making (Bason, 2018, 7).

In line with the discussion above, the SISCODE project defines co-creation as a non-linear process that involves multiple actors and stakeholders in the ideation, implementation and assessment of products, services, policies and systems.

At its core, involvement of multiple actors and stakeholders through collaborative practices pose a paradigm shift in the relationships between citizens, external stakeholders and government. In essence, it is a shift from a tradition of expert-driven development to practices of co-creation and co-production (Hartley, 2005; Boyle et al, 2010).

Fundamentally, this shift requires policy makers to acknowledge that everyone can be creative under the right circumstances, and that they are inclined to engage private actors, social innovators and not least end-users in the development of new policies (Bason, 2018, 7).

Putting citizens at the heart of the public innovation process holds a number of challenges for policy makers, who have to learn to unfold and discover different perspectives than their own (Bason, 2018, 215).

This report examines how such practices of co-creation can be implemented and utilized in policy making to build more beneficial public initiatives creating value for the participating stakeholder groups, citizens and policy makers.

5. Values of Co-creation in policy making

Innovation and improved decision making

The literature highlights that co-creation offers a promising approach to stimulate public sector innovation and effective solutions to complex problems (Baptista et al, 2020; Voorberg et al, 2014; Torfing et al, 2016). Engaging citizens in co-creation has increasingly become a virtue in itself and a method for fostering democratic processes in public governance (Baptista et al, 2020, 229).

The values of co-creating policy with citizens and other stakeholders emphasize why public sector organizations should take decisions to co-create. Yet, empirically grounded studies reporting if and how co-creation can deliver valuable results is scarce. Luckily, the SISCODE community, including the persons interviewed for this deliverable, have carried out extensive co-creation activities highlighting a number of values from co-creating with citizens, different stakeholders and policy makers. To clarify the importance and potential benefits of co-creation in policy making, we will address these experienced values in the following chapters.

The operative playground: How co-creation with policy makers supports bottom up processes

Going from ideation to implementation

Co-creation implies the production of knowledge and ideas and putting them into use. However, realizing and implementing ideas is often a challenge for innovators, labs and grassroots initiatives. They often need the support, money, access, permission and publicity from policy makers to be able to test and implement prototypes. Moreover, they need guidance on how to navigate in what is feasible to implement. Opposed to co-creation processes limited to experiments, engaging policy makers in co-creation can enable the process to go from ideation to implementation to realize the ideas co-created with citizens and stakeholders. In a service co-creation workshop held by Polifactory, facilitators experienced that policy makers addressed practical issues and quickly saw the possibilities for implementing the solution within the local rules and legislations. As a result, Policy

makers contributed with a concrete proposal for the implementation of the first prototype at city level.

Scaling the solution

Involving policy makers in co-creation can elevate the process and make for deeper and more lasting change, thereby enhancing the sustainability of experiments. Policy makers have the overview of what is possible in terms of scalability, that is the overview of how, where and when the solution can be embedded into the higher levels of the public system. In the project carried out by the SDG lab, stakeholders co-created a program for high school students aimed at improving their mental health and well-being through different activities and by allowing them to be engaged in decision making at school. Working with policy makers in the development of a curriculum allowed the experimentation to happen. Policy makers were also involved to help develop the pilot program as a new course that could be part of the curriculum offered to schools, thereby preparing the solution to be scaled. Policy makers guided the direction of the program and clarified which part of the school system that could be changed.

Co-creation as a way of fueling ambitions and engagement

Engaging policy makers in a co-creation process can raise the level of excitement and participation among other stakeholders and citizens because of the prospect of being able to affect real change. In two projects carried out by co-creation labs, one including younger students and the other including older adults, citizens felt encouraged to participate when they knew that the problems, they face in their everyday life were acknowledged and could be discussed with policy makers. As a consequence of the co-creation process, citizens experienced that their insights mattered, and in the case of the youngsters, they became more open and began to voice their opinions.

An approach for transferring expert knowledge and advice

The co-creation methodology has the potential to bring together citizens, private and public organizations, researchers, entrepreneurs and other professionals who usually do not work together. By combining the expertise of different actors, new perspectives on challenges and possible ways of approaching them can be identified. This has been the case of the lab Underbroen during their workshops with designers, developers and policy makers. By engaging stakeholders in mapping exercises and idea cards, the lab was able to gather new information and perspectives which shaped the challenge they worked on and the solution they were developing. These co-creation activities worked well to gather knowledge from experts, open up discussions and reach new ideas.

Policy makers often have important knowledge of internal operations, regulations and legislations in the city and the practical knowledge of who to contact to move the co-creation process further along and to realize solutions. Their expert knowledge of certain domains in the public sector can help initiators of co-creation to identify challenges and opportunities, such as other projects started by municipalities which may overlap with the aims of the experiments or create obstacles to the scaling of the solution.

The strategic playground - how co-creation can enrich policy making

Co-creation enables empathy

Through co-creation, policy makers create the opportunity to hear and listen to the real needs of people. Co-creating with citizens can enhance empathy and fuel policy makers' ambitions to tackle the issues raised by citizens. In a policy workshop organized by UCL, policy makers also addressed how inputs from citizens could create a sense of urgency and enable them to be more radical in their policymaking.

Creating transparency and improving mutual trust

When policy makers co-create with citizens, the distance between them is reduced and citizens get to see that policy makers can be accessible people, while policy makers realize the value of engaging citizens. Sitting down by the same table and having face-to-face

interactions let actors get familiar with each other, which increases the possibility of them understanding each other's problems. Involving seniors as main co-creators in a project organized by the Thess-AHALL lab led to an important realization among policy makers: the realization that there is not always a need for funding or extra incentives for citizens to be willing to participate in a project together and build something useful for the improvement of citizens' life.

Making the future tangible

Involving policy makers and citizens to co-create public initiatives has shown a great potential for delivering more transparent and effective solutions targeting real citizen needs. Yet, challenges of enabling companies, public institutions, academia and residents to communicate, experiment and test innovative ideas in the public space still persist. From DDC's workshops it is evident that design offers an important supplement to co-creation practices as it provides tangible approaches to future solutions that can help give form and shape to policy in practice. Design offered significant supplements to co-creation as participants experienced effective methods for exploration and experimenting with solutions. In particular, scenario design showed to support co-creation practices as it provided a tool for policy makers to gain empathy with citizens' needs and explore multiple, plausible futures to make informed decisions about. This way, scenario design can help policy makers to identify, interpret and act upon difficult questions and dilemmas in their particular situation

6. Interview Analysis

As stated, the interview analysis is divided into two parts: The first part being devoted to analyzing the themes identified in the five interviews regarding policy workshops; The second is devoted to the themes concerning the 10 lab's engagement of policy makers. In each part, the barriers and the connections between them will be unfolded and analyzed. Afterwards, it is discussed how the barriers, based on the data gathered from the interviews, can potentially be overcome by the identified enablers.

The knowledge acquired for this analysis is partial and the barriers and enablers to co-creation in policy making presented reflect the subjective experiences of our interviewees. It is emphasized that the interviewees knowledge about co-creation and policy making reach beyond the individual policy workshops and is based on years of experience within the field. However, statements from the interviewees should not be considered definitive truths but instead be viewed as qualified reflections and interpretations based on extensive practical experiences.

Although this report formulates general statements about policy makers by abstracting common statements from the interviewees, policy makers should not be considered a unity or one category of people in practice.

Before analyzing the barriers and enablers identified in the policy workshops interviews, the next paragraph gives an overview of the workshops hosted by the SISCODE partner organizations and the policy makers who participated.

The policy workshops

All policy workshops were originally planned to take place physically, but due to the global pandemic most of them were carried out online. The workshops were set up for policy makers to explore design exercises and practices in policy making through different themes including climate change, digital and sustainable innovation, public engagement and healthcare. The workshops varied in both focus and format. They addressed different challenges of co-creation - from early stage exploration to implementation of ideas and pilots. Regarding format and approach, some were more focused on disseminating co-creation in policy, some urged reflections and dialogue on the topic, while others focused

more on actively engaging policy makers to engage in co-creation around a given topic, thereby stimulating hands-on training and capacity building.

UCL	Co-creation as a methodology to tackle climate change	Aimed at learning from best practices and unfold barriers and drivers for local co-creation initiatives tackling climate change
TUDO	Co-creation for sustainable strategies in German municipalities	Focused on sustainable strategies for German municipalities, targeting policy makers working in the intersection of public sector innovation, digital municipalities and sustainability
APRE & ENOLL	Co-creation for national Italian policy makers	Focused on knowledge exchange on best practices to identify key characteristics for a successful co-creation projects and to uncover ethical and social implications using AI
SPI	Co-creation in Public Engagement in STI policy making	Peer exchange aimed at discussing the existing gaps for the involvement of citizens in STI policy making and assessing the ongoing local and national practices
DDC	Co-creation training and capacity building	Capacity building within co-creation among policy makers at regional, national and international level. Each workshop with a unique thematic focus, highlighting the utilization of co-creation within different regional contexts

Figure 6 - Overview of policy workshops

UCL - co-creation as a methodology to tackle climate change

UCL hosted three workshops targeting UK policy makers who had been involved in co-creation before. The workshops were all structured around question cards used to activate participants and to discuss what the concept of co-creation as a method of public engagement means to them. Local government officials in Camden, employees of the Camden Council who had recently run a citizen assembly on climate change participated in the first workshop, while an organization called UK 100 consisting of elected politicians at local and regional level committed to tackling climate change were involved in the second.

The third workshop had a mixed group of policy makers from the national government, including participation commissioners and hands-on dialogue practitioners. The topic was co-creation itself, and the workshop was structured to receive feedback on some of the lessons learnt from the project thus far, in particular the findings from the labs (UCL 2020a).

TUDO - co-creation for sustainable strategies in German municipalities

The workshop held by TUDO focused on sustainable strategies for German municipalities, targeting policy makers working in the intersection of public sector innovation, digital municipalities and sustainable development goals. The participants included five public servants and four stakeholders from research and NGO's, all part of existing projects funded through programs on a federal level. In the workshop, participants made individual presentations on how citizen participation, cooperation and co-creation were a part of their work, and engaged in three discussion rounds about strategies, concrete tools, products, services and stakeholder integration in policy making in each participant's field of work.

APRE - co-creation for national Italian policy makers

The objective of the first workshops organized by APRE was to help Italian policy makers with practical questions regarding the co-creation process at a national level. Relevant stakeholders were involved in order to present the co-creation process. In the second workshop, a knowledge exchange on best practices was facilitated to identify key

characteristics for a successful co-creation project. It was themed around health and wellbeing and engaged Italian health actors, including policy makers from the Ministry of Health and the National Institute of Health and actors from hospitals conducting their own research (APRE 2020). The focus of the third workshop was for Italian policy makers to investigate the ethical and social implications of using AI in the smart information system and explore how researchers and other stakeholders can work together to implement RRI. The methodology was to work on challenges and to find the potential solutions of the challenges that had been identified.

SPI - co-creation in Public Engagement in STI policy making

The topic for the workshop hosted by SPI was the application of co-creation in public engagement in STI policy making. The participants included local Portuguese policy makers and influencers in STI. The workshop was structured around peer exchange and aimed at discussing the existing gaps for the involvement of citizens in policy making and assessing the ongoing local and national practices for this. Real life examples from the Ciencia Viva lab in Lisbon were showcased and participants were engaged in a co-creative exercise to identify and articulate a challenge for further discussion and debate.

ENoLL - engaging EU policy makers in co-creation

ENoLL held two workshops, one of them focusing on co-creation as a method while the second was themed around artificial intelligence. With the aim of facilitating a knowledge exchange on how to integrate RRI into projects, participants in the first workshop were asked to bring one project that had been successful on this. EU-level policy makers participated to capture the key learnings at the end of the workshop.

DDC - co-creation training and capacity building

Danish Design Centre was in charge of three co-creation workshops focusing on training and capacity building within co-creation among policy makers and civil servants at regional, national and European level. Each workshop had a unique thematic focus, highlighting the utilization of co-creation practices within different local and regional

contexts. The attendees of these workshops were a mixture of people from private organizations, representatives from local and national public sector entities around Europe and project officers from the European Commission.

The first workshop was organized as a two day innovation bootcamp, giving participants insights on how to develop and lead design driven and experimental approaches in their own organization. These insights were obtained through practical exercises using design tools to train participants in understanding citizens' experience and how to co-create new and more effective policy through engagement of civil society.

The second workshop uncovered how government, industry, education and unions could potentially work together more effectively to address skill gaps in the future. Tackling systemic challenges, scenario design was introduced as an effective collaborative approach for framing, visualizing and understanding future societal challenges and opportunities. Moreover, scenario design was used to help workshop participants empathies with future citizens and co-create concrete, plausible answers for an uncertain future with unarticulated citizens' needs.

The third workshop was organized around the strategic pilot project in Latvia, Smart City and Smart Mobility, and explored the challenges of developing Smart City policies. At the workshop co-creation was introduced as a driver for innovation outlining initial possibilities, uncertainties and challenges on how to co-create Smart City policy within the Latvia Smart City Playground. In addition, design methods were applied to train participants in exploring and understanding challenges and how to co-create solutions in collaboration with citizens, companies and local stakeholders.

What are the barriers to initiate co-creation within policy making?

We identified seven key barriers that refrain policy makers from applying co-creation. These barriers point to the organizational structures in policy making, but also the behaviors of individuals and the efforts necessary to change them. In the following we will dive into what is at stake to understand how the barriers can be overcome.

1. Lack of skills and competencies
2. Cost and resources
3. Loss of control
4. Not know the value of co-creation
5. Poor conditions for internal cooperation
6. Lack of trust and faith in citizens
7. Difficult to engage citizens

Co-creation seems like a loss of control in policy making

In the UCL policy workshops, many of the participating policy makers perceived the co-creation of policies with citizens as risky, as they feared it could produce uncertain outcomes and cause unwanted delays, extra costs or create high expectations from citizens that are not feasible.

Co-creation was not something that was embedded in the participants' fields of work and it appeared that the risk aversions and the challenges associated with co-creation concerned a loss of control. The traditional ways of working and **the fixed rules in policy making** were experienced by UCL as a considerable barrier to co-creation:

“There are structures and systems in place. The rails that the policy train runs on have been fixed down quite a long time ago and there isn't much room for these new co-creation approaches to feed into it” (Melanie, UCL).

Traditionally, policy makers are still seen as the main solvers of public needs and challenges and giving away control might conflict with the administrative procedures of policy making.

Lack of skills and insights

The analysis of the conducted workshops shows that to some extent, policy makers' **lack skills and competencies**, and co-creation activities are perceived as costly:

“The policy makers and officials do not know how to do these exercises and are not trained for it. Often, they have to hire people in, which is an even bigger **resource issue**, so there's a simple thing about **skills**. There is also an issue about **confidence, attitudes and risk aversion**. Being frightened of what will come out of it [co-creation] because you have given away control of the outcomes” (Melanie, UCL).

Most of the participants in the UCL workshops had worked with particular models of co-creation before, but still seemed to lack the competencies and mindset for co-creation. From this follows two obstacles: the lack of skills creates a need for setting aside resources to hire people in. Secondly, being unfamiliar with co-creation practices often ties together with **not knowing the value of applying them**. When leaders have not experienced and specifically seen with their own judgement the positive outcomes of co-creation driven by design themselves, the uncertainty of applying new methods makes it difficult to convince and engage them. In one of the workshops, some of the local government leaders used the extra expenses and costs as a reason for not prioritizing co-creation in new projects. Although co-creation *can* involve further costs in the early stages of the policy process, it should be noted that co-creation can also be applied as a way of reducing costs and mitigating risks when developing and implementing policies.

DDC workshops showed that the lack of skills within co-creation can cause policy makers to assume challenges within co-creation.

“In co-creation processes it is more complicated to get consensus about the priorities and solutions are focused on present problems biased by few vocal individuals” (Participant, DDC workshop)

While some of these assumptions might be partially true, the quote highlights that the lack of skills and insights can foster unsupported assumptions about the challenges of co-creations practices within policy making and result in an adverse mindset among policy makers.

Poor conditions for internal collaboration

The policy partner SPI experienced how participants found that new ways of working in policy making, the utilization of co-creation practices, would have to be regulated and implemented as a top down decision in order for institutions and organizations to accept it. It would demand more time from people and a complete reorganization at the institutional level. They were aware that these prospects awoke a resistance to change that would make it difficult to break down the culture of working in silos in the public sector. This leads to a reflection: the analysis and interpretation here calls for increased awareness and utilization of other levels of intervention in policy making. Thus, other tools in the policy toolbox - which draws on other mechanisms to create more value for the end-user.

Participants in the TUDO workshop expressed that they experienced a lot of difficulties in bringing different departments together and finding procedures within the municipalities to set up working groups for co-creation. This points to another central barrier, the **poor conditions for internal cooperation** in large public organizations. Often municipal departments work in separate areas and rarely mix their projects. This theme is closely related to the fixed rules of current policy processes which do not leave much room for improving and innovating collaborative procedures. Following the partner organization SPI, municipalities cannot enable these procedures on their own, but need the assistance of a neutral third party to set up the right conditions: “I do not see departments go on their own to different stakeholders and do this on their own. They always appreciate the external facilitators”.

Behavioral barriers impede collaboration

Behavioral barriers to co-creation include policy makers' doubts about citizens' capacity to contribute as well as citizens' willingness to participate. In two different UCL workshops, policy makers from the national government and local government officials from the

Camden Council, respectively found it problematic to ensure a bottom-up model if citizens are not knowledgeable about the issues that need discussion. From this arise the **lack of trust and faith in citizens** and the **difficulty of engaging citizens**. As mentioned earlier, there is a fear among policy makers to let go of control which also manifests as a lack of faith in citizens to make rational decisions. Baptista et al (2019) calls this *bounded rationality*, the idea that individuals may not act logically, even when given appropriate information. From their workshop, SPI recalls the following:

“They [policy makers] were saying that citizens are perceived to have a low level of knowledge”. UCL gives a similar statement: “Talking to policy makers made it very clear that policy makers do not trust citizens”.

Citizen engagement appears as a risk if you do not believe them to act sensibly. Following the SISCODE partner APRE, this is also an issue that applies to scientists who lack trust in early citizen engagement: “They [policy makers] do not understand how normal citizens can contribute to what they are developing. We need to train both the scientists and the citizens in working together”.

Across the partner organizations workshops, the understanding that citizens did not feel welcome or did not believe that their insights were valuable enough to be integrated in policies were also expressed, coming across as a barrier to successfully engagement¹. The theme, **not knowing the value of co-creation**, can therefore be applied to citizens as well as to policy makers, when citizens do not see the potential of their participation in the co-creation process.

¹ The issue of engaging citizens in co-creation and the lack of trust in citizens' capabilities are also touched upon in the co-creation innovation biography *Engineering comes Homes* in WP2 (Maylandt et al, 2020, 589). It is described how tension occurred between feasibility and co-creation in a workshop when a researcher pushed the participating citizens toward the most feasible solution instead of developing a plan based on the citizens preferences.

How can co-creation practices be enabled within policy making?

Below, the central themes within the category “Enablers to co-creation in policy making” will be unfolded and connected to the barriers. It is discussed how each enabler may contribute to ways of resolving the barriers. It should be noted that the interviewees did not necessarily draw these connections between barriers and enablers themselves, but that it is to be seen as our way of interpreting and translating their experiences into effective ways of working with policy makers in co-creation.

Building expertise through tools and training

Based on the positive experiences from the workshops, we first of all identified the enablers **training policy makers in the mindset and tools of co-creation**; motivating them to **share their experiences of co-creation**; and introducing them to **real-life examples** and best practices of co-creation. These expertise building initiatives can be seen as ways for policy makers to obtain practical knowledge and understand the value of co-creation in specific contexts, thereby resolving the barriers concerning **policy makers’ lack of skills** and **not knowing the value of co-creation**.

Officials from the Camden Council experienced the UCL workshop as a useful exercise to change the culture in the organization and enable them to do similar activities in the future. When talking about the outcome of the policy workshops, the interviewees described how policy makers to a greater extent saw the value and importance of co-creation and appeared to have greater confidence in their abilities to use the methods in their own field of work.

Knowing what tools to apply and how to use them in different situations was also a need which the participants in one APRE workshop addressed:

Their interest was mainly in experimenting with concrete tools. In their sector, it is quite common to talk about public engagement, but they feel the lack of tools. A key point that came out of the discussion was that they were really interested in learning the concrete ways of working with the tools (Chiara, APRE).

The workshop facilitators from APRE experienced that there was more to it than merely getting the policy makers excited about practical tools: the policy makers were curious to approach their work in new ways and the introduction to tools was a starting point for them to learn more about the whole process of co-creation. From this it also became clear that

for sharing sessions and expertise building workshops to be effective, **skilled facilitation** is key. Facilitators need to ensure that the discussion is flowing in the right direction and that participants are introduced to methods and tools not too complex for them to engage with. It is APREs experience that “if a workshop or an exercise is not well planned or designed it is a failure, and then you lose these people forever. They will not be eager to participate a second time”. Making a good first impression with co-creation and design tools is essential, otherwise policy makers will lose interest. The SISCO partner ENoLL also explains how the facilitators of their policy workshops had some training in the sessions beforehand and all followed specific step-by-step notes and clear descriptions. ENoLL recommends focusing on really leveraging the knowledge you have about your audience to design the workshop and develop methods in a way that is very relevant to them.

As the barriers to integrate co-creation and design methodologies in policy making are all interrelated, overcoming one barrier may cause a chain reaction and contribute to resolving others. If more policy makers learn to use co-creation tools and acquire the right mindset for co-creation, more will understand the value of the methodologies and find the motivation and capability to implement them in their field of work. To improve the conditions for co-creation, there is a need for organizational transformation and for a change in the behaviors of individuals involved.

Disseminating the value and impact of co-creation

By disseminating how co-creation brings value as well as how you can mitigate risks in co-creation processes, we are more likely to normalize co-creation practices and to create room to challenge the **fixed rules** of policy making. Policy makers in the workshops organized by TUDO and SPI respectively called attention to **Living Labs** as important vehicles for making the impact of co-creation visible, disseminating learnings from different projects and showing off best practices to policy makers, citizens and other stakeholders. Successful examples of co-creation can be used to raise interest and convince citizens to participate more actively, and as a result overcome the **difficulty of engaging citizens** by showing them how inputs from the public can make a difference. Inviting citizens to open events in labs can contribute to this. Many Living Labs have an established network including relations to both government officials and the public and can act as an appropriate mediator between the two. Moreover, they are good forums for creating space

for a more inclusive methodology and for **building relations** between policy makers and local entrepreneurs on a neutral ground, increasing the mutual **trust** between them. The participants in the SPI workshop stated that the labs play a key role for staging co-creation in Portugal:

For our participants the Living Labs are exactly the format in which co-creation can be staged. They use this approach for developing public services. Living labs are a format that is recognized in Portugal and receives attention from the public officers. However, I think there should be more training on this. It is “sexy” to call something a Living Lab, but many do not know exactly what it entails (Olga, SPI).

The quotation from Olga suggests that the labs hold great potential for the co-creation of public services, but also that more can be done to raise awareness about the characteristics and functions of Living Labs.

The value of a third party

Similar to the theme of Living Labs and the theme of skilled facilitation, the need for **an engaged and competent external facilitator** is also identified in the interviews. An objective third party can help facilitate more collaborative procedures between different departments, creating better conditions for solving complex problems. Involving experts can be considered a way of easing some of the issues of **poor conditions for internal cooperation**².

A competent third party could arguably be a necessary means to help policy makers apply co-creation approaches, and to **adapt the methods to their local contexts**. Helping policy makers replicate and adapt co-creation models enables them to better tackle their own political issues and circumstances and to modify co-creation approaches to fit tight budgets and short time frames. The barrier regarding **costs and resources** can thus be handled in

² A learning that emerged from the project *The Smart Kalasatama Health and Well-being Centre* described in the WP2 analysis was that it is important to have a neutral party facilitating the process of feedback and conflict resolution, facilitators who participants feel they can easily approach. The role as facilitator requires design skills such as listening skills, sensitivity, social intelligence and conflict solving skills in order to understand and align different actors' perspectives (Maylandt et al, 2020, 631-32).

this way. The policy partner SPI puts a great emphasis on the importance of a third party as an intermediary and points out the risk of leaving policy makers on their own to facilitate co-creation:

“There are some basic competencies that we should promote which all policy makers should be aware of, but the more complex tools can be kept for the real experts who are aligned with that kind of practice. If you have a policymaker who has all the skills, he or she will always lobby for their own private agenda or the common agenda of that collective, and not necessarily for the others. You can avoid that by having a neutral body as facilitators” (Olga, SPI).

Eventually policy makers may be able to initiate and facilitate co-creation on their own, but the above statement raises the significant question of whether it will still be necessary to appoint a more objective team or unit in public institutions: a team which understands policy makers’ perspectives as well as normal citizens’ and other stakeholders’ interests and that are able to align their views. This report calls for more reflections and research to determine policy makers’ capacity to accept collaborative work outcomes and to stay neutral in co-creation processes which touch upon political topics.

Securing political mandate and support

The themes within the category “Enablers to co-creation in policy making” mentioned so far are all important factors for preparing policy makers for the adaption of design driven co-creation methodologies in the public sector. Nonetheless, to make real changes and for co-creation to be an integrated practice, participants in the SPI workshop agreed that co-creation as a policy approach must be embedded from the top down. Some of these policy makers were advocates for making public engagement and participatory processes compulsory through funding, meaning that in order to receive funds it should be a requirement to have public engagement as a part of the project.

It is TUDOs experience from their policy workshop that if a project has already received funding, management is more easily convinced to accept the use of new methods, and officials in different departments are more encouraged to engage and work collaboratively. Showing heads of departments that **costs and resources** will not be a greater issue due to

secured funds reduces one of the big risks policy makers often associate with co-creation, the risk of wasting time and money.

This concludes the first part of the interview analysis. To set the scene for the second part concerning the co-creation labs' involvement of policy makers in co-creation, the next section briefly describes the context of the labs in the SISCODE project.

The co-creation labs

Fab Lab Barcelona, Polifactory, Underbroen, KTP, PA4ALL, THESS-AHALL, CIÊNCIA VIVA, CUBE, SCIENCE GALLERY DUBLIN and TRACES are the 10 SISCODE co-creation labs. Each lab is part of one of three international networks: The Fab City Foundation, the European Network of Living Labs (ENoLL), and the European network of Science Centers and Museums (ECSITE). Each lab has been on a similar four-step co-creation journey that they have customized and adapted into their local context (WP3). Supported by a toolbox of design tools and methodologies developed by SISCODE, the labs have engaged in the four phases of 1) analyzing their local context, 2) reframing the problem of their choice, 3) envisioning alternatives and 4) developing prototypes. Through these four phases, the labs have explored and designed solutions in collaboration with multiple stakeholders to address diverse societal challenges such as air pollution, the ageing society, recycling of plastic waste and mental health of young people.

To make sure the labs would be able to involve local policy makers, the journeys were tailored in order to engage policy makers and to react to the local policy agenda' at a very early stage. The experiences from the journeys (D3.2: Envisioning of solutions and policies) show that all the labs interacted with local policy makers, although the level of engagement and the phases policy makers took part in varies. In some cases, interaction with policy makers helped the labs identify barriers and opportunities in the field of policy relevant to their challenge and assisted in establishing contact between the labs and significant actors who were able to help the co-creation process further along. In other cases, policy makers also played a key role in the implementation and scaling of the solutions developed by the labs.

What are the barriers to involving policy makers in co-creation projects?

Policy makers are often inaccessible

A common barrier brought up by the interviewees from the co-creation labs was the fact that **policy makers are busy people**. It was not uncommon for policy makers to leave in the middle of a meeting, cancel at the last minute or decline an invitation to a co-creation workshop. The labs' overall experience was that policy makers would rather participate in brief, individual consultations, in openings or exhibitions than commit to more lengthy co-creation activities with other stakeholders. Although it is true that politicians, government officials and civil servants are involved in many different contexts and that others will be competing for their time, co-creation is also a matter of priority. If policy makers **do not see the value** of engaging in a long-term process of co-creation, they will not prioritize it in their tight schedules.

One reason for policy makers not seeing the value of a project is addressed by the co-creation lab Fab Lab Bcn which is part of the Institute for Advanced Architecture of Catalonia (IAAC). The lab points out that if **the scope of the project** is too narrow and too detailed, policy makers may lose interest and will not consider it relevant for them to be involved. Some of the labs including TRACES, CUBE and Thess-AHALL experienced that policy makers would be more open to engage with co-creation projects if they found them politically relevant or if they could aid their own agendas, and not because they saw the value of the methodology. The Thess-AHALL living lab states: "In some cases, we are not really convinced that policy makers want to spend their time on listening to researchers and citizens. They need to know what is in it for them and what is in it for the city". As discussed in the previous analysis of the results from the policy workshops, many policy makers are yet to be convinced that the benefits of co-creation outweigh the risks.

The fear of making mistakes

CUBE, a co-creation lab as well as a design museum, experienced that policy makers in the Netherlands are motivated to co-create, to avoid being held solely responsible for making unpopular decisions. Otherwise, they adhere to a linear way of working that clashes with the open minded and explorative co-creation methodology. CUBE finds that policy makers'

fear of making mistakes was a key barrier to successfully involving them in their co-creation journey:

“They start with problem definition, policy formulation, and so on. What we do in co-creation is completely different. If you have a group of policy makers, one thing they never want to do is make mistakes. A part of design thinking is to review what you already have done. This is a clash, because policy makers see a review as a failure” (Anja, Cube).

“For many decades, they [policy makers] have had a certain way of working, and they are afraid of new things and doing something wrong. They will always stay on the safe side” (Genè, Cube).

If policy makers do not see the value of co-creation, it can be argued that it is because they are more concerned about not making mistakes than creating value in a new way. It also means that if the scope of a project seems too broad and unmanageable, policy makers may find it risky to take responsibility for it. In these statements from CUBE, it appears that they experienced a similar difficulty in introducing policy makers to new ways of working during their co-creation journey as the policy partners did in the policy workshops.

In the lab TRACES they also had their difficulties. They describe how a higher level policymaker was not useful at all in one of their workshops due to his lack of patience, even though he was an expert on the topic of the workshop: “If you are a head of a big institution like him, you are used to a certain rhythm of decision making and have lost your capacity to be patient. Patience, and being open to making mistakes, are required for co-creation activities”. Although TRACES greatly valued the involved policy makers’ expert knowledge on internal operations, the regulations and legislations in different domains of the city, they found that not all of them had the right attitude for co-creation. Not having the right attitude and mindset can be related to the issue of policy makers being **result-oriented**, meaning that they may lack the willingness to stay in the unknown and would rather wait for results than actively be a part of the process of co-creating solutions. Labs experienced that this behavior often occurred as a barrier to involving them early in the process of their journey as they did not have any results to show from their project yet. In Fab Lab Bcn they connect this barrier to policy makers’ busy schedule: “The main problem was that they are involved in so many things, so many problems. They find our project interesting, but they want to see the results immediately”.

The themes mentioned thus far can be considered behavioral factors deriving from the **rigid and inflexible institutions** addressed by the SDG lab. Similar to the theme from the first part of the analysis, **the fixed rules of the policy system and the loss of control**, this theme indicates that institutions do not have the fluidity necessary for co-creation and that policy makers' attitudes and actions are affected by this. Particularly, the theme reflects the challenges the SGD lab experienced during their co-creation journey. They worked on improving mental-health and well-being management in a secondary school setting through the implementation of in-class modules that empower young people. During the interview, the SDG representative describes how the rigidity of institutions, especially in the education sector, was a key barrier to involve policy makers and to make changes in the specific ways of running schools in Ireland:

“I definitely think that the fluidity of the co-creation process and the wriggle room and flexibility that institutes need to have is a barrier. In other sectors in Ireland there is more scope to try co-creation and to have that flexibility. The main challenge is not knowing what the end is, that is quite hard for specific departments, particularly education” (Grace, SDG).

Another side of this theme, the rigid and inflexible structures, are the power relations that are already set into place between different policy makers, but also between policy makers and citizens and private actors. When actors are used to the fixed power relations between them, it can be difficult to set them aside. This relates to the theme of **power dynamics**, a central barrier to facilitating a successful co-creation session with policy makers. The power dynamics they bring into a room can create tensions and make it difficult for participants to be vulnerable and open to each other's ideas. As an example, the representative from the Ciencia Viva lab recounts how one of their prototype workshops was disturbed by a conflict between a representative from the local municipality and a citizen, as the citizen wanted to discuss a personal matter he had with the municipality. At a different occasion, Ciencia Viva experienced that a lower level policymaker was affected by the presence of his superiors and suddenly became more shy and less talkative during a workshop, even though he had expert knowledge on the topic in question.

Later in the following section where the identified enablers are examined in relation to the barriers, it will be discussed what can be done to improve the circumstances for co-creation in such a situation with power asymmetries.

Enablers: How can policy makers successfully be engaged in co-creation projects?

Drawing on learnings from previous projects, policy makers' busy schedules and poor attendances in workshops did not come as a surprise to the labs. Knowing that policy makers have little time to spend, the labs came up with different methods to approach them. In this report, we differ between the concrete *methods* used by the labs and the identified *enablers* to engage policy makers in co-creation. The first involves the concrete techniques the labs used to approach and keep policy makers engaged during the co-creation process. The latter can be understood as learnings from the co-creation journeys: as actions or initiatives that can create the right conditions for involving policy makers in a way that is satisfactory for them as well as for the labs. Both will be unfolded in this part of the analysis.

Building trust through networking

During the interview with Thess-AHAL it became clear that one of the first steps towards a successful engagement with policy makers involves drawing on years of expertise, collaborations across sectors and positive results to show. As the leading Living Lab of the City Science Initiative of a taskforce on mental health in European cities, Thess-AHALL has built a good reputation and strong relations to different actors over time. The policy makers they involved from the healthcare sector in their co-creation journey are primarily stakeholders from their community. Among several other interviewees from the labs, Thess-AHALL stresses that **having a network is crucial** in order to approach policy makers and convince them to be involved:

” They have been collaborators of the Living Lab for many years. We have established the network of municipalities and daycare centers across Greece through the years with much personal effort to build trust. It was our work that opened some doors more easily. They listen because we have done something for years and years” (Despoina, Thess-AHALL).

In the first part of the analysis of this report, Living Labs were identified as a potential enabler for initiating co-creation within policy making. One of the reasons being that they often have strong connections to both government and the public society. According to Thess-AHALL, the trust of both policy makers and citizens can be built slowly over time and should be continuously renewed. Mutual trust and a reputation for creating results can potentially reduce policy makers' **fear of wasting time and making mistakes** and increase the likelihood of them **seeing the value** of engaging in proposed projects.

The labs have the capability to **show the impact of co-creation** and to convey that the methodology works, thereby making policy makers more open to participate in more than just a brief consultation. The SDG lab's approach to this was to implement their solution, a school module, initially on a smaller scale, collect the results from it and then paint a persuasive picture to show policy makers the success of it. A method which the lab Underbroen uses for conveying knowledge and involving policy makers is **Maker-Meetups** which are open events where policy makers, developers and other stakeholders are invited to network, share knowledge and do co-creative exercises. During their co-creation journey, the Maker-Meetups worked well to engage local officials in mapping sessions where challenges and opportunities regarding their project were identified.

Engaging the lower levels of the policy making hierarchy

A central theme which naturally follows from having a broad network is the importance of **engaging the right people**. Having the right connections opens the doors to different levels and domains of policy making, enabling you to access the actors relevant for the project in question and the people who have the power to influence future actions. Several of the labs had the experience that it was easier to engage lower level policy makers such as civil servants and local officials as they often have more time on their hands to join a co-creative session than the higher level policy makers. The work and agendas of the lower levels are also more likely to align with the local experiments which the labs work on as they have a more executive role embedded in the local community.

The PA4ALL lab established by Biosense had the experience that lower level policy makers were more accessible and played an important role in their co-creation journey as they enabled them to reach the ministry of education:

“In order to reach them, we needed to involve the local government policy makers and the school directors. The latter were really our main connection, our mediators with the higher level policy makers. They promoted our idea,” (Isidora, PA4ALL).

Starting with lower level policy makers who have concrete responsibility within the community is recommended by CUBE, PA4ALL and TRACES, as these policy makers are more likely to take interest without a political agenda. CUBE considers this a good starting point for co-creation. There is also the possibility that lower level policy makers will convey their experiences with co-creation to their superiors and may bridge the gap between the labs and the higher level policy makers.

Accommodating policy makers time and interests

No matter the level of the policymaker, the labs emphasize the importance of **being clear about your project and why you engage them**. Whether it is to overcome the barrier concerning that **policy makers are busy**, are **unaware of the values of co-creation** or insist on **seeing quick results**, an advice from several of the labs is to be simple and exact about your project and what you need when you approach them. Fab Lab Bcn suggests making a **policy brief** that explains the project, its future actions and the positive prospects in a policymaker-vocabulary. The labs Polifactory and CUBE recommend the method of facilitating **individual meetings** with policy makers in the beginning of the co-creation process as a way of managing policy makers' time, finding common ground and introducing all the information about your project properly even before concrete results are obtained. These meetings are an important opportunity to uncover how the project is of value to the policy makers and their specific agenda. Policy makers want to engage with projects that speak to their personal interests, something they are already working on or want to develop, or what is politically relevant at the moment. The lab PA4ALL brings attention to the fact that their challenge of ICT in agriculture was a popular topic at the moment which explains why policy makers found it relevant to engage with. The experiences from the Ciencia Viva lab indicates that this enabler, **adapting to policy makers' interests**, was the main reason why the policy makers invested their time in their journey:

“It always comes down to the personal interest of certain people who can make things move, make things happen. Co-creation itself is not really a well-known

concept here. The policy makers did not participate because they think it is a nice way of working, but because they find the challenge relevant” (Goncalo, Ciencia Viva).

“I know we need to sell our project for policy makers to see that co-creation is good for policy making, but even if we didn’t bring that up, it would not have been a problem. If we just told them about the idea of creating an activity with schools, that would be enough to engage them, because it interests them.” (Goncalo, Ciencia Viva).

For Ciencia Viva it was evident that co-creation is not a well-known concept in Lisbon. It brings to light that the cultural difference between the labs and how familiar policy makers are with the co-creation methodology plays a role in how they interact with local experimentation. In the case of Ciencia Viva, it worked well for them to reframe their journey as part of something concrete that could interest policy makers rather than promoting the co-creation methodology.

Different approaches can engage different policy makers

Ciencia Viva became aware of the importance of knowing policy makers personal interests and not just their official roles. Before approaching them, it is worth researching their work and background, keeping in mind that policy makers are not all alike. TRACES emphasizes that it takes different methods and considerations to engage different people: “There is the one that you are able to engage by the fact that you can promise them that you can deliver concrete actions, there is the other that is seduced by mind opening, unexpected cultural links. These two people can be in the same position in an institution”. Although this report has formulated general statements about policy makers by abstracting common statements from the interviewees, policy makers should not be considered a unity or one category of people. To Tackle this challenge, Traces set up a system during their journey that worked well for certain types of policy makers, those who feel bound by their conservative role but want to experiment. **Being creative and unusual** in meetings and workshops, such as playing games and inviting an artificial intelligence to zoom meetings, enabled TRACES to make the head of the science culture unit in the region have fun and see the value of their project and new ways of working. Policy makers from the city of Paris were more difficult to engage and were not particularly seduced by creativity or experimenting with new ways

of working. If they had trouble getting policy makers in the room, Traces initiated a so-called **Trojan horse strategy**: a method to engage policy makers by inviting them to a big event or exhibition which they might have a personal interest in prioritizing. When they are already there, you invite them to join a co-creative session. It is difficult for them to refuse when the workshop is close by and easy to attend.

Skilled facilitation counters power asymmetries

Dealing with the barrier of **power dynamics**, this report finds that the enabler of **preparing the workshop setting** serves as a potential instrument. The facilitators are considered a neutral party in a workshop and are responsible for creating a safe space where participants feel comfortable. In their journey, Polifactory focused on developing solutions to improve the movement of children with cerebral palsy and held a workshop for both parents and policy makers to participate. Polifactory realized that their role as designers and researchers was to bridge the gap between the participants and create a safe space for collaboration. By preparing the workshop setting to accommodate both parties, the participants talked about the project with each other without noticing the boundaries between parents and policy makers. Taking a realistic point of view, experiences from Polifactory emphasizes that facilitators cannot do magic and simply resolve differences and conflicts between just anyone, but that they can help smoothen the process by considering the existing power relations. SDG had similar experiences when preparing for their workshops with policy makers and students. In this situation, they considered the possibility of students feeling too intimidated to speak up:

“One of the most valuable learnings from the project is that we as facilitators are the neutral ground. We need to make everyone feel comfortable, but also identify if there is a power imbalance and try to amplify people who wouldn’t participate otherwise. It is important to encourage young people to use their voice, not just to get them in the room and listen” (Grace, SDG).

This quotation supports the notion raised in the first part of the analysis that a neutral third party is valuable in more than one way in the co-creation process. Furthermore, SDG suggests letting the participants take part in creating a safe space for co-creation by making a manifesto with them in the beginning of a workshop session. It could involve creating a list of rules for how to work together.

7. Correlating top down and bottom up approaches

The experience of our interviewees and the grounding knowledge on co-creation in policy making (Rizzo et al, 2018) as well as profound experience across the partners working within the field through a decade, shows that policy makers and governments already engage with citizens and stakeholder in different ways. According to Torfing et al (2016), the public sector is undergoing a transformation to an arena of co-creation. Nevertheless, the findings from the policy workshops and the co-creation journeys also suggest that complex structural, organizational and behavioral barriers need to be addressed to enable this transformation.

The question is then how small-scale experiments carried out by the labs in the SISCODE context can contribute bottom up to overcome and mitigate the barriers of co-creation in policy making - and top down how the strategic level initiatives such as the policy training workshops can defeat the barriers and strengthen the value creation of the experiments in the lab? And thereby, from mechanisms both ways, bridge the gap between the local operational level and strategic level?

The policy workshops and the co-creation journeys are both approaches in the SISCODE project that seek to bridge the gap between ideation and implementation of solutions and policies by inviting policy makers into different stages of co-creation processes. Here, policy makers are offered the opportunity to interact with design methods and tools and reflect on how to use them to bring policy processes closer to the real fundamental needs of society. One of the main lessons learned is that bridging the gap to achieving higher levels of citizen engagement calls for a combination and constant balance of top-down and bottom-up approaches (Rizzo et al, 2018).

Particularly, we argue that connections can be drawn between successful co-creation experiences at the operational level and of co-creation on the strategic level, thereby pointing to what can be done to make a productive environment for co-creation in policy making. Understanding the dynamics between the operative and strategic layer, helps us take a more systemic approach to co-creating policy. It has become evident that the efforts of bottom up approaches through the work of the labs can actually meet some of the challenges posed in the strategic level- and vice versa. Labs can for instance be that safe space and common ground for policy makers to both create the space for exploration - a room for policy makers to navigate in the unknown. And they can serve as a testbed for the

practice of new policy skills - allowing for policy makers to experience innovation approaches from a strategic perspective. Interacting with local experiments can be seen as a learning process for policy makers to figure out which competences and organizational transformation is needed to initiate co-creation outside the experimentation and in their own field of work.

Being involved in the co-creation process and working in this environment have, according to some of the labs, led to a cultural change and mind-opening among policy makers.

To bridge the gap, it is important that policy makers are willing and able to interact with local experiments, but it is equally relevant that local experiments are aware of how to approach, motivate and engage the political system in a way that will raise interest and ambitions among policy makers and engage them in co-creation.

Stimulating co-creation in the operative playground

Showing that co-creation works

Testing solutions on a smaller scale and collecting the feedback and experiences from citizens and stakeholders can create awareness and raise empathy among policy makers. Bringing the voices of citizens into meetings with policy makers can make them see the impact of new policy, new regulation and new initiatives and understand **how co-creation can create value**. Moreover, when the local experiments go from very abstract and complex problems to very concrete local examples, it is important to be able to lift the results and the insights from the experiments to a strategic level again to communicate the broader value potentials.

It becomes evident how essential a role labs and innovators play in improving the conditions for co-creation on a policy level. The engagement of policy makers often depends on the lab's ability to communicate the purpose of the projects in a way that resonates with the agendas and interests of the policy makers involved. Additionally, the purpose of policy engagement, their influence and gains need to be clear and meaningful to the invited policy makers.

The value of co-creation within the strategic level could be clarified through a more comprehensible explanation of the connection between current political agendas and collaborative initiatives. An understanding of this connection gives policy makers a more coherent understanding of the value of implementing co-creation practices for strategic purposes. This creates better arguments for **convincing leaders** to invest in co-creation.

Building relationships

The results from the labs highlights the limitations to co-creation activities caused by power dynamics between policy makers, stakeholders and citizens. Dynamics that potentially create tensions and make it difficult to establish the open conditions of trust necessary for co-creation practices.

Results from the policy workshops indicate that building relationships over time serve as an important means to create mutual trust between stakeholders, citizens and policy makers when co-creating policy. Building strong relationships potentially improves the outputs of co-creation activities and increases the chance for the involved parties to prioritize such activities.

Experience from the labs has shown that the most fruitful starting point when building relationships with policy makers can be by initiating the dialogue with local policy makers operating on a lower decision level. They are more likely more attentive to local initiatives and can be easier to engage and motivate. Especially if they work with agendas and tasks closely related to the theme and direction of the labs. A close relationship with one local civil servant can serve as an entry point to the bigger system. E.g., by helping labs navigate in the administration, the system and draw connections to new political stakeholders and matching agendas or initiatives. If labs manage to create a close and informal relationship with local policy makers they can serve as a truly valuable sounding board throughout the process as they can help direct the labs in terms of how, where and to whom they direct their co-creation activities.

Strategic risk taking

The experimental culture and approach, to a large extent a design driven approach, that we see in the labs can be adopted at the strategic level to help and support policy processes and the outcome. The methodologies of co-creation are closely connected and in research considered as an inseparable part of design. Co-creation and a designed approach are very different from the traditional modes of research often applied in the public sector as e.g. use of statistical data or the conduct of statistically representative quantitative surveys among users of a particular public service. As Melander & Striegler (OECD 2020) puts it:

“The policy making process tends to lack speed in keeping up with real-time policy needs. Design offers the opportunity to make policy processes more agile and proactive in a hasty rise of new technologies and shifting needs. Agile policy processes are grounded in design principles and consider the needs of both citizens, organizations and private companies, to keep creating new and added value for society at large “

The designed approach creates a multifaceted understanding of the problem area - among other tools but central to the process - is co-creation. It offers the insights to alter solutions to the needs of the end-user, the citizen, and not less important, removing non value-creating redundancies. As some of the labs point towards; a co-creative process in policy making requires time invested differently. The time invested in early stages will enable much more precision and effect when implementing.

As important as this is facing our current economic climate and present crisis due to the pandemic, it is crucial to underpin that co-creation offers a long-term gain. Striegler & Melander (2020) argues that being agile can accommodate both the challenges urgent in the present and the new ones that will continually appear in the future. The approach used in the policy workshops links the strategic policy level with the operational level, in an interactive playground where dialogue and experiments demonstrate the impact decisions, policies and regulations can have on citizens and society. Besides this, it offers a deep understanding of the various needs in society.

Reducing power imbalance

Co-creation brings together a diverse stakeholder group often with the hope of challenging traditional power structures and to bring those who are not usually heard (the end-user, the citizen) to the center stage. In many co-creation processes, there will be a heightened awareness of how to downplay the existing power imbalances that are already in place between the participants.

The labs were highly aware of the importance of preparing the workshop settings in ways to reduce power imbalances. Skilled facilitation is key to create the right conditions for co-creation to avoid setting the scene for a “battle of opinions” and instead create room for curiosity and openness for new perspectives. By drawing on design principles the facilitators can deploy deep empathy for a specific target group bringing their experiences to the light. And through the use of tangible tools and visual probes (such as scenarios, personas or idea cards) the design process can create a shared language and understanding for all participants. A good design facilitator knows how to give every participant equal conditions for participating.

Local experiments that are carried out in labs offer policy makers a platform for engaging with citizens, establishing mutual trust to stakeholders and experimenting with co-creation at a low risk while learning the benefits of the methodology. This is also relevant for bridging the gap from the strategic to the local level, as open events, activities and meet-ups on a neutral ground increase the policymaker's social capital at a local level, creates transparency and gives citizens and entrepreneurs incentive to be involved.

The challenges of power imbalances are not only at stake in the co-creation sessions between the strategic and operative layers. It can also be relevant within the realm of the strategic level across departments and levels of decision making in municipalities and other government institutions where the barrier of **poor conditions for internal cooperation** is likely to be encountered. If civil servants and higher level policy makers are to co-create, they can learn from how small-scale experiments balance out the levels of power between different groups of citizens and stakeholders and encourage all voices to speak.

Stimulating co-creation at the strategic level

Navigating in the unknown

Policymaker's hesitancy and restraint in participating in co-creation activity has been an ongoing barrier for all of the labs. We cannot identify the true cause to the resistance in the specific cases - is it lack of time, disinterest, ignorance, bad experience or just a matter of prioritizing? But we do know that the open and exploratory nature of co-creation does conflict with the tradition of hierarchical decision processes and a strong culture for avoiding mistakes. We have seen how labs and innovators at the operative playground have been instrumental in bringing policy makers closer to citizens and how they have brought them actively into co-creation processes. And through the policy workshops several policy makers have been given insights and practical tools to conduct co-creation processes.

Yet, to truly bridge the gap between ideation and implementation policy makers must be able to respond to the insights they gain from co-creating processes and to translate these into political action. The act of changing the system from within imbedding agile workflows, co-creation and design practices deep into the systems is an important step in transforming policy making to adapt to the fast-paced and changeable society of today. But it is undoubtedly a comprehensive and complex process. So how do we find ways to test co-creation cultures in policy making and to create experience and build insights on how it produces value within the system? What are the key enablers?

The workshops with policy makers revealed an appetite for and an interest in obtaining practical tools and insights on design and co-creation approaches. There are several tools available both through the SISCODE programs, but also through organizations such as OECD's global Observatory of Public Sector Innovation, UCL's Institute of Public Sector Innovation and numerous policy labs that will aid policy making in testing and training policy makers in co-creation. These are great entry points that can serve as an ongoing aid for policy makers.

To test co-creation practices in policy making, room needs to be made for experimentation. It is critical that policy makers are able to create the time, room and space for the open-ended process of co-creation. Finding this room will most likely demand some creativity of policy makers, forcing them to take a new and critical look at internal procedures and processes. Where in the political workflow can there be made wiggle room or loopholes

that allow for a more exploratory way of working? Is it to be found in specific departments, in concrete projects or in specific development phases? Finding this room and insisting on maintaining the room for experimentation is an absolute critical enabler.

Unpacking the political toolbox

Co-creation processes fail and disappoint when valuable insights are not acted upon. It is understandable if policy makers are wary of entering into a co-creation process, if they are not sure they can act upon the needs that will be identified in the process. If policy making is reduced to instruments such as legislation and regulation, the space for action is always very small and very complex. But the political toolbox offers a range of instruments where policy makers can influence an outcome: by stimulating or leading new investments, experimenting with and providing new services (sandboxes and test beds), stewarding a sector, build awareness and collaborating with others to build and develop new ideas and in a broad sense co-create change by mobilizing governments, citizens and experts (e.g., mission-oriented innovation). Reflection upon these tools can be an important enabler that will guide policy makers on how they can both contribute during the co-creation processes and how they can act upon and potentially implement the outcome.

And finally, as we've learned from the interviewees, bringing in a skilled third party to aid in designing and facilitating the co-creation processes can be a necessary support for policy makers in embarking on and navigating in their co-creation journeys.

8. Conclusion & Recommendations

With this report we strive to provide a better understanding of the frictions, potentials and challenges between the strategic level of policy making and the operative level of grassroots experimentation as they engage in co-creation.

Through the analysis of SISCODE's 10 co-creation labs and the 11 policy workshops we have revealed applicable recommendations for implementing and stimulating design-driven co-creation at the operative level and the strategic level of policy making. By correlating the results, we identified specific recommendations for an interactive playground of co-creation suggesting possible ways to overcome the gap between ideation and implementation.

The recommendations of this report are targeted policy makers and bottom up innovators curious to learn about the opportunities of co-creation and to discover possible ways to implement and stimulate co-creation practices at different levels of policy making.

The strategic playground - for policy makers

4. Create room to experiment and navigate the unknown

The iterative and exploratory nature of co-creation can directly challenge the modus operandi of policy making. As a policymaker, try to identify situations in your daily work where there is room to experiment, test and look for new answers and perspectives. This space will be your starting point for co-creation.

5. Think about the co-creation tools you have available

In a co-creation process you actively listen to and understand user needs and try to find ways to meet these. You make sure to get many different perspectives from both citizens and other important stakeholders and experts to enrich the angles of your project or challenge. Reflect on which tools and instruments that are available to you as a policymaker to act upon the inputs you receive. And be creative. Think past the obvious and classical ways of acting such as legislation and procurement. The political toolbox offers a range of instruments that you can use to influence the outcome: in the way you stimulate or lead new investments, the way you experiment with and provide new services (sandboxes and test beds), the way you steward a

sector and build awareness and collaborate with others to build and develop new ideas and in a broad sense co-create change by mobilizing governments, citizens and experts (e.g., mission-oriented innovation).

6. Train and build up capacities for co-creation

The act of co-creating with a diverse stakeholder group calls for careful preparation as well as dedicated planning to genuinely accommodate the needs and demands of users in new policy. It is not necessary for policy makers to be co-creation experts. Yet, this work demands an ability to build trust and a confidentiality to participate and engage. You need experience, insight and the use of practical tools.

The operative playground - for innovators, labs and grass root initiators

4. Communicate your goal

Co-creation is an open and explorative process that is new terrain for many policy makers and hard to grasp. Don't make it too hard to understand. Be very clear about your project goal and why co-creation with policy makers will enforce the process. What is their role and how can they help?

5. Build relationships

Good relationships foster better collaboration. Do not underestimate the value of creating relationships with the policy makers in your domain. Be genuinely curious about their needs and dreams and try to stay updated on relevant policy initiatives and agendas. Prepare your engagement with them: Identify and understand what keeps them up at night and how participating in your process can make them shine and succeed with their own missions and agendas. Do your best to keep in continuous contact - also outside the realm of your co-creation process.

6. Start out on a local and operational level

Identify which policy makers could be open to and curious about your project and who are most likely to valuably contribute to the process. It is seldom the major or the president, but local and more operational policy makers. They are often the best

starting point for your co-creation process. Then, if your process flourishes, they can help you engage the high level policy makers.

The interactive playground - for all parties involved

4. Bring in a third party

Bringing in a skilled third party as the co-creation facilitator will raise the bar of your co-creation process. A neutral external party will help you create the best conditions for collaborating with a diverse stakeholder group as well across internal departments.

5. Apply design approaches to boost co-creation

Use design as an approach to co-creation. A design process will deploy deep empathy for the user and secure a constant focus on unarticulated needs. As design puts the user as the ultimate reference point, the power dynamic between the participating stakeholders can be altered. It supports moving from insights in a concrete situation in the present to analysis and idea generation towards a new and equally concrete situation in the future. Using visual communication to concretize ideas and interpretation works as boundary objects across different agendas and discourses in the co-creation process, as it enables better dialogue and understanding. Therefore, it gives the participants a common frame of reference.

6. Create neutral grounds for co-creation

Think about where, when and how you host your co-creation. It is important to create an atmosphere where both policy makers, citizens, experts and industry players feel safe and open to engage in the process and where power dynamics are scaled down.

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Appendix A: Interview guides for co-creation labs

Fab Lab Barcelona

About the lab: Fab Lab Bcn supports different educational and research programs related to the multiple scales of the human habitat. The lab has recently updated their identity as a research and design center for the exploration of emergent futures. It is led by Tomas Diez.

Co-creation journey key words: food systems, local production, circular economy practices, community synergy, bio-material innovation.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers throughout your co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> To identify and stimulate new synergies among the local community in order to co-develop educational, logistic and environmental supports for better redistributing, upcycling and composting food locally.</p> <p>This pilot will act as a first step to identify how Fab Labs could play an important part in new participative policy-making design approaches.</p> <p><u>Solution:</u> Symbiotic System for food surplus and bio waste valorisation at a neighbourhood scale.</p>

<p>2: Experiences from journey</p>	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	<p><u>Policy makers</u></p> <ul style="list-style-type: none"> ❖ Barcelona Activa. ❖ Scrap Store 22@ and Poblenou Urban District. ❖ Department of Social economy and responsible consumption. <p>According to the report, you contacted several policy makers during the mapping phase in order to better understand the ongoing project, initiatives and regulations promoted by the public administration.</p> <p>Can you tell us more about why you engaged policy makers in the first phase of the journey?</p> <ul style="list-style-type: none"> • What are the benefits of engaging policy makers early in the proces? <p>How did you engage policy makers in the other phases?</p> <ul style="list-style-type: none"> • Did you involve them in the co-creation activities? • Has further collaboration with Barcelona Activa, the Poblenou Urban District and the department of the social economy or other
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		policy makers been explored in phase 4? How so?
3: Expectations to policy makers	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p> <ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	<p><u>Info about the local policy context:</u></p> <p>Co-creation activities have been highly explored in several actions promoted by the Barcelona City Council. For different areas of exploration, policy makers have been supporting direct democracy with a collective policy design process opening the discussions to engage multiple stakeholders.</p>
4: Engagement of policy makers	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ○ Did they participate in the co-design / co-development 	

	<p>of a solution, or have they only been consulted?</p> <ul style="list-style-type: none"> • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p> <ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	
5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	<p>It is mentioned in the report that some difficulties were faced regarding the real involvement of some authorities, as a result of the significant amount of community projects emerging in Barcelona.</p> <ul style="list-style-type: none"> • Can you elaborate on what these difficulties entailed?
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p>	

	<ul style="list-style-type: none">• What is your best experience from working with policy makers in co-creation?	
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none">• Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects?• What is the potential of engaging more policy makers in co-creation?	

Polifactory

About the lab: Polifactory is an interdepartmental research laboratory that explores the relationship between design and new digital manufacturing processes, promoting a new culture of making. Since 2016 Polifactory is officially part of the global network of Fab Lab.

Co-creation journey key words: healthcare, health and wealth ecosystems, production models, user innovation.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> To improve the movement of children with cerebral palsy thanks to sound-based innovative solutions</p> <p><u>Solution:</u> BODY SOUND, a system of motor stimulation of the limbs based on the transformation of movement into sound.</p>
2: Experiences from journey	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? • When did you involve them during the journey? 	<p>According to the report, you contacted a selected list of policy makers in phase 2 in order to understand their level of knowledge about co-design and to gather information about healthcare related policy making.</p> <p>Can you elaborate on how the consultations with policy makers in phase 2 went?</p>

	<ul style="list-style-type: none"> • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ◦ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	<ul style="list-style-type: none"> • What was the output of consulting the policy makers in this phase? • How come you did not engage policy makers in co-creation activities in the first three phases of the journey? <p>In the report, it is mentioned that you will involve policy makers in phase 4 by conducting face to face interviews, collective moments of debate and by inviting them to participate in co-development workshops.</p> <p>How did these methods work out?</p>
<p>3: Expectations to policy makers</p>	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p>	<p><u>Info about the local policy context</u></p> <p>In Italy, the healthcare policy system and service sector are mainly structured at a regional level. At the local level, there is an increasingly widespread use of co-design and co-management practices.</p>

	<ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	
4: Engagement of policy makers	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ◦ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p> <ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	

5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	<p>You mention in the report that you “might encounter difficulties in involving Policy makers”.</p> <p>What difficulties did you expect to encounter?</p> <ul style="list-style-type: none"> • Did you encounter the difficulties you expected? • Why did you expect it to be difficult to involve policy makers?
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> • What is your best experience from working with policy makers in co-creation? 	<p>What are the future prospects of developing a closer and stronger relationship between the urban (fablabs) ecosystem and the healthcare sector?</p>
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none"> • Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects? • What is the potential of engaging more policy makers in co-creation? 	

Underbroen

About the lab: UNDERBROEN is a creative platform where the creation of prototypes, products and innovation processes become the focal point for dialogue and development of solutions for local and urban production.

Co-creation journey keywords: circular economy, local production, circular material flows, plastic economy, systemic innovation.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge</u></p> <p>To co-create better and more livable cities through local production and digital prototyping in Copenhagen.</p> <p>How can local micro entrepreneurs, SMEs, commercial resellers and citizens collaborate in a circular system plastic recycling production model in Copenhagen?</p> <p><u>Solution:</u> Plastic in, Plastic Out (PIPO). Circular system for local sourcing, recycling and production of sustainable plastic building materials and products.</p>

2: Experiences from journey	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ○ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	<p>Following the report, you invited policy makers from the Department of Technology and Environment for a Maker Meet Up in phase 3 (Envisioning alternatives).</p> <ul style="list-style-type: none"> • Why did you decide to engage with policy makers when envisioning the solution? <p>You have tried to engage with Sydhavns Genbrugscenter, which is established by the city of Copenhagen (p. 53).</p> <p>Why has it been difficult to engage the recycling facility in your solution (PIPO)?</p> <ul style="list-style-type: none"> • Has further involvement with the centre been achieved?
3: Expectations to policy makers	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? 	<p>In the report it is mentioned that The City of Copenhagen is quite closed to new external stakeholders, including your project.</p>

	<ul style="list-style-type: none"> • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p> <ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	<ul style="list-style-type: none"> • Why do you think that is?
4: Engagement of policy makers	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ○ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p>	

	<ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	
5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> • What is your best experience from working with policy makers in co-creation? 	

7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none">• Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects?• What is the potential of engaging more policy makers in co-creation?	
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KTP (Krakow Living Lab)

About the lab: Krakow Technology Park (KTP) plays a key role in the development and growth of the local economy in the area of ICT technologies and e-driven solutions, being a hub for innovative SMEs.

Co-creation journey keywords: air pollution, policy, air protection programme, local context, inhabitants needs, inhabitants involvement.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> To improve the air quality in Krakow by motivating citizens to change their ecological attitudes and to support decision makers with relevant instruments for the co-creation of local new policies.</p> <p><u>Solution:</u> Preparation of the new Air Protection Programme for Malopolska</p>
2: Experiences from journey	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> What type of policy makers did you involve? 	<p><u>(Bonus info on policy makers)</u></p> <p>From the start, KTP has had a strong cooperation with policy makers, fx Marshall Office for Malopolska, who are responsible for the new Air Protection Programme. Their defined challenge is in line with the local and regional strategies referring to the Air Protection Program for</p>

	<ul style="list-style-type: none"> • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ◦ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	<p>the Małopolska Region and Integrated Quality of Air Management System in Krakow.</p> <p>Out of all the labs in SISCODE, KTP has involved and actively engaged the most policy makers and stakeholders in co-design and co-production activities.</p> <p>Why do you think policy makers have been so actively engaged all throughout your co-creation journey?</p> <ul style="list-style-type: none"> • What makes your approach to policy makers so efficient?
<p>3: Expectations to policy makers</p>	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p>	

	<ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	
4: Engagement of policy makers	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ◦ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p> <ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	

5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> • What is your best experience from working with policy makers in co-creation? 	
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none"> • Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects? • What is the potential of engaging more policy makers in co-creation? 	

PA4ALL - Precision Agriculture (Novigrad, Serbia)

About the lab: PA4ALL is a lab established by BioSense. It is an open innovation ecosystem that promotes the development of user-driven precision agriculture. This Living Lab focuses on multidisciplinary research in various fields, always with a common goal to support the development of sustainable agriculture.

Co-creation journey keywords: ICT in agriculture, innovative learning methods, Big Data, precision agriculture, farmers.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p>Challenge: PA4ALL's challenge is to discover new ways of supporting and increasing the use of IT in the agricultural field.</p> <p><i>(ICT = Information and Communication Technology).</i></p> <p>Solution: ICT based education in high schools specialized in agriculture.</p>
2: Experiences from journey	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? 	<p>According to the report on D3.2, "Co-creation labs: Solutions and policies", it was a challenge for you to reach governmental representatives responsible for the curriculum in the educational system.</p> <p>How did you manage to reach and engage governmental</p>

	<ul style="list-style-type: none"> • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ◦ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	<p>representatives responsible for the curriculum?</p> <ul style="list-style-type: none"> • When did you reach them? (In which phase?) <p>Following the report, your plan for phase 4 was to organize workshops where students and teachers would meet with policy makers to exchange experiences, information and challenges which this project encountered.</p> <p>How did this engagement of both policy makers, students and teachers in phase four work out?</p> <ul style="list-style-type: none"> • What was the purpose of making students and teachers meet up with policy makers? • How did it promote the idea of co-creation?
<p>3: Expectations to policy makers</p>	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? 	<p>Traditionally, the lack of democratic institutions in Serbia has led to a lack of bottom-up initiatives and little understanding for the co-creation process when talking about new initiatives and changes in the system. However, the growing potential of the ICT sector has led to the development of</p>

	<p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p> <ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	<p>organizations and institutions with a common goal of working towards changing the institutional framework to increase the potential of the sector.</p>
<p>4: Engagement of policy makers</p>	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ◦ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p> <ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? 	<p>You mention in the report that you collected “valuable input for the future steps of PA4ALL” by engaging policy makers through meetings and interviews.</p> <p>Can you elaborate on what kind of valuable inputs you collected by engaging policy makers?</p>

	<ul style="list-style-type: none"> • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	
5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> • What is your best experience from working with policy makers in co-creation? 	
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none"> • Do you have any suggestions for what to do or what not to do when 	

	<div>involving policy makers in future co-creation projects?</div> <div><ul style="list-style-type: none">• What is the potential of engaging more policy makers in co-creation?</div>	
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Thess-AHALL (Thessaloniki, Greece)

About the lab: THESS-AHALL is a Living Lab and a part of the School of Medicine in the Aristotle University of Thessaloniki. The lab is very active in the field of active ageing. They operate in community settings and residences following a paradigm of actual in-the-wild collection and processing of data and offering ecological validity schemes.

Co-creation journey keywords: social inclusion, participatory research, inclusive co-creation activities, active citizens, sense of belonging.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> How to break the social exclusion walls and welcome older adults and chronic patients back to society with a life-long learning programme.</p> <p><u>Solution:</u> Partners of Experience (a participatory research programme). The lab will use their expertise to fight loneliness in the ageing population using ambient assisted living solutions.</p>
2: Experiences from journey	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p>	

	<ul style="list-style-type: none"> • What type of policy makers did you involve? • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ○ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	
<p>3: Expectations to policy makers</p>	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation</p>	

	<p>practices (in other projects than SISCODE)?</p> <ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	
4: Engagement of policy makers	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ◦ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in the co-creation activities?</p> <ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? 	

	<ul style="list-style-type: none"> • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	
5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> • What is your best experience from working with policy makers in co-creation? 	
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none"> • Do you have any suggestions for what to do or what not to do when 	

	involving policy makers in future co-creation projects? <ul style="list-style-type: none"> • What is the potential of engaging more policy makers in co-creation? 	
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Ciencia Viva (Lisbon, Portugal)

About the lab: Pavilhão do Conhecimento is the flagship science museum of Ciência Viva, the Portuguese agency for the public awareness of science and technology and a network of 20 science centres across Portugal.

Co-creation journey keywords: limited public access to river, fear, culture of contemplation vs. immersion in the river.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> Ciência Viva will devise solutions for accessible water sports to develop ocean literacy and enhance marine citizenship. What interesting, mobilizing, safe and accessible experiences could the co-lab create in the river in this part of the city?</p>

		<p><u>Solution</u>: an annual workshop for construction of usable rafts, canoes, small boats, etc., to be tried and shown in a multidisciplinary in situ (i.e., by/in the river) festival devoted to the river/sea.</p>
<p>2: Experiences from journey</p>	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ○ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you 	<p>It is mentioned in the report on D3.2 that in the first 3 phases, policy makers were invited to workshops but did not show up. According to the report the lab hopes that policy makers will be more supportive when they see a plan with concrete initiatives.</p> <p>How did the collaboration with the Municipality and the neighbourhood governments work out during your journey?</p> <ul style="list-style-type: none"> • Can you describe your initial engagement with them and the later role they came to

	<p>use? Did it go well? Why / why not?)</p> <p>How did the way you involved them affect the outcome of the journey?</p>	<p>play in the prototype phase?</p>
<p>3: Expectations to policy makers</p>	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p> <ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	
<p>4: Engagement of policy makers</p>	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? 	

	<ul style="list-style-type: none"> ○ Did they participate in co-design and co-development of a solution, or have they only been consulted? ● Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p> <ul style="list-style-type: none"> ● How did their different backgrounds affect their experience of / reaction to the co-creation activities? ● Can you describe how they approached co-creation activities? ● What views do you think they have on co-creation methods? 	
5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> ● Establishing contact, engaging them in co-creation workshops, etc.? ● How did you handle the problems that occurred? What did you do to overcome them? 	

6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none">• What is your best experience from working with policy makers in co-creation?	
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none">• Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects?• What is the potential of engaging more policy makers in co-creation?	

Cube (Kerkrade, The Netherlands)

About the lab: Cube functions as a multidisciplinary laboratory, where visitors work on innovative design together with students and designers, experiencing co-creation and co-design processes.

Co-creation journey keywords: quality of life, ageing society vs. ageless society, social innovation, loneliness vs connectedness, social inclusion / empathetic society, open mind towards the future, citizen participation.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> Cube challenge is to put smart devices to work on supporting the daily life of our ageing populations.</p> <p><u>Solution:</u> A 'programme' that combines a new policy structure with (social and educational) activities and an IT-product, which aims for social innovation: bottom-up initiatives from citizens of a neighbourhood are facilitated and supported by policy makers of their community.</p>

2: Experiences from journey	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ◦ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	<p>You engaged with local policy makers from the municipality of Voerendaal in a co-creation / framing workshop in phase 2.</p> <p>Can you tell us more about how you involved the local policy makers from the municipality of Voerendaal?</p> <ul style="list-style-type: none"> • What was the significance of their participation in the co-creation workshop in phase 2?
3: Expectations to policy makers	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? 	<p>Co-creation and co-creation journeys are not high on the agenda of policy makers in Limburg. In most cases participation stops with consulting and talks with</p>

	<ul style="list-style-type: none"> • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p> <ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	<p>citizens and politicians and civil servants do their usual job.</p>
<p>4: Engagement of policy makers</p>	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ○ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p>	

	<ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	
5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> • What is your best experience from working with policy makers in co-creation? 	

7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none"> • Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects? • What is the potential of engaging more policy makers in co-creation? 	<p>You mention in the report that it is important to find “common ground” when engaging policy makers. What does that suggest? How did you find common ground with the policy makers you involved?</p> <p>It is also mentioned that “In the long run, the main challenge is real involvement of policy makers: a big question they have is ‘what happens’ after the SISCODE project” (p. 122).</p> <p>Have you found a way to overcome this challenge (or a way to answer the question)?</p>
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Science Gallery (Dublin, Ireland)

About the lab: Science Gallery Dublin (SGD) is a new type of venue where science and art collide. Science Gallery Dublin encourages young people to learn through their interests.

Co-creation journey keywords: young people, open mind, stress, anxiety, mental health, depression.

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> To improve mental health and well-being management with young people in a secondary school setting.</p> <p><u>Solution:</u> OPEN MIND (The stakeholders chose this themselves, inspired by the name of the process).</p>
2: Experiences from journey	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? 	

	<ul style="list-style-type: none"> • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ◦ <i>(Back-up): Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	
<p>3: Expectations to policy makers</p>	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p>	

	<ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	
4: Engagement of policy makers	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ○ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p> <ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	

5: Challenges	<p>What was the most challenging part of involving policy makers?</p> <ul style="list-style-type: none"> • Establishing contact, engaging them in co-creation workshops, etc.? • How did you handle the problems that occurred? What did you do to overcome them? 	
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> • What is your best experience from working with policy makers in co-creation? 	
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none"> • Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects? • What is the potential of engaging more policy makers in co-creation? 	

TRACES (Paris, France)

About the lab: TRACES explores the relevance of science and knowledge within specific social contexts. TRACES runs the activities of the Espace des Sciences Pierre-Gilles de Gennes, a “living lab of scientific culture”.

Co-creation journey keywords: algorithmic responsibility and intelligibility, user content, evolution of professions, automated decision systems (ADS).

Themes	General Interview Question	Case Specific Info & Questions
1: Introduction <i>Introduction to the purpose of this interview, to the respondents and their co-creation lab.</i>	<p>The purpose of this interview is to learn more about the involvement of policy makers in the co-creation journey.</p> <p>Can we start by asking you to tell us a bit about your lab's challenge?</p>	<p><u>Challenge:</u> Traces' challenge is to address the issues raised by the use of algorithms and automated decision making in our daily life.</p> <p>It is the issue of making algorithms intelligible by its users, allowing users to understand when their data is used and their profile calculated and what comes out of it.</p> <p><u>Solution:</u> Using Automated Decision Systems (ADS) as a target of educational / cultural activities (one of 3 potential paths).</p>

<p>2: Experiences from journey</p>	<p>During the last year, you have been on a co-creation journey composed of four phases guided by the SISCODE toolbox.</p> <p>Can you tell us about your co-creation journey, in terms of involving and engaging policy makers?</p> <ul style="list-style-type: none"> • What type of policy makers did you involve? • When did you involve them during the journey? • In which phases did it make the most sense to involve them (and why)? <ul style="list-style-type: none"> ◦ <i>Back-up: Show the respondents a timeline of the journey to elaborate further.</i> • How did you go about involving them? (Which methods did you use? Did it go well? Why / why not?) <p>How did the way you involved them affect the outcome of the journey?</p>	<p>According to the report on D3.2, Ile de France Region policy makers were supposed to be present at your event “the Open Lab Day” in phase 3 of your journey, but they cancelled at the last moment.</p> <p><i>Open Lab Day = A professional afternoon meeting dealing with the issue of automated decisions using algorithms and AI through a multi-stakeholders dialogue bringing together actors from the world of education, scientific research, public citizens and policy makers.</i></p> <p>How did their cancellation affect the Open Lab Day meeting and your development of a solution?</p> <ul style="list-style-type: none"> • What value would their participation in the Open Day Lab in phase 3 have created? • What was your aim of engaging policy
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		<p>makers in this phase?</p> <p>Did you manage to engage the Ile de France Region policy makers in some other way during your co-creation journey? (How? Why / why not?)</p>
3: Expectations to policy makers	<p>What were your expectations regarding the involvement of policy makers in the co-creation journey?</p> <ul style="list-style-type: none"> • How has it been different from what you expected? • How did it differ from how you would normally go about involving policy makers? <p>What is your general experience with involving policy makers in co-creation practices (in other projects than SISCODE)?</p> <ul style="list-style-type: none"> • Are co-creation initiatives and activities common in the local policy context (of the city where the lab is located)? 	

4: Engagement of policy makers	<p>How did their participation contribute to the project and the development of a solution?</p> <ul style="list-style-type: none"> • What value did their engagement in the co-creation journey create? • On what level did they participate in the co-creation process? <ul style="list-style-type: none"> ○ Did they participate in co-design and co-development of a solution, or have they only been consulted? • Why do you think they should be involved in the co-creation process? <p>How did the policy makers experience being involved in co-creation activities?</p> <ul style="list-style-type: none"> • How did their different backgrounds affect their experience of / reaction to the co-creation activities? • Can you describe how they approached co-creation activities? • What views do you think they have on co-creation methods? 	
5: Challenges	<p>What was the most challenging part of involving policy makers?</p>	

	<ul style="list-style-type: none"> Establishing contact, engaging them in co-creation workshops, etc.? How did you handle the problems that occurred? What did you do to overcome them? 	
6: Outcomes	<p>What has been the most valuable outcome from co-creating with policy makers in the SISCODE project?</p> <ul style="list-style-type: none"> What is your best experience from working with policy makers in co-creation? 	
7: Suggestions	<p>What do you think are the most important lessons learned about involving policy makers in co-creation?</p> <ul style="list-style-type: none"> Do you have any suggestions for what to do or what not to do when involving policy makers in future co-creation projects? What is the potential of engaging more policy makers in co-creation? 	

Appendix B: Interview guides for policy workshops

APRE Interview guide

<u>Themes</u>	<u>General interview questions</u>	<u>Case specific questions</u>
1: Introduction Names, titles, areas of responsibility. Introduction to the purpose of this interview.	<i>The purpose of this interview is to understand the learning outcomes from the policy workshops in the SISCODE project and to gather insights on how co-creation methodologies can be valuable to policy makers.</i>	
2: Before the workshop The aim of the workshop and the type of policy makers invited.	What was the aim of the policy workshop(s)? <ul style="list-style-type: none"> • What type of policy makers was the workshop aimed at? • Why is this focus/aim relevant for these policy makers? <ul style="list-style-type: none"> ○ How did you approach them? 	
3: Description of workshops	Can you tell us about the programme for the policy workshop(s)? <ul style="list-style-type: none"> • Can you describe in detail how the workshop was structured? How was co-creation presented in the workshop? <ul style="list-style-type: none"> • What role did the concept of co-creation play? 	Can you describe what happened in the break out sessions (in the “User-centered co-creation and co-design methods” workshop) and tell us how they went?

	<ul style="list-style-type: none"> • What co-creation tools, exercises and methods were applied? <ul style="list-style-type: none"> ○ What went well? ○ What difficulties did you encounter? ○ How was the participants' engagement in the workshop? How did they contribute? 	
4: The participants' (policy makers) view on co-creation	<p>How did the participants respond to the co-creation and co-design methods presented in the workshop?</p> <ul style="list-style-type: none"> • What was their view on applying the SISCODE tools in their daily practice? • How did the participants perceive co-creation and the development of a new practice in policy making? <ul style="list-style-type: none"> ○ Did they perceive co-creation in different ways? How? ○ What did they agree / disagree on? <p>(How) did they address co-creation practices in relation to their own work?</p>	<p>How did the Italian policy makers and the Italian health actors respond to the co-creation and co-design methods presented in the workshop?</p> <p>In your blogpost we read a comment from one of the workshop participants (the Deputy Director), stating that <i>“stakeholder engagement is an element of strong interest”</i>, and that they <i>“will think about how further to disseminate this methodological information which they consider strongly relevant.”</i></p>

	<ul style="list-style-type: none"> • What issues / drawbacks of involving citizens in policy making have they experienced? • What potentials / benefits of co-creation methods were mentioned? • What was their perspective on the value that is created from using co-creation in policy making? 	<ul style="list-style-type: none"> • Did they talk about <i>how to apply</i> this methodological information (which they learned at the workshop)?
5: Outcomes and learnings	<p>What has been the most valuable outcome of the workshop? (Regarding new insights on the implementation of co-creation and the interactive playground for policy making)</p> <ul style="list-style-type: none"> • What are the main learnings on what barriers we should be aware of when we co-create policy making with citizens? • What kind of feedback did you receive on the workshop? 	<p>What new reflections on the value of co-creation and co-design in healthcare emerged from the break out sessions?</p>
6: Suggestions	<p>What recommendations do you have on how to train policy makers in co-creation methodologies? Best practice?</p>	

	<ul style="list-style-type: none">• What insights and methods on the implementation of policy workshops will you take with you when organising the next policy workshop?• Do you have any good advice on how to facilitate a cooperative space for policy makers in the future? <p>What do you think can be done to improve the transition from ideation to real implementation of co-creation approaches in policy making?</p>	
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Questions for levels of policy making

Levels of policy making	General questions	Examples of the different steps in the level of policy making concerned
Legislator	<p>When making laws and amending legislation, how can co-creation methodologies be used?</p> <ul style="list-style-type: none"> • In what area of legislation are co-creation methods frequently (or less frequently) initiated? How? • How can co-creation initiatives improve the quality and effectiveness of law making? • What are the barriers of using co-creation practices in legislation? 	<p>Example: What is the potential of initiating co-creation in the lawmaking process when...</p> <ul style="list-style-type: none"> • Drafting and proposing bills: How can co-creation be conducted in the process of publishing proposals for consultation and pre-legislative scrutiny? • Enacting legislation: What are the barriers of engaging citizens in open legislation? • Amending rules: What is the potential of engaging citizens in consolidation work, when new laws may amend other laws, which then need to be updated to reflect these changes?

Regulator	<p>How can co-creation methods be applied by policy makers who are regulating a sector and coordinating enforcement?</p> <ul style="list-style-type: none"> • In what area of public regulation are co-creation methods frequently (or less frequently) initiated? How? • What value can the use of co-creation methods in the regulation of a sector create? • What are the barriers of initiating co-creation practices in regulatory policy making? 	<p><i>Public regulation is often national or supranational and that tends to create quite a distance between the public and private stakeholders that may discourage co-creation.</i></p> <p>Example: What is the potential of initiating co-creation in the regulation of a sector when...</p> <ul style="list-style-type: none"> • Ensuring that regulation supports the conditions for change and delivers the policy intent: What is the potential of engaging citizens in the assessment of the regulatory framework and its conditions for change? • Building a regulatory environment: How can co-creation initiatives contribute to ensuring that regulation will enable the intended policy outcomes? <p>What are the barriers when co-creating a regulatory framework with citizens and stakeholders?</p>
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Funder (funding, taxes, tariffs and subsidies)	<p>How can co-creation methods be utilized in terms of leading or stimulating investments in policymaking?</p> <ul style="list-style-type: none"> • In what area of public funding and leading investments are co-creation methods frequently (or less frequently) initiated? How? • What value can the use of co-creation methods in this field of policy create? • What are the barriers of engaging citizens in co-creation in this field of policy? 	<p>What is the potential of initiating co-creation in the financial decision making process when...</p> <ul style="list-style-type: none"> • Identifying the direction of the financing: How can citizens or funding programmes be involved in deciding the direction of finance (to stimulate new thinking that can drive future opportunities)? • Incentivising behaviour change through grants and other incentives: When policy makers are trying to change people's behaviour by using financial incentives, how can co-

		creation solutions be of value?
Provider (providing and provisioning services)	<p>How can co-creation methods be implemented in the context of policy making that concerns providing, designing and modifying public services?</p> <ul style="list-style-type: none"> • How can citizens be directly involved in the provision of public services? • What are the barriers when engaging citizens in co-creating the welfare services they are offered by the public sector? 	<p><i>The private users and public providers will in most cases be closely connected through the production and delivery of services and that will be conducive for co-creation.</i></p> <p>What is the potential of initiating co-creation in the design of public services when...</p> <ul style="list-style-type: none"> • Creating test beds and trials in real world settings: What are the barriers of engaging citizens in testing new ideas for delivering public services? • Establishing legitimacy for more human centered services: How can co-creation approaches

		<p>contribute to harnessing political will for change?</p> <ul style="list-style-type: none"> ● Providing services through funding and target setting
<p>Customer</p> <p>(procurement, purchasing and buying powers)</p>	<p>How can we implement co-creation methods in the context of policy that concerns identifying which goods and commission services to buy?</p> <ul style="list-style-type: none"> ● How can co-creation of the procurement process create value (and change the way organisations relate to their suppliers)? ● What are the barriers of government agencies and other organisations co-creating the procurement process with their suppliers? 	<p>Examples: What is the potential of initiating co-creation in procurement policy when...</p> <ul style="list-style-type: none"> ● Reviewing, identifying and investing in key opportunities with strategic value: How can co-creation be an approach to ensure that public money is used efficiently to provide quality services? ● Standard setting: What are the barriers and potentials when co-creating the standards for data collection and presentation? ● Understanding citizen needs and contracting services that deliver impact. ● Utilising public procurement to encourage

		<p>innovation and protect consumer rights.</p>
<p>Steward</p> <p>(effect and/or inform)</p>	<p>How can co-creation methods be valuable for policy makers in the context of system stewardship? That is, when they have to oversee and steer the public sector through influence and information toward certain outcomes?</p> <ul style="list-style-type: none"> • In what area of system stewardship are co-creation methods frequently (or less frequently) initiated? How and with what intention? • What are the barriers for applying co-creation practices in system stewardship? • What can be done to enable co-creation methods within this field of policy making? 	<p><i>System stewardship is about steering the public sector.</i></p> <p><i>Policy makers who engage with stewardship ensure equity and coordinate interaction with government and society. It is about overseeing the ways in which policy is being adapted and attempting to steer the system if it is deviating too far away from the high level goals for the policy.</i></p> <p><i>Policy makers may attempt to steer the system using advocacy, changing incentives or prices, nudging systems users or creating greater transparency.</i></p> <p>In practice, system stewardship consists of four aspects: goals, rules, feedback and response.</p>

		<p>Examples: What is the potential of initiating co-creation in system stewardship when...</p> <ul style="list-style-type: none">• (Goals) Setting policy goals: What is the potential of engaging citizens in the process of setting high-level policy goals that are resilient to the adaptation that is likely to occur?• (Feedback) Understanding how the policy is emerging in practice: How can co-creation be utilized after the policy direction has been established and is realized in practice?• Identifying problems that the central government could help resolve: What are the barriers of engaging citizens in the process of assessing progress towards the policy goals?
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SPI Interview guide

<u>Themes</u>	<u>General interview questions</u>	<u>Case specific questions</u>
1: Introduction Names, titles, areas of responsibility. Introduction to the purpose of this interview.	<i>The purpose of this interview is to understand the learning outcomes from the policy workshops in the SISCODE project and to gather insights on how co-creation methodologies can be valuable to policy makers.</i>	
2: Before the workshop The aim of the workshop and the type of policy makers invited.	What was the aim of the policy workshop(s)? <ul style="list-style-type: none"> • What type of policy makers was the workshop aimed at? • Why is this focus/aim relevant for these policy makers? <ul style="list-style-type: none"> ○ How did you approach them? 	
3: Description of workshops	Can you tell us about the programme for the policy workshop(s)? <ul style="list-style-type: none"> • Can you describe in detail how the workshop was structured? How was co-creation presented in the workshop? <ul style="list-style-type: none"> • What role did the concept of co-creation play? 	

	<ul style="list-style-type: none"> • What co-creation tools, exercises and methods were applied? <ul style="list-style-type: none"> ○ What went well? ○ What difficulties did you encounter? ○ How was the participants' engagement in the workshop? How did they contribute? 	
4: The participants' (policy makers) view on co-creation	<p>How did the participants respond to the co-creation and co-design methodologies presented in the workshop?</p> <ul style="list-style-type: none"> • What was their view on applying the SISCODE tools in their daily practice? • How did the participants perceive co-creation and the development of a new practice in policy making? <ul style="list-style-type: none"> ○ Did they perceive co-creation in different ways? How? ○ What did they agree / disagree on? <p>(How) did they address co-creation practices in relation to their own work?</p>	<p>In your article on the workshop "The Effectiveness of Co-Creation for the Public Engagement in the STI practice and policy making", you mention this: <i>"There is a lack of certainty if the participants saw the benefit of applying the SISCODE tools in their daily practice. The possible answer could be found in the feedback survey sent out to all participants post-workshop."</i></p> <ul style="list-style-type: none"> • Can you elaborate on this lack of

	<ul style="list-style-type: none"> • What issues / drawbacks of involving citizens in policy making have they experienced? • What potentials / benefits of co-creation methods were mentioned? • What was their perspective on the value that is created from using co-creation in policy making? 	<p>certainty? Why do you think they did not see the benefit of the SISCODE tools?</p>
5: Outcomes and learnings	<p>What has been the most valuable outcome of the workshop? (Regarding new insights on the implementation of co-creation and the interactive playground for policy making)</p> <ul style="list-style-type: none"> • What are the main learnings on what barriers we should be aware of when we co-create policy making with citizens? • What kind of feedback did you receive on the workshop? 	<p>What key challenges in the application of co-creation in STI policymaking in Portugal were identified?</p>
6: Suggestions	<p>What recommendations do you have on how to train policy makers in co-creation methodologies? Best practice?</p>	

	<ul style="list-style-type: none">• What insights and methods on the implementation of policy workshops will you take with you when organising the next policy workshop?• Do you have any good advice on how to facilitate a cooperative space for policy makers in the future? <p>What do you think can be done to improve the transition from ideation to real implementation of co-creation approaches in policy making?</p>	
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TU Dortmund University Interview guide

<u>Themes</u>	<u>General interview questions</u>	<u>Case specific questions</u>
1: Introduction Names, titles, areas of responsibility. Introduction to the purpose of this interview.	<i>The purpose of this interview is to understand the learning outcomes from the policy workshops in the SISCODE project and to gather insights on how co-creation methodologies can be valuable to policy makers.</i>	
2: Before the workshop The aim of the workshop and the type of policy makers invited.	What was the aim of the policy workshop(s)? <ul style="list-style-type: none"> • What type of policy makers was the workshop aimed at? • Why is this focus/aim relevant for these policy makers? <ul style="list-style-type: none"> ○ How did you approach them? 	
3: Description of workshops	Can you tell us about the programme for the policy workshop(s)? <ul style="list-style-type: none"> • Can you describe in detail how the workshop was structured? How was co-creation presented in the workshop? <ul style="list-style-type: none"> • What role did the concept of co-creation play? 	TUDO <i>The workshop had three rounds of discussions: First round dealt with the topic “Strategies, structures, processes”, the second round with concrete instruments, products and services, the third round with reflections upon different modes of stakeholder</i>

	<ul style="list-style-type: none"> • What co-creation tools, exercises and methods were applied? <ul style="list-style-type: none"> ○ What went well? ○ What difficulties did you encounter? ○ How was the participants' engagement in the workshop? How did they contribute? 	<p><i>integration in policy making in each participant's field of work.</i></p> <ul style="list-style-type: none"> • Can you tell us more about what was discussed in the third round? <p>Can you elaborate on the interactive exchange of experiences that took place in the workshop on "Innovative Municipalities"? What was the format / structure of this exchange?</p> <p>Which specific forms of cooperation and co-creation between public administration, civil society, science and the private sector were discussed?</p>
<p>4: The participants' (policy makers) view on co-creation</p>	<p>How did the participants respond to the co-creation and co-design methodologies presented in the workshop?</p> <ul style="list-style-type: none"> • What was their view on applying the SISCODE tools in their daily practice? 	<p>TUDO</p> <p>What practical experiences on including citizens in policy making in the fields of sustainability, innovation</p>

	<ul style="list-style-type: none"> • How did the participants perceive co-creation and the development of a new practice in policy making? <ul style="list-style-type: none"> ◦ Did they perceive co-creation in different ways? How? ◦ What did they agree / disagree on? <p>(How) did they address co-creation practices in relation to their own work?</p> <ul style="list-style-type: none"> • What issues / drawbacks of involving citizens in policy making have they experienced? • What potentials / benefits of co-creation methods were mentioned? • What was their perspective on the value that is created from using co-creation in policy making? 	<p>and digitalisation did the participants share?</p>
<p>5: Outcomes and learnings</p>	<p>What has been the most valuable outcome of the workshop? (Regarding new insights on the implementation of co-creation and the interactive playground for policy making)</p> <ul style="list-style-type: none"> • What are the main learnings on what barriers we should be aware of when we co-create policy making with citizens? 	<p>TUDO</p> <p>One of the main results of the workshop was that <i>“Citizens should be included in policy making if feasible”</i>.</p> <p>Did the participants reach any conclusions on how</p>

	<ul style="list-style-type: none"> What kind of feedback did you receive on the workshop? 	<p>this could be achieved? Or which methods to use?</p> <p>Why is the personal exchange (of experiences with co-creation) between policy makers important?</p> <p>In the article/blog post on the workshop you mention that there are “<i>many advantages</i>” when co-creating policy making with citizens. Can you name one of these advantages?</p>
6: Suggestions	<p>What recommendations do you have on how to train policy makers in co-creation methodologies? Best practice?</p> <ul style="list-style-type: none"> What insights and methods on the implementation of policy workshops will you take with you when organising the next policy workshop? Do you have any good advice on how to facilitate a cooperative space for policy makers in the future? <p>What do you think can be done to improve the transition from ideation to real</p>	

	implementation of co-creation approaches in policy making?	
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UCL Interview guide

<u>Themes</u>	<u>General interview questions</u>	<u>Case specific questions</u>
1: Introduction Names, titles, areas of responsibility. Introduction to the purpose of this interview.	<i>The purpose of this interview is to understand the learning outcomes from the policy workshops in the SISCODE project and to gather insights on how co-creation methodologies can be valuable to policy makers.</i>	
2: Before the workshop The aim of the workshop and the type of policy makers invited.	What was the aim of the policy workshop(s)? <ul style="list-style-type: none"> • What type of policy makers was the workshop aimed at? • Why is this focus/aim relevant for these policy makers? <ul style="list-style-type: none"> ○ How did you approach them? 	UCL (Camden Council) Why did you choose to run a workshop for the Camden Council Staff? Why is this case on the Camden Council and their “Think & Do” pop up space relevant in terms of generating new knowledge on policy making with citizens?
3: Description of workshops	Can you tell us about the programme for the policy workshop(s)? <ul style="list-style-type: none"> • Can you describe in detail how the workshop was structured? 	UCL (Camden Council) What is your review on the recommendations for other policy makers that were co-designed with the council staff (in the last

	<p>How was co-creation presented in the workshop?</p> <ul style="list-style-type: none"> • What role did the concept of co-creation play? • What co-creation tools, exercises and methods were applied? <ul style="list-style-type: none"> ○ What went well? ○ What difficulties did you encounter? ○ How was the participants' engagement in the workshop? How did they contribute? 	<p>discussion of the workshop)?</p> <p>UCL (third workshop)</p> <p>Can you describe how the six sections in your 3rd policy workshop was conducted? (What went well, was there anything that did not go as planned?)</p> <p>How did it go using reflection cards in both workshops?</p> <p>Can you elaborate on why the participants found it challenging to reflect on what value co-creation can create?</p>
<p>4: The participants' (policy makers) view on co-creation</p>	<p>How did the participants respond to the co-creation and co-design methodologies presented in the workshop?</p> <ul style="list-style-type: none"> • What was their view on applying the SISCODE tools in their daily practice? 	<p>UCL (third workshop)</p> <p>How do policy makers currently engage citizens in science and innovation policy making?</p> <p>What new ways for engaging citizens in policy</p>

	<ul style="list-style-type: none"> • How did the participants perceive co-creation and the development of a new practice in policy making? <ul style="list-style-type: none"> ○ Did they perceive co-creation in different ways? How? ○ What did they agree / disagree on? <p>(How) did they address co-creation practices in relation to their own work?</p> <ul style="list-style-type: none"> • What issues / drawbacks of involving citizens in policy making have they experienced? • What potentials / benefits of co-creation methods were mentioned? • What was their perspective on the value that is created from using co-creation in policy making? 	<p>making were proposed in the third workshop?</p> <p>UCL (Camden Council)</p> <p>Why does the Camden Council staff consider citizen engagement important?</p> <p>How has Camden Council engaged citizens in policy making?</p>
<p>5: Outcomes and learnings</p>	<p>What has been the most valuable outcome of the workshop? (Regarding new insights on the implementation of co-creation and the interactive playground for policy making)</p> <ul style="list-style-type: none"> • What are the main learnings on what barriers we should be aware of when we co-create policy making with citizens? 	<p>UCL (third workshop)</p> <p>In your third policy workshop, what challenges and opportunities of implementing co-design, co-creation and participatory approaches to policy making within</p>

	<ul style="list-style-type: none"> • What kind of feedback did you receive on the workshop? 	the UK government were identified?
6: Suggestions	<p>What recommendations do you have on how to train policy makers in co-creation methodologies? Best practice?</p> <ul style="list-style-type: none"> • What insights and methods on the implementation of policy workshops will you take with you when organising the next policy workshop? • Do you have any good advice on how to facilitate a cooperative space for policy makers in the future? <p>What do you think can be done to improve the transition from ideation to real implementation of co-creation approaches in policy making?</p>	

ENoLL Interview guide

<u>Themes</u>	<u>General interview questions</u>	<u>Case specific questions</u>
1: Introduction Names, titles, areas of responsibility. Introduction to the purpose of this interview.	<i>The purpose of this interview is to understand the learning outcomes from the policy workshops in the SISCODE project and to gather insights on how co-creation methodologies can be valuable to policy makers.</i>	
2: Before the workshop The aim of the workshop and the type of policy makers invited.	What was the aim of the policy workshop(s)? <ul style="list-style-type: none"> ● What type of policy makers was the workshop aimed at? ● Why is this focus/aim relevant for these policy makers? <ul style="list-style-type: none"> ○ How did you approach them? 	
3: Description of workshops	Can you tell us about the programme for the policy workshop(s)? <ul style="list-style-type: none"> ● Can you describe in detail how the workshop was structured? How was co-creation presented in the workshop? <ul style="list-style-type: none"> ● What role did the concept of co-creation play? 	

	<ul style="list-style-type: none"> • What co-creation tools, exercises and methods were applied? <ul style="list-style-type: none"> ○ What went well? ○ What difficulties did you encounter? ○ How was the participants' engagement in the workshop? How did they contribute? 	
4: The participants' (policy makers) view on co-creation	<p>How did the participants respond to the co-creation and co-design methodologies presented in the workshop?</p> <ul style="list-style-type: none"> • What was their view on applying the SISCODE tools in their daily practice? • How did the participants perceive co-creation and the development of a new practice in policy making? <ul style="list-style-type: none"> ○ Did they perceive co-creation in different ways? How? ○ What did they agree / disagree on? <p>(How) did they address co-creation practices in relation to their own work?</p>	

	<ul style="list-style-type: none"> • What issues / drawbacks of involving citizens in policy making have they experienced? • What potentials / benefits of co-creation methods were mentioned? • What was their perspective on the value that is created from using co-creation in policy making? 	
5: Outcomes and learnings	<p>What has been the most valuable outcome of the workshop? (Regarding new insights on the implementation of co-creation and the interactive playground for policy making)</p> <ul style="list-style-type: none"> • What are the main learnings on what barriers we should be aware of when we co-create policy making with citizens? • What kind of feedback did you receive on the workshop? 	
6: Suggestions	<p>What recommendations do you have on how to train policy makers in co-creation methodologies? Best practice?</p> <ul style="list-style-type: none"> • What insights and methods on the implementation of policy workshops will you take with you when organising the next policy workshop? 	

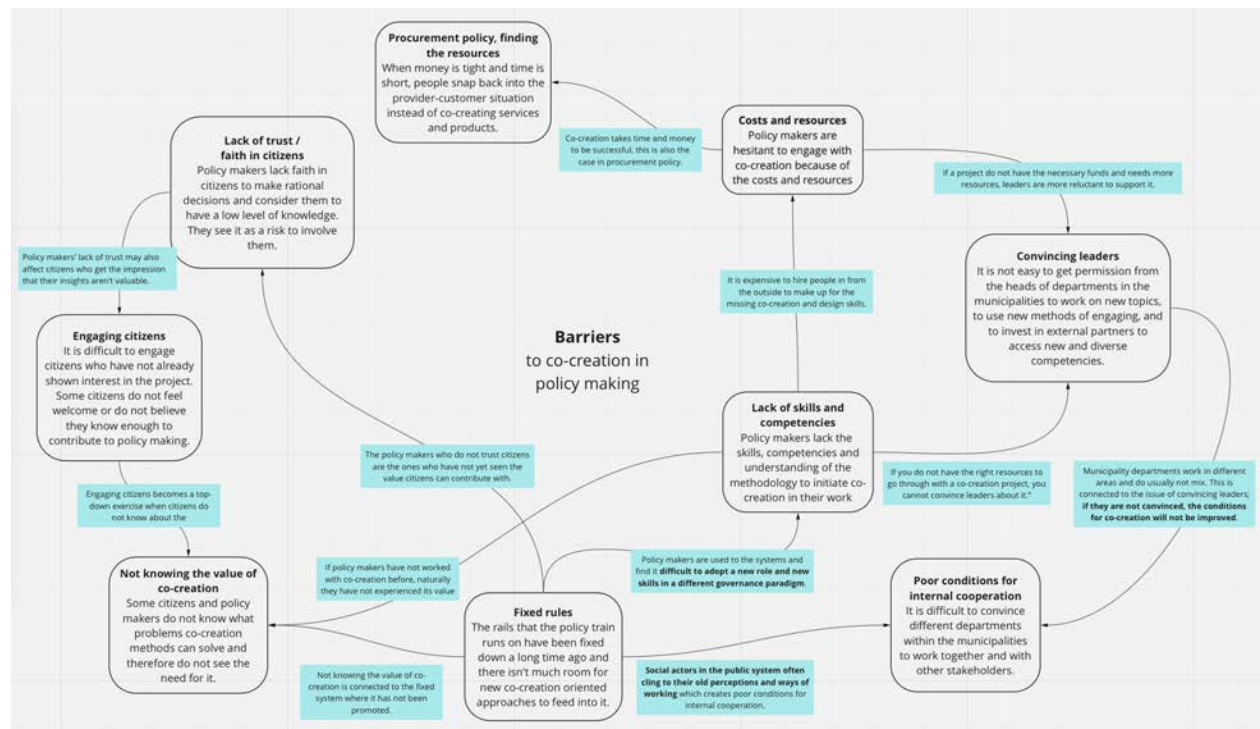
	<ul style="list-style-type: none">• Do you have any good advice on how to facilitate a cooperative space for policy makers in the future? <p>What do you think can be done to improve the transition from ideation to real implementation of co-creation approaches in policy making?</p>	
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Appendix C: Data analysis in Miro

Link for the miro board: https://miro.com/app/board/o9J_lfvmxA=

C.1. Templates for the policy workshops

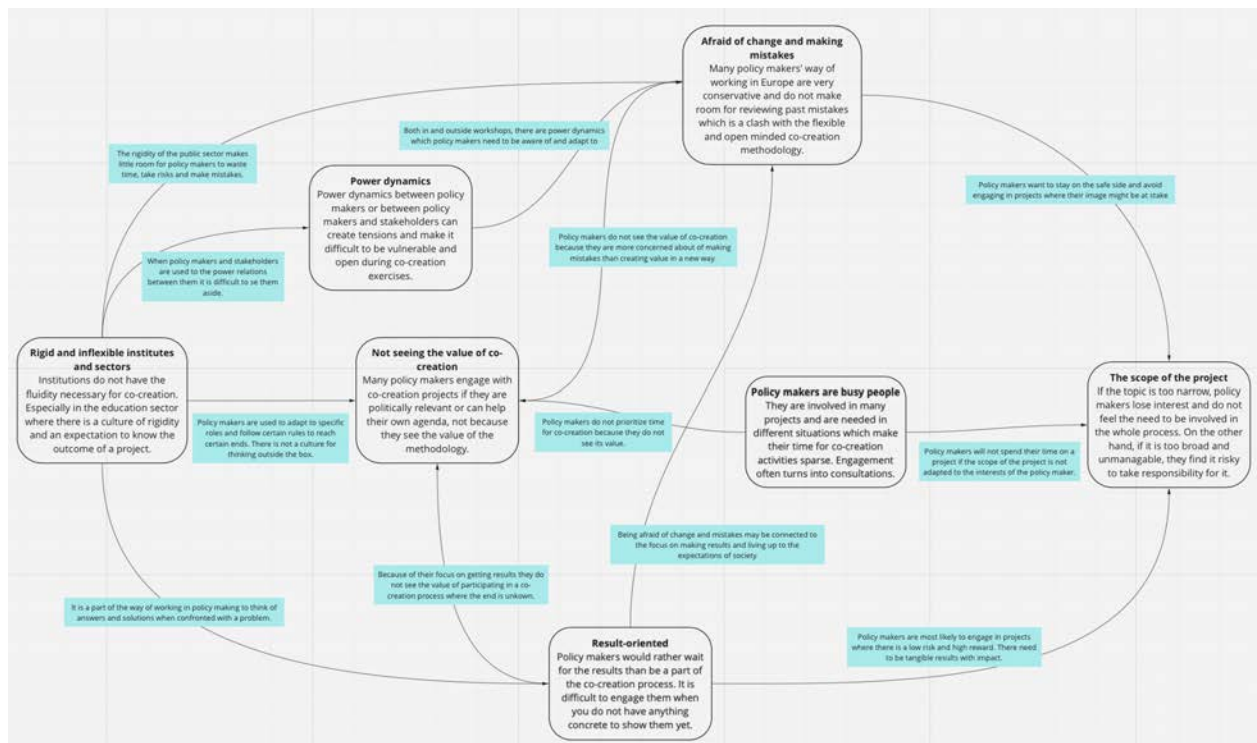
C.1.1: The connections between the barriers



[illegible]

C.2. Templates for the co-creation labs

C.2.1. The connections between the barriers



C.2.2: Resolving the barriers to engaging policy makers in co-creation

