

SISCODE CO-DESIGN FOR SOCIETY IN INNOVATION AND SCIENCE

DELIVERABLE 4.2: TRANSFORMATIONS IN STI POLICY MAKING: TRENDS, OPPORTUNITIES AND BARRIERS

This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No. 788217



Work Package	WP4, Playground for Policy Making
Task	T4.2 Understanding collaborative models of Policy Making
Due Date	31 July 2019
Submission Date	31 July 2019
Deliverable Lead	APRE
Dissemination Level	Public
Document Nature	<input type="checkbox"/> R-Report <input checked="" type="checkbox"/> O-Other
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Status	<input type="checkbox"/> Plan <input type="checkbox"/> Draft <input type="checkbox"/> Working <input type="checkbox"/> Final <input checked="" type="checkbox"/> Submitted <input type="checkbox"/> Approved

Revision History

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Revision	Date	Author	Organization	Description
0.1	28/06/2019	Partners	(see cases)	Case studies
0.2	15/07/2019	Margot Bezzi	APRE	Initial draft
0.3	18/07/2019	Francesca Rizzo, Tamami Komatsu Cipriani	POLIMI	Comments on case studies and initial draft
0.4	29/07/2019	Margot Bezzi, Chiara Buongiovanni	APRE	Second version integrating comments on draft and studies
0.5	30/07/2019	Alessandro Deserti	POLIMI	Third version
0.6	31/07/2019	Margot Bezzi, Chiara Buongiovanni	APRE	Final version submitted to the EC
1.0	10/10/2019	Margot Bezzi	APRE	Executive Summary added and small editing

Glossary of used terms

Acronym	Definition
STI	Science, Technology and Innovation
PSI	Public Service Innovation
DT	Design Thinking

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Executive Summary

This deliverable analyses eleven case studies of public sector innovation (PSI) or policy labs, providing an account of their methodologies, processes and tools, and deepening some of their specific co-creation projects or activities. The aim is to better understand how co-creation was managed in diverse situations and contexts, and how these projects and activities were linked with broader policy issues and processes. The experiences are analysed and compared looking primarily at the social, cultural and regulatory frameworks/backgrounds in which the labs operate, to capture elements of the surrounding environment that play a role in influencing co-creation processes and their effectiveness, as well as to identify the contextual variables and factors that have a positive impact on the feasibility and success of their initiatives – or vice versa, that might hinder them.

More precisely, this deliverable aims to: 1) **Understand** how advanced practices and initiatives of experimentation of co-creation processes in policy design are working in Europe, and are differently interpreted in diverse contexts; 2) **Explore challenges** bound to the inclusion of co-creation within policy making, with a special look at the issue of policy implementation and at the interaction between context and policy environment; and 3) **Identify trends and opportunities** and draw knowledge to better inform and drive collaborative STI policy making, including the experimentations conducted within the SISCODE project.

The labs to be analyzed were chosen with a view to represent different places and cultural backgrounds in Europe, but also different levels of governance, from local administrations to national entities. Also, while the selection was primarily performed within the domain of the “recognized” PSI or policy labs, it was also extended to those actors (and projects) that operate *like* PSI or policy labs without calling themselves so. Research questions have been articulated in four paragraphs/sections (1.1 Context; 1.2 Organization; 1.3 Processes and tools; 1.4 Specific initiative), conceived as concentric circles, starting from the general (the environment in which the lab operates) to the particular context. **Case descriptions were then comparatively analysed** based on a set of interpretative dimensions. Here we summarize the main findings and recommendations from this comparative analysis.

- **Capacity to navigate the political system.** In their initial stages, the cases demonstrated the importance for PSI labs to tailor their strategy to the political

context, dealing with a number of constraints deriving from a traditional public administration system (hierarchy, bureaucracy, one-size-fits-all solutions, etc.). In the initial stages, the capacity to navigate the system, to speak the right language and frame problems in the appropriate way with the necessary stakeholders (especially from the top-level), as well as the capacity to be entrepreneurial, appear to be pivotal to launch projects, spotting opportunities or acquiring the needed resources and authorizations.

- **Relationship between politics and policies.** The cases analysed showed that political commitment can be a driving, underlying force to drive disruptive changes, pursue a vision and shape the future through setting priorities and speeding up processes, and exploit outcomes. However, political commitment can also influence labs' operations, posing some boundaries or creating uncertainty regarding continued support. In order to avoid uncertainty that depends on the influence of political change on the activity (and existence) of the lab a strong process of legitimation should occur.
- **Economic sustainability model and budget allocated.** Public funds appear to be the first and most common source of financial resources, although additional funds are often searched as a complement. In particular, public funding sources appear important for the subsistence and autonomy of the labs in the short-term, or for the launch of specific initiatives. However, they do not ensure solidity in the long-term. Public funds, especially when relying on political support, besides being volatile, can influence operational choices and aspects through limiting the allocation of budget to specific priorities. For long-term sustainability and to strengthen the position and resilience of PSI and policy labs, other aspects appear to be relevant. Our analysis showed that the organizations that invested in positioning themselves as enablers and facilitators of cross-cutting societal change and transformation are more likely to build higher recognition and legitimacy around their role, independently of any specific priority or outcome pursued.
- **Long-term sustainability as a result of political neutrality and independence.** In later stages, in order to attain a higher independence from the political context, avoid uncertainty that depends on the influence of political change, and ensure longer term sustainability, a strong process of legitimation should occur. The cases here collected show that the introduction of the co-creation culture in the public sector is a long-term process. However, trust and then support from the public administration can be created through co-creation processes themselves.

Indeed, besides their main objective of developing innovations for public administrations, some of our cases show that labs can also play the role of an implicit agent of change of the culture of the mother organization they belong to.

- **Long-term sustainability as a result of healthy stakeholder networks.** Legitimization also derives from gaining a strong position within the ecosystem and the stakeholder networks in which PSI and policy labs operate, especially through positioning themselves as enablers and facilitators of cross-cutting societal change and transformation. Labs should develop a strategy of long-term sustainability that should rely on their own stakeholder network and on gaining a strong position in the ecosystem where they operate. Appropriately fuelling the relationships with their network of actors is particularly important for PSI labs, because these links – besides ensuring more positive and fruitful collaborations – can help legitimize their actions and ensure the quality of the process, especially when engaging top-level support. Those labs that have been able to structure a stable network of stakeholders with which they work seem to be more resilient and stable than those that work only as internal agencies, which are more exposed to political changes.
- **Added value of interdisciplinary teams, although focusing on different set of skills and competences.** The comparative analysis of cases reveals the emergence of new types of skills, and the attitude of the labs of investing in new sets of competences and new profiles. The quest and claim for a multidisciplinary approach are quite often obtained through the enrolment of temporary external experts or professionals, mobilizing knowledge when and where most needed. This attitude allows labs' teams to stay small and guarantees flexibility and team building, but on the other hand the lack of internal and stable profiles - especially in areas such as design thinking and policy design - can block the process of competences introjection and of mind-set change of public sector workers, towards a user centric culture.
- **Lack of assessment.** None of the labs analyzed have shown the use of an evaluation framework to measure the outcomes and the impact of design-thinking approach on policy design as well as on PSI. The lack of a systematized framework for impact measurement and the prevalently qualitative approach adopted, might act as a barrier for PSI and policy labs to gain legitimation through factually demonstrating to administrations their added value and the added value of design thinking in policy design. On the other hand, the capacity to produce qualitative insights and to read problems from a different perspective

than the traditional or institutionalized one, is what distinguishes the added value of these experimental experiences. We believe that the development of such a framework(s) would be relevant in order to support, with quantitative measures, the qualitative information and knowledge produced in the design process, supporting in turn the take-off and institutionalization of DT processes in PSI, in a moment where their presence in public administrations is still fragile and not institutionalized.

- **Impact on organizational transformation.** Even in lack of a systematized impact measurement framework, all labs show an impact on the network of stakeholders with which they engage, at different levels. At the institutional level for example, labs attract the attention of different departments and structures, contributing to cultural change. Some experiences also show the capacity to influence actions at a higher policy level, through direct influence on policy actions, with the potential of legitimizing the culture of co-design at an institutional level.
- **Use of design methodologies and tools.** The majority of the cases analyzed adopt methodologies and tools coming from the field of design. Iteration, as the process of prototyping, experimenting and learning to support improvements in policy design, is differently implemented and used in the labs. Comparing the cases, we notice that those labs that include design competences are more likely to smoothly move from ideation to experimentation and fill the gap between ideation and implementation. On the contrary, those that do not include design competences are more likely to focus on engagement and ideation and they rarely produce prototypes that impact in some way a public policy, service, process.

We believe that the chosen set of experiences has a potential to reflect and represent the wide variety of experiences and experimentations currently taking place in the EU at different levels of governance (municipalities, regions, national administrations). The use of co-creation and design-thinking methods may represent an element of paradigmatic shift, as related to the traditional public service culture, and as such it entails a number of interesting scenarios showing how, in different contexts, traditional settings are either challenged or surpassed, with more or less continuity, resistance and disruption. The journey is ongoing, and the results and finding of this piece of work will find completion and complementarity in and with the ongoing works of the ten SISCODE co-creation labs.

1. Introduction

1.1. The SISCODE project

SISCODE is a European funded project answering to a call of the European Commission meant to explore the use of co-creation to better integrate Society in Science and Innovation (SwafS-13-2017. Integrating Society in Science and Innovation – An approach to co-creation). The project is led by the Politecnico di Milano and will be carried out for a three-year period (May 2018-April 2021) by a network of 17 partners from 13 European countries.

A number of European funded projects have already started to develop a European vision of Responsible Research and Innovation (RRI) based on the principles of inclusiveness and trying to involve all actors at an early stage, thus allowing Research and Innovation and Science Technology and Innovation (STI) policies to be conceived in a co-creation mode in order to ensure shared responsibility. However, for a number of reasons, this early engagement rarely goes beyond the process of consultation. Meanwhile, processes of co-creation have proved very successful in other fields and in Social Innovation initiatives, where citizens, creative communities, different kinds of stakeholders, vulnerable groups and policy makers work together in order to tackle societal challenges.

The aim of SISCODE is to set up a comprehensive and interconnected project to help understand the potentialities and the outputs of co-creation as a Social Innovation and design-driven approach for a better inclusion of Society in Science and Innovation, and to build an evidence-based learning framework meant to integrate co-creation with organizational change mechanisms at the different levels of the STI governance systems.

The project is gathering, selecting and analyzing 40 cases of co-creation ecosystems from across Europe and beyond to understand their dynamics and the level of integration of society in science and innovation: 15 of them will be further studied through the innovation biography methodology (WP2). This will contribute to detect the barriers that lie in diverse cultural, societal and regulatory contexts and to formulate concrete proposals to overcome them.

Moreover, the project has built a network of 10 co-creation laboratories across Europe to experiment with design-driven approaches to co-creation and draw knowledge from the interaction with real life experimentation. The experimental research will result in the

development of a learning framework for co-creation based on the iterative design cycle of “understanding-ideating-prototyping-verifying”.

While the experimentation is ongoing, policy-makers are invited to participate in an intermediate playground that aims at reconnecting the single experiments conducted by the labs to the modification of policies and policy making processes.

A result of all of these activities will be the co-production of situated models of co-creation ecosystems that will work as guides for the replicability and scalability of co-creation under different cultural, institutional and regulatory contexts.

In a nutshell, the project has been conceived as a connector that aims at (re)constructing the missing links between the strategic objectives (to make R&I more responsible), topics and communities, (domains of Science and Technology, group of stakeholders, citizens and society), and the activities (Research and Innovation) on the ground which are currently disconnected.

1.2. The interaction between small-scale experimentation and policy making

As briefly mentioned, SISCODE is testing the possibility to use the experiments conducted by its network of co-creation labs to configure an intermediate layer between the strategic level of policy making and the operative level of grassroots experimentation (Figure 1). By setting up this intermediate layer, SISCODE aims at verifying the possibility to reduce the gap between the high-level policy objectives and governance structures of institutions and the realities on the ground. At the core of the project resides the idea that the connections among levels and phases of the STI policy making process could be based on setting up a system enabling exchange and dialogue, via an intermediate “exchange” layer to be designed. This intermediate level is meant to function as an interactive playground, where policy makers can get in touch 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.

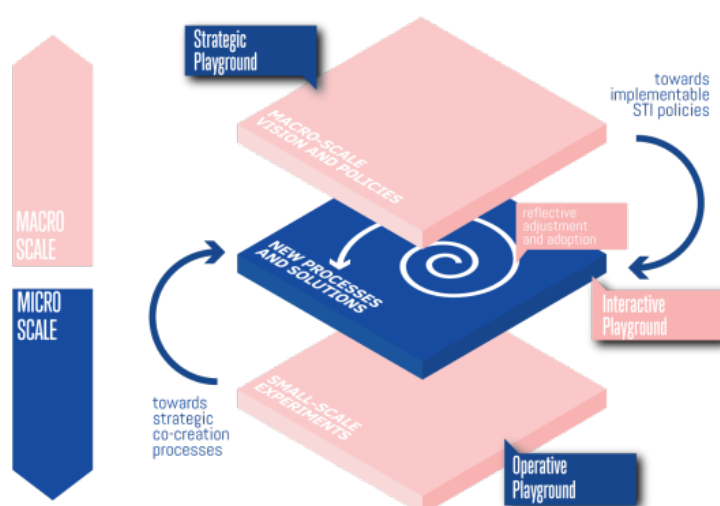


Figure 1 - Interaction between small-scale experimentation and policy making

For SISCODE, the assumption behind the attempt to establish this intermediate playground is that, thanks to it, policy makers will have the opportunity to interact with co-creation processes carried on in the labs to understand how policies and policy making processes can be transformed to become closer to the real needs of society, increasing their implementability and effectiveness and achieving higher levels of social responsibility and acceptability. Moreover, SISCODE aims at verifying the possibility to bridge the gap between the ideation and implementation of norms and policies by building capacity for prototyping and by informing policies with the results of the experimentation. This will be made by experimenting with design for policy making (T4.1), but also by informing the ongoing experimentation with the comparative analysis of design-led collaborative models of policy making in Europe (T4.2) through a case studies research. Applying design approaches and experimentation in policy making and delivery are becoming more common in diverse fields (Bason, 2014). With its human-centred perspective, design promises to improve the policy making processes and their outputs, better connecting them with societal and ethical issues. At the same time, design offers the opportunity to bridge the gap between ideation and implementation of solutions and policies, by introducing new ways of engaging and aligning actors and stakeholders that may have conflicting visions and interests. Piloting, prototyping and other experimental approaches are increasingly used and are involving citizens and a broader range of stakeholders to introduce societal concerns and to minimize the risks associated to innovation in policy making. These approaches can support learning and allow for the first evaluation (and also for failure) before significant resources are invested.

As the above-mentioned approaches have been experimented with high expectations in recent years primarily by public sector innovation labs (PSI labs) and policy labs, the analysis of their experience can be particularly helpful in providing advice to the SISCODE project, to avoid an over-enthusiastic approach that does not consider the difficulties that have been already experimented and the barriers to the adoption or diffusion of the new practices, as well as the opportunities and drivers that can be exploited. Despite the wave of projects and initiatives that these labs are bringing on, indeed there are still difficulties in connecting what is happening on the ground with the traditional policy making processes and with the established STI practices and ways of taking decisions.

This deliverable is then conceived as a connector between SISCODE's questions, propositions and hypotheses, initially formulated in the DoA and further investigated through the grounding research performed in WP1, and the experimentation with design methodologies and tools that is ongoing in WPs 3 and 4.

2. Objectives

The core objective of this deliverable is to provide a better understanding of the experience of public sector innovation labs and policy labs, to inform the ongoing experimentation activities in the SISCODE project and to give suggestions about how to manage their connection with policies within a co-creation framework. Overall, since the aim is to better inform and drive the ongoing experimentation, the deliverable will keep a solution-oriented approach in elaborating results.

One of the most relevant propositions that the SISCODE project is trying to verify is that the adoption of co-creation processes in research and innovation can be a way to concretely operationalize Responsible Research and Innovation (RRI), by engaging citizens and other actors and stakeholders in a fruitful interaction with researchers and innovators, in which diverse and sometimes conflicting perspectives and interests can be debated to better understand implications and unexpected/unwanted consequences and to come out with shared ideas and solutions. Differently from what happens in more traditional forms of citizen engagement (Rowe & Frewer, 2005), co-creation postulates the necessity to go beyond mere consultation and forms of tokenism (Arnstein, 1969), and to find ways of involving citizens and other actors all along the research and innovation process. In this perspective, the experience of PSI labs and Policy labs is extremely interesting and enlightening: co-creation is at the core of their approach to

innovation and they have already dealt with many of the challenges that the SISCODE project is facing in its experimentation. PSI labs and Policy Labs have tested co-creation methodologies and tools in a variety of places and situations (Tönurist, Kattel, & Lember, 2017a). Moreover, they have implemented a fairly relevant number of small-scale experiments in diverse sectors to tackle many different challenges, and already experimented the problem of connecting innovation activities on the ground with the transformation of policies and policy making processes.

For the above-mentioned reasons, this deliverable analyzes a few case studies of PSI or policy labs, providing an account of their methodologies, processes and tools, and deepens some of their specific projects or activities, with the aim of better understanding how co-creation was managed in diverse situations and contexts, and how these projects and activities were linked with broader policy issues and processes.

In this perspective, the deliverable will analyze and compare the experience of policy labs and policy co-creation initiatives primarily looking at social, cultural and regulatory frameworks/backgrounds in which they operate, trying to capture elements of the surrounding environment that play a role in influencing co-creation processes and their effectiveness, in order to see which are the contextual variables and factors that have a positive impact on the feasibility and success of their initiatives, or vice versa that might hinder them.

In particular, by building case studies and comparatively analyzing them against extant literature (see “Methodology” in the following), this deliverable aims to:

1) **Understand** how advanced practices and initiatives of experimentation of co-creation processes in policy design are working in Europe, and are differently interpreted in the diverse contexts in which they take place, starting from the observation of cases that illustrate how they are actually performed by public sector innovation labs and policy labs that have been established across Europe in the last years (in this, the deliverable will complement the grounding work done in WP1, particularly in D1.2 “CO-CREATION IN RRI PRACTICES AND STI POLICIES” and D1.1 “RRI RESEARCH LANDSCAPE”). With reference to this point, the deliverable will try to analyze the experience of PSI and policy labs to understand:

- what works and why in their approach;
- which are their success factors, and which are the barriers, obstacles and problems that they are facing;

- how the latter can be overcome.

2) **Explore challenges** bound to the inclusion of co-creation within policy making, with a special look at the issue of policy implementation, and at the interaction between context and policy environment. With regard to this point, as already mentioned this deliverable does not aim at mere theoretical reflections, but much more at informing the project's ongoing experimentation, in which the prototyping phase is about to start and feed the interaction between solutions under development and the broader policy issues and contexts. In particular, the deliverable aims at providing advice and answers to the following questions:

- Which are the key reasons and background conditions that have allowed the successful establishment of innovation and policy labs?
- Are they really capable of managing a smoother transition between the ideation of new solutions and policies and their actual implementation?
- Which contextual factors, pre-requisites and conditions need to be taken into account and integrated for a successful implementation of new solutions and policies and, on the contrary, which contextual factors and mechanisms may hamper implementation?
- Which are the structural elements of the systems that the labs are trying to innovate that affect their capacity to absorb or generate change?

3) **Identify trends and opportunities**, and draw knowledge to better inform and drive collaborative STI policy making.

3. Methodology

The construction of the cases investigated in this report was based on the case study methodology, as a research frame particularly appropriate for examining a “(...) *contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident*” (Yin, 2014, p. 13), or else to give answers to “how” and “why” research questions within an environment rich with contextual variables. Such qualitative approach “(...) *explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information.*” (Creswell & Creswell, 2013, p. 97)

The research process has been designed to connect activities conducted across different work packages and performed by different research partners, creating synergies and setting up the conditions for the triangulation of information flows coming from different research streams in the project. In particular, this part of the research has been informed by insights and questions resulting from the knowledge stocktaking activity conducted in WP1 (desk research primarily based on literature review), and is meant to feed the ongoing experimentation in WP3 and the interconnected activities with policy makers in WP4 (action research based on small-scale experimentation and reflective learning).

The following scheme (Figure 2) illustrates the steps of the research process adopted to co-produce the current deliverable, which will be further explained in the subsequent paragraphs together with the adopted methodology.

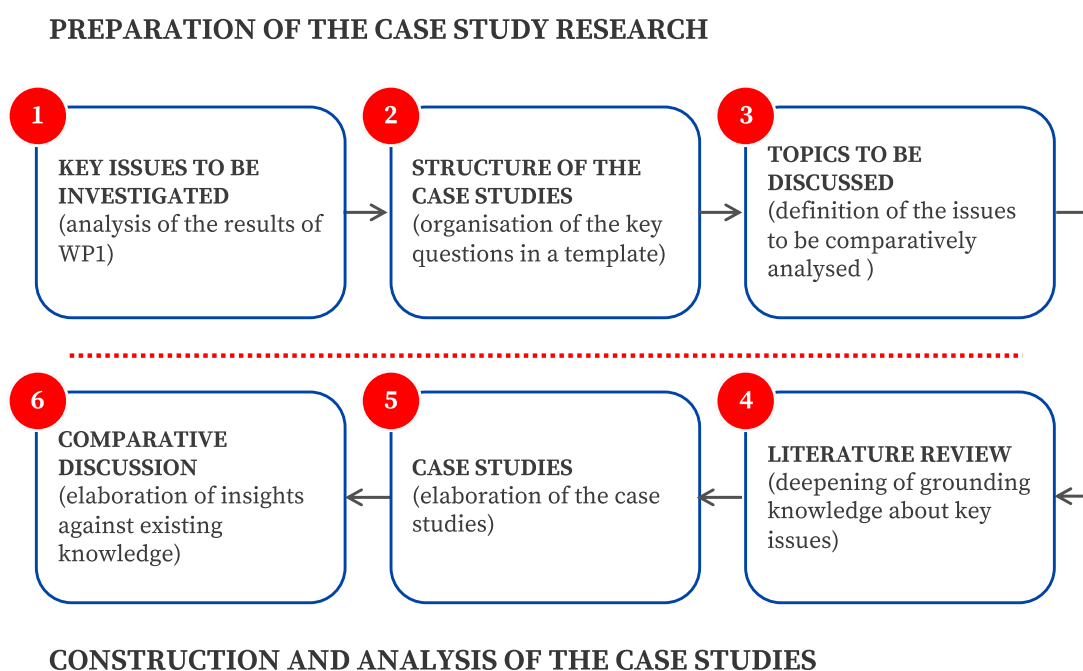


Figure 2 - Research process

3.1. Selection of the cases

To render the diversity of cultural and regulatory backgrounds, the labs to be analyzed were chosen in different places across Europe. Moreover, as the sheer definition of PSI lab is blurred (McGann, Blomkamp, & Lewis, 2018a) and can include quite diverse typologies of structures, our selection was primarily performed within the domain of the “recognized” PSI or policy labs, but also extended to those actors (and projects) that operate like PSI or policy labs without calling themselves so. For example, ASTER, the

Consortium for innovation and technology transfer of the Emilia-Romagna Region in Italy, was founded quite before the emergence of PSI labs but operates in line with most of their principles and adopts some of their practices in a peculiar cultural environment in which “external” stakeholders are stimulated to take part of in public sector innovation actions and policies.

The difference between PSI labs and policy labs was also considered when performing the selection of the labs to be analyzed, but we came to the conclusion, supported by recent literature, that the distinction between PSI labs and policy labs is primarily a matter of nomenclature, self-representation and communication that does not correspond to real differences and well-traced borders: “ (...) *what distinguishes a ‘public policy’ from a ‘public sector innovation’ team is not at all clear. It is possible to imagine examples of public sector innovation that are not specifically about policy, but in practice the two terms seem to be used interchangeably. Several of the labs identified by Fuller and Lochard (2016) as ‘public policy labs’ also feature in Nesta’s report on public sector i-teams (Puttick et al. 2014) and in an earlier map of government innovation labs.*” (McGann et al., 2018a, p. 253)

Finally, the selection of the case studies was not only meant to represent different places and cultural backgrounds, but also different levels of governance, from local administrations to national entities.

In the following, we report a list of the main criteria used to select the cases and the final list of the analyzed cases (Table 1).

Criteria for the selection of cases

- Quantity: 10-12
- Geographical coverage (good representation of regions with diverse cultural, regulatory and political backgrounds across Europe)
- Different levels of governance (local, regional, national)
- Sectorial diversity (diversity of societal and innovation challenges)
- Diversity of approaches (but all bound to co-creation)
- Availability and accessibility of information (preliminary check to verify if information about the case/initiative is available, possibly from different sources, and if it would be possible to interview key actors, considering time constraints)

LAB NAME	Responsible Partner
----------	---------------------

Agency for Territorial Development of the Emilia-Romagna Region (ASTER)	IT	APRE
Danish Design Center (DDC)	DK	DDC
Decidim Platform Barcelona	ES	IAAC
Genève Living Lab	CH	APRE
Govlab Arnsberg	DE	TUDO
Govlab Austria	AT	TUDO
Inland Design	FI	POLIMI
La 27e Région	FR	TRACES
The Disruptions Task Force	DK	DDC
Torino city Lab	IT	APRE
UK Policy Lab	UK	SPI

Table 1 - List of Policy Labs

3.2. Dimensions to be investigated and comparative analysis

As this study is based on a limited set of cases, the selection of the dimensions to be investigated and their subsequent discussion was supported by literature review, i.e. by recent studies on PSI and policy labs that are forming a quite relevant body of knowledge which was still not available when the SISCOE project proposal was written. The research conducted along Task 4.2 has thus assumed as a starting point the results of WP1, and in particular the discussion performed in D1.2 “CO-CREATION IN RRI PRACTICES AND STI POLICIES” about the introduction of co-creation in policy making.

The overall results of WP1, and specifically those of D1.2, were scanned to define a set of open questions to be further investigated through the comparative analysis of case studies in Task 4.2. These open questions were then discussed among the partners taking part in this specific research activity, filtered, clustered and turned into guiding questions for the construction of the case studies, coming out with a joint analysis framework and a structured template (see Appendix A). This framework, together with a minimum standard for the documentation to be retrieved, is meant to guarantee both a high level of quality in the development of the cases and the possibility to perform

comparisons among them. The use of multiple sources of data (triangulation) about the single labs has been adopted as a distinguishing characteristic of the case study methodology (Stake, 1994), with the aim of introducing multiple perspectives and points of view and obtain a holistic understanding of the characteristics of the labs and the ways in which they operate. Moreover, in the development of the cases a mixed approach was adopted, by first starting to draft the case on the basis of literature and other sources of information about the labs and their projects or initiatives (websites, presentations, reports and other documents) and then using structured interviews with key figures in the labs to confirm facts and findings and to deepen some aspects.

The set of guiding questions, which was used both for organizing scientific literature and other sources of information and for conducting the interviews, is the result of the collective effort of the consortium: they were extracted from the initial phase of knowledge stocktaking and grounding, discussed in a task meeting, enriched with the members' contributions and reviewed to fit in SISCODE's overall objectives and in the specific objectives of the research task. Starting from the initial template, an exemplary case study was developed to test the structure and the single questions, and to provide researchers with an example to follow, to achieve as far as possible a uniform style despite the relevant number of researchers involved. On the basis of the feedback from the development of the exemplary case, questions have been further assessed and sometimes reformulated or redistributed, to provide better answers to the different research questions.

The construction and discussion of the cases have been articulated as two separate, sequential macro-phases (PART1. CASE DESCRIPTION; PART2. INSIGHTS ON THE CO-CREATION PROCESS), with the aim of distinguishing the "objective" and the "subjective" part of the study. The first part of the case studies thus reports as far as possible objective information, avoiding judgements and conclusions. On the contrary, the discussion in the second part of the single cases and the comparative analysis of the different cases report the interpretation of the authors, or else subjective information. The main methodological difference among the two is that the internal discussion of the single cases was elaborated by the same authors of the cases, who worked individually, while the comparative discussion is the result of a collective effort in which a group of researchers, mostly different from those who developed the single cases, examined the cases and elaborated the insights collectively (Figure 3).

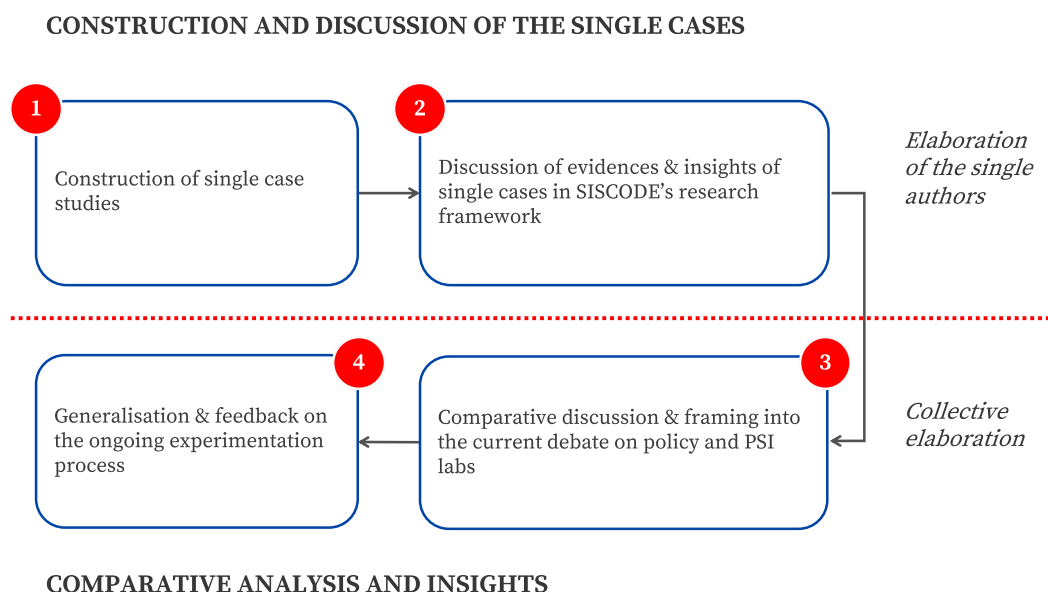


Figure 3 - Construction and discussion of the case studies

Both the development of the case studies and their discussion and interpretation followed a sound methodological process, adopting clear guidelines and a standardized structure that facilitates their comparative analysis. According to the case study methodology, as it was developed and adopted in the field of the social sciences (Stake, 1978, 1994, 2006; Yin, 2014), the discussion of the case studies was primarily based on the generalization of the characteristics and processes of the described labs.

Generalization from the cases was not concerned with enumerating frequencies as required for statistical generalization, but rather with verifying, expanding and challenging initial propositions and assumptions. Generalizations and insights were thus formulated in the light of: 1) Grounding knowledge and discussions elaborated in D1.1 “RRI RESEARCH LANDSCAPE”, D1.2 “CO-CREATION IN RRI PRACTICES AND STI POLICIES” and D1.3 “THEORETICAL FRAMEWORK AND TOOLS FOR UNDERSTANDING CO-CREATION IN CONTEXTS”; 2) Deepening of the single dimensions to be investigated in the discussion of the cases through further focused literature review.

For the final template, research questions have been articulated in 3 paragraphs/sections (1.1 Context; 1.2 Organization; 1.3 Processes and tools) that are meant to describe the context in which the lab operates and deepen specific aspects related to the organization and the processes and tools that it adopts, while a fourth paragraph (1.4 Specific initiative) is focused on a specific initiative, with the aim of showing a concrete example of the activities conducted by the lab and the processes and tools in action (for the full list of questions see Appendix A). The different

paragraphs/sections are conceived as concentric circles that give the opportunity to progressively zoom in starting from the general (the environment in which the lab operates) to the particular (the lab itself, its processes and tools, and one or more specific initiatives carried out – Figure 4).

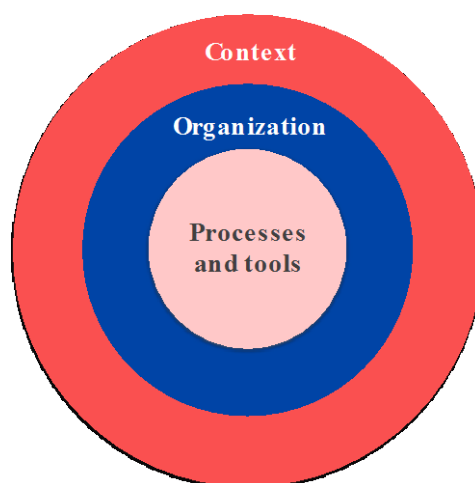


Figure 4 - Articulation of the case studies

A final characteristic of the applied methodology is that, albeit with a different emphasis, cases have been analyzed and interpreted along three directions: 1) horizontally, where the case is analyzed and discussed in all its aspects; 2) vertically, where specific aspects or mechanisms of co-creation, particularly evident in the case, are focused and deepened; and 3) comparatively, by combining findings along the two previous directions and discussing them across different cases (Figure 5).

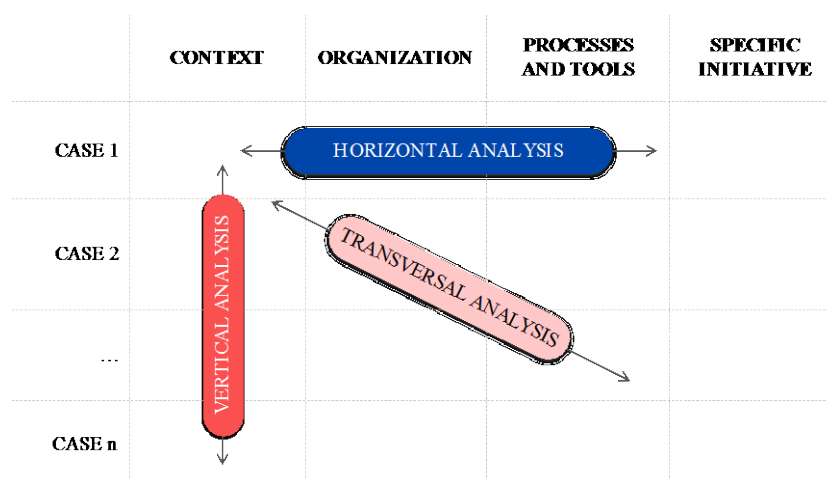


Figure 5 - Levels of analysis of the case studies

4. Literature Review

The emergence of public sector innovation as a major issue continues previous public sector innovation discourses (Tönurist et al., 2017a) and earlier reform attempts such as the “reinventing government” (Osborne & Gaebler, 1992) reforms and more broadly, the New Public Management (NPM) ideas that were implemented in many nations starting from the 1980s. This was part of a broader attempt to address the perception that public sector bureaucracies were resistant to change and “unable to deal with new challenges” (Saint-Martin, 2001). Drawing on organizational theory and reflecting a Schumpeterian paradigm which sees competition and the pursuit of profitability as the catalysts of innovation (Potts & Kastle, 2010), NPM ideas advanced a more entrepreneurial public sector characterized by the adoption of private sector management practices and market competition in the delivery of public services (Hood, 1991). These efforts at improving organizational performance via modernization, reforms or customization overlooked the wider innovation ecosystem and paid little attention to the situations of those affected – be they public servants, stakeholders or citizens (Hood, 1995). In general, there was a failure to produce citizen-centric outcomes due to conflicts of accountability and a lack of investment in trust across the different actors (Bouckaert & Peters, 2002).

Besides the question of a better design of the services to be offered to citizens, with the aim of responding to their needs in accordance with expectations that are shaped on the quality of private services, in the last years the necessity of rethinking policy making on the basis of new principles powerfully re-emerged. The two phenomena, which may seem disconnected, are in fact tightly linked and partly overlapping, as policies may be also seen as the overall umbrella under which societal value can be built and more effective services can be delivered. Services are on one hand influenced by policies and inform policies on the other hand, which leads to the interconnection between service innovation and policy innovation, and to the experimental application of established service design methods and tools to the design of policies.

In policy sciences, policy design is defined ‘an intendedly rational’ (Mintrom & Luetjens, 2016, p. 393) and largely linear decision-making process. From policy goals formulation, to the individualization of possible scenarios to be analyzed against different set of measures before the most efficient or effective option is selected for implementation (Wagle, 2000; Parsons, 2002). The final intention of this linear configuration is that problems can be rationally solved through greater precision in diagnosing them and more rigorous understanding of causal linkages (Head, 2008). Contrary to this linear

and positivistic design model design thinking in policy design brings the perspective that, alongside rationality, policy should equally be guided by the values of those that experience them in real contexts by generating relevant knowledge via an evolving, iterative and learning by doing process in which engagement of citizens and relevant stakeholders in all the design phases and prototyping are central (Kimbell & Bailey, 2017).

As a response to these challenges, many public administrations are currently experimenting the introduction of design practices, with a particular emphasis on the development of a more citizen-driven approach to innovation in order to build a better society. NGOs such as Nesta in the UK, the Danish Design Centre in Denmark and LA 27eme Region in France and other teams that operate from within the public administration are playing a relevant role in pushing innovation labs as a new organizational arrangement within public sector organizations. The peculiarity of these structures is the adoption of diverse user-centered design approaches to idea generation and implementation because their structure and mandate allows them to circumvent certain characteristics of the public administration often individualized as barriers to public innovation (European Commission & Directorate-General for Research and Innovation, 2013; Tönurist et al., 2017; Bason, 2014).

Design led innovation approaches are today becoming a mantra in different areas of innovation, including social and public-sector innovation (Manzini & Rizzo, 2011; Deserti & Rizzo, 2014). These approaches are currently being experimented to tackle societal challenges, trying to better manage complex participatory processes involving a large number of actors and stakeholders in a frame of tensions and even open conflicts. The processes that they adopt for managing such complex arrangements go beyond the established User Centred Design principles, i.e. the human centered approach to innovation that considers the end users of the solutions to be designed those who possess fundamental expertise on the problem/challenge to be solved. In particular, in recent years design led innovation approaches have extended the concept of participation to include: 1) the relationship between the context of the problem to be addressed and the design of the network that will co-produce the solution; 2) the experimentation of different configurations of that network until a robust partnership is individualized and established in some institutional form. One of the traits of characterization of design led innovation approaches is that they are fundamentally based on the real practice of an iterative design cycle, which typically includes prototyping processes that are meant to test and refine the new solutions providing

feedback to the development process, but also to function as a boundary object that supports the interaction among the actors and stakeholders involved. Moreover, prototyping processes enable iterative learning and may help turning experimental solutions in new consistent practices by creating an effective interaction between ideation, implementation and learning/feedback. From this perspective, design led approaches have become of particular interest for PSI labs primarily because they introduce a human centered approach, supporting the dialogue among actors and stakeholders within a co-creation framework and the activation of the ecosystem as strategic asset in the process that moves from ideation to its real implementation.

The available papers and reports on PSI and policy labs remain in the majority of cases descriptive and informative in nature; most of the provided evidence relies on insider ethnographies - e.g.: Mindlab (Christiansen, 2014); UK Policy Lab (Kimbell & Macdonald, 2015) - or document analyses - e.g.: (Williamson, 2015). A report on 16 innovation labs was published in 2013 by the Parsons DESIS lab, whereas Nesta and Bloomberg Philanthropies have published a report on public sector innovation labs that covered 20 such units around the world (Puttick, Baeck, & Colligan, 2014). More recently, La 27e Region mapped 78 public policy labs in European Union member states (Fuller et al., 2016).

Although there is still little research into innovation labs in the public sector, a small collection of literature consisting of scholarly studies and several practitioner-oriented reports and guides shows that innovation labs in the public sector are seen as organizational tools for improving Governments' innovation capacity (Bason, 2010) and to overcome some of the traditional barriers to public sector innovation and innovation in the public sector (Tõnurist et al., 2017a). However, PSI labs still show several limitations and issues that require further investigation, that we try to synthesize in the following:

- They are too isolated from their parent organization. As the role of PSI labs is to provide an organizational structure solely focused on innovation, they can be developed without requiring major change in the rest of the organization. As a consequence, while innovation labs develop internal innovation capacity, they do not necessarily transfer the skills and competences to the rest of the organization. With reference to this point, a key question for SISCODE is if there is an ideal model of relationship between an innovation lab or team and the organization (or network) that is supposed to uptake and interiorize the new

processes and practices, or if it depends on the specificity of the situation (phase of the innovation process, overall aims, etc.).

- They tend to focus more on experimenting and testing instead of scaling-up innovation. Having labs staffed with people solely dedicated to innovation means that they can tend towards innovation for innovation's sake. A too strong innovation focus seems to limit the impact, sustainability, and institutionalization of innovation efforts and questions whether labs are a sensible use of resources, especially if their lifespan is short. With reference to this point, a relevant issue for SISCODE is if, when operating within complex systems and situations, a disruptive attitude is in contrast with the very concept of "implementability". In particular, the key question is how to create a smoother connection between the explorative attitude of innovation teams and the exploitative nature of the organizations that they are supposed to help innovate. From this perspective, literature on organizational transformation may provide support, in particular by connecting organizational transformation and learning to the capacity of finding a balance between exploration and exploitation (March, 1991).
- Their proliferation is producing a corresponding "toolification" phenomenon. A large set of problem-solving toolkits for public sector innovation have been proposed (a quite broad collection can be found in the OPSI Toolkit Navigator: <https://oecd-opsi.org/toolkit-navigator/>) along with a number of public sector innovation labs and spaces in which new learning is hoped to take place whose value to actual public sector work settings and to public sector work problems is disputed (Clarke & Craft, 2019). Moreover, the toolkits already available are often proposed detached from specific learning modes, and they do not connect the impact of the individual learning to the organization (organizational learning) and vice versa. With reference to this point, a relevant issue for SISCODE is the form that the learning hub for policy makers should take, to avoid the production of yet another toolkit. This point was indeed already discussed with the reference to the instrumental support to be provided to the experimentation under development in WP3, and some of the reflections already made (see D1.3 "THEORETICAL FRAMEWORK AND TOOLS TO UNDERSTAND CO-CREATION IN CONTEXTS" and D3.1 "CO-CREATION JOURNEYS") can be of help in providing advice and indicating trajectories to be followed.

- Too often public sector innovation is reduced to technology adoption, which makes it difficult to introduce approaches that are not solely based on technologies. Twenty years of digital government implementation have shown that technology is necessary but not sufficient for innovation to happen, as technology-oriented investment has led to limited uptake of digital government. Today, there is a consolidated body of knowledge on the interaction of service-oriented digital architectures, agile organization and user-centred design, but methods integrating technological and non-technological innovation in the public sector are far from being largely adopted by the majority of organizations and civil servants (Brown, Fishenden, & Thompson, 2014). With reference to this point, an advice for the ongoing experimentation is SISCODE is to find ways of clearly distinguishing the adoption of technologies in the development of new solutions from the innovation that they bring about, which can be non-technological.

In analyzing PSI labs starting from SISCODE's propositions and hypotheses, one of the aims of this study is also to try to better understand if and how background and contextual conditions play a role in conditioning their ways of doing things. The final objective is to verify the degree of transferability of approaches, processes, methods and tools, and how they could possibly be modified and adapted to match local specificities and conditions. This would also give the possibility to fully exploit the diversity of the SISCODE consortium, and specifically of the network of co-creation labs, and set the conditions for the triangulation of the results obtained through literature review and the analysis of case studies, and those obtained in the experimentation.

Literature is actually presenting PSI and policy labs as a whole, which has led to primarily analyze them as a fairly "compact" body, made of different organizations that operate in different countries (and sometimes even sorting them on the basis of different ratios and factors), but mostly studied as an overall phenomenon (Williamson, 2015; Fuller et al., 2016; Tönurist et al., 2017a; McGann et al., 2018a). In other words, in the existing analyses, similarities seem to matter much more than differences. Even the accounts of single experiences are typically focused on transversal issues and on the introduction of new perspectives and approaches. This gives the impression that initiatives are all quite similar, and hinders the possibility to better study the relationship between their approaches (and possibly their success factors) and the contexts in which they operate. This issue is in our perspective particularly relevant in view of defining the conditions for setting up "co-creation ecosystems", which is one of

the objectives that the SISCODE project will pursue in activities to come. For this reason, before comparing the case studies, this study tries to provide support for the following discussion by deepening the question of the background conditions and contexts in which the labs operate.

Background and Context in which PSI labs operate

In response to the rising complexity of public problems (social, environmental, cultural) and their often ‘wicked’ nature, along with changes in the modes of response, due mostly to fast advances in technology, governments across Europe are challenged with the need to innovate not only their services but also their organizational processes and modes of operation. While these challenges are widespread across Europe, the ways in which they are identified and tackled depend largely on socio-political and scientific-technological factors and their interconnections (Maiello, Viegas, Frey, & D. Ribeiro, 2013; Feldman & Khademian, 2007). The differences in response to conceptually identical problems across countries may in fact be explained by influences of state and governance traditions (Pollitt & Bouckaert, 2011, as cited in Voorberg et al., 2017). Moreover, the complex nature of these problems (Weber & Khademian, 2008) has made it clear that a multi-actor approach is required (Bourgon, 2011, p. 39), which takes into account and actively engages citizens, experts and governments in collaborative, participative processes (Maiello et al., 2013). This emphasizes the multi-level, or to follow ‘flatter’ ontologies, multi-locational feature that makes up policy environments in which networks of actors and organizations, along with current beliefs and paradigms, influence policymaking (Cairney, 2017, p. 5). Innovating policymaking thus involves updating beliefs, changing and aligning frames around problems and successfully persuading the validity of different types of evidence (Cairney, 2017, p. 5).

Co-design, like co-production and social innovation, has come about as a sort of ‘magic bullet’ (Blomkamp, 2018) to approach these challenges, celebrated for its direct involvement of citizens and stakeholders in problem-solving and solution-building. However, similar to how innovation unfolds differently in diverse locations, the success or rather efficacy of co-creation processes could widely vary based on, and not only, contextual differences in: (1) the governing paradigm; (2) state and governance traditions; (3) innovation methods; and (4) how and what kind of knowledge is recognized, assimilated and applied.

The Governing Paradigm

While innovation in government is often seen as an oxymoron, innovations in the public sector have a substantial track record and can be better understood in the context of the paradigms of governance and public management (Benington & Hartley, 2001) that characterize their generation and adoption (Hartley, 2005). While the three paradigms – ‘Traditional’ Public Administration, ‘New’ Public Management and Networked Governance – are linked to specific historical time periods and ideologies, “they can also be seen as competing, in that they co-exist as layered realities for politicians and managers, with particular circumstances or contexts calling forth behaviours and decisions related to one or the other conception of governance and service delivery” (Hartley, 2005; Bourgon, 2011). Each paradigm presents a different conception of governance and public management. The ‘traditional’ public administration paradigm is characterized by a legislative, bureaucratic and rule-based approach and views the roles of policymakers as commanders, public managers as clerks and martyrs and citizens as clients (Hartley, 2005, p. 29). It produces universal innovations (ibidem, p. 29). The next paradigm, ‘New Public Management’, sought to introject private sector management practices to advance a more entrepreneurial public sector, which was justified by the increased complexity of policy challenges and the opinion that this undermined the policy capabilities of the public sector (Craft & Howlett, 2013, p. 90). This led to the establishment of a ‘knowledge-for-policy’ market (Hart & Vromen, 2008, p. 143) in the public sector, which is echoed in today’s spread of PSI labs and public sector consultancies. Under this paradigm, policymakers are announcers/commissioners, public managers are efficiency and market maximizers and citizens are customers (Hartley, 2005, p. 29). In the last paradigm, Networked Governance, the state takes on a role of steering rather than controlling through hierarchies or the market and sees the role of policymakers as leaders/interpreters, public managers as explorers and citizens as co-producers (Hartley, 2005, p. 29). As can be seen, these different paradigms set forth rule and norms and organizational cultures that affect the roles that actors play and the range of action that can be employed. A general trend of increasing openness to external actors and collaboration can be seen as history advances. It can be hypothesized that co-creation projects would be more endorsed by, or at least more effective in, the latter two paradigms. In fact, the crucial role that public managers can play in innovation strategies, cultivating collaborative relationships inside and outside the administrative structure and integrating both lay and expert knowledge into the organization (Maiello et al., 2013) has been highly researched (Denhardt & Denhardt, 2000; Feldman & Khademian, 2007; King, Stivers, & Box, 1998; Quick & Feldman,

2011; Roberts, 1997; Weber & Khademian, 2008; Yang, 2005). As the organization of work structures and roles are influenced by the governing paradigms under which they work, understanding which one is operative presents an important contextual factor of co-creation's effectiveness. Co-creation projects and their outputs will likely have to compete with other sources of evidence and other governance philosophies for validity and uptake, depending on the context and paradigm in which it is situated.

State and Governance Traditions

In a study on co-creation, Voorberg et al. (2017) analyzed how macro-level factors – state and governance traditions – can influence co-creation and its ability to foster frame adaptation and policy change. They did so by researching two dimensions: the sharing of authority and the culture of governance (Lijphart, 2012). Regarding the first dimension, governments can be defined as authoritative or consultative. In the first, government bodies make most of the decisions, while in the latter decision-making is spread across government and a wide array of collaborative structures that include civil society, third sector actors and private entities (Voorberg et al., 2017, p. 181). The second dimension, instead, refers to the accepted viewpoint on how governments should act. The authors analyze this according to two different cultures as identified by Pierre (1995):

Rechtsstaat or Public Interest. Rechtsstaat-oriented countries value legal correctness and law enforcement, while Public Interest-Oriented governments act as stewards valuing flexibility and pragmatism to safeguard public interest (Voorberg et al., 2017, p. 182). In Voorberg et al.'s (2017, p. 190) study of three cases (one Rechtsstaat and two Public Interest-oriented), it was found that policy change in favor of co-creation was more easily achieved in authoritative countries, whereas this was slower in consultative countries in which more actors had to change or align their frames of the problem to create policy change. Their research found that these macro-level factors could influence the success of co-creation initiatives in aligning actors around problems and solution-building.

Furthermore, as co-creation involves a large number of actors, some of whom may even have competing interests, the process is complex and requires the loss of control by public officials (Steen, Manschot, & De Koning, 2011, p. 59) of how the issue is framed and consequently what the solution should look like. This often runs counter to the risk-averse culture and structure of government, which often hinders experimentation and innovation. Moreover, politicians and civil servants often view themselves as 'sovereign decision-makers', charged to rule for the people rather than with them, which could make a collaborative approach to policymaking unappetizing (Ansell, Sørensen, &

Torring, 2017, p. 479). Another aspect that is important for co-creation is trust, both in the method and in the other collaborators (Durose & Richardson, 2015, p. 35). This could be problematic in a time where public trust in government is at a low and declining (Foa & Mounk, 2016). If done well, co-creation, however, also offers the opportunity to build trust between participants – civil servants, citizens and policy makers – through the process and thus offers a tool for enhancing trust and positive engagement in public life (Bradwell & Marr, 2008, pp. 10, 14; Durose & Richardson, 2015).

Innovation Methods

While the need to innovate seems to be widespread, the matter of ‘how’ innovation occurs in the public sector can vary for a number of reasons, which include differences in governance, cultural factors and the amount of power and autonomy given to public managers (Arundel, Casali, & Hollanders, 2015, p. 1272). These factors could also vary across Europe based on differences in national culture, labor organization and working conditions and also within countries based on changes in policy implementation and culture in the local, regional and national level. In fact, in a study done by Arundel et al. (2015) based on the results of a 2010 survey of 3,273 public sector organizations (PSOs) across 27 EU countries, found that PSOs innovate through three primary methods: policy-dependent, bottom-up and knowledge scanning agencies. The authors found each method to represent about one-third of the total sampling. Policy-dependent agencies were found to be less innovative and less inclined to collaborate on the development of an innovation with external parties, with a consequential poor development of internal innovation capabilities (ibidem, 2015, p. 1280). These agencies were smaller in size, and often worked in the local context, rather than on the regional or national arena, which could limit the awareness of politicians to opportunities for ‘lateral’ innovation (ibidem, 2015, p. 1280; Hartley, 2005). In contrast, management, in bottom-up agencies, actively encouraged innovation from staff and middle management through several strategies, which include incentive programs, support for trial and error testing and evaluation methods (Arundel et al., 2015). These types of organizations were found to be larger, more likely to serve the national government and more prevalent in the higher income countries of Northern Europe (ibidem, 2015, p. 1280). Lastly, knowledge-scanning agencies were found to rely on external sources for good ideas and knowledge, acquired through interactions with suppliers, customers, and users or through best practices of other experiences (ibidem, 2015, p. 1280). These agencies share the same innovation methods as bottom-up agencies, with slightly more attention placed on training activities and external collaboration and thereby engaging more in ‘lateral’ innovations

(Hartley, 2005). In this direction, both bottom-up and knowledge-scanning agencies demonstrated high levels of innovation through collaboration, backing the findings of literature (Borins, 2012; Christensen & Lægheid, 2007; Hartley, 2005) regarding the value of collaboration in innovation strategies.

Based on the above findings on the heterogeneity of innovation of PSOs across and within countries, one could hypothesize to find co-creation initiatives across Europe, in both high and low income countries, with (1) the frequency determined by what kind of agency it is, expecting more initiatives to be found in bottom-up and knowledge-scanning agencies and less in policy-dependent ones, and (2) its efficacy to be determined by how well the organization can absorb external knowledge. Regarding the first, however, the number of organizations engaging in participatory design activities could be inflated due to confusion over its definition. When loosely defined as any collaborative or participatory activity, it would appear that almost all PSOs are taking part (Blomkamp, 2018, p. 3). In fact, in a PwC survey of public service workers, 90% reported being involved in a co-design project that engaged users (Bradwell & Marr, 2008, p. 35 as cited in Blomkamp, 2018, p. 3). In accordance with Blomkamp (2018), stricter definitions of what co-creation and co-design entails is needed to really understand the value of participatory design and its role in facilitating innovation through collaboration.

Knowledge Recognition and Integration

Co-creation goes beyond just focusing on the user to actively engaging them in the design process and requires input from a wide array of actors in the solution-building process. As such, it aspires to be (as this depends on who is involved, as will be discussed below) a democratic process, demanding constant negotiation between actors. Learning in co-creation is thus a social processes and the knowledge produced socially constructed (Latour, 1999). Dunlop and Radaelli (2013) emphasized that the engagement of diverse individuals in learning processes and the control of these individuals over learning objectives leads to different types of knowledge production. Co-creation uses and produces different forms of knowledge through enacting and making rather than relying solely on rational and cognitive discussions (Gottweis, 2007, pp. 238–239; Mclaverty & Halpin, 2008); ‘Lay’ knowledge and lived experience are therefore treated as types of expertise (Blomkamp, 2018; Maiello et al., 2013). Problems arise when trying to implement and make use of the knowledge coming from these experiences, especially in light of evidence-based policymaking practices that stress scientific results coming from more controlled experiments (e.g. large, randomized control trials). Kimbell (2016)

asserts that design methods open up policymaking to new forms of expertise and a wider range of inputs, predominantly by engaging the users directly affected. Maiello et al. (2012) stress the importance for knowledge co-production that public managers integrate ‘lay’ knowledge and non-technical knowledge in decision-making. Rebolledo (2016) argues that design has the opportunity of pushing policymaking past positivist attachments to the scientific method towards a model that is based on a diversified range of values, norms and sources of evidence (Wagle, 2000). Tenbensen (2006) and Head (2008) encourage policymakers to acknowledge and embrace the diversity of ‘evidence’ found in networked policy environments and through community engagement (McGann et al., 2018a, p. 15). While co-creation offers as proposed by literature new forms of knowledge, its efficacy and ultimately its impact rests on the absorption and application of this knowledge. To this end, and as stated already, it is crucial that co-creation leaders find ways for the resulting knowledge to be accepted by policymakers and public managers.

Therefore, based on literature, contexts that favor co-creation may not necessarily be geographically determined, but rather be in places where the following conditions are more prevalent: (1) the governing paradigm values bottom-up and knowledge-scanning innovation methods, empowering and revitalizing the roles of policymakers and public managers; (2) different types of knowledge are recognized, assimilated and applied by policymakers (Brandsen & Honingh, 2016; Head, 2008; Kimbell, 2016; Rebolledo, 2016; Tenbensen, 2006) and public managers (Maiello et al., 2013), speaking to the absorptive capacity (Cohen & Levinthal, 1990) of policy environments and their actors; (3) trust between actors is high (Durose & Richardson, 2015, p. 35); and (4) there is an alignment of frames between actors regarding what the problem is and how it should be solved (Voorberg et al., 2017), or at least established knowledge and experience in managing the tensions among divergent and sometimes conflicting perspectives. The above-mentioned conditions are typically found in culturally homogenous settings but, as already mentioned, they may be determined in ways that do not seem to be only bound to geo-cultural factors. For example, large cities and metropolitan areas across diverse countries seem to be fertile grounds and to have traits of commonality that are not only dependent on their geographic position, and some regions seem to have specificities that make them somehow different than the country in which they are located.

Organization, structure and governance of PSI Labs

With over 60 PSI labs in the EU member states (Fuller et al., 2016), these “islands of experimentation” (Tönurist et al., 2017a, p. 8) are considered the recent evolution of

New Public Management's (NPM) 'hidden public service' (Craft & Howlett, 2013, p. 188), but also a new and unprecedented phenomenon (Bason, 2014). As already said, the existing studies tend to investigate them as an overall phenomenon, but at the same time PSI labs are (or can be) categorized according to several characteristics: (1) the method they use; (2) the field in which they work; (3) where they focus their efforts in the innovation process; (4) how they work, directly or indirectly; and (5) the extent they are involved in government (Puttick et al., 2014, pp. 6–7). In a study of 20 PSI labs conducted by McGann et al. (2018a), about half of the labs were classified as design-led, with design thinking prevalent in labs inside public administrations or those funded by government (p. 13), with co-creation being a widely used tool to engage users in design processes. Questions arise then over how these labs are organized in terms of: (1) location respective of government; (2) their permanence; and (3) their agency and autonomy.

Location and Ownership of PSI Lab

PSI labs' proximity to government can range from being found within the executive branches of government, spanning across multiple agencies and departments, or as contracted, non-profit organizations. The labs can be identified on a spectrum of how they are run from independent to government-led, -enabled, or -controlled or on how they are funded from none to partially to wholly funded by government (Bason & Schneider, 2014; McGann et al., 2018a). In a study conducted by Tönurist et al. (Tönurist et al., 2017a) of eleven such labs across Europe, North America and Australia, PSI labs were found to be structurally separated from the rest of the public sector. From this viewpoint, PSI labs run in line with transition literature on the role of niches as protective spaces (Schot, Hoogma, & Elzen, 1994 as cited in Smith & Raven, 2012), removed from the selection pressures of the environment and organizational cultures that may work against the innovations. They are thus seen as 'shielded' units tasked to experiment new services and processes, free from the rules and regulations of the larger, parent organizations. Schuurman & Tönurist (2017) regard them in fact as "change agents" and Tönurist et al. (2017a) as "change champions", who work in autonomy in 'safe spaces' (Carstensen & Bason, 2012, p. 5) granting them the freedom to bring about more radical, disruptive change.

While providing protection and relative freedom to act, the structural separation of PSI labs from the formal public sector infrastructure, also creates problems in terms of implementing the innovations and integrating the knowledge coming out of the experimentations. While internal PSI labs, situated within government, are usually

tasked to create organizational change (Tönurist et al., 2017a, p. 1467) disrupting the organization's routines, norms and culture, it remains unclear to what extent (if any) this occurs. PSI labs located external to the organization have even dimmer chances of accomplishing this. Smith & Raven (2012), in fact, point out the risk of niches to be 'inward looking' (Markard & Truffer, 2008, p. 610) ignoring the system's environment. The authors emphasize the need to understand how path-breaking innovations cultivated in niches are able to transform their selection environments (i.e. the regime level) and propose two ways to empower these innovations to either be competitive in unchanged environments (fit and conform empowerment) or to restructure mainstream environments in ways amenable to the innovation (stretch and transform empowerment) (ibidem, p. 1030). This could be particularly relevant for PSI labs as time goes on and the need to evaluate their impact becomes more relevant. Timeus and Gascó (2018), in their study of Barcelona's innovation labs, found that while the labs' work increased the innovation capacity of PSOs, their isolation from the parent organization limited their overall impact. Similarly, according to Lykketoft (2014), the implication of creating an innovation lab within an existing organization is that the organization itself is not capable of the desired transformation. The need to understand the dynamics between PSI labs and the wider public sector context was also identified by Tönurist et al.'s (2017a, p. 1474) study. More empirically-grounded studies need to be made to understand if the innovations developed in the labs are able to be implemented at the systems level and create tangible, long-lasting change in the public sector.

Permanence of PSI Lab

Beyond the issue of where the lab is situated, questions also arise as to the permanence of the structures. As already highlighted in the previous section and as will be evidenced below, time is a crucial element in co-creation initiatives as it allows for trust to build up between actors and in the co-creation process itself and the outcomes produced. Time also affords the lab the possibility of gaining organizational legitimacy and the opportunity to approach more strategic level activities. PSI labs however have been found to have rather short lifespans, typically ranging from three to five years (Bason, 2010, p. 104). Furthermore, in the same study by Tönurist et al. (2017), the duration and survival of these labs were found to be highly dependent on the sponsorship of chief executives. If this was lost due to the political process or a change in leadership, the same characteristics that benefitted the lab's activities started to work against the lab: i.e. being small and nimble and detached from the organization made it easy for them to be shut down (Tönurist et al., 2017a, p. 1470).

Agency and autonomy

The autonomy of PSI labs has been highlighted as an important aspect of their efficacy, granting them the capacity to experiment and challenge the status quo (Mulgan, 2014), unburdened by the rules and regulations of the parent organization (Tönurist et al., 2017a, p. 1465). Carstensen and Bason (2012) sustain the role of PSI labs in developing radical solutions that public sector organizations are incapable of producing due to their bureaucratic structures, which foster and reinforce a culture averse to risk and resistant to experimentation (Schuurman & Tönurist, 2017, p. 7). Furthermore, Smith and Raven (2012) point to the political nature of protecting niches and ensuring continued support of niche enabling conditions. Particularly, they recognize the sense-making efforts of actors in advocating frame adaptation and indicate the power of narratives in reshaping perspectives and patterns of social action and enabling institutional reforms (Smith & Raven, 2012, p. 1032). PSI labs in fact invest significant time and effort in documenting and sharing their activities in the media – both traditional and new – in an effort to legitimize their existence, and create buy-in (Tönurist et al., 2017a, p. 1470). As can be seen, the tension between maintaining autonomy, while at the same time becoming a stable component of the policymaking infrastructure is discursive in nature as PSI labs strategically negotiate and re-frame policy problems through new tools, often more visual and immediate, and integrate new (and more varied) input.

In the following section the case studies will be illustrated according to the structure illustrated at paragraph 3. Methodology, and the key dimensions and issues investigated will be subsequently discussed at the light of the existing knowledge to provide recommendations for the project and for broader consideration and uptake.

5. Case descriptions

5.1. Agency for Territorial Development of the Emilia-Romagna Region (ASTER)

Author: Chiara Buongiovanni (APRE)

PART 1-CASE DESCRIPTION

ASTER – the **Consortium for innovation and technology transfer of Emilia-Romagna Region** – is composed by the Emilia-Romagna Regional Government, the six Universities and the National Research Centers located in the region, and the Regional Union of Chambers of Commerce, working in collaboration with regional Business Associations and Innovation Centers. ASTER works with enterprises, universities, research centers and institutions for the development of the innovation ecosystem of the territory.

Appointed by the Regional Department for Production Activities, ASTER was in charge of leading the regional **Smart Specialization Strategy (S3) priority co-creation process** in 2013-2014, while in 2018 it has led the regional **S3 participatory evaluation process**.

ASTER coordinates the **Emilia Romagna High Technology Network**, which represents the very heart of the regional R&I ecosystem. With its Industrial Research Laboratories and Innovation Centers, located in the Technopoles, the High Technology Network provides expertise, tools and resources for **enterprises development**. It is organized in **six thematic platforms** where enterprises and research centers gather around the most important industrial sectors identified by the Emilia-Romagna Smart Specialization Strategy(S3).

CONTEXT

ASTER represents a central actor within the Emilia-Romagna Research and Innovation policy framework. Emilia-Romagna is a region situated in the north of Italy, counting a total of 4 452.629 inhabitants on a territory of 22 452.78 square kilometers, divided into 9 provinces and 328 municipalities. Its administrative capital is Bologna.

On a national level, Emilia-Romagna stands as the second region in terms of expenditure in R&I in relation to the regional GDP (1.9%), with 8.4 out of 1000 employees working in the sector¹. Historically, Emilia-Romagna has always distinguished itself as a territory where entrepreneurial and industrial development has

¹ Istat, NoiItalia, , data at 2016

thrived, going hand in hand with the construction of a solid, cohesive and inclusive society, rating as one of the regions with the highest quality of life and lower unemployment rates at the EU level.

Moreover, Emilia-Romagna hosts a **relevant network of competences and infrastructures of a national and international caliber**. Besides the remarkable number of Universities and Research Centers (34 in total), major research institutions and networks are based on its territory, namely: The European Centre for Medium-Range Weather Forecasts - HPC data center; the largest Italian computing center Cineca (one of the most important worldwide); the National Institute for Nuclear Physics; and the very first national Competence Centre for Industry 4.0, grouping 57 actors from University, research and industry.

Cooperative by nature

The Emilia-Romagna region is characterized by a well-rooted participative and cooperative culture, which results in a peculiar socio-economic ecosystem, where a specific attention is paid to the new waves of **social innovation and social business**. In the latest official report on “Regional economy”, jointly drafted by the Emilia Romagna Region and the Regional Union of Enterprises, *UnionCamere* (December 2018)², a wide section was dedicated to the so-defined “not otherwise classifiable” and “not yet invented” emerging technologies as well as industry and business models. Here space was given to research results and main findings from AICCON Research Centre, operating within the Bologna University, and nationally recognized for its excellence in the “social innovation and social business” sector. Emilia-Romagna region has been hosting for 18 years the major annual event “Le Giornate di Bertinoro”, dedicated to the “civil economy” and the social innovation ecosystems.

Civic participation in the creation of public value is a traditional feature of Emilia-Romagna’s societal fabric, which counts 13 volunteers per 100 inhabitants and 27.000 non-profit enterprises (according to the Italian law taxonomy). In such a context, **Emilia-Romagna is consistently investing in building up a quadruple helix “model” of co-creation** for profit enterprises, public administration, research and knowledge centers and social economy actors.

² <https://www.ucer.camcom.it/studi-ricerche/analisi/rapporto-economia-regionale/pdf/2015/2018-rapporto-economia-regionale.pdf>

Collaborative by law

Over the last decades some of the most innovative, enabling policy instruments in the Italian landscape have been designed and tested in Emilia-Romagna.

Through the Regional Law n. 14/2014 “**Promoting investments in Emilia-Romagna Region**”, the region designed a set of actions with the aim of gravitating towards a social innovation and social impact approach in the three-year plan for economic activities, research and technological transfer, as well as the human resources and managerial training. The commitment to link the entire regional plan to the AGENDA 2030 and the SDGs has been progressively more and more clear in the regional policy papers.

In 2015, fifty organizations from the regional, institutional, economic and social ecosystem signed a regional **Job Pact**, where a new model for a regional, sustainable development was designed with the aim to enhance social cohesion while exploiting the strategic assets as outlined in the Smart Specialization Strategy. A **new deal of public policies** was envisaged, based on **concertation procedure, transparency, openness and evaluation, as well as on institutional cooperation and dialogue with stakeholders and citizens**. A specific focus in such a model is on the research and innovation network and the key role played by ASTER. Co-design and collaborative approaches driven by social innovation and social impact, mainly at the urban and territorial level, are also envisaged.

With the Regional Law n.18 /2016, “**Consolidated Law for the promotion of legality and exploitation of responsible citizenship and economy**”, an integrated approach to the regional competitiveness is taken, working on the dimensions of economic, social and environmental sustainability.

On October 2018, the new regional **Law on Participation to the Public Policies design** was approved (L. n. 15/2018). The Law itself was the result of a participatory process carried out throughout the regional territory as well as an exchange with other Regions. A specific article deals with *Participatory projects Quality Certification* (Art. 17).

Finally, yet importantly, the collaborative approach is well implemented also at the city level. Not by chance, Bologna was the first Italian city to adopt and test the Regulation for the Commons Collaborative Governance (2012). Up to date, a total of 11 municipalities, located within the Emilia-Romagna territory, adopted their own Regulation.

A concerted entrepreneurial and innovation landscape

On its regional territory Emilia-Romagna counts on 405.000 **enterprises**, of which 12% are run by foreigners, 20% by women. Almost 90% of its total enterprises are composed by up to 5 employees, while only 0.3% counts 100 employees or more. Following the **Smart Specialization Strategy classification**, percentage shows that agro-alimentary and construction sectors are on top (22.7 % each), followed by cultural and creative industries (10.5%), mechatronic and motorist (9.1%) and highly intensive knowledge-based services (5.8%), and health and wellbeing industry (5.1%). Moreover, 5000 **cooperatives** are active in the region, employing 250.000 persons (14% of the total on the regional basis) and counting for over 40 billion in terms of revenue.

Emilia-Romagna **set a clear regional strategy on innovation already in 2002** with the Regional Law no. 7/02 “Promotion of the Industrial Research, Technology Transfer and Innovation in the productive system of Emilia-Romagna”. The region’s strategy can be considered as an example of governance for the implementation of a “knowledge-based economy”, focusing not only on actions to promote isolated excellence, but on a framework of actions in order to create a “**Regional Ecosystem of Innovation**”, for a widespread increase of the region’s competitiveness.

The Emilia-Romagna region’s Research and Innovation ecosystem is connected through the experience of the **Regional High Technology Network**, and of **Clust-ER Associations**, dialogue platforms that will be described more in depth in the following paragraphs.

Emilia-Romagna is also a member of the **Smart Specialization Platform for Industrial Modernization** (S3P-Industry), which aims to support EU regions committed to generating a pipeline of industrial investment projects following a bottom-up approach - implemented through interregional cooperation, cluster participation and industry involvement. In particular, Emilia-Romagna is a member of the Thematic Partnership “Social economy to foster Industrialization Partnership”. The partnership intends to build bridges between S3 and Social Economy, with a view to foster a industrialization partnership.

ORGANIZATION

Name of the Policy Lab: ASTER - Consortium for innovation and technology transfer of Emilia-Romagna Region.

Contact person: Giorgio Moretti

Professional position and organization: Head of High Technology Network and Vertical Themes Unit

Contact email: giorgio.moretti@aster.it

Webpage: www.aster.it

Country: Italy

Notes: As of May 1st 2019, ASTER will merge with ERVET, the “in house” Joint Stock Company of the Emilia-Romagna Region which operates as a territorial development agency. The new entity will be named ART-ER, “a new reality for innovation, knowledge, attractiveness, internationalization, and the sustainable growth of Emilia-Romagna”.

Since 1985 ASTER – the Consortium for innovation and technology transfer of Emilia-Romagna Region – has shaped and defined pathways and tools for innovation, industrial research, technology transfer and for the improvement of high-quality skills and careers on innovation. ASTER’s mission is to build the Regional Innovation System, by launching shared actions, projects and collaborations for the integrated innovation of Industry, Human Capital, Society and Territory, intervening on Growth and Competitiveness, Talent and Entrepreneurship, Cohesion and Participation. ASTER’s activities and services target the main actors of the Emilia-Romagna research and innovation community, supporting strong collaboration between research and enterprises for a sustainable economic development of the regional territory while maintaining the focus on the social dimension of growth and wellbeing. In doing so, it has developed innovative instruments to support access to financial resources for innovation and the exploitation of intellectual property rights.

ASTER is shaped by a quite a unique governance, in relation to the national landscape. It is a Consortium of R&I systems operating in the regional territory, with a view to promote and coordinate the industrial research and to develop research and business joint strategies and actions. ASTER main shareholders are the Emilia-Romagna Regional Government (which holds the major stock amount, 30,470%), the six regional Universities (Bologna, Ferrara; Modena and Reggio-Emilia, Parma, Università Cattolica di Piacenza and a branch of Politecnico di Milano placed in Piacenza), the National Research Centers located in the region (e.g.: the National Research Council - CNR; the Italian National Agency for New Technologies, Energy and Sustainable Economic Development – ENEA; the National Institute for Nuclear Physics – INFN), and the Regional Union of Chambers of Commerce, working in collaboration with regional Business Associations and Innovation Centers. ASTER collaborates with enterprises, universities, research centers and institutions for the development of the innovation ecosystem of the territory. ASTER’s current Chief Executive Officer was directly appointed by the Regional Government through a Decree of the Regional Government, then deliberated by the Assembly of partners on 13 July 2017.

ASTER is also part of a number of public and private national, European and international networks, which is coherent with the consortium's capacity of making the most out of shared value, resources and networked intelligence. Among these, it is worth mentioning that ASTER, in collaboration with Hub Innovation Trentino – HIT- and Trentino Sviluppo S.p.A, co-manages the Climate-KIC's Start-Up Accelerator Program, aimed to increase knowledge on climate change and promote innovation in mitigation and adaptation, fostering cleantech business in Italy.

PROCESSES AND TOOLS

Given the scope and complexity of the ASTER mission, the workforce results to be organized in a **quite articulated human resources structure** (Figure 6), where the operative units are classified according to the main areas of activities: Infrastructures; High Technology Network and vertical themes; Technopoles, territories, and territories' attractiveness; Enterprise Innovation; Startup; Europe and Internationalization; Finance and IPR; Competences for Innovation.

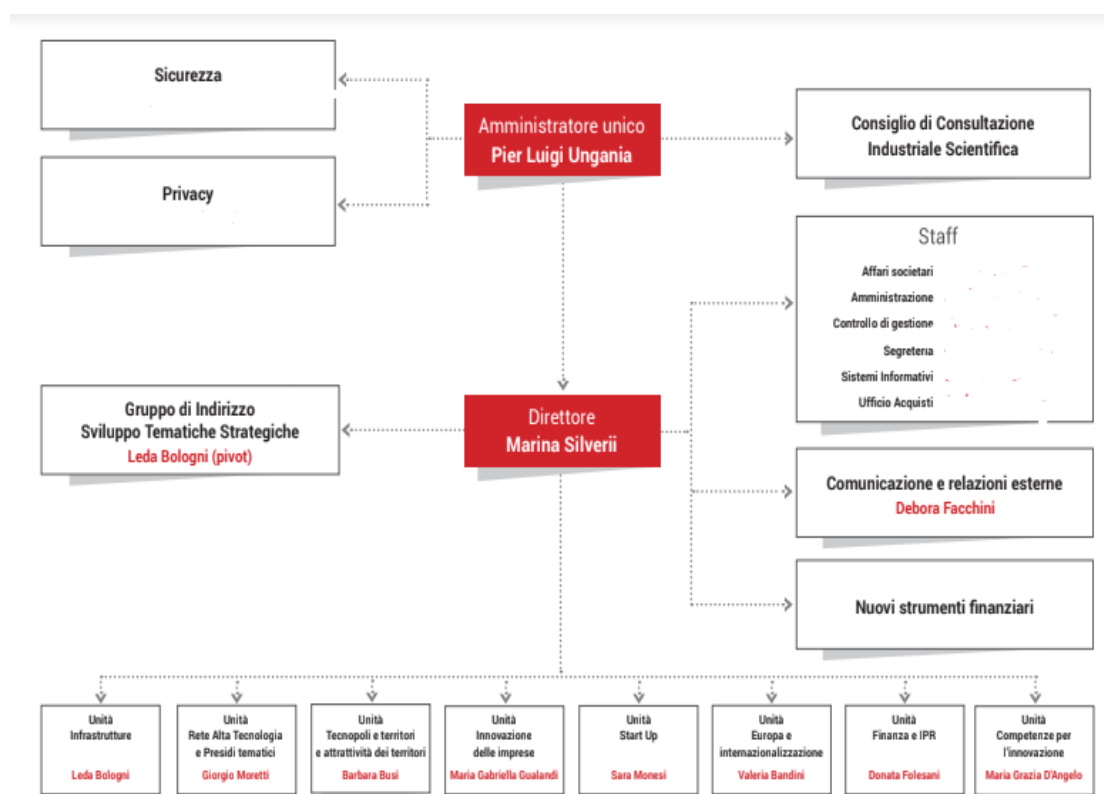


Figure 6 - ASTER'S organigram

ASTER is an entity deeply rooted and connected within the regional economic and social fabric, and with multiple functions in relation the regional stakeholders' landscape, as shown by the its organigram. In this context, it is therefore difficult to outline and

identify fixed set of tools, approaches and methods applied by ASTER to achieve its vision and to pursue its objective of shared governance and shared value.

In the following, are listed a couple of initiatives through which the ASTER reality contributes to co-create value for the regional territory: ASTER coordinates **the Emilia-Romagna High Technology Network**, which, through its Industrial Research Laboratories and Innovation Centers, located within the Technopoles, provides expertise, tools and resources for the development of enterprises. The Network of enterprises and research centers gathers around the six most important regional industrial sectors as identified in the Emilia-Romagna Smart Specialization Strategy - S3: Agrifood, Constructions; Energy and Environment; ICT and Design; Life science; Mechanic materials. The High Technology Network's **governance evolved over time into** "a new model, where enterprises and research centers gather around the most important industrial sectors identified by the Emilia-Romagna Smart Specialization Strategy - S3".

Such a governance model is at the very basis of the **Clust-ER Associations**: an additional platform created in 2018, as a result of the Smart Specialization co-creation process, also coordinated by ASTER.

Clust-ER is a space where communities of public and private bodies (research centers, businesses, training bodies) can "share ideas, skills, tools, and resources to support the competitiveness of the most important production systems in Emilia-Romagna." Clust-ER **regional approach to competitiveness** is linked to a holistic and integrated vision: "it is a competitiveness that no longer relies on the ability of individual research centers or businesses to operate on the global market, but more and more on the ability of the entire local system to be innovative and attractive" says Giorgio Moretti, Head of High Technology Network and Vertical Themes Unit. In Clust-ERs, **research laboratories and centers for innovation**, belonging to the High Technology Network, team up with the **business system** and the **higher education** system to make up the inter-disciplinary critical mass necessary to multiply opportunities and develop strategic projects with a high regional impact. Within Clust-ERs, **laboratories and businesses work together** according to the **open innovation model** to identify opportunities for partnerships and to add value to research results. The Associations encourage the development of **shared projects** and promote the participation of members in calls for tenders as well as national and international funding programmes.

THE PARTICIPATORY CONSTRUCTION OF THE S3 STRATEGY IN THE EMILIA-ROMAGNA REGION

GENERAL DESCRIPTION

The following is the description of a characterizing initiative that exemplifies the work processes and the methods and tools used by ASTER.

Name of the Initiative: The Participatory Construction of the S3 Strategy in the Emilia-Romagna Region
Website: <http://fesr.regione.emilia-romagna.it/s3>
Location: Emilia-Romagna region (Italy)
Initiative Domain: Research and Innovation policy
Starting and ending date of the initiative: 2013- 2014, with a review process in 2018

GOVERNANCE

Conceived within the reformed Cohesion policy of the European Commission, a **Smart Specialization Strategy** is a place-based approach required by the Commission to identify strategic areas for intervention, based on both the analysis of the strengths and potential of the economy, and on an Entrepreneurial Discovery Process (EDP) with wide stakeholder involvement. As required by the European Commission, each S3 strategy should be designed around the following key principles:

- **Smart specialization is a place-based approach**, meaning that it builds on the assets and resources available to regions and Member States and on their specific socio-economic challenges in order to identify unique opportunities for development and growth
- To have a strategy means to **make choices for investment**. Member States and regions ought to support only a limited number of well-identified priorities for knowledge-based investments and/or clusters. Specialization means focusing on competitive strengths and realistic growth potentials supported by a critical mass of activity and entrepreneurial resources
- **Setting priorities** should not be a top-down, picking-the-winner process. It should be an **inclusive process of stakeholders' involvement centered on “*entrepreneurial discovery*”**
- The strategy should be outward-looking and embrace **a broad view of innovation**, supporting technological as well as practice-based and social innovation
- **A sound monitoring and evaluation system should be included in a good strategy**, together with a revision mechanism for updating the strategic choices.

The Emilia Romagna Smart Specialization at a glance

The responsible for the whole **S3 construction process** which led to the final Emilia-Romagna regional S3 strategy was the Head of Unit of Economic Development, Industrial Research and Technology Innovation Policies and the Industry and Trade General Directorate of the Emilia-Romagna region, Mr Silvano Bertini, whereas ASTER coordinated the two realization phases. However, the coordination of the process which led to the final Emilia-Romagna regional S3 strategy was supported, with a direct mandate from the Regional government, by ASTER.

The two main phases of the S3 construction process that were conceived and designed based on co-creation – both coordinated by ASTER – were the priority setting (2013) and the middle-term review (2018).

Priorities were categorized following four criteria: two “vertical” priorities, referring to productive sectors requiring particular attention from research policies; and two “horizontal” ones, referring to innovative productive systems to meet societal challenges:

Priority A: Identifying areas (or systems) of interest for their current **economic and social relevance** (vertical)

Priority B: Identifying areas (or systems) of interest for a **high growth potential** (vertical)

Priority C: Guiding innovation towards **divers for socio-economic change** (sustainable development, knowledge society, healthy and active life) (horizontal)

Priority D: Innovation in **services** (horizontal)

For Priority A (Figure 7) and B(Figure 8), the following **5 priority productive sectors** were identified, with a view to further guide or enable economic and social development. These five productive sectors were further broken down into 19 thematic orientations, which were additionally detailed into 53 regional technological trajectories (or technological priorities)³.

³ These additional levels of detail are described in Annex 1 of the S3 “Individuazione orientamenti innovativi per la strategia regionale di Innovazione per la Smart Specialisation Strategy”. http://fesr.regione.emilia-romagna.it/s3/s3_allegato1.pdf/@download/file/s3_allegato1.pdf and 2018 update: [https://fesr.regione.emilia-romagna.it/s3/s3_aggiornamento_set2018.pdf/@download/file/S3_Aggiornamento_set2018%20\(1\).pdf](https://fesr.regione.emilia-romagna.it/s3/s3_aggiornamento_set2018.pdf/@download/file/S3_Aggiornamento_set2018%20(1).pdf)

Priority Name	Description
Providing healthy and safe food (agri-food)	Producing healthy and safe food products with minimised environmental impact and with enhanced ecosystem services, zero waste and adequate societal value. Sustainable agriculture, functional foods and nutraceuticals, sustainable and smart supply chain, technologies and machines for the agri-food industry, sustainable and innovative packaging.
Sustainable construction	New construction materials and building techniques for sustainable construction. Sustainable buildings, building redevelopment, smart buildings and cities, innovative technologies in building construction and redevelopment
Mechatronics and the motor industry	New technologies and materials for the motor industry and other productions. Automated systems, smart and sustainable manufacturing, robotics, intelligent transport systems

Figure 7 - Productive sectors of priority A

Priority Name	Description
Healthy living care services and products (Life Sciences)	New technologies and medical devices to improve patients care, diagnosis and treatment. New diagnostic methods for chronic and complex diseases. Regenerative medicine. Diagnostics and biomedical devices. Digital transformation for healthcare (e-health).
ICTs and new technologies for tourism, cultural and creative industries	Cross-sector innovation area: ICTs and new technologies for tourism, valorisation of the cultural heritage and creative industries. New technologies for the diagnosis, recovery, management and enhancement of cultural and environmental resources. Technologies and models for the co-creation of new experiential and cognitive experiences. Digital platforms and web services for tourism and cultural promotion. New technologies and digital contents for the communication of products and services

Figure 8 - Productive sectors of priority B

Based on those **five identified productive sectors**, methodological aspects were set, as follows:

- A. Structural consolidation
- B. Technology foresight
- C. Entrepreneurial discovery and cross–sector fertilization
- D. **Participative and responsible Governance.**

PROCESS STRUCTURING AND ENGAGEMENT

As for the participatory process, ASTER was in charge of setting and implementing it both in its priority setting phase (2013-14; point a) as well as in its revision and updating phase (2018; point b).

a) Priority setting – the co-creation process

Priority setting resulted from both a **top-down action**, dealing with general strategic objectives and **bottom up approach**, dealing with needs as emerging from regional stakeholders: enterprises, researchers and other actors from the innovation ecosystem.

The Emilia-Romagna region developed a first draft of the regional S3 strategy, identifying the macro areas of specialization as well as the policy tools priority, e.g. the five productive sectors as well as the two horizontal priorities (Priorities C and D).

Under the lead of the production Activities Policy Department, in his capacity of ERDF - European Regional Development Fund- regional authority, the S3 draft was first discussed with all the regional policy departments and directorates, as well as with all

the parties composing the so called *Patto per il lavoro* (an agreement signed between the region and all the regional actors⁴ with the aim of re-launching growth, development, employment and a new cohesion in the region).

The **priority setting phase** was characterized by the engagement of a relevant number of representatives from enterprises (diverse in terms of size and market sector), public and private research systems and other regional organizations from the innovation ecosystem. The work was organized into **eight working groups**, both “*vertical*” and “*horizontal*”, as follows:

1. Agri-food
2. Sustainable construction
3. Mechatronics and the motor industry
4. Life sciences
5. Cultural and creative industries
6. Materials (horizontal)
7. Sustainable development (horizontal)
8. ICT (horizontal)

ASTER coordinated the work and discussion of the eight groups, for a total of **150 participants**. The discussion was based on the **technology foresight performed by ASTER** for each of the previously identified priorities, with a view to shaping a common vision for each areas of interest. **At the end of this phase, for each of the technological priorities, the specific priorities of relevance for the regional territories were identified**, taking into consideration global trends, H2020 directions, Key Enabling Technologies as well economic and scientific context.

First phase: setting the boundaries

The first phase was dedicated to define the **perimeter of interest** for each group, approaching the smart specialization exercise not through a sector-based approach, but focusing on growth opportunities through a convergence of technological and market areas, combined in new, and not traditional, ways. The discussion on such a horizon was aimed at recognizing themes with a certain degree of homogeneity, and sufficiently inclusive not to exclude *a priori* fields that could offer high potentiality for development (Figure 9).

⁴ Involved parties are: local institutions, universities, social parties, third sector forum, trade unions.
<https://www.regione.emilia-romagna.it/patto-per-il-lavoro/firmatari>

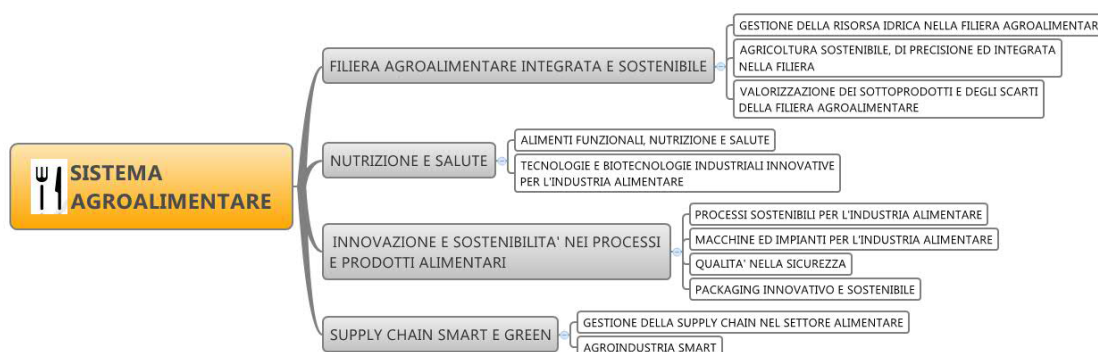


Figure 9 - Industrial system Agrofood, as example. The first level describes the objectives; the second level the identified evolutionary technological trajectories in order to achieve the set objectives⁵

Second phase: asses the scenarios

The priorities, as identified by the working groups, **were then discussed** in terms of technical/scientific evolution, as well as of practical feasibility. As shown in the scheme below (Figure 10), the process flowed as follows: the horizontal working groups created their own documents which were circulated within the vertical working groups. Based on those documents each vertical working group decided to add a specific priority or to integrate some of them.

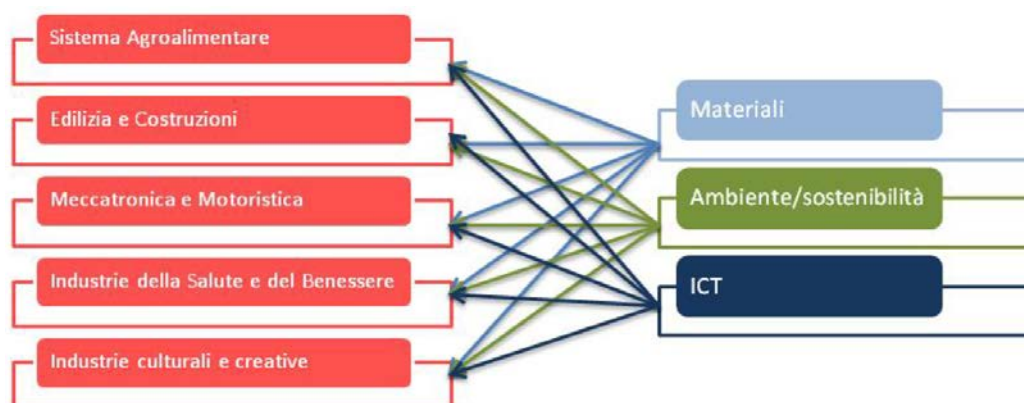


Figure 10 - Process of dialogue between horizontal and vertical working groups to identify specific priorities⁶

Third phase: open consultation

The S3 document in its draft version was presented and discussed in a public event (July 2013) and then made available for four weeks for an **online consultation**. Through the online consultation, structured into open questions, 105 contributions were collected,

⁵ S3 Annex 1 http://fesr.regione.emilia-romagna.it/s3/s3_allegato1.pdf/@download/file/s3_allegato1.pdf

⁶ S3 Annex 1 http://fesr.regione.emilia-romagna.it/s3/s3_allegato1.pdf/@download/file/s3_allegato1.pdf

processed and integrated into the final document, which was published in January 2014. The drafting process of the document in its different phases was performed by ASTER and resulted in a quite consistent annex to the official Emilia Romagna S3 Final document (300 pages).

The top-down/bottom-up process lasted four months; working groups worked for three months, and finally one month was dedicated to the open consultation.

The co-creation took place at different gradients. The Region and the institutional setting (including ASTER) set clear directions, defining clear boundaries in terms of macro areas of specialization as well as of policy tools priority. Within these boundaries, co-creation took place under the forms of ideation and policy design.

b) S3 Going iterative: revise implementation, redefine priorities

The participatory process was opened again four years later (2018) for assessing the implementation process, in line with the European Commission's requirements, and to redefine priorities, in view of a number of changes emerged in the ecosystem and in the technology scenario. Appointed by the Emilia-Romagna region, ASTER was again in charge of designing and managing a new participatory process to undertake the S3 review. Similar to the S3 co-creation phase in 2013, ASTER provided the involved stakeholder with a draft document to start with.

Thematic forums

Thematic forums were created to monitor the S3 vertical thematic priorities. Thematic forums were participated by representatives from regional Directorates and Departments for each specialization sector and were opened to stakeholders from the regional R&I ecosystem, with a view to evaluating the S3 implementation and putting forward to the Emilia-Romagna region some proposal or directions for its updating. Each participant of the thematic forums received well in advance two preparatory documents – the state of implementation of S3 prepared by ASTER, and the Clust-ER proposal for strategic objectives (see below). Seven thematic forums took place, from the 7th to the 17th of May 2018 and final results were presented on occasion of a R2B event in June 2018. All participants and those registered to the thematic forums were invited, during the following day, to submit written contribution and proposal for amendments to the discussed documents.

Clust-ERs work

The thematic forums, which counted up to 800 participants, worked in tight cooperation with Clust-ER Associations, communities of public and private bodies (research centers, businesses, and training bodies) that share ideas, skills, tools, and resources to support the competitiveness of the most important production systems in Emilia-Romagna. Born through the experience of the first S3 drafting process, Clust-ER are representing each of the S3 productive sector (S3 priorities A and B), plus the Inno Clust-ER (priority D), dedicated to Innovation in services. In addition to the six Clust-ER themes, an additional thematic forum was set as “Energy and sustainable development”, originally identified as a driver within the Priority C of the S3.

Each Clust-ER was asked to read S3 thematic orientations and technological trajectories, based on the review document, as well as take into account the evolution of technological and market scenarios. Each Clust-ER worked referring to its specific value chains, with the opportunity, on a second stage, to open the door also to external actors.

For each value chain, Clust-ER was required to propose three strategic objectives, representing the priorities for regional interventions for the period 2018-20, i.e. the last programming period of the current EU funding framework. Each strategic objective was described with the following criteria:

- Technological relevance and regional strengths
- Impact on regional industry competitiveness
- Social impact
- Weaknesses and threats
- International dimension
- Proposal for means and tools for the objective to be achieved

Participants to the Clust-ER included partners from the clusters together with regional stakeholders such as representatives from business and business associations, universities and research centers, training and education sector.

It is interesting to notice that each Clust-ER had a specific working group on the topic of training and new competences required, with specific policy proposals. The work of Clust-ERs resulted in 72 strategic objectives’ briefs, and 6 briefs focusing on training and learning. They were all organized in 7 working documents, one per each Forum.

Synthesis and drafting of the final document for the S3 reviewing

Contributions and proposals that emerged during the Thematic forums' works were elaborated by each Clust-ER, which accordingly modified the strategic objectives, to the final number of 71, at the end of the whole process. The final Thematic Forums event was held on 8 June 2018 at R2B event, where the results and the updated S3 strategy were officially presented.

STAKEHOLDERS LANDSCAPE

In the case of Emilia-Romagna S3 participatory process, **the Stakeholders landscape evolved** through the process itself. In fact, from the first co-creation process “priority setting” to the second one “evaluation of implementation and redefinition of strategic priorities”, the stakeholders identification process interestingly changed. While in the first process (2013) identification worked by type” of stakeholder (e.g. business, research) in the second process (2018) a thematic aggregation was already in place, institutionalized through the Clust-ERs Associations, which were formally set in 2017. The overall process **was initiated by Emilia-Romagna** region (top down) and **managed** in both its participatory phases by **ASTER**.

In the priority setting process, in addition to the Region and ASTER itself, key stakeholders involved were the Research and Innovation Laboratories from Regional High Technology network and the single enterprises representatives. The selection was not based on an open call, but stakeholders were selected and grouped in working groups by ASTER according to the following criteria:

1. **Competence (multidisciplinary approach)** with a view for the working group to be able to adopt a multidisciplinary strategic vision, perform a proper market analysis and assess the state of art and future projections.
2. **Experience (by type)** with a view for the working group to be composed by both entrepreneurs and representatives' enterprises by sector as well as researchers, with experience of applied research. Representatives from regional agencies or other regional initiatives, where needed, were involved. Concerning the three horizontal working groups (ICT, X, X) only researchers were involved.
3. **Process efficiency** and game rules were clarified from the very beginning in order to collect a set of responsible and truly committed participants. Explicit conditions to join the working groups were stated as: the availability to participate in meetings close in time, to perform extra work to study and draft

documents and to be collaborative. The number of involved stakeholders was limited, in order to assure the envisaged results to be achieved on time.

In the evaluation process, given the involvement of the Emilia-Romagna region and ASTER, an interesting change occurred in the stakeholder landscape. As a result of the S3 process, Clust-ERs were born, i.e. legal entities, with their own governance, made up of laboratories from the High Technology Network, enterprises and training institutions. The six regional Clust-ERs were formally the major stakeholders involved in the S3 revising process. Given the composition of the Clust-ERs, the stakeholders landscape, from priority setting to evaluation, changed quite much in terms of governance rather than in terms of nature of the actors involved.

POLITICAL INFLUENCE (INSIGHTS)

The entire S3 drafting process, as above described, originated from **a clear and strong political commitment by the Emilia-Romagna region**, on its capacity of European Regional Development Fund (ERDF) authority. Furthermore, the participatory nature of the process was a pre-requisite for the entire S3 governance, as required by the European Commission itself. Such a premise makes the case a peculiar, indeed interesting one, as **the political influence is in there somehow “by nature”**; yet, it is quite interesting to investigate how far, and in which terms, it was playing its role. In order to do so, in addition to the above-mentioned sources and features, insights from ASTER - in its capacity of leading agency of the S3 collaborative drafting process - were collected through the direct contribution of Giorgio Moretti, Responsible manager for the High Technology Network.

The role played by the political actor (Emilia-Romagna region) was clearly a prominent one in the very first phase: macro priorities were indeed set by the region, which then left the floor to the participative process, as designed and managed by ASTER, in order for the thematic priorities (under each macro area) to be identified by the R&I regional community.

Even though the region did not interfere with the participative process and its final output, the overall strong political commitment and the presence of the regional alderman to the productive activities in many of the key phases, definitely **contributed to speed up** and make the entire process as effective as it resulted to be.

In addition to the effectiveness of the process, the **creation of the thematic Clust-ER associations**, as described above, can also be considered as a major outcome of the S3

process, directly related to the strong political commitment. The region itself, in fact, explicitly built on the thematic aggregation exercise performed through the S3 process, promoting the creation of the ClustERs through a specific regional Call in 2015, as highlighted by Giorgio Moretti,

The political objective behind is **the exploitation of the participative process itself**, with a view to having multi-actors *fora* in place during the implementation as well as monitoring and assessment phases.

Given the S3 precise landscape, **the regional ecosystem as a whole can be definitely considered the most appropriate one**. This translated in a central role for ASTER, being by statute the deputy regional agency for managing such a process. Due to its long-lasting and continuative work with all the involved actors, in its capacity of regional hub for the entire R&I community, ASTER resulted to be the most appropriate facilitator for the S3 participative process, proving to be effectively able to manage the regional stakeholders' meeting and constructive interactions both on the priority settings as well as in the evaluation phases.

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

According to Giorgio Moretti, High Technology Network Manager of ASTER: **“The S3 participatory process was empowered by a very well rooted regional culture of participation, dialogue and concertation procedure**. I would say the process was successful thanks to the consuetudinary attitude for dialogue among politics, market and social players. In Emilia-Romagna we do have traditionally concertation procedure tables of any kind. Cooperation is definitely a cultural approach extremely spread throughout out territorial and cities ecosystems. I would say we worked well and the process was undoubtedly well managed, but this kind of background is essential to make it impactful”.

Co-creation attitude resulted to be quite a personal one, therefore varying from participant to participant. A certain degree of co-creation attitude seemed to be present among both groups, policymakers as well as researchers and experts from the business sector, yet with some differences.

In particular, concerning the **policy-maker group**, such an attitude seems to be partially linked to the thematic working sector: more co-creation minded people from sectors as tourism or training, less from healthcare, budgeting, environment. From such a point of

view, the process was quite an interesting one, involving representatives from a great variety of policy thematic sectors.

Concerning researchers and experts' groups, co-creation attitude was generally quite high, being in fact one of the selection criteria for the stakeholders to be invited to take part to the process.

Trust towards the institutions is definitely a keyword, being the Emilia-Romagna region the “owner” of the overall process. According to Moretti, trust was in place at the very beginning of the process, due to the role played over years by ASTER and the previous policies initiatives from Emilia-Romagna region. Nevertheless, trust seems to be a critical factor, when it comes to the implementation phase, since a certain degree of skepticism seemed to be in place on “how the results would have been concretely implemented by the policymakers”. In the case of S3 drafting process, Moretti highlights that **trust was an incremental factor**, growing through the process itself. The evaluation and re-assessment phase played definitely a role in this direction.

Giorgio Moretti confirms that trust in the regional institution was a key issue for ensuring a genuine and committed stakeholders engagement with the S3 drafting process. In particular, the **need for precise objectives** to be set and a clear agreement on the usage of the process results were at the very core of process effectiveness.

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

Based on the interview had with Giorgio Moretti, Responsible for the Emilia-Romagna High technology Network, and on the conducted research activities on the Emilia-Romagna S3 collaborative drafting process, remarkable insights to be shared seem to be the following:

- **The co-creation designed process was quite a simple one compared to the complexity of the addressed issues.** Yet, it resulted to be the appropriate one, given a series of contextual peculiar factors, i.e. the regional context both in terms of pre-existent collaborative policymaking as well as consolidated R&I stakeholders network and the well-recognized role of ASTER, as the policy Lab entitled to manage the co-creation process.
- **The strong commitment by Emilia-Romagna region and its tight relation with ASTER** and, through ASTER, with the High Technology Network and the Clusters ensured that process was well aligned with both the policymakers and the stakeholders needs in terms of timeline, level of effort and engagement.

- **The process was designed on a “learning by doing” approach**, meaning that it was initially designed in its macro-phases but the specific activities were planned and designed in progress. This allowed ASTER to take into consideration feedback and emergent issues/opportunities and promptly readapt the process. According to Moretti, given the context, this was the best way to proceed and finally resulted to be successful.
- **The process influenced the policymaking process on two different levels:** policy content (as planned) and policy governance. As more in depth described in the case, ClustERs as permanent and institutionalized actors within the R&I regional ecosystem are in fact an outcome of the S3 drafting process. The composition of ClustERs itself ensure a continuative dialogue while enforcing collaboration between regional actors beyond the analyzed initiative.
- **Referring to the most relevant barriers, a distinction should be made among policymakers and researchers as well as enterprises representatives.** On the **policy-makers'** side, a major barrier seems to be linked to the conflict among the managerial need for making strategic choice on one side and the “political” attitude to not choose for consensus sake. On the side of **business – research relationship** language itself results a major barrier, followed by priorities and objectives, at times divergent in scope and time. **On the enterprise side**, although a genuine will for collaborating is in place, a cultural barrier is still represented by a scarce propensity to open innovation and a persistent fear to open up dialogues with other enterprises.

5.2. Danish Design Center (DDC)

Author: Maria Damgaard Jensen (DDC)

PART 1- CASE DESCRIPTION

As Denmark's national design center, it is the Danish Design Centre's (DDC) mission to promote the use of design in business and industry to help professionalize the design industry and document, promote and brand Danish design in Denmark and abroad. Its key approach is systematic experimentation with **design-based value creation** in companies.

With financial support from the Ministry of Business and Growth, it is the DDC's ambition to make design one of the three most important positions of strength for Danish companies. The DDC operates in a complex environment at the intersection of business and industry, design professions, education and research institutions, and public institutions. It is the DDC's view that the task of increasing companies' use of design must be addressed through **open partnerships** and the use of **co-creation**. Therefore, the DDC aims to establish strong and innovative partnerships with relevant stakeholders, both in Denmark and abroad.

The DDC's mission is reflected in a number of platforms with different strategic focus areas. The platforms serve as the basis of the DDC's development and scaling of initiatives and programmes. This analysis will address the **Smart Greater Copenhagen** programme, which exemplifies the work methods and tools used by the DDC. This programme makes a good case because of its aim to create a design-driven strategy through **co-creation processes** between actors from both the private and public sector.

Recently, the DDC and other national architecture and design organizations moved into BLOX, Realdania's new building complex in the heart of Copenhagen, as a part of the government's growth plan for design. BLOX too aims to strengthen the **cooperation** between different actors, such as companies and designers.

CONTEXT

In 1978, The DDC was established by the Design Council as a national knowledge center for design. Its purpose was to make use of the potential that design can bring to businesses. Therefore, the DDC initially focused on design as a means of boosting exports and turnover in Danish business and industry. In 1979, the DDC moved into Industriens Hus which is the home of the Confederation of Danish Industries. At this point, the emphasis was on industrial design, and design was mainly promoted in the

form of objects designed for industrial production with function and aesthetics as the key parameters. Design quickly became a political subject, as the methods could be used not only to strengthen industry and its efforts to develop and market products, but also as a means of improving the production and development of Danish society. This created an incentive for the Ministry of Business and Growth to enter the design industry and make **a policy for design**. The idea was to make a policy that included goals such as: 1) educating and developing the next generation of creators in industry and society, 2) creating high quality public design, 3) attracting knowledge and developing skills in future growth areas, and 4) maintaining and developing Denmark's international image in the design field. Thus, since the late 1980's, the DDC has operated as an independent organization under the Ministry of Business and Growth, with the aim of spreading the use of design in business and public institutions. For nearly 30 years, the DDC has received an annual budget via the Finance Act.

In 2000, the DDC, along with the rest of the world, began to shift its focus towards the design process itself, making design thinking a key term. This led to an expanded concept of design that also includes systems design, service design and **co-creation**. The DDC now works to promote design thinking in business, industry, and the public sector. The idea is to use **design thinking as a driver and a source of innovation**. The DDC promotes this ideal through courses and models, including 360 degrees, DesignBoost, DIN model etc.

Today, the DDC works to empower businesses, people and society to "shape the next": to design the future we want to live in, whether it will be the health sector, business models or technologies of the future. We have seen the big difference design can make for private, as well as public, institutions. However, there is still a gap between the existing potential and how design is actually used. And it is in the interest of the whole community to make use of the existing potential. The DDC will do this by **activating designers' methods** and mindset to create new value for companies, people and society. This means providing them with design experiences, tools and skills that enable them to address challenges and capture **new opportunities**. Especially today, with the planet facing great challenges, it is essential to think differently in order to secure sustainable solutions. Doing so will require a joint effort, and design methods can be used to stimulate co-creation processes to rethink issues such as production chains and lifestyle patterns. Thus, over the past three years, the DDC has focused on solving these challenges by facilitating experimental initiatives on different levels in society,

introducing design thinking in areas such as digitization, production, health, environment, urban development and more.

ORGANIZATION

Name of the Policy Lab: The Danish Design Centre
Contact person: Christian Bason
Professional position and organization : CEO, Danish Design Centre
Contact email: chb@ddc.dk
Webpage: danskdesigncenter.dk/en
Country: Denmark

The DDC is located at the intersection of the broad business community, designers, and public institutions in areas such as business, innovation, culture, internationalization, etc. Thus, the DDC has a unique opportunity to create value (economic, social, environmental) for these target groups by **creating new, effective collaborations** between them with design as the driving force.

DDC's mission is to activate the designers' methods and mindset to **create new value for companies, people and society**. The DDC's ambition is to contribute positively to the massive transformation our society, including companies and institutions, is in the middle of. Its vision is to "shape the next".

For **companies**, cooperation with the DDC must, first and foremost, lead to business development, transformation and increased growth. For the **designers**, the DDC must open new market opportunities. For **politicians and authorities**, the DDC must provide new, concrete and data-based knowledge about how design can create innovation and value. In all cases, co-creation can be used as a key factor to achieve goals.

The DDC focuses on areas in which the potential for creating value through design is particularly large. Currently, the DDC has organized its work within **five professional action areas** with great challenges that the DDC seeks to solve, or with potentials that the DDC will contribute to meet. The strategic platforms are:

1. **Next Business:** The mission is to incorporate the Danish design DNA in companies in order to create new business models and new interactions between businesses, people and society
2. **Design Startup:** The mission is, with the Danish design DNA as the driving force, to gather, strengthen and develop the Danish startup ecosystem, allowing startups to grow at larger speed.

3. **Design Resource:** The mission is to make Denmark the world's leading hub for design resources.
4. **Cities:** The mission is to ensure that the cities of the future are designed with a sustainable and people-first approach.
5. **Future Health:** The mission is to create spaces in which companies and public organizations can shape the future healthcare solutions together.

DDC works to create the best conditions for businesses, stakeholders and designers to shape and create the future. Therefore, it makes the future tangible and concrete through design methods by working to transform the various focal areas to meet complex challenges, e.g. in healthcare, demographic development and the use of resources now and in the future.

DDC aims to trigger the innovation potential found in the interaction between private companies and public organizations, and putting technology in play to create valuable and meaningful experiences for citizens. To do so, DDC engages and empowers companies, public organizations and designers through five types of services:

1. **Futures** - *We are watching the horizon.* The DDC identifies the latest national and international trends in design, digital transformation and more, and communicates and translates them into usable knowledge and ambitious initiatives
2. **Academy** - *We share learnings.* In collaboration with national and international teaching, the DDC trains managers in design methods and approaches
3. **Transformation** - *We create change.* The DDC develops, facilitates and drives ambitious projects, programmes and initiatives where design methods and approaches are used to develop products, services and business models
4. **Branding** - *We profile Danish design here and abroad.* The DDC brands Danish design by communicating both national and international successful design cases
5. **Policy** - *We provide the right framework conditions.* The DDC advises the Ministry of Business and Growth and other authorities on design and innovation policy, based on trends, analyses and data from projects

The DDC is a private limited company owned by **Design Society**. Design Society was established by the DDC together with **the Ministry of Business and Growth** and the DDC's two sister companies, INDEX: Design to Improve Life and the Danish Fashion Institute, in order to build an effective and unifying national entity with the necessary knowledge to act as a qualified advisor on the development and implementation of

efforts to promote the growth of design in Denmark. In this sense, Design Society acts as the parent company for the three companies which, however, act according to their own vision and mission, and have their own board. Since 2017, Design Society has received grants from the Finance Act. It is Design Society's role to channel the state funds to its daughter companies, but it does not have anything to do with deciding the content of their strategy (Figure 11). Before Design Society, the DDC received grants directly from the Finance Act. The rest of DDC's budget comes from projects, workshops and lectures.



Figure 11 - The DDC governance model

The DDC reports to a **board** that actively contribute to DDC's mission on the basis of their specific personal qualifications and experience from the private sector and the design industry. The board determines the direction and content of the work carried out in DDC and it is responsive to the Ministry's views on growth in the creative sector, innovation and digitization *etc.*, since the Ministry grants financial support to the DDC. Thus, for each year a performance act is prepared, which the DDC must live up to. The day-to-day management is handled by the CEO. In addition, the DDC has an **international advisory board** that contributes with outlook, input and inspiration for the DDC's work, as well identifying new opportunities for Danish design to create value.

The DDC builds its activities on a **mix of various skills**. Employees are not hired to fit into a specific profile. Instead, the DDC look strategically on how it can achieve the best possible variety of people with different educational backgrounds and skills. In other words, one employee can cover several skills and needs:

- **Business:** In order to make design relevant to companies, it is crucial to understand their corporate governance, organization, strategy, economy and business development. This involves insight into starting and running a

business, including business economics, business models, management, organization, etc.

- **Design:** To be a credible organization, the DDC must have a deep insight of Danish design: its history and "DNA" (what makes Danish design unique), design methods, design trends as well as the design industry and its actors. The DDC must also look beyond national borders for inspiration and strong international relations.
- **Communication:** Communication is a fixed part of the work in the DDC. Therefore, it is important that the organization can communicate with its different target groups and can handle all relevant communication channels, especially the digital ones.
- **Technology:** In all of the DDC's activities there is a strong focus on technology and digitalization, and how design can be used to integrate the best technological trends in products, services and systems. Therefore, it is necessary that the DDC have an understanding of the field, including insight into advanced production, information and data visualization, open data, *etc.* The DDC must always be aware of what is happening on the front line of technology.
- **Social research:** A great insight into social science and humanistic methods, including collection of data, interview techniques and quantitative/qualitative analysis, is required in order to collect and communicate learnings from the activities initiated by the DDC. The DDC draws on disciplines such as anthropology, ethnography, cultural science, sociology and economics.
- **Policy:** The DDC is tied especially to the business and innovation policy agenda. In addition, many of the DDC's activities involve a close interaction with various public actors. This requires great knowledge about public organizations as well as insight into political decision-making and policy development. At the same time, the DDC must be able to shape the development of design as a central element of business and innovation policy and advise other business promoters on the value of using design in the market as well as in its own organization.

The overall strategy for the DDC is defined by the CEO, Christian Bason, in collaboration with the company's board and with input from the international advisory board. The CEO runs the DDC's business development and provides close professional sparring with those responsible for the organization's business areas. The CEO creates and develops contact at strategic level to the DDC's stakeholders and sponsors and

ensures close cooperation between the organization and the board. The CEO is the link to the sister organizations in the Design Society.

The DDC's **COO**, Sune Knudsen, develops, coaches and creates space for the development of the DDC's Programme Directors. The Deputy Director is responsible for running the DDC's strategy work. The Deputy Director ensures that the DDC has the right teams and tools to realize the organization's strategy and projects, including ongoing project and portfolio management. The Deputy Director is also responsible for external relations, including covering for the CEO.

The DDC's **Chief Communications Officer**, Katrine Hertz Mortensen, is responsible for the company's communication and branding strategy. In addition, the Chief Communications Officer contributes to the strategic work of the DDC in general. The Chief Communications Officer leads, develops and coaches the DDC's communication team and advises the organization's managers and employees on communication and press issues.

The DDC's **Chief of Staff**, Anne Christine Lyder, is responsible for the management and development of the secretariat in the DDC. The Chief of Staff leads the work on learning and effect measurement of the DDC's projects and assists the management in the development of the professional organization and strategy. Finally, the Chief of Staff is responsible for the governance relations together with the strategic partners.

The DDC's **Programme Directors** lead the professional teams on the strategic platforms. They identify and develop new business opportunities and are responsible for complex projects. They ensure that the phases of experimentation, learning and sharing are all implemented in practice and work for anchorage and scaling of results. Finally, they manage relationships with strategic partners, including the establishment of external funding and long-term cooperation.

The DDC's **Project Managers** coach, motivate and develop dynamic teams of colleagues and collaborators in DDC's projects. They develop and manage projects and secure that experiments, learning and sharing is implemented in practice. Finally, they create long-term and strong internal and external relations and partnerships. The Project Managers are supported by the **Project Assistants** (Figure 12).

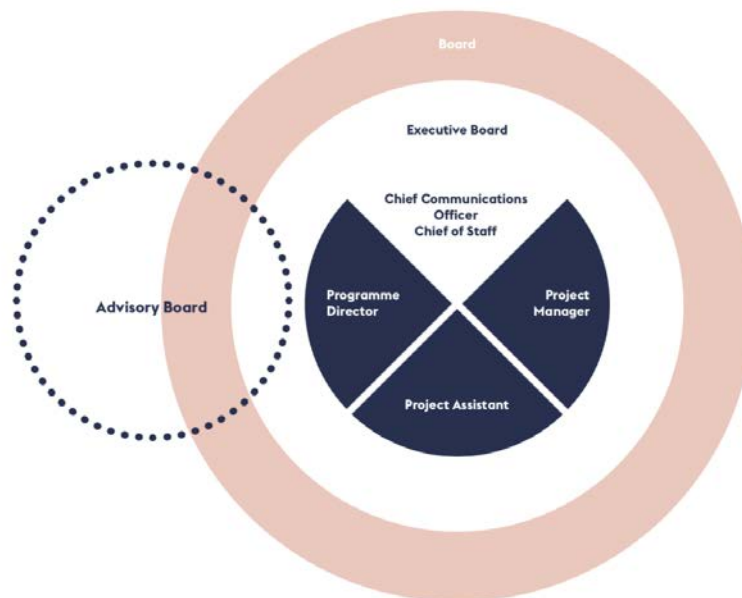


Figure 12 - The DDC organizational model

The rest of the world is rapidly discovering the potential of design, yet very few countries have as strong of a design tradition and Design DNA as Denmark. Denmark is known and admired internationally as a design society characterized as being social, sustainable, honest, holistic, quality-minded, simple, user-friendly, involving, human and attractive. The DDC wishes to support this, and so its work builds on four main values:

- **Experimental:** The DDC's work is design-driven. Trying and learning through practice is a key principle.
- **Active:** The DDC not only describes new trends and conveys knowledge generated by others but it also translates trends and new knowledge into action in the form of concrete initiatives, projects and programmes that create impact for its target groups: companies, designers, politicians and authorities.
- **Involving:** The DDC does not create results on its own. The DDC always develops and implements in collaboration with the relevant companies, designers, organizations and people. This co-creation approach contributes to deep involvement of customers, users, business partners and employees to develop ambitious and visionary solutions, and to ensure quick concretization and testing.
- **Generous:** The knowledge and experience that the DDC creates is a common good that the DDC wants to share actively with all its target groups.

SMART GREATER COPENHAGEN

The following is a description of the Smart Greater Copenhagen project that exemplifies DDC's work processes, methods and tools.

GENERAL DESCRIPTION

Name of the Initiative: Smart Greater Copenhagen
Website/ link: danskdesigncenter.dk/en/about-smart-greater-copenhagen
Location: The Capital Region of Denmark
Initiative Domain: Policy (technology and digitization)
Starting and ending date of the initiative: March 2017 – March 2018

With Smart Greater Copenhagen, the Capital Region of Denmark and the DDC collaborated to create an ambitious and holistic strategy to bring **municipalities, citizens** and **companies** together around a **common course** for the digital society of tomorrow within the area of Greater Copenhagen.

The purpose of the collaboration was to create a **design-driven strategy** for Smart Greater Copenhagen that points to the digital society of the future. The project should help ensure that the final strategy points to opportunities for the future digital society, putting citizens and users at the center of the digital solutions, while at the same time highlighting the business opportunities of increased digitalization. To achieve this, the Smart Greater Copenhagen brought together actors from both the private sector and public sector in a **co-creation process**.

GOVERNANCE

The Smart Greater Copenhagen project is a political initiative from the Capital Region of Denmark. The project was initiated at the political level (top-down) and realized at a regional level. Co-creation processes took place in several stages between different actors, all contributing with expert knowledge within their specific area. All actors have at some point played an essential role and helped determine the direction of the project. The Smart Greater Copenhagen project is financed by public funds from the Capital Region of Denmark.

STAKEHOLDER LANDSCAPE

Several actors participated in the co-creation processes of Smart Greater Copenhagen, including citizens, companies and municipalities. The stakeholders were divided into four groups, each with their own focus and role in the processes. The **working group** and **steering committee** were made up of people from 10 selected municipalities in the Capital Region of Denmark and two (partly publicly funded) industry organizations –

Clean and Gate 21. The **project team** was made up by the Capital Region of Denmark and the DDC. Finally, an **expert group**, consisting of experts from both the public and private sector, was established.

Underlying driving values

The actors have different interests in contributing to the project. The **Capital Region of Copenhagen** has an interest in creating a **bigger market** for tech-companies and SMEs across municipalities. The ambition with Smart Greater Copenhagen is to make it possible for companies to deliver **new, innovative solutions** to more people. Therefore, it is important that all the municipalities can see themselves in the common strategy, and how the common strategy can fit into their own municipal strategy. For the Smart Greater Copenhagen strategy to be successful and efficient it must be **compatible** with the visions and ambitions that exist in the municipalities as the municipalities have to carry it out in everyday life.

Prior to the project's start, the Capital Region of Copenhagen invited all of its 29 municipalities to participate in the development of Smart Greater Copenhagen. In this way they were given the opportunity to influence the strategy that would later affect their administration and policy. A total of 10 municipalities participated. The main driver for the participating municipalities was the need to figure out how the regional strategy could be used to promote their own core values, but also to create more value for citizens across the municipalities.

The **companies'** main incentive to participate was their wish to work closer with public institutions (in this case the municipalities) as they contain a big market potential. However, the process of working with public institutions is often too slow and bureaucratic for this potential to be realized. Instead, companies want a more **agile collaboration** that is **accessible** and **test-oriented**. The hope is that Smart Greater can make this happen by using design methods, including co-creation.

Based on interviews conducted with two different **citizen groups**, namely seniors and commuters, the DDC concluded that the most important issue for *seniors* is to **understand** how technology can make a difference to them. For *commuters*, on the other hand, the most important issue is to make commuting as **simple and easy** as possible, enabling them to think their journey through from start to finish. Smart Greater Copenhagen should meet these needs.

Assets brought by the different actors

Depending on whether the actors work in a municipality, a company, or participate as an individual, they bring a specific professionalism and expertise into the project. The municipalities brought **knowledge about policy areas** into the project. Specific issues, such as the ones related to environment, welfare, transport and infrastructure and how they are tackled in an everyday context, turned out to be useful in the project. The companies, on the other hand, came with more **concrete needs** for how the public sector and private companies can collaborate.

Barriers in the project

One barrier was the **knowledge and competence deficits** experienced in the municipalities. The municipalities are used to working with political processes that run linearly and focus on a specific outcome. These political processes rely much on accountability, whereas the design process is a **circular and iterative process** that does not guarantee, nor is intended to guarantee, a specific outcome. This was therefore a very unfamiliar way of working for the municipalities, and it took some time to make them **feel safe** in the design process. They especially had problems understanding why they were not tasked to create solutions for everyone, but instead asked to focus on a particular citizen group. However, this is exactly what the design approach does: it zooms in on a particular group in order to create solutions that match real life rather than the simplified needs of stereotyped personas.

Another barrier was **diverging political interests** between the municipalities. Each municipality works according to its own political agenda and therefore focuses on different issues and citizen needs. Finding a common focus, e.g. choosing two citizen groups (commuters and seniors) was therefore a bit of a challenge.

ROLES, METHOD AND PROCESS

Each group had a specific role in the process. A large part of the project was about developing **conceptual directions** and initiatives. This part was carried out in close collaboration between the Capital Region of Denmark and the work group, with input from experts. The result was three conceptual directions: *Sustainability and Growth*, *Health and Welfare* and *Mobility and Transport*. These concepts built on conclusions from a **qualitative analysis** made by the DDC. The analysis builds on interviews with the two citizen groups (commuters and senior citizens) and selected tech-companies and SMEs. The conclusions from the analysis formed the basis for co-operative workshops where experts, students and tech-enthusiasts were involved. Next, the Capital Region of

Denmark, the working group and the steering group worked in depth with **delimitation**, **success criteria**, **analysis of field work** and **idea and concept development**. Design approaches and methods were used actively throughout the entire process.

The DDC contributed to the development of the strategy in charge of the **design process**, including the **co-creation processes**. With design as the starting point, the strategy was developed in a co-creation process that took into account the needs of the companies, the citizens and the municipalities. Developing the strategy was handled as a design task and created in an **interaction between micro and macro levels**: from the human scale to the entire region. The goal was to create a strategy which put the individual first and translated technological possibilities into new innovative solutions. The **design process** was characterized by being 1) user centered, 2) explorative, 3) co-creative & 4) visual and concrete.

To lay the groundwork for the strategy, the DDC used a **design game** that made the actors reflect about the future. This served to establish dialogue and discussions between the different actors. In the early stage of the project, the DDC used **user involvement** and **interviews** to identify the target groups' needs. This knowledge was essential to the development of the concepts. Finally, the DDC used the ***How might we? Matrix***, in which insights were translated into design issues and then used to generate ideas e.g. develop concepts and initiatives.

Phases of co-creation

In the specific case of Smart Greater Copenhagen, the co-creation took place in the **ideation and design phases** in the form of a **future workshop** with 130 participants. The participants were **experts and companies** who discussed the future scenarios for 2030 seen through the lenses of three themes: *Sustainability and Growth*, *Health and Welfare* and *Mobility and Transport*. In the design phase, co-creation took place as a **workshop with municipalities and selected experts**. In this phase, insights about user needs found in the qualitative analysis were used to develop new solutions. These solutions were then presented to the Capital Region of Denmark who gave feedback in an iterative loop.

Short term impact

The aim of the strategy was to create value for citizens and companies through new and innovative solutions. The work that involved the DDC, took place at an early stage. The end result was a **catalogue of ideas** and possible solutions that would create impact and value within various business areas within the next few years. The DDC did not

participate in the implementation phase. This constituted a **challenge** for the design phase, because DDC did not have the opportunity of ensuring the right implementation in order to meet the success criteria.

Setting an example for future solution approaches

The Smart Greater Copenhagen project serves as a great example of the possibilities of using design methods. While design methods can be adopted and used in almost all contexts, as this example shows, one must always be aware of the circumstances and **needs that exist in the specific context**. In other words, design methods are generic but must be specially designed for the context in order to work well. This requires initial research of user needs, as exemplified in Smart Greater Copenhagen project.

POLITICAL INFLUENCE (INSIGHTS)

The Smart Greater Copenhagen project was initiated as a part of a regional policy programme. From the beginning of the year 2019, however, it was decided from above (national level) to remove the region's mandate to promote business. This power shift made it difficult to maintain the strategic line that Smart Greater Copenhagen intended. Today, the task lies with the municipalities and it is uncertain to what extent they have adopted the strategy. Nevertheless, the project is a good example of how actors with different work methods and preferences can interact and share knowledge through co-creation.

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

From the very beginning, a curiosity and an interest in doing policy making in a new way was demonstrated. The fact that DDC is partly publicly funded contributed in creating confidence for the Capital Region, who initiated the partnership. Furthermore, the DDC has a good, existing relationship and dialogue with the Capital Region of Denmark, which made the DDC an obvious partner in the project.

During the project, the DDC experienced a **clash between the work culture** in the public sector and private companies. The public work culture is characterized by bureaucracy and validation, whereas private companies are characterized by workflows with a focus on speed, agility and a profit-oriented approach. The first approach relies on a classical management culture, whereas the second has more in common with the design approach. In this case, it helped to explicitly explain the different advantages and disadvantages associated with the different working methods. However, changing the

work culture in a specific environment is something that takes time and requires a lot of effort.

The policy making process was influenced in the sense that it is unusual to use design methods for this type of process. Using design methods made the policy making process, which is usually a very linear process, much more **exploratory**. The result was a strategy that primarily focused on users, namely the actual people in municipalities and businesses. Such a focus was essential since the purpose of the project was to ensure a strategy pointing to opportunities for the future digital society, **putting citizens and users at the center of digital solutions** and at the same time outlining the business opportunities in the project.

5.3. Decidim.BARCELONA

Author: Marion Real (IAAC)

PART 1- CASE DESCRIPTION

Decidim was created in 2016 by the city of Barcelona to facilitate direct democracy and transparent public decision-making processes through the systematic use of ICT devices in citizen participation processes. Decidim is now an **open-source platform** that is used by more than 111 communities active in different cities at the European level and in diverse forms of organization.

As of the moment this document was elaborated (spring 2019), in Barcelona, the platform counts more than 32 000 registered participants, 13 000 proposals, 1 300 face-to-face meetings, 190 000 supports collected and more than 9 000 citizen proposals accepted.

Among the 38 participative processes of the city, the initiative “Repensem el 22@” was the first one in Barcelona to adopt the Municipal Citizen Participation Regulation. The process was chosen to illustrate and raise debates on how complex and long-term co-creation processes involving the quadruple-helix stakeholders can be reinforced by citizen participative processes managed by Local Decidim Communities and implemented through the platform.

CONTEXT

Cities in the digital age continue to be areas of development and expansion of global capitalism, but they are also spaces of resistance, cooperation and hope, experimentation and techno-political innovation with new models and practices aimed at achieving a real democracy. The value of Decidim stands out, in a context in which democratic collective intelligence faces the challenge of artificial intelligence and corporate datacracy. It is a space where **citizens can think, prioritize development lines, decide on improvement projects and deliberate on future uses**. While a dominant market trend drives governments of infrastructure and services towards increased privatization and centralization in the hands of large corporations, there is a sociotechnical potential to change this tendency towards decentralized ecosystems of services, infrastructure and goods. Decidim contributes to this transition by promoting democratic participation between public bodies, social organizations and the cooperative economy.

Decidim.Barcelona is the pioneer of the Decidim community and has emerged in the particular context of the city itself. Barcelona is one of the world's leading tourist,

economic, trade fair and cultural centers, and its influence in commerce, education, entertainment, media, fashion, science, and the arts all contribute to its status as one of the world's major global cities. Since 2011, Barcelona has been a leading smart city in Europe. It is now a transport hub that welcomes 1.6 million inhabitants in 101.4km².

In addition to Barcelona's cosmopolitan diversity and its digitalization, the city of Barcelona is renowned for an important degree of activism and a certain sense of solidarity that fosters citizen participation in different strata of the city. From its history of cooperatives in the early twentieth century to the recent 15M and Indignados movements that emerged on the 15th of May 2011 following a systemic financial and real estate crisis, an important part of Barcelona's citizens have rooted themselves in a sense of cooperation that makes the city a pioneer in term of direct democracy.

In 2015, Ada Colau was elected as mayor of Barcelona. He represented “Barcelona En Comú”, a new political party that was created two years before around the *Guanyem Barcelona manifesto*. The manifesto was published on the Internet and promoted by around thirty citizens linked to social and neighborhood movements, as well as personalities from academia and culture. In the manifesto they presented themselves as a citizen platform whose objective is “to build a candidacy for confluence”, propose a “democratic rebellion in Barcelona”, “re-appropriate the institutions” and show that “municipal politics can be feminized from the bottom up.” Since then, the city of Barcelona situated itself against the “smart city” and at the forefront of alternative possibilities, exploring strategies for reaching “technological sovereignty”. In that line, the commission of technology and digital innovation of Barcelona developed the plan “*Barcelona digital 2017-2020 – Transition to technology sovereignty*” - looking for re-politicizing the notions of (smart) citizenship and technology, deploying initiatives aimed at regaining public control on data and citizens participating in policy-making (Ribera-Fumaz, 2019).

In parallel with the numerous events that created a complex context of Independence for the Catalonia region, in October 2017, the city has adopted one of the most innovative policies in term of citizen democracy, namely the **citizen participatory regulation** aiming to reinforce the successive actions of the decentralization and to better frame the forms of citizen participation and active democracy. The new legislation has set out the

participation channels and necessary resources as well as a system of guarantees to safeguard democracy and its proper operation⁷.

Beyond technologies, diverse actions have attempted to transform the city as a space for revitalizing the associative fabric and to strengthen the empowerment of citizens as a whole. As examples, the city has initiated a municipal company for energy, a local currency (REC), and different measures for ensuring a better access to local housing and reducing mass tourism. In their fight for inequalities, they co-developed the project B-Mincome⁸ to test new measures to fight against poverty and tackle social exclusion in deprived communities.

As written in the Municipal Action Plan of Barcelona 2016-2019⁹, it is necessary and urgent to rethink politics and democracy. The complexity of contemporary problems and the new possibilities of active citizenship, new technologies and the revitalization of social spaces open up a new scenario that requires new democratic infrastructures. It is about activating the citizenry to its political potential, guaranteeing the conditions for its empowerment, developing devices that facilitate the promotion of new forms of democracy, co-production of public policies and collective management of common resources.

Decidim. Barcelona was created to systematize and experiment direct democracy and public decision-making processes transparently through the use of ICT in the city of Barcelona. It now stands out as a good practice for wider societies.

ORGANIZATION

Name of the Policy Lab: Decidim.Barcelona

Webpage: <https://Decidim.org/> and <https://www.decidim.barcelona/>

Country: Spain

Decidim.Barcelona was created in 2016, in parallel with the new citizen participative regulation to propose and experiment solutions to the challenge of direct democracy in Barcelona. It was born to **deepen and enrich the democratic process** and the quality of societies and it does so with a clear commitment to technological sovereignty, free software, open knowledge and the defense of the digital rights of citizens.

⁷ <https://ajuntament.barcelona.cat/participaciociudadana/en/noticia/the-city-councils-practical-guides-to-citizen-participation-in-barcelona-are-now-available-2> 804592

⁸ <https://www.barcelona.cat/infobarcelona/en/b-mincome-defined-by-the-who-as-a-leading-programme-to-reduce-inequalities-and-improve-health> 826356.html

⁹ <https://ajuntament.barcelona.cat/estrategiafinances/en/programa-dactuaci%C3%B3-municipal-pam-2016-2019bp>

The starting point was the process of the Municipal Action Plan (PAM), one of the most strategic processes of the city experimenting the involvement of the digital sphere in the co-creation process. Today, it has more than 32 000 registered participants, 13 000 proposals, 1 300 face-to-face meetings, 190 000 supports collected and more than 9 000 citizen proposals accepted.

Decidim.Barcelona has driven the creation of 111 Decidim communities active in different cities at the European level and diverse forms of organization (5 Consortiums, Provincial Councils and Autonomous Governments, 53 Town halls, 25 International Organizations and 28 Social organizations).

The management and evolution of the Decidim platform is now led by MetaDecidim, a community created in 2017 to manage the Decidim project democratically in all its dimensions. With the scaling up of Decidim, the governance in the Decidim platform could be described through different prisms (Figure 13). Here we will first describe the **governance of the Decidim Platform** – Meta Decidim¹⁰, and then focus on the local Lab situated as a city department of Barcelona.

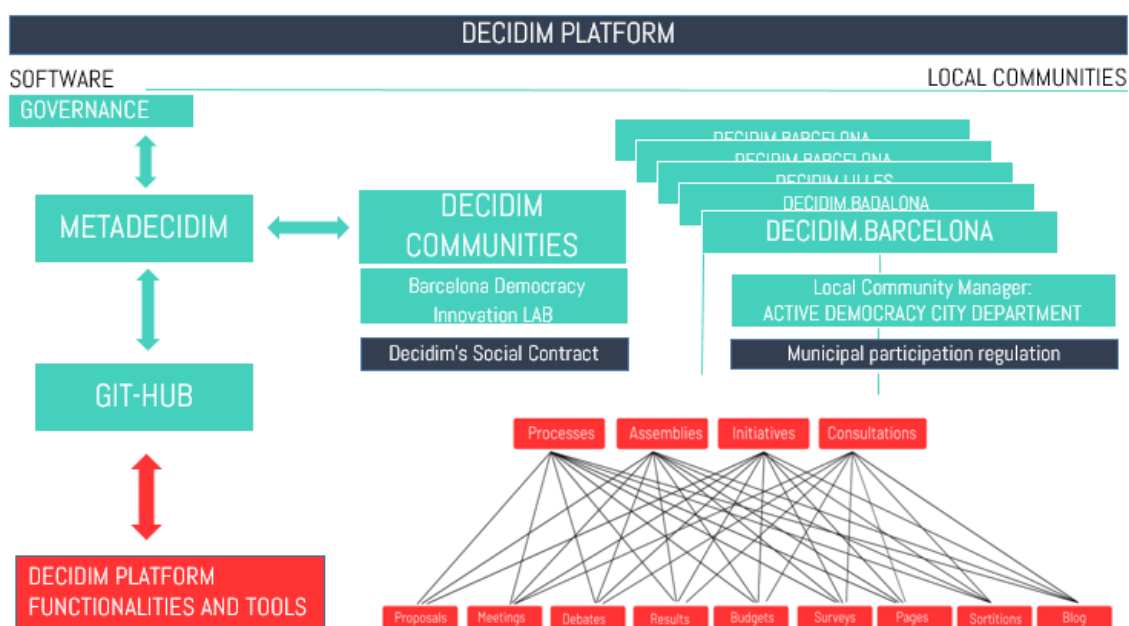


Figure 13 - Overview of the governance of the Decidim platform through global and local lenses

From a global perspective, the Decidim platform is now managed by a **new horizontal organization called Meta-Decidim**¹⁰ that is composed by the various Decidim community members and other entities as research centers. MetaDecidim is supporting the entire process of development and functional design of the Decidim technologies in all its

¹⁰ <https://meta.decidim.org>

dimensions, guaranteeing the respect of the social contract, reflecting on the uses and processes, acting as intermediaries with the developers via the use of agile methodologies and the Git-Hub software¹¹. Each community **is self-funded and can have access freely to the software as well as interacting with the Meta-Decidim community to customise their own processes**. As for any open-source software, additional services for training, management, and maintenance can be provided with some fees by external contractors.

From a local community perspective, Decidim Barcelona is managed by the city department of Barcelona Active Democracy that interacts with different local stakeholders to disseminate the use of the tools, co-design processes and monitor the respect of the Municipal citizen participation regulation. The **success of the community was correlated with a strong involvement of public internal bodies** (departments, neighborhood councils) and research communities around the sharing economy, commons, IT visualization devices and digital democracy (as the Barcelona Democracy Innovation Lab¹², Dimmons¹³, Decode¹⁴...) as well as social economy stakeholders. These stakeholders share a collective project, have common values and gathered knowledge in a transversal way, in between IT and social sciences. **Even if the project Decidim aims to promote bottom-up processes and citizen empowerment, the role of the city was crucial in the development of the platform and the development of each participative process**. And, it still is. In 2019, more than 205 million Euros (around 10% of the city's budget) will be invested by the city to reinforce the **Management of Citizenship Rights, Participation and Transparency**.¹⁵

The platform community has co-created the participatory democracy framework Decidim, written with the technology *Ruby on Rails*, and all members respect Decidim's social contract¹⁶ that is based on a set of values that are in line with open science and responsible innovation's new ethics. The community is about free software and open content, transparency, traceability and integrity, equal opportunities and quality indicators, data confidentiality, accountability and responsibility, continuous improvement and inter-institutional collaborations.

¹¹ <https://github.com/decidim/>

¹² <https://ajuntament.barcelona.cat/innovaciodemocratica/en/projects/laboratory-democratic-innovation>

¹³ <http://dimmons.net/>

¹⁴ <https://www.decodeproject.eu/>

¹⁵ <http://ajuntament.barcelona.cat/estrategiaifinances/ca/pressupostos-any-2019>

¹⁶ <https://docs.decidim.org/social-contract/en/social-contract/>

Each stakeholder (Figure 14) and community develops specific skills to reach the transdisciplinary approach needed to both develop the software, manage the MetaDecidim community as well as to create a local culture of transparency and co-creation.

The MetaDecidim community articulates around different axes of work and competencies:

- **Eix I-UX:** Diagnosis and changes to know and share the user experience.
- **Eix II -Communication:** Construction of common and creative discourses around Decidim.Barcelona
- **Eix III -Technology:** Experimentation and reflection on useful technologies for the platform (architecture, development and gitflow, installation ...)
- **Eix IV - #LAB:** Open and collaborative research

→ Departement of city councils		
Regidoria de Participació i Territori Comissionat de Participació Institut Municipal d'Informàtica Departament de Transversalitat de Gènere Regidoria de feminismes i LGTBI	Oficina Municipal de Dades Oficina de Ciència Ciutadana Institut de Cultura de Barcelona Ecologia Urbana Model Urbà	
→ Universities		
Universitat de Barcelona Universitat Autònoma de Barcelona Universitat Oberta de Catalunya Universitat Politècnica de Catalunya Universitat Pompeu Fabra Elisava	Universitat Rovira i Virgili Universidad de Zaragoza Universidad de Surrey City University of New York The New School / Parsons School of Design	
→ Research centers		
Internet Interdisciplinary Institute Institut de Govern i Polítiques Públiques Eurecat	Barcelona Supercomputing Center Fundacion Ibercivis IAAC	
→ Cultural spaces		
Hangar Citilab Medialab Prado Intermediae	Ateneu Popular 9 Barris Casa Orlandai Centre Cívic Pere Quart	
→ Companies (all sizes)		
Ideas for Change myData Dribia Connex Vizzuality 300000kms Codi Tramuntana	Populate tools Openratio ID Lawpartners desideDadum Blizzard Cookie Box	BeRepublic Gecon.es nVotes Enigmmedia Techideas RocaSalvatella
→ Associations, cooperatives and non profit organisations		
Liquen Data Lab Digital Fems Geochicas Dabne La Tremenda Som Energia Xarxa d'Economia Solidària de Catalunya SobTec	Federació d'Associacions de Mares i Pares d'Alumnes de Catalunya Som Connexió Consell d'Associacions de Barcelona Adbusters Asociación Calidad y Cultura Democráticas	Spora sinergies Ciudades y Gobiernos Unidos Drupal.cat Amical Wikipedia El Camino del Elder Plone Foundation Col·lectiu punt 6 El Teb

Figure 14 - List of stakeholders in MetaDecidim

PROCESSES AND TOOLS

In the citizen participation regulation, the City Council of Barcelona established the requirements for a technological platform for participation defined as a software that allows, facilitates and guarantees the quality and transparency of citizen participation. Four main mechanisms of participation were retained to ensure citizen participation in policy design: **processes, assemblies, initiatives and citizen consultations** (Table 2).

Mechanism of participation	Description	Requirements-Functionalities in Decidim
Participatory processes	Series of meetings with a fixed deadline to activate and promote debates between citizens and the public institutions on a specific project, area and/or sector	Open comments, the public announcement for face-to-face meetings and public records of meetings, a collection of the section of proposals and a section of support for proposals
Assemblies	Online and physical channels of interaction between citizen and public institutions for debating and reinforcing the transparency of the city's actions	Announcement of their meetings, the order of the day and the minutes of the sessions, as well as the relevant documentation that can be provided in each case
Citizen initiatives	Promotion of collective interest actions initiated by citizens	Facilitate the dissemination of the proposals admitted to the procedure, as well as the collection of signatures when the identity of the signing person is guaranteed
Citizen consultations	Vote and participation of citizen for a specific policy	A clear and differentiated space that allows access to related information and, where possible, electronic voting

Table 2- Participative activities offered by Decidim

For each of these mechanisms, a set of sub-activities are suggested to the Decidim community and integrated as functions of the online platform.

- **Proposal setting** allows participants to make written contributions, which can be the subject of interaction and decision making. There is the option to attach documents and images to the proposals, as well as geo-locate them.
- **Meetings** offer the organization and the participants the possibility of summoning meetings, defining place and time, registering and limiting attendance, defining the structure and contents of an appointment or meeting in person, as well as publishing the acts and the resulting proposals.

- **Debates** allows participants to open debates about specific questions or issues defined by the administrators or the participants, as well as intervening in the existing ones.
- **Results component** allows people who visit the platform to view the level of execution (global, by categories and / or sub-categories), of the results of a participatory process.
- **Budget** is a specific component to deploy a process of participatory budgets. It allows to determine the minimum percentage of the total budget to support the projects submitted, which are linked to proposals.
- **Surveys** is used to design and publish surveys, with different configurable types of response (short answer, long answer, single option, multiple choice and sorting). It also allows to show and download the results.
- **Random draw** allows to choose, by chance, a number of participants (for example, candidates for a committee). The choice is based on randomized and non-reproducible procedures, which guarantee, therefore, unbiased or uniform distributions.
- **Blog and pages.**

These functions are embedded in the platform **Decidim**, which has been designed as a tool that can support both physical and virtual participative processes, and gives some orientations, rules and methods to improve the process of engagement and the accessibility of information, the traceability as well as the transparency of public decisions.

Zooming on the participatory process

The mechanism entitled “*participatory process*” can be used to carry out a diagnosis of a specific issue or topic, to look for creative and innovative ideas to accomplish and to suggest which forms of intervention are most appropriate, depending on the particularities of each action, context and case.

The "Processes" online space in Decidim.Barcelona allows users:

- To create, activate / deactivate and manage different participation processes; and
- To articulate them in different phases in which all the components can be combined (such as a process of choosing the members of a board, a participatory budget, a strategic planning process, the collaborative drafting of a regulation, the design of an urban space or the production of a public policy plan, *etc.*).

The participatory processes are based on a set approach that can be customized for each project (Figure 15).

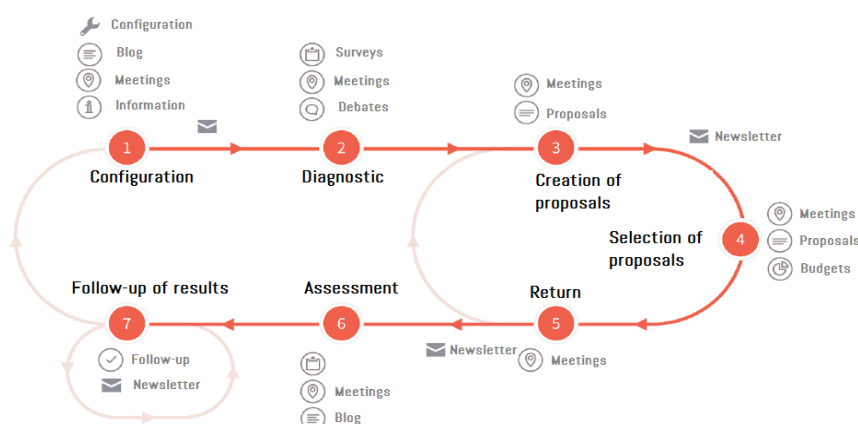


Figure 15- Structure of a participative process in Decidim.Barcelona¹⁷

Between 2016 and 2019, a total of 38 processes of participation in the city have been carried out through Decidim.Barcelona. The platform has facilitated face-to-face meetings and related information and results in an open and public manner. Furthermore, it has increased the participation in all these processes by opening new spaces for proposals and debates to enrich the deliberative processes and the processes of collective construction of public policies, in neighborhoods as well as in districts.

Repensem 22@

A focus will be done in the following section to the process Repensem 22@ that was one of the first initiatives to use Decidim.Barcelona within the participative regulation. Repensem 22@ used the community Decidim.Barcelona to reinforce the engagement of citizens in their process of co-creation, engaging a quadruple helix of stakeholders (policy makers, industrials, academic and civil society) for a one-and-a half- year process.

GENERAL DESCRIPTION

Name of the Initiative: Repensem el 22@

Website/ link: <https://www.Decidim.Barcelona/processes/Repensem22a>

Location: Poblenou, Barcelona

Initiative Domain: District / Urbanism / Design Policy

Starting and ending date of the initiative: 03-2017 / 11-2018

¹⁷ Translated from Informe 2016-201 Decidim, la plataforma digital oberta i lliure per la participació i la innovació democràtica Regidoria de Participació i Districtes

The initiative Repensem 22@ questions the process of participation to co-create the regeneration and transformation of urban neighborhoods. It is situated in the North-East of Barcelona, Poblenou, neighborhood situated in the district of Sant Marti, which has a particular story in the city. Called in the last century as the “*Catalan Manchester*”, the neighborhood was the industrial heart of Barcelona with many textile factories and cooperatives of workers. In 2000, the Barcelona City Council approved a **new urban planning ordinance** aimed at transforming the old industrial area of Poblenou, into a magnet for innovative activities. This new ordinance allowed for a new land designation called 22@, which substituted the traditional industrial designation 22a. After 17 years of renovations and transformations, the 22@Barcelona project has created a **compact environment where productive spaces are coexisting with research, training and tech transfer centers**. Poblenou is now a heterogeneous maker and innovative neighborhood with recent high-technology and eco-efficient-based buildings mixed in old factories still under renovation or preserved for heritage and social dynamism.

The initiative Repensem el 22@ first emerged to highlight and extend the innovative dynamic of the 22@Barcelona project to other parts of the neighborhood of Poblenou. Within the changing political context of October 2017 (e.g. reshaping of the government after the Catalan referendum), the initiative has been revised by the city council departments with the aim to “Re-think” (Repensem) the area with a **more systemic vision of the ongoing plan and to build more inclusive strategies**. Indeed, in recent years, the emergence of gentrification processes, important difficulties to access housing and a lack of effective working and living spaces for local residents has given way to the rise of serious misgivings amongst civil society.

Repensem el 22@ started in March 2017 and ended in November 2018 with the signature of an agreement (pact) for more **inclusivity and sustainability**, engaging 11 organizations from the public, industrial and civil society on 19 future policies for the neighborhood. The process has accumulated more than 1 000 participants in the physical and digital activities monitored by the Decidim.Barcelona platform.

GOVERNANCE AND STAKEHOLDER LANDSCAPE

An initiative promoted at the local level, by the city

In March 2017, the City Council of Barcelona created the 22@ Coordination Committee with the aim of reactivating the 22@ area and strengthening the relationship with the territory of Poblenou and Sant Marti district. The Commission is made up by the

Department of the District of Sant Marti, the Directorate of the Area of Urban Ecology and Mobility and the Department of Business and Tourism of the City Council of Barcelona.

In June 2017, with the objective of involving the agents of the territory, the 22@ Extended Commission was constituted. The commission has incorporated public agents (public executive bodies of the department involved in the coordination committee, one peripheral district organization -Consorci del Besòs- and a metropolitan agent -Pla Estratègic Metropolità de Barcelona), social agents (Taula Eix Pere IV, the association of Neighbors of Barcelona and Poblenou -FAVB and AAV-Poblenou), economic agents (the 22@Network composed by 150 companies of the district) and academia (UB, UPC, UPF, UOC, Fundació b_TEC) (Table 3).

Both the 22@ Coordination Committee and the 22@ Extended Commission have been coordinated by the municipal foundation Barcelona Institute of Technology (BIT)¹⁸, a recent non-profit organization that aims to promote urban innovation in Barcelona and supports initiatives aimed at creating a more sustainable city and improving the quality of life of the people who inhabit it. The center, located in Ca l'Alíer, an old-factory restored in 2017 as an intelligent building with a centralized energy and water management system (BMS), was in charge of gathering the stakeholders in an open, co-creation that supports the design of future development for the neighborhood.

Group of stakeholders	Type of stakeholders	Name of the organisations
22@ Coordination committee	Policy makers (decision)	Department of the District of Sant Marti, Directorate of the Area of Urban Ecology and Mobility Department of Business and Tourism of the City Council of Barcelona
Coordinator	Non-profit institute	BIT – Habitat Barcelona institute of Technology
22@ Extended commission	Public executive bodies	Department of the District of Sant Marti, Directorate of the Area of Urban Ecology and Mobility Department of Business and Tourism of the City Council of Barcelona Consorci del Besòs (Peripheral district organization) Agent of the Pla Estratègic Metropolità de Barcelona

¹⁸ <http://bithabitat.barcelona>

	Civil Society	Taula Eix Pere IV, Associations of Neighbors of Barcelona and Poblenou (FAVB and AAV-Poblenou)
	Economic agents	The 22@Network composed by 150 companies of the neighborhood
	Academic	(Universitat de Barcelona Universitat Politècnica de Catalunya Universitat Pompeu Fabra Universitat oberta de Catalunya Fundació b_TEC).
Decidim Process	Public executive bodies	Department of Active Democracy District Sant Martí Neighborhood councils
	Civil Society	Feminist Urbanism Agency - Col·lectiu Punt 6 Local associations – “casales” Citizens
	Coordinator and members of 22@ Extended commission	

Table 3- Overview of the stakeholders

PROCESS STRUCTURING AND ENGAGEMENT

The process of co-creation was not planned in advance but was rather designed along the way through the experiences, meetings, discussions and exchanges between the stakeholders. One of the coordinators refers to it by using the metaphor of the *pathway of Santiago de Compostela*, and insists on the importance of letting the process be flexible with no time pressure, giving autonomy to the participants to open the path of co-creation, according to the flow of information and the social exchanges that they are experiencing on the way.

Afterwards, the process can be described by three main phases (Figure 16): i) a *diagnosis of the extended commission*; ii) *an open participatory process with the Decidim community*; and iii) *a phase of synthesis where the agreement (pact) was designed and signed by all the stakeholders involved*.

All the processes were supported by the city with the provision of human resources, infrastructure, small materials and basic caterings during the meetings. All participation of stakeholders was voluntary and fueled by their concerns about the neighborhood and their motivation for future changes. There were no direct economic

gains as, since the beginning, the process was exploratory without any time pressure or precise outputs defined.

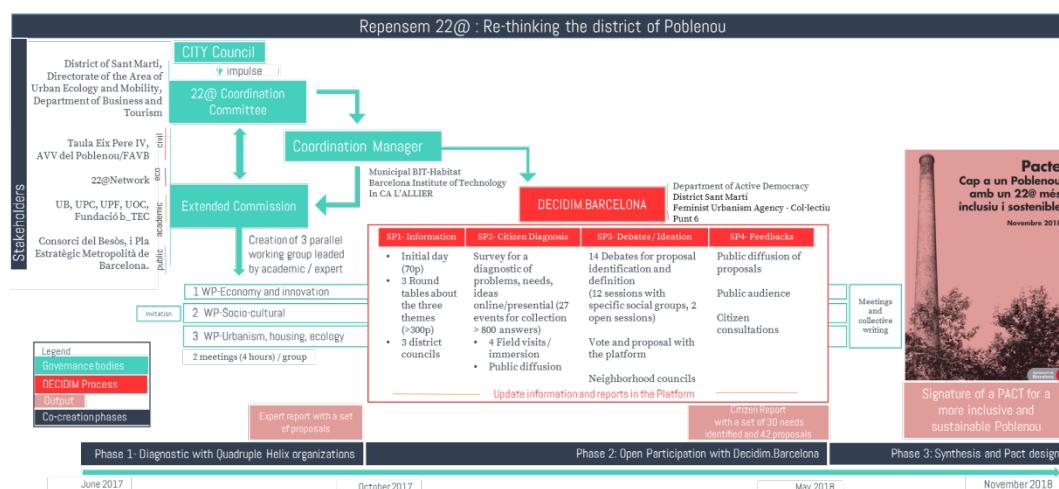


Figure 16- Co-creation process of Repensem 22@: stakeholders, activities, outputs

Phase 1 - The diagnosis of the Extended Commission as an example of quadruple-Helix Stakeholders collaboration

The BIT-Habitat set-up a first meeting with the different stakeholders where it was decided to realize a diagnostic of the neighborhood at different levels, and three working groups led by academic experts in each field were created. The first group explored the topic of urbanism, housing and ecology with the management of the University Polytechnic of Catalonia, while the Pompeu Fabra University and Barcelona University were leading the two other groups focusing, respectively, on the socio-cultural and economic dimensions. Each working group was constituted by around 10 to 15 members, meeting at least for two 4-hours-sessions where they could analyze and initiate some debates about new proposals for the neighborhood. A few days before the meeting, the coordinator of each session sent an initial document to give start to the work. The diagnostic phase ended with a collective document discussing the main issues on the three levels and offering some recommendations. This document has served to feed the process of open participation and the stakeholders present in each working group were actively engaged in the participative activity.

Phase 2 - The important role of Decidim.Barcelona to open-up participation to citizens and social diversity

The conclusions of the first meeting and the recent definition of the citizen participation regulation have led the stakeholders to engage with Decidim.Barcelona to open up participation to citizens. The process started in October 2017 and was coordinated by the department of active democracy with the support of the district of Sant Martí and a

feminist urban innovation agency named Col.lect Punt6. **The participatory process has consisted in four steps: information diagnosis, citizen diagnosis, proposal debates and feedback/communication.** All the steps are captured and are accessible from the platform under the process entitled “Repensem el 22@”.

- **The "*information*" step (SP1)** aimed to promote the beginning of the participation process "Repensem22 @". This phase consisted in three activities:
 1. an initial day that included a presentation of the context and the relevance of the participatory process; a roundtable on the elements necessary to take into account in a process of urban re-development; and a session of working groups where they interact with a visualization of the map of the 22@ neighborhood;
 2. round tables for debating on the three themes presented by the report of the extended committee 22@; and
 3. different councils of the Sant Martí district that were held during the month of October to present the process and the data and to develop a dynamic of groups at a territorial level.
- **The "*citizen diagnosis*" step (SP2)** aimed to analyze and identify collectively the need and current problems from the local citizen perspective. This phase lasted two months and was composed by:
 1. a survey to help quantify as much as possible qualitative data. The survey was posted online via a specific function of the Decidim platform and with 25 ephemeral face-to-face collection points installed in district facilities; and
 2. 4 field-visits and immersive tours carried out in order to identify all the physical, social and functional aspects that influence everyday life from the experience of the neighbors.

The diagnosis has engaged more than 800 participants (less than 1% of the Sant Marti district) which is well correlated to the distribution of the district population in term of sex, age, and geographical dependence. **41% of the answers came from the ICT platform while 59% was provided during face-to-face meetings.** The diagnosis has gathered 30 needs from citizens.

- The **step "*debate: identification and concretion of proposals*" (SP3)** aimed to produce a series of proposals that respond to the needs identified, while providing a strategy for the current social, economic and urban challenges. This phase has involved:

1. 12 independent sessions of debate aimed at involving specific social groups to participate: women, adolescence, youth, the elderly, and people with functional diversity, traders, companies, social economy actors, cultural organizations and makers;
 2. 2 open sessions held to cover the territorial scope of the neighborhoods of Poblenou and the Maresme. The resulting proposals have been incorporated into Decidim.Barcelona;
 3. The online presentation, selection and validation of proposals on the platform Decidim.Barcelona. Decidim was used to offer citizens of the district of Sant Marti the possibility to present, vote, validate and amend proposals; and
 4. a final day "Let's rethink the 22@" where a presentation of the results of the diagnosis and the citizen proposals was offered, followed by a discussion group on prioritizations in the different areas of 22@.
- **The "Feedback" phase (SP4)** aimed to inform the people, as well as the social and economic agents of the territory, the final results that have emerged from the process of citizen participation as well as to show the traceability between the different phases of the process. This phase can be described in two types of actions:
 1. posting of public communication in the communication channels of the City Council (district and Decidim.Barcelona). The team presented the final results of the process in a pedagogical way with infographics and in a technical way with the realization of a final report; and
 2. dissemination in the Neighborhood Councils of the relevant elements of the global report.

By gathering more than 1 000 participants (from the local area, with an effort to represent the social minorities) and 42 proposals in 10 themes (general, housing, infrastructure, commerce, heritage, public space, mobility, green area, rehabilitation, entrepreneurship), the **participatory process has legitimized the co-creation process and introduced new visions, perspectives and proposals to the initial report built by the extended commission.**

Phase 3: the design of a new pact as a collective guarantee for future engagement

The last phase of the co-creation process consisted in the decision to collaboratively design a document testifying the agreement of the coordination and extended committee about future recommendations for the policies that will affect the city. The exercise consisted in comparing the two reports coming from each previous phase and

synthesizing and rephrasing them in order to propose a document that satisfies and aligns the interest of each stakeholder present. The document was redacted by the coordinators in collaboration with the three working groups and the Barcelona Active Department. In November 2018, the agreement (Pact) was read and signed by the mayor and all the stakeholders of the extended committee during an event organized to celebrate the engagement and inauguration of the building “CA L’Alier” as a central place, a technical office for following up with the effective implementation and monitoring of the engagement of the Pact.

According to the classic phases of the co-creation processes, the repensem22@ has managed the phase of analysis, ideation and design by maintaining a rich, original and high level of participation all along the phases. The process is still ongoing with the implementation and monitoring phases. The introduction in the agreement -named pacte 22@- of a specific part on “governance and participation” with an action dedicated to the consolidation of the participation and shared governance of the extended committee appears as a good practice, promising to ensure that values of cooperation remain central in the project.

CULTURE AND BEHAVIOURS: INSIGHTS FROM DISCOURSES

This part is a subjective interpretation from the researcher fed by the interview done with **David Martinez, Pau Planelles Oliva and Albert Martin y Gomez**, the main coordinators of the co-creation process from the BIT.Habitat and the active democracy department of the city council.

A fruitful political context embedded in shared-value and practices of co-creation

In Barcelona, the practices of co-creation are well-disseminated in different strata of the local public bodies.

The vocabulary (“co-creation”, “quadruple helix”, “participation”...) used by the project’s coordinators and their ability to easily use **meta-cognitive skills to debate about processes, models, interactions, participations and stakeholders** has proven their high level of understanding of the process.

A necessity of mediation and reduction of the distance between stakeholders

Notably, it was the first time that such a diversity of stakeholders initiated discussions to collectively face the important challenges of the neighborhood of Poblenou. As for the structure of the co-creation process, **the engagement of stakeholders and the “culture of the community”** were evolving and being transformed *along the way*. It was a constant

effort for the coordinators to identify, reach, mediate and negotiate with stakeholders. At the beginning of the process, there was **an important distance between the stakeholders present in terms of culture, ideology and social conditions**. This could have increased the fragility of each step of negotiation. **The leadership of the public bodies promoting the process and the neutrality of the academic stakeholders has worked to legitimize of the process as well as ensure the effective participation of diverse stakeholders**. More especially the case illustrates the importance of the local anchorage of the members of Active Democracy acting as a mediator and connecting different cultures and interests of neighborhood diversity.

Some key behavioral insights and tips for the management of co-creation processes extracted from the interview, are synthesized below (Table 4).

Attitudes and Tips	Description and examples coming Repensem el 22@
Acceptation and risk taking	The first step relied on accepting to be part of the process and daring to take the risk without specific expectations
Expressing frustrations and personal feelings	The process has started with the expression of a lots of complaints, dissatisfactions, some animosity and potential conflicts of interests between the different stakeholders engaged. It is a necessity to hear and express the complaints.
Being Empathetic	Listening / understanding the different visions, representations and frustrations
Highlighting the shared values/visions	Building upon and designing a perimeter for the collective action
Remembering the why and the consequences of non-action	Being active instead of suffering of the consequences of non-action
Using design artifacts and building a shared mental model	Designing your own model/plan by sketching, what you want to promote-build.
Using dialogical thinking to unlock situations	Going forward with imperfections to refine later more than staying locked in potential conflicts.
Testifying the results with a collective output / agreement.	Create a collective document that testifies and engages further actions.

Pedagogical negotiation	When conflicts emerged, a bilateral effort and constructive attitudes will allow to maintain not to go far from “ <i>the red line</i> ”.
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Table 4 - Behavioral insights and tips for co-creation process from Repensem el 22@

A culture of co-creation that goes beyond ICT devices

The realization of the participative process engaged by Decidim was a prerequisite to the engagement of some stakeholders (public and civil society stakeholders mainly) to sign the final agreement.

The ICT device has allowed to better organize, capture, communicate and sustain the process of participation. It is a solution to increase the number of participants and to assess the effective representativeness of the target population.

As described above, the intervention of Decidim.Barcelona cannot be reduced to the use of the online platform. For each new participation process, **the mechanisms of participation and tools, -both face-to-face and online- are considered.**

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

The initiative of Repensem el 22@ has illustrated the effort of Decidim.Barcelona to integrate a diverse range of participative activities at both physical and virtual levels. The case study captures the complexity of co-creation processes. It militates for a systematic consideration of citizen participation in policy processes and offers tools and methods that cover a diversity of practices necessary to be adapted to different levels of policy making (scale, type of organization). This approach is suitable for the SISCODE project for different reasons:

- It gives practical tools for supporting the transparency of co-creation processes both in term of participation and activities.
- It highlights the importance of the diffusion of the culture of “co-creation” and gives precise mechanisms for the community members not only to define and share a common basis of values but also to integrate them during the development of processes.
- Decidim appears as a solution for connecting local actions and decision-making processes, citizens and policy makers. It could be used to systematize and trace participation in public processes. It remains quite flexible to the evolution of processes that characterize co-creation processes. This flexibility could also be improved by new modules of more interactive tools to add on the platforms.

However, the Decidim tool presents no specificities for STI policy processes and until now has been mainly applied for municipal programs, urbanism and social changes in local districts. More than transforming the STI processes, Decidim challenges the role of technologies to support participation in any type of policy making processes. In that sense, it permits to ask to the SISCODE partners to discuss organizational and ethical dimensions of the hybrid co-creation ecosystems in emergence. The following are some new/emerging key challenges to insert in our dialogues:

Personal Data rights and technological sovereignty

The city of Barcelona and the community Decidim both raise awareness and create a new form of activism for supporting a more inclusive and participative management of technological data. Additionally to promote new devices “for the rights to participate”, they are building new projects to help citizens be in control of their data / management. The **Decode project**¹⁹ is building new modules on ongoing participative procedures to permit citizens to be more anonymous while giving them the possibility of taking part of their own management of data and build upon collective ways of using them, creating the basis for a citizen management of commons. This raises the questions: how can we choose the ICT and collaborative platforms during co-creation processes? How can we inform people about where they can find and what is being done with the data collected in the process? How can we protect citizen / organization privacy while co-creating? What degree of freedom can we expect from co-creation processes? How does the media of communication influence the processes? Is the flow of information really manageable?

Representativeness and selection processes through ICT

The Decidim project and the initiative 22@ question the optimal number of people for effective and manageable co-creation processes. The principle of open participation makes the idea of “**made by ALL**” as a reachable goal even if designing by all does not necessarily mean that solutions “fit for all”. No process could circumvent the importance of local agency and their use of tools. Whereas design is not neutral, can it be made transparent and discussed through hybrid interactive systems? The introduction of ICT technologies in co-creation processes decouples the possibilities of participation. Even if, so far, the rate of participation is not reaching the initial expectations, the quantity of data collected is rising and the analysis remains beyond the cognitive capabilities of people that are diversifying their methods of analysis to capture the complexity of problems. In the processes analyzed, it is clearly underlined that humans are behind the

¹⁹ <https://dddc.decodeproject.eu>

machines and that most of the decisions are realized by one or a few key players “off-grid”: the process structures, the methods used, the way to capture and disseminate representations and involve stakeholders are realized in small committee of organizations. It could be the work of one man/woman that is in dialogue with the system of stakeholders to create and facilitate cooperation. The selection of ideas is now open to vote and suggestions. But what happens beyond too much data? What about **the selection and refinement processes** in front of too many and diverse proposals and collected data? Are we able to synthesize them in an appropriate way?

Inclusivity

While ICT could enhance participation, it could also create new disparities:

- How to make accessible the content for people “outside the mobile and internet bubble”?
- Which approaches and tools to adopt to ensure the expression and participation of the masses as well as the minorities and specific social groups?
- How to interpret and count non-participation or non-agreement (“abstention”, white votes)? Easy to find to see how to agree but hard to know who disagrees and why.

Representativeness Quadruple Helix and local agency

Observing the 22@ processes, it has been noticed that a considerable effort has been made to include all type of stakeholders, defined by the quadruple helix. While making this effort of diversity is crucial and it is not to be doubted, the **representativeness** of each category needs to be discussed. Having one organization for each category of stakeholders seems not enough. Having one individual in one organization seems not enough. It could create new alliances and ecosystems that can influence further moves on the projects.

From participation to co-production and social innovations.

The ongoing platform of Decidim is more adapted to integrate citizen participation in public decision-making processes than supporting an innovative co-production process that facilitates connections between bottom-up and top-down processes. For a better management of the reciprocity of intents in innovation processes, Barcelona has set up another initiative in 2019, the i.lab as a laboratory to speed up sustainable, social urban innovation through interrelations between the public authorities, the academic and business worlds and city residents. For now, open calls are proposed for societal challenges with a clear procedure of application and transparent processes.

This new platform combined with the Decidim values / **citizen participatory regulation** seems promising and could be seen as part of the co-creation tools used to implement co-designed solutions to bring about the effective participation of public bodies in social innovation projects.

5.4. Genève Living Lab

Authors: Margot Bezzi (APRE)

PART 1 -CASE DESCRIPTION

Genève Lab is the living lab of the Geneva cantonal administration – the Switzerland regional level. In recent years, the Canton of Geneva has understood the importance of taking better into account the challenges of the digital age, and to this end, in October 2016, the Genève Lab was officially launched with the main mission of supporting the State of Geneva's cantonal public administration in its digital transition, addressing the transformation brought about by the challenges of the digital age.

To accomplish its mission, Genève Lab operates on a participative approach inspired by living lab methodologies, involving local stakeholders and users (including citizens, SMEs and academic institutions) in digital innovation projects, to draw from collective intelligence, and co-create administrative services and solutions. When launched, the Genève Lab was the first permanent structure of its kind in Switzerland, whether at the federal, cantonal or municipal level.

More in particular, the Genève Lab has been instrumental in organizing and facilitating co-creation by local stakeholders of the State of Geneva's "Digital Public Policy" and "Smart City" programs. Both initiatives were supported by the State Government and are central to its long-term commitment to sustainable development. This document analyses as specific initiative the co-creation of Geneva's Digital Public Policy.

CONTEXT

The Canton of Geneva, one of the 26 cantons of the Swiss Confederation, is composed of 45 municipalities, each one with its own specificity. It is placed in a cross-border region at the heart of Europe and it hosts several international organizations. In this context, it is crucial for the State to play a unifying role and to create coherence and meaning in this varied reality.

Regarding the political culture and the type of communication between State and citizens, it is worth mentioning that Swiss citizens can express their preferences by direct democracy. Citizens have an active role taking decisions at the country level, having their say in a series of federal and cantonal referendums held four times a year. This type of political organization has an impact on a series of other political and socio-cultural indicators. For example, direct democracy is considered as connected to a higher willingness of citizens to collect information, to a narrower space for politicians to

pursue personal interests, and therefore to a better managed public expenditure and lower public debts. On the citizens' side, a higher sense of responsibility and ownership towards the community and public affairs is generally observed, with lower tax evasion as compared to representative democratic systems (Feld & Kirchgässner, 2000). Also, Switzerland, compared to other OECD States, distinguishes itself for a high level of confidence in its own government (OECD, 2013).

Switzerland has been host to international organizations and conferences for more than 150 years. This role of host state is firmly rooted in Switzerland's tradition of humanitarianism and policy of making its good offices available. International activities take place in Basel, Bern, in the canton of Vaud and, above all, in Geneva. The city of Geneva hosts 37 international institutions, organizations, bodies as well as a secretariat established under a treaty, approximately 400 NGOs and the permanent representations of 178 member states of the United Nations (UN), and also those of the two non-members of the UN (observers). For being a global hub for international cooperation and for its long tradition of hosting international organizations²⁰, the city is often referred to as "International Geneva".

The international dimension of Geneva constitutes a layer of experiences, interests, cultures and values that coexists and continuously exchanges with the Swiss national dimension. International Geneva is an essential component of Geneva's identity and acts as a major economic driver for the whole Lake Geneva region; moreover, it is a valuable instrument and most significant platform for Swiss foreign policy. Finally, with its long-standing humanitarian tradition, it reflects the core values that the vast majority of the Swiss population recognize as their own. The State of Geneva recognizes the support and strengthening of Geneva International as a political priority, as well as the support to foreigners' integration. In order to exploit International Geneva's potential for synergies, Switzerland has created a set of practical tools that includes platforms²¹ for coordination, reflection and cooperation with influential foreign think tanks. These platforms bring together the actors, ideas and know-how concentrated in International Geneva with the intention to make them circulate also at the national level. They help create important stakeholder networks, develop, test and spread strategic ideas, and provide access to critical knowledge in their fields. Geneva's links with those working "on the ground" means these platforms are regularly confronted with local realities and can incorporate first-hand experience gained in the field into

²⁰ <https://www.eda.admin.ch/missions/mission-onu-geneve/en/home/geneve-international/faits-et-chiffres.html>

²¹ <https://www.eda.admin.ch/dam/mission-onu-omc-aele-geneve/en/documents/Platforms-2019-EN.pdf>

their deliberations. Switzerland, and Geneva in particular, has a policy of actively welcoming and continually adapting itself to the needs of international organizations, States' representations and delegations, and of civil society.

The context described above depicts a public policy culture that is used to diversity, aware of the necessity to mediate and create bridges, as well as one interested in exploring, also at the political level, the richness that diversity may offer.

On the other hand, for what concerns innovation policies, in recent years, the Canton of Geneva has understood the importance of taking better account of the challenges of the digital age, and to do it giving more space to participatory methods. However, this way of taking innovation into account, as reported by the Lab, is not common in Swiss public institutions.

ORGANIZATION

Name of the Policy Lab: Genève Lab
Contact person Patrick Genoud
Professional position and organization: expertise in design thinking; strong experience in strategy and operations around open data
Contact email: patrick.genoud@etat.ge.ch
Webpage: <https://lab.ge.ch>
Country: Switzerland

Genève Lab is the living lab of the Geneva cantonal administration (the Switzerland regional level). In October 2016, the Genève Lab was officially launched and assigned the **main mission to support the State of Geneva's cantonal public administration in its digital transition, addressing the transformation brought about by the challenges of the digital age**. More in particular, the Genève Lab is instrumental in **organizing and facilitating the co-creation by local stakeholders** of the State of Geneva's "Digital Public Policy" and "Smart City" programs. Both of these initiatives are supported by the State Government and are central to its long-term commitment to sustainable development.

To accomplish its mission, Genève Lab **operates on a participative approach inspired by living lab methodologies**, for which a customer/citizen centric motivation is a key driver. **Local stakeholders and users** (including citizens, SMEs and academic institutions) in digital innovation projects are involved, to draw from collective intelligence and co-create administrative services and solutions.

There are three main dimensions through which the Genève Lab pursues its mission:

1. raising the level of awareness for all stakeholders of the challenges and opportunities linked to the digital transformation;
2. guiding and supporting projects in their innovation endeavors (co-creation, experimentation, multidisciplinary approach); and
3. promoting the quadruple-helix approach whereby government, industry, academia and civil participants work together to co-create the future and drive structural changes far beyond the scope of what any organization or person could do alone.

Genève Lab plays a pioneering role for the State of Geneva's administration, and in doing so also contributes to regional dynamics, promoting sustainable development of civil society, the economy and the environment in the Geneva area. The ambition of Genève Lab is to become an exchange platform for innovation at the Canton level, and to grow and develop through these phases:

- 2016: Bootstrap: constructing our living lab;
- 2017 - 2018: Develop: measure, adapt and consolidate, through gaining visibility, ensuring broader openness of our governance structure, developing our ecosystem, especially by focusing on civil society.
- from 2019: Spread: grow impact and share.

Cross-cutting positioning in the wider institutional landscape

Genève Lab is an organization within the *Office cantonal des systèmes d'information et du numérique* (OCSIN), currently attached to the Department of infrastructures, which is the central, state-wide organization providing ICT services to all departments of the State of Geneva. This strategic position allows Genève Lab to be aware of, and potentially provide services to, all the State's projects leveraging the transformative power of digital innovation.

Genève Lab also has a direct connection with the State offices responsible for environmental and social strategies, as well as with the federal authorities defining the eGovernment strategy at the Swiss national level. These direct connections, together with the strong commitment of the Lab's partners, contribute to strengthening the Lab's social, economic and environmental impacts.

The Genève Lab was launched as the expanded and extended successor of a unit inside the State of Geneva named *Observatoire technologique* (OT)²² (Figure 17). Genève Lab

²² <http://www.ot-lab.ch/>

inherited OT's personnel as well as its network of contacts and all the knowledge and experience acquired through projects launched in collaboration with ThinkServices²³, an open think (do) tank association created jointly by the OT and Geneva University's Institute of Information Service Science (ISS)²⁴. The main achievement of Think Services is Think Data²⁵, an online service whose mission is to raise public awareness of data privacy and data access transparency. Think Data was co-created by a multidisciplinary team, including citizens, using the design thinking methodology. This service was so impactful that it was deployed on a national scale under the strategic and operational responsibility of the Swiss Federal Data Protection and Information Commissioner.

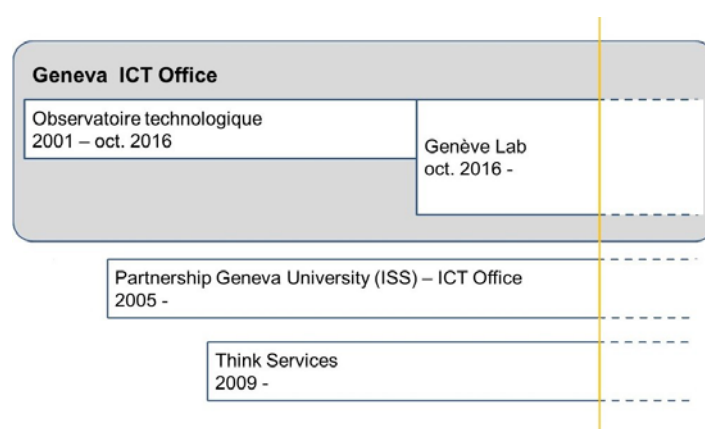


Figure 17 - Visualization of the partnership between Geneva University and Genève Lab

The governance model

Currently, Genève Lab's governance is based under the organization and management of the State of Geneva. At the strategic and operational level, Genève Lab's team reports to the State's deputy CIO and benefits from a high-level anchoring within the organization. The team is organized as a “liberated” unit²⁶. This type of organization is an experiment itself within the State of Geneva's administration. As a unit within the OCSIN, Genève Lab's strategic and operational organization, as well as its management framework, is essentially defined by the State of Geneva's administration laws, rules and regulations. At the strategic level, the State of Geneva laws, rules and regulations provide a complete framework for addressing issues such as: intellectual property rights and exploitation of results; the way stakeholders are involved from a financial,

²³ <http://www.thinkservices.info/>

²⁴ <https://iss.unige.ch/>

²⁵ <http://www.thinkdata.ch/>

²⁶ <https://ssrn.com/abstract=1860805>

commitment, responsibility and influence standpoint; the financing; the services provided; the infrastructure; *etc.*

In the future, the Genève Lab intends to expand the role of external stakeholders such as academia and civil society in its own governance.

Genève Lab has strong connections with higher education institutions in the Geneva area and beyond, as well as with start-ups, the federal government level, and, of course, all the actors of public and para-public administration, and partnerships with higher education institutions, civil society and local SMEs and other public sectors organizations at the local, national and international levels are systematically sought after.

Genève Lab continues the formal partnership established in 2009 by the *Observatoire Technologique* with the University of Geneva's ISS. Also, Genève also has strong ties to other **local higher education institutions** such as institutes and research centres of the University of Geneva, as well as the University of Applied Sciences and Art Western Switzerland (HES-SO)²⁷ and the Ecole Polytechnique Fédérale de Lausanne (EPFL)²⁸.

Besides these historical partnerships, Genève Lab is currently and actively connected with more than 70 organizations in the ecosystem. As a Living Lab dedicated to public sector initiatives, GenèveLab is in direct contact with more than 40 **public administration offices** of the State of Geneva and affiliated para-public organizations such as the hospitals, the utilities, the public transport authority, the airport, as well as the public administrations of 45 municipalities²⁹ of the canton of Geneva, including the City of Geneva³⁰.

To reach out directly to citizens and civil society in general, Genève Lab has successfully enrolled about 20 **associations** (e.g. Realise³¹; Espace Entreprise³²) wishing to participate in future projects. Finally, through direct contacts and in close collaboration with the *Direction Générale du Développement Économique, de la Recherche et de l'Innovation* (DGDERI), which is also part of the DSE, Genève Lab has a well-established network of contacts with more than 30 local SMEs and start-ups in the Geneva economic ecosystem; especially those operating in the ICT, the Fintech, the

²⁷ <https://www.hes-so.ch/>

²⁸ <https://www.epfl.ch/en/home/>

²⁹ <https://www.acg.ch/>

³⁰ <http://www.ville-geneve.ch/>

³¹ <http://www.realise.ch/>

³² <https://edu.ge.ch/site/espaceentreprise/>

Medtech and IoT fields. The network is finally enriched by co-working spaces such as Impact Hub, Voisins, La Muse Bouge, Nomads Foundation.

Each of these organizations pointed out that Genève Lab can play a crucial role in enhancing networking and knowledge sharing in the open innovation ecosystem of the region as well as catalyzing new dynamics of innovation over the whole value chain.

Genève's Lab funding, including human resources costs, is part of OCSIN's budget, that guarantees its sustainability in the long-term. The budget allocated is also aimed at organising events, issuing mandates to hire external experts or finance small digital innovation proof of concept projects. When participating in larger projects, the cost of Genève Lab's resources are borne by the project's own budget. Genève Lab qualifies and has the capability to apply for national funding for innovation granted by institutions such as eGovernment Switzerland, the Swiss Confederation, the Cantons and the Counties. Moreover, Genève Lab also qualifies and has the capability to participate in European international projects such as the ones funded by Horizon 2020 or INTERREG.

Genève Lab's business model was built using the Business Model Canvas (Figure 18) and the Value Proposition Canvas. These canvases are also used to describe, design, challenge, invent, and continuously improve their business model and value proposition.

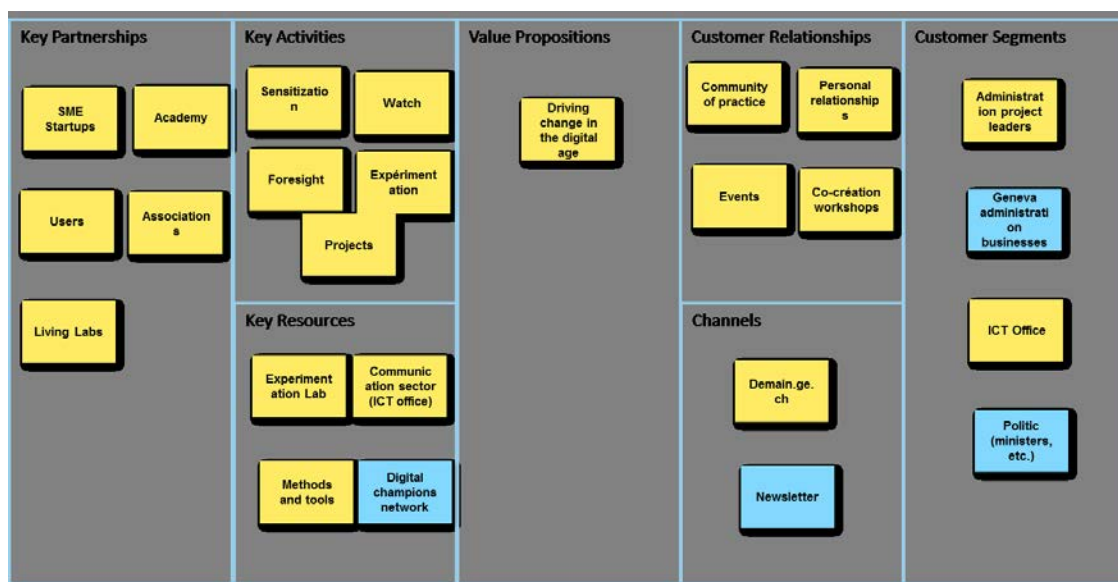


Figure 18 - Genève Lab's business model as defined in March 2017

Genève Lab currently includes five people in its permanent headcount. Each member has in-depth knowledge and know-how in the fields of **digital innovation**, **transformation**, **entrepreneurship**, **policy design**, **open data**, **design thinking**,

prototyping and experimentation. Furthermore, all administrative, financial, human resources, logistics and miscellaneous other support functions to Genève Lab are provided by OCSIN.

The team's strength lies in the diversity and the complementarities of its members' profiles:

- Gianfranco Moi: former independent expert on Smart Cities projects for the European Commission's ICT PSP program.
- Christine Aïdonidis: extensive experience and expertise in public sector processes innovation.
- Alexander Barclay: extended practice of policy design; complementary activities in entrepreneurship and academia.
- Patrick Genoud: expertise in design thinking; strong experience in strategy and operations around open data.
- Christopher Larraz: extensive experience in project management and organizational change; designed and implemented communication strategies.

PROCESSES AND TOOLS

Genève Lab **operates on a participative approach inspired by living lab methodologies.**

More in particular, in accordance to the Living Lab approach, every activity of the Genève Lab is driven by a customer/citizen centric motivation.

While the Lab is a recent creation, the Observatoire technologique (OT) staff, now working for Genève Lab, has been testing, refining and improving living lab operations and methods since 2009. The Living Lab approach makes complete sense in this context since it embodies the foundations of: digital user orientation, a multidisciplinary approach, prototyping and experimentation as well as anchoring in a rich local ecosystem. Genève Lab has an active and creative role in all phases related to the creation of an open innovation value-chain:

Commitment to open innovation practices and building blocks

Promoting open innovation practices is core to Genève Lab's mission. Genève Lab is committed to encouraging innovation both within and outside the State of Geneva's administration. For many years, Genève Lab's members have been promoting open source, open standards, open data and open content. **Open innovation is nothing but a logical extension of this practice** that is endorsed at the highest political level by the

State Government. As a case in point, the State of Geneva recently published under GPL license the source code of its eVoting software²¹.

User engagement and mobilization for co-creation

Genève Lab organizes (or co-organizes) a range of events in different formats dedicated to a variety of audiences in order **to engage people**. **User engagement** is central to Genève Lab's activities, that aim at bringing **co-creation** in a variety of digital innovation projects involving diverse categories of participants. Some of these are recurring events, such as *Journées de rencontre*, *Cafés de la République Numérique*, *Meetups* or *Causeries du jeudi*. Other events such as hackathons, barcamps or co-creation workshops are unique and depend on opportunities.

In many cases, Genève Lab is required to intervene to help projects better take advantage of digital innovation. To that end, Genève Lab uses typical Living Labs approaches and **mobilizes the required expertise available in the ecosystem** through its extensive network of contacts.

Also, users' engagement is sought **as of the earliest stages of product and service development** process in order to allow for concrete and close to "real-life" experimentation conditions.

Adoption of user-driven service design methods

All members of Genève Lab have knowledge and extensive experience in many tools related to **user-driven service design methods** and in particular the **design thinking approach** that has proved to be particularly adapted to Genève Lab's context. These methods are systematically applied in the projects Genève Lab is involved in. Moreover, the team's capabilities in matter of user-driven service methods are being complemented through the support of key partners.

Genève Lab is currently involved in several projects, which notably **include users at the very early stages of the design of the solution**. In most cases, these projects are launched by public administration offices responsible for service delivery to the public or internally within the administration itself. Genève Lab's reputation and influence is spreading quickly and the lab is also solicited to **intervene at later stages of on-going projects** to better take into account all stakeholders' points of view; thus further demonstrating the added value of Genève Lab.

Its active partnership with the Institute of Information Service Science (ISS) of the University of Geneva guarantees a state-of-the-art service in this domain. The ISS is

currently developing an academic continuous education program (Certificate of Advanced Studies) in design thinking. Genève Lab members are already contributing to this education program.

Respect and appropriate protection of author's rights

As a unit within the State of Geneva, Genève Lab is bound to the State's legal framework. As such, it strictly follows the rules to protect authors' rights. Keeping this in mind, Genève Lab wants to promote the use of creative common licenses for its own work and for its partners' in order to contribute to a larger diffusion. Additionally, Genève Lab has access to DGSi's full time lawyer who specializes in IP law. His role is to advise all organizational units within DGSi, including Genève Lab, on legal issues and specifically on IP. Genève Lab contracts include specific provisions regarding protection of author's rights.

Openness of stakeholder partnerships

Openness to stakeholder partnerships is paramount to the success of Genève Lab. To fulfill its mission, Genève Lab leverages an extensive network of partners. In fact, one of its main activities is to create, maintain and expand the network of contacts and become a significant hub of digital innovation. This is notably achieved by organizing events dedicated to a variety of audiences.

The role of ICT

In general, Genève Lab **relies on the use of technology (Facebook or email campaigns) for the purpose of** users' engagement, in order to reach out to the people selected to take part to the workshops. However, with the words of Patrick Genoud, from the Genève Lab, "after almost three years of experience, we realize that the importance of technology in the specific context of policy co-creation is less important than we would have thought. Emails are used to solicit the users with whom we want to work in workshops; however we prefer face-to-face workshops to online questionnaires, although we do use this method from time to time. ICT therefore does not have much impact in this general context, for the co-creation process itself."

The case of the public consultation organized in the context of the digital policy development was a rather special and particular case, where the role of ICT was central and allowed for much greater impact. At the moment of writing (July 2019), the lab is working on the implementation of a consultation platform in order to generalize that type of interaction with the public in the future.

A Digital Policy for Geneva

GENERAL DESCRIPTION

Name of the Initiative: A digital Policy for Geneva
Website/ links: <https://www.ge.ch/dossier/geneve-numerique>;
<https://www.ge.ch/dossier/geneve-numerique/consultez-rapport-politique-numerique-geneve>
Location: Geneva, Switzerland
Initiative Domain: Digital innovation policy
Starting and ending date of the initiative: May 2017 (launch of the initiative) - 20 June 2018 (publication of final report).

The Geneva state (canton) had as its objective the definition of a **digital policy** to define the **general principles and common guidelines** that all public administration offices shall follow while defining their own public digital strategy. This digital policy was meant to **allow a successful and full digital transition for the benefit of the whole population**, and not only of specific categories. To do this, the views and the expectations of the whole population needed to be collected and taken into consideration, through an **approach as open and collaborative as possible**.

The Genève Lab was mandated by the Minister of the Department of security and Economy (DSE) to lead **a taskforce to co-design the digital policy for the State of Geneva** (<https://numerique.ge.ch>). This taskforce included participants from all State departments, as well as the University of Geneva and other higher education institutions. Civil society organizations as well as businesses were also involved, through a **broad public online consultation**.

GOVERNANCE

In this process it is worth looking at the governance dimension in two ways. The first concerns the **governance of the policy co-creation process** – which is the primary object of this analysis (1). However, it is interesting to report also the reflections elaborated about the future policy arrangements expected to support the policy itself, since these reflections bring with them a **vision of evolutionary and continuous co-creation** (2).

1) Governance of the policy co-creation process

The process was initiated by the Canton of Geneva (therefore, it was **top-down**), targeting the Canton's territory. The **project-design phase** of the State's digital policy elaboration was steered by a committee led by the Minister responsible for information systems, and composed by the State's chancellor, the members from the College of secretaries general, the Secretary General of Judicial Power, the General Director of the State's Staff Office and the CIO of the State of Geneva.

The **elaboration phase**, which started in summer 2017, has been **curated by the Genève Lab**. The Genève Lab counted on the support of an interdepartmental team work. In this phase, representatives of academia have contributed, and in particular the University of Geneva, and the HES-SO (University of Applied Sciences and Arts Western Switzerland – Geneva).

2) Governance arrangements that are relevant for the wider effects of the digital policy

The creation of this digital policy has been an **evolutionary process**, where co-creation remained a central focus. The policy itself recognizes that in order for public sector processes and organizations to be able to fully reach their digital potential, they **should be completely rethought, making room for a participative and agile** governance of digital policy. While the State Council maintains its essential role in terms of political decisions on the big societal issues raised by the digital transition, the collaboration is sought with a number of additional actors³³, at the inter-cantonal, regional and federal level, since "the digital is not a public policy on its own; it deals with a transversal subject, an underlying wave with an impact on all public policies"³⁴. It is recommended, amongst other, to:

- **Involve public actors driving digital transformation:** big public entities that have started an internal digital transformation, and that have a role for policies in the health, transports, education or energy domain. They have to be associated both at the strategic and operational level of the policy.
- **Keep an attentive eye on the economic and academic innovation actors of Geneva** (co-working spaces, FabLabsD, research institutes, and startups, le Géofab du Grand Genève), which could offer methodological and competence support during project implementation, and from which the Canton's administration could learn.
- **Pursue collaboration with high education institutions**, at all levels (les hautes écoles genevoises), since they are a basin of competences, expertise and researches that can support and nourish the digital transformation of the Cantonal administration. A framework agreement is adopted in conjunction with the Report (e.g. Agreement between the urbanism bureau and the Haute Ecole Spécialisée de Suisse Occidentale, HES-SO, and Université de Genève – Faculté

³³ "Une politique numérique ne vit que de par les suites qui lui sont données. Cette politique numérique appelle à l'action, à tous les niveaux de l'Etat et avec les acteurs du territoire. Elle doit être déclinée dans l'en-semble des politiques publiques de l'Etat, au service des citoyens."

³⁴ "the digital is not a public policy on its own; it deals with a transversal subject, an underlying wave with an impact on all public policies"

des sciences de la société, to facilitate education, collaboration and territorial development policies.

- **Involve the municipalities** and study collaboration opportunities with them, since they are strategic and essential proximity interlocutors with citizens.
- **Count on agile structures and exchange spaces** (formal and informal) that can facilitate the spreading of methodologies and collaborations, and can help policy makers responsible of digital policy to activate the administration's innovation potential, on the assumption that a vision based on the citizen's vision is essential. The Genève Lab fully incarnates and exemplifies this vision.

STAKEHOLDERS LANDSCAPE

We describe here the stakeholders that took part in the process, highlighting their role, their specific needs (when identifiable) and the specific assets they could bring to the whole process, or they were depositary of.

Public sector

State of Geneva Cantonal administration, which **initiated** the process and set the basic questions, and principles to be followed. The Geneva state (canton) had as objective the definition of a **digital policy** to define the **general principles and common guidelines** that all public administration offices shall follow while defining their own public digital strategy. The public sector's interest is to **allow a successful and full digital transition for the benefit of the whole population**, and not only of specific categories.

Genève Lab led the implementation phase and set the participation rules and methodologies. The Genève Lab is instrumental in **organizing and facilitating co-creation by local stakeholders** of the State of Geneva's "Digital Public Policy" and "Smart City" programs.

The wider Cantonal public sector, which was involved in the phases of the problem setting. The public sector was considered as an information source to create the initial census of ongoing initiatives, as well as an actor that should actively engage in its own digital transition.

Academic sector

The academic sector was involved for its capacity to bring in **specialized expertise** and **insight**. The academic sector's contribution was crucial to outline the boundaries of the **issues at stake**, and of the **challenges** related to the Canton's digital transition. Also, the

academic sector helped the public sector to **translate** the five identified State functions and roles, into concrete policy propositions to be submitted to the public consultation.

Citizens, including the private sector

Digital transformation is approached by institutions as a crosscutting wave which involves every sector and level of the society; for this reason **the capacity to reach out to the most varied actors** is considered essential from the beginning. Citizen contributions is sought for their capacity to enrich the administration's vision on digital policy as well as to further enrich the reflections on the policy in its **implementation** phase.

The value of involving citizens was also the possibility to identify the **issues generating more debate** amongst citizens or enterprises.

PROCESS STRUCTURING AND STAKEHOLDERS ENGAGEMENT

Openness, participation and co-creation are the three words characterizing the **definition process of the digital policy**, which lasted from May 2017 to June 2018 and comprised **different phases, corresponding to the involvement of different stakeholders of the Canton** (Figure 19).

The initiative was able to produce a number of new informal relationships, and created a network of meaningful connections that allow the public administration to effectively address the right partners or stakeholders to collaborate with, depending on the specific challenges that might arise.

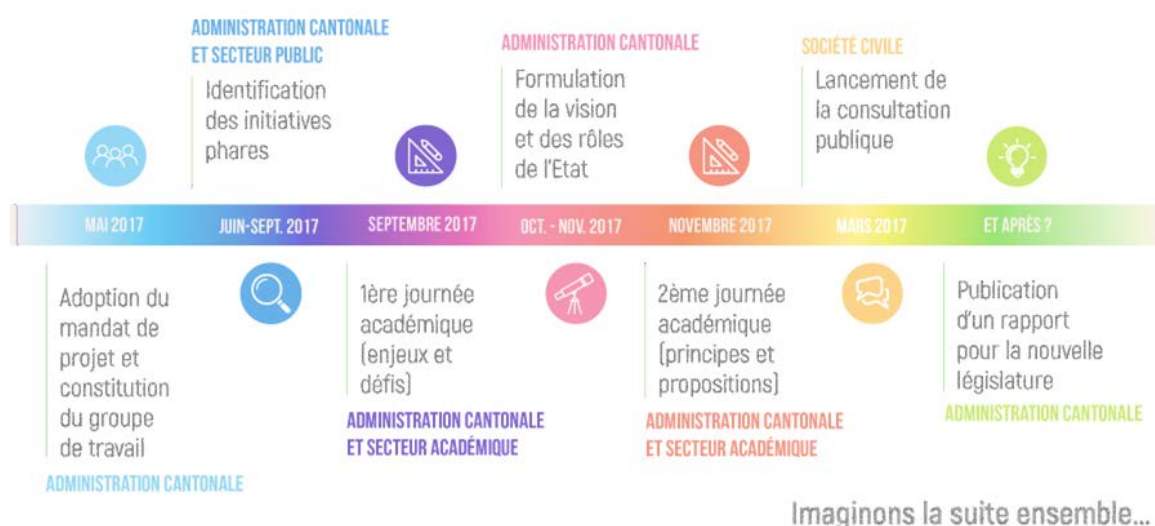


Figure 19 - Process of the digital policy

1. Census and analysis of flagship digital initiatives in the Geneva public sector

Stakeholders involved: Cantonal administration and wider Cantonal public sector.

In summer 2017, a mapping of existing flagship digital initiatives in the Geneva public sector (Canton administrations and institutions) was conducted. It aimed at understanding what actions were ongoing in terms of digital transition, as well as to lay the foundations to improve the process of information and good practice sharing among the public administrations involved. Flagship initiatives were defined as pioneering, impactful and original initiatives, where the digital dimension was central and founding.

2. Academic Days

Stakeholders involved: Cantonal administration; academic sector, researchers, in particular from the University of Geneva, and the University of Applied Sciences and Arts Western Switzerland – Geneva. The High Education Institutions of the region have been involved with the aim of bringing high-level expertise.

The members of the Genève Lab organized and facilitated a number of workshops targeting specifically the academic sector. The different workshops were structured using the **design thinking** methodology. On **28th September 2017**, during the first “journée académique”, thirty researchers collaborated with the public sector members of the digital policy working group with the **objective of identifying the challenges and main issues at stake** that the Canton should face when addressing the digital transition. On **30th November 2017**, a second “journée académique” was organized, bringing together more than sixty researchers from regional High Education Institutions, high-level administration executives, as well as manager of organizations linked to the public sector. Taking into account **five main State roles and a number of orientation principles** – previously identified by the Cantonal Administration – the group elaborated **twenty propositions** to address the identified challenges.

3. Formulation of the Digital Policy Vision, and of the State’s roles

Stakeholders involved: Cantonal administration.

This phase took place in between the two “journées académiques” described above. The challenges and issues at stake identified during in the first Academic Day were used by the public administration working group on digital policy as a foundation to **propose a**

vision, and to **identify five key roles of the State**, corresponding to a **number of essential functions** to succeed the Geneva digital transition. These are the **five roles/functions**:

- Facilitate
- Educate
- Protect
- Promote
- Regulate

A number of **principles** complement the roles list, which the Cantonal Administration will have to follow in order to fulfill the identified roles:

- User-centered approach
- Trust
- Respect of data
- Ethics
- Efficiency

The perspective chosen to outline the vision of the policy was not centered on specific technologies – since technologies evolve rapidly. Instead, the **central perspective was based on the missions considered as essential for the State**, identifying those **basic principles** that allow for the challenges that technologies raise to be detected progressively, while capturing also the opportunities.

4. Public consultation

Stakeholders involved: Citizens; Private sector; Cantonal administration.

This initiative, led by the public administration in Switzerland, is considered to be **pioneering**. In March 2018 (from 28 February to 31 March 2018) a public online consultation was opened to civil society (<https://consultation.ge.ch>). The public consultation was structured around the five essential State roles/functions previously identified, and **twenty initial policy propositions** were proposed, created by the Geneva Cantonal administration in the precedent work phases.

Each citizen - in compliance with a specific rule chart – could contribute to the consultation in four different manners:

- Voting for the existing propositions (both the initial ones, proposed by the administration, and the ones proposed by other contributors)



- Providing arguments (pros or cons) on the existing propositions (both the initial ones, proposed by the administration, and the ones proposed by other contributors)

The screenshot shows a consultation interface with two sections for adding arguments. The left section is titled '30 arguments' and '0 source'. It contains a text input field labeled 'Ajouter un argument pour' and a 'Publier' button. The right section is titled 'Ajouter un argument contre' and also contains a 'Publier' button.

- Propose additional findings, facts, values or path orientations, to be submitted to the contributors' view

The screenshot shows a consultation interface with a light blue header bar containing '25 propositions', a '+ Proposer' button, and a 'Trier par' dropdown menu.

- Provide additional information and reference sources for the community

The screenshot shows a consultation interface with a light blue header bar containing '30 arguments' and '0 source'. Below this is a '+ Proposer une source' button.

The consultation allowed users to:

- **Enrich proposals**, make new proposals emerge, and identify those issues generating more debate amongst citizens or enterprises;
- **Communicate digital issues at stake**, and the existing administration's lighthouse initiatives.
- **Identify actors** with whom a continuous collaboration can be envisioned.
- **Experiment a new tool and methodology** for consultations.

Some numbers about the consultation:

More than 110 000 persons reached out (see below, media and communication considerations).

- 8 180 unique visitors on the consultation platform
- 474 participants contributing with **proposals** and **arguments**, of which
 - 92% of participants **voted** on propositions or arguments (i.e. 436);
 - 48% of participants **contributed** with new propositions, arguments or sources (e.g. 228)
- 816 contributions
 - 20 initial propositions (from the State of Geneva)
 - 53 new propositions
 - 611 arguments presented about the existing propositions
 - 32 sources provided.
- In total, 3046 votes on the proposals have been recorded, which reflects a real interest by Geneva's citizens.

Genève Lab prepared a complete **synthesis of the public consultation**³⁵, containing the entire list of the contributors' propositions, as well as reformulating and restructuring the arguments or the counter-propositions, and giving evidence to the sensitive points highlighted by participants.

5. The final report

At the end of the process, on 20th June 2018, the State Council adopted a **final report** – called “Une politique numérique pour Genève”³⁶ – **synthesizing the results** of the whole process and comprising the **vision, the principles and a catalogue of propositions on the digital policy** elaborated in conjunction with all actors involved in the whole process.

The report refers to digital transformation as a crosscutting wave which involves every sector and level of the society; for this reason, **the capacity to reach out to the most varied actors** is considered essential. Citizens contributions were recognized for their capacity to enrich the editing phase of the report, and as able to further enrich the reflections related to the policy's **implementation** phase.

A digital policy is supposed to set the basis for deep and structural changes, with impact on the medium-long term. That is why the report also set the basis of the **next phases**. The policy described is intended as **evolutionary and non-definitive, and aimed to continuously adapt** to the ever more fast-paced technological and societal changes. That is why the Geneva State has conceived this step as the setting of a wide, open and

³⁵ <https://www.ge.ch/document/consultation-publique-synthese-contributions/telecharger>

³⁶ “Une politique numérique pour Genève” www.ge.ch/dossier/geneve-numerique/consultez-rapport-politique-numerique-geneve

multidisciplinary competence network that will support the administration in its endeavor of change and transformation towards the digital era.

The five **State roles** identified (Facilitate, Educate, Protect, Promote, Regulate) are the basis of the report's **five axes, around which the policy objectives are elaborated** – three objectives for each axis (Figure 20). Each objective is explained through statements resulting from the public consultation, the academic days, and from the administration internal work. The variety of these statements, including in their different level of granularity, is interpreted in the report as a richness and a positive aspect coming from the open and co-created approach (Figure 22Figure 21).

AXE 1	— Objectif 1	Renforcer et élargir la participation citoyenne grâce au numérique dans le respect du contact humain	 FACILITER
	— Objectif 2	Simplifier les démarches administratives et développer de nouveaux services par le secteur public	
	— Objectif 3	Encourager le développement de nouveaux services par les secteurs privés, académiques et avec la société civile	
AXE 2	— Objectif 4	Attribuer à l'école un rôle clé dans la transition numérique	 FORMER
	— Objectif 5	Développer les compétences numériques et la culture numérique de la population genevoise et des entreprises	
	— Objectif 6	Soutenir les évolutions pédagogiques avec des outils numériques adaptés	
AXE 3	— Objectif 7	Etablir les conditions pour renforcer la confiance dans les services numériques de l'Etat	 PROTÉGER
	— Objectif 8	Donner les moyens de lutter contre la cybercriminalité et l'utilisation abusive des données	
	— Objectif 9	Agir activement sur la prévention et la réponse efficace	
AXE 4	— Objectif 10	Positionner Genève comme un acteur majeur de la gouvernance du numérique	 PROMOUVOIR
	— Objectif 11	Améliorer les conditions-cadres pour accompagner la transition numérique des entreprises et de la société à Genève	
	— Objectif 12	Favoriser l'échange humain et la culture numérique	
AXE 5	— Objectif 13	Assurer une prise en compte systématique et dans la durée des enjeux éthiques liés au numérique	 RÉGULER
	— Objectif 14	Permettre une évolution des bases légales adaptée au numérique et autorisant l'expérimentation	
	— Objectif 15	Renforcer les compétences et la culture numériques des régulateurs	

Figure 20 - The five axes and their objectives

— Principe 1	APPROCHE CENTRÉE USAGERS L'Etat conçoit des prestations répondant aux attentes et aux besoins des usagers dans une dynamique de co-construction. Il inscrit cette approche dans la perspective d'une société numérique qui n'exclut personne.	 PRINCIPE 1
— Principe 2	CONFIANCE L'Etat prend la mesure des défis liés à la confiance à l'ère numérique. Il comprend son rôle de garant et de référent de la confiance dans les relations entre les acteurs de la société numérique.	 PRINCIPE 2
— Principe 3	PROTECTION ET VALORISATION DES DONNÉES Les données sont au cœur de la personnalité numérique et du fonctionnement de notre société. L'Etat protège et valorise celles qu'il crée et qu'il gère au quotidien ; dans ce contexte, il favorise la maîtrise et l'usage de leurs données personnelles par les individus.	 PRINCIPE 3
— Principe 4	ETHIQUE L'action de l'Etat s'inscrit dans une démarche de réflexion continue pour prendre en compte les défis éthiques que pose la transition numérique (par exemple, ceux liés à l'intelligence artificielle, aux voitures autonomes ou à la protection de la personnalité).	 PRINCIPE 4
— Principe 5	EFFICIENCE L'Etat promeut une culture de l'agilité et de l'innovation basée sur la co-construction, la collaboration et l'ouverture. Avec pour objectif de mieux servir les usagers, cette approche est nécessaire pour améliorer, voire même bouleverser le fonctionnement de l'administration tout en valorisant ses collaborateurs.	 PRINCIPE 5

Figure 21 - Synthesis of orienting principles for institutional action

Characteristics of the process

The whole process **did not include a real iteration phase**, although the two “Academic Days” could be considered as a mini-iteration process: indeed, the public administration used the information provided by the academic sector in the first Academic Day, re-elaborated them, and submitted the result back to the academic participants, to obtain an additional feedback and reach a semi-definitive *product* (in this case, the propositions to be opened for voting to the citizenship).

In the spectrum that goes from ideation to production of the given solution (that in this case is the digital policy), the stakeholders have been involved with different roles in the **ideation** and **design** phase. The leading public administration had the predominant role in the **ideation** phase. The Cantonal State of Geneva maintained an important and leading role also concerning the **design** of the policy, since it laid the 5 functions and principles around which every action would then deploy. Also the academic sector and citizens, including enterprises, were involved in the design phase, even if entering in slightly different moments, and expressing as a consequence slightly different influence capacities.

Genève Lab was created to foster digital innovation in public sector projects. As such, it provides insights in co-creation processes, in multidisciplinary approaches and in iterative prototyping and experimentation techniques. Beyond this direct contribution, Genève Lab intends to capitalize on the results and feedback of each project that has environmental, social and economic **positive impacts and leverage them in future projects across the public administration organization.**

Concerning the capacity of such a context of being **replicable, imitable and adopted** in other contexts, in principle this is considered possible, provided that sufficient monetary and human resources, with specific skills, are available. However, it is stressed how the presence of **a clear political vision and recognition of the need to design a policy for all, and with long-term implications**, is fundamental; in particular, this clear awareness is considered crucial to reach out to the right actors, and orient wisely each step of the design process.

Public attitude towards participation

No incentives were necessary to involve the relevant stakeholders. The relationship and contacts with the academic sector were already consolidated, which guaranteed a quite uniform and unvaried participation rate throughout the process. As concerns citizens “we noticed in many projects that people do care to contribute to the improvement of our public administration”. The engagement and participation rate of citizens showed quite traditional features, comprising a usual peak of contributions at the beginning of the process followed by a constant decrease during the following weeks.

In order to counterbalance this physiological phenomenon, during the public consultation, the Genève Lab intensified social media activities to solicit the contribution of the population. The support of local newspapers to advertise the consultation was also sought, although without any success. No conflict aroused throughout the process.

POLITICAL INFLUENCE (INSIGHTS)

Regarding the possible influence or potential role of political forces in these types of processes, we remark the importance of political commitment as a force that is capable to trigger success. At least in a territory such as Switzerland – with a limited extension and therefore a relative cultural homogeneity – political support and willingness might be much more important in determining the success of an initiative than, for example, the level of governance (municipal; regional; national) where the experience is

conducted. The type of subject proposed for consultation also plays an important role, depending on the impact that the subject has on people's daily lives.

MEDIA AND COMMUNICATION

The **communication related to the digital policy creation** has been managed by the Genève Lab. Communication played an important role during the online public consultation phase, allowing to reach out to more than 110.000 persons. The use of social media has had a significant effect for the purpose of engaging people, as well as to keep the consultation's visibility high during its open phase.

More in general, Genève Lab's communication strategy revolves around the following activities:

- Increasing Genève Lab **visibility** on the web and social media
- **Engaging** people through specific events tailored for specific audiences such as citizens, civil servants, partners, *etc.*
- **Promoting Genève Lab** by word-of-mouth through the participants to the projects where the lab is involved
- **Mentioning** Genève Lab in speeches, formal and informal communications by State Government officials, and the Minister in particular
- The support of local newspaper to advertise the consultation was also sought, although without any success.

Particular attention is given to **giving visibility to the benefits generated from participation, and communicating them to stakeholders**. The visibility of benefits of participation to stakeholders is particularly important for the **promotion, the expansion and continued involvement of citizens and civil servants** with Genève Lab. This dynamic, in turn, initiates a **virtuous circle of higher involvement** of the population in co-designing public policies, services and solutions. In order to communicate the benefits, besides publishing such information on our **website**, Genève Lab privileges interaction and communication through dedicated meetings organized on platforms such as Meetup, where they present key examples of successful projects and discuss them. These **meetings are key for sharing knowledge, showing Genève Lab's impact and receiving input from projects' stakeholders**. The strong support of the Minister has also been key to the communication aspect. The Minister has been communicating frequently about its mission and activities. Several positive articles covering Genève Lab activities in the local medias have also been recently published. Furthermore, Genève Lab is also setting up a dedicated Facebook page, as well as Twitter and Instagram accounts.

The effectiveness of Genève Lab's communication and media usage is still being enhanced however it showed the potential to raise attention and attract a significant amount of people. For example, the opening event of the Lab attracted over 300 people including citizens, SME's representatives, academics and civil servants. All participants were invited through the Lab's historical communication channels, **mainly e-mails and social networks**.

CULTURAL, BEHAVIOURAL, ORGANIZATIONAL (INSIGHTS)

The position expressed here are the result of research on Genève Lab institutional documents, as well as an interview with Patrick Genoud, from the Genève Lab.

Genève Lab approach to innovation is deeply founded on co-creation processes, under the assumption that the value generated by the innovation process is greater when solutions and services are co-designed with their intended users because they generally better fit their needs and meet their expectations.

The creation of the Genève Lab was supported by the State Government as an instrument and support to realize the government's long-term commitment to sustainable development. Its creation reflects the progressive spreading, across any hierarchical level, of an increased awareness about the need to organize and draw from the co-creation by local stakeholders in order to better address our digital and transformative era and as a way to achieve impactful results. However, such a co-creation mindset is still far to be the norm in Swiss public administration culture.

Different is the case of involved stakeholders, which showed a general trust and openness towards the proposed co-creation process and in general towards the possibility to exchange with the institutions. Switzerland, compared to other OECD States, distinguishes itself for a high level of confidence in its own government(OECD, 2013) and a strong sense of trust for the institutions.

In the context in which the Genève Lab operates, a pre-existent sense of trust of citizens for the institution has been recognized as beneficial especially for the phases of stakeholders' engagement in the new co-creation process. The awareness of this sense of trust influences in turn the institutional approach: that "when working in partnership with private companies on their innovative technologies, we provide them with the legitimacy and trust that comes from working with and for the State, helping them to provide solutions that better fit the needs of their users and guarantee an easier appropriation."

PART 2 -INSIGHTS ON THE CO-CREATION PROCESS

In accordance to the Living Lab approach, every activity of the Genève Lab is driven by a customer (or citizen) centric motivation. The approaches, methods and tools used proved to be suitable for the project. Also the process organization, in terms of timeline, level of effort and engagement, proved to be suitable for the needs of the project and the involved actors.

Concerning the workshops with the academic sectors, the design thinking tools used proved to be suitable, delivering in each case results as good as expected. Concerning the co-creation of the digital policy through an online public consultation, it was **an experiment where new tools and methodologies** for consultations were tested for the first time. In particular, the Genève Lab was the first permanent structure of its kind in Switzerland – whether at the federal, cantonal or municipal level – to support co-creation processes, multidisciplinary approaches and iterative prototyping, and “[they] were very pleasantly surprised by the quality and quantity of the contributions (when compared for example with similar initiatives in France).”

From the start, it was the intention of the Genève Lab to **extend these methodologies to inform and shape policy creation in other sectors**. The success of this first public consultation on a digital platform helped in **creating the needed attention and readiness from other policy contexts to test this type of approach**, and over the past two or three years, more and more public institutions in the region have turned to these ways of doing things (such as in the innovation lab of the Hôpital Universitaire de Genève³⁷, the Hospice Général de Genève³⁸ or the Services industriel de Genève³⁹), relying in particular on design thinking (the approach favored by Genève Lab). **In order to test consultations in other public policies, Genève Lab is currently supporting the implementation of a specific platform**. The objective of the Lab for 2019 is to spread, grow, impact and share.

The continuity of collaboration with a number of identified actors beyond the co-creation experience is recognized in the final report of the digital policy strategy as one of the added value obtained from the co-creation process. A number of pre-existing relationships, such as that with the academic sector, were strengthened by the workshops. For example, following these workshops, the members of the Genève Lab were invited to contribute to the University's digital strategy.

³⁷<https://www.hug-ge.ch/centre-innovation/presentation>

³⁸<https://hospicegeneral.ch/fr>

³⁹<https://ww2.sig-ge.ch>

The willingness to act as a bridge amongst stakeholders is made explicit by the Genève Lab. In its vision, co-creation is a way to empower both civil servants and all stakeholders involved in the projects to enhance their commitment for the success of "their" project, in a virtuous circle. Similarly, the Lab intends to capitalize on the results and feedback of each project, expanding their impact in future projects across the public administration organization.

For what concerns workshops involving the academic sector, the presence of a large and high-quality attendance of experts has proven to be a **critical factor** for the full and good realization of co-creation processes. For this reason, the planning and engagement phase is crucial, and shall be planned with sufficient advance. In the case of the online consultation on digital policy, the lack of support from traditional media (local newspaper did not support the lab's quest for visibility) represented a disappointing element. On the other hand, for all occasions where citizens or public policy final users are involved, the most important factor is to ensure interaction with a diversity of motivated people.

A number of factors have been identified by Genève Lab as related to the success of co-creation processes in policy making:

1. Genève Lab is clearly positioned as being "at the service" of the various offices of its administration. "*We are not the hero of innovation*". On the contrary, they aim to empower project leaders in particular and the administration's staff in general. This posture has given them a lot of credibility.
2. They are continuously working on the Genève Lab brand. This brand gives legitimacy to innovation initiatives in their administration. It also gives confidence to project leaders (even if they do not work directly with them).
3. They are fortunate to be able to rely on a rich and active local ecosystem. This greatly helps them in their activities and helps them to legitimize their existence. A strong support at the highest level is also needed in this context to ensure the legitimacy of the approach.
4. In terms of work culture, they cultivate a posture of humility, curiosity, benevolence, openness, collaboration and mutual support, considering these values as important success factors.

5.5. GovLab Arnsberg

Authors: Christopher Graetz, (TUDO), Tanja Klimek (TUDO), Eva Wascher, (TUDO)

PART 1-CASE DESCRIPTION

GovLab Arnsberg, founded in April 2018, is a **public sector innovation lab** within the District Government of Arnsberg in the federal state of North Rhine-Westphalia (NRW), Germany. The mission of the lab is to test and integrate innovative technologies and new working methods in order to improve and reinvent administrative processes in the public sector. Its focus is on the impact and the core benefits for end-users (citizens as well as administrative staff), which are included in GovLab's innovation processes from the beginning. GovLab Arnsberg has created a network of employees from the District Government of Arnsberg as well as actors from politics, business and civil society. This document analyses as specific initiative the co-creation of GovLab Arnsberg's project on the 'LEADER-Chatbot: Development of a digital regional manager'.

CONTEXT

GovLab Arnsberg, founded in April 2018, is an initiative and organizational part of the District Government of Arnsberg, a central authority of the federal state of North Rhine-Westphalia (NRW) in Germany. The District Government of Arnsberg consists of five independent cities and seven districts with 78 district communities. It has almost 3.6 million inhabitants and covers round about 8 000 square kilometers.

According to the National Organization Act, the District Government is the general representative of the provincial government in its district. The District Government is a **link between ministries, communities and municipal authorities, as well as companies, associations and citizens**. This bundling function makes it possible to coordinate administrative decisions and makes them 'from a single source'.

The wider context of GovLab Arnsberg is closely connected to its major proponent, the former mayor of Arnsberg and current President of the District Government Arnsberg, Hans-Josef Vogel. Already as city director and mayor, he was partly responsible for the modernization of the municipal government in Germany. Among other things, he established the first complaint management of a public administration, understood administration as an agency for civic engagement and organized public local services as co-planning and co-production with citizens as well as private and public actors.

Vogel is a member of the Innovators Club, initiated by the German Association of Towns and Municipalities (DStGB) which deals with strategic future topics of municipalities

such as education, climate, energy, urban development, communication, IT and cooperation⁴⁰. **The Innovators Club is a network of around 40 mayors and district councilors as well as executives from politics, business and science that work together in an interdisciplinary manner.** It is the explicit aim of the Innovators Club to think beyond daily politics and to point out new pathways for public sector administration. The club is thus a platform for the exchange of visions, ideas, experiences and numerous concepts. It intensifies the contacts between public administration, science and industry and thus contributes to integrating innovations into the work of local governments.

Vogel, as well as many other high public sector officials, criticizes that the public sector resists change from outside the system and maintains structures to the inside which are also resistant to change. As President of the District Government, he is in a strong position to set an agenda for public sector innovation. The focus is twofold. On the one hand, **new technologies and digitalization are very important.** Therefore, eGovernment approaches as well as smart city strategies and broadband expansion are relevant innovation topics within the District Government at the moment⁴¹. On the other hand, another innovation focus is **citizen engagement and participation.** Civic engagement is understood as a crucial pillar of society within the federal state of North Rhine-Westphalia (NRW). It includes most of all voluntary work in aid organizations and numerous other non-profit institutions. In addition to the appointment of a civic engagement representative, a federal state engagement strategy⁴² is being developed as part of a participatory process, which should strengthen civic engagement with the participation of all relevant actors through improved framework conditions. The engagement strategy will then be implemented in the District Government of Arnsberg as a high priority⁴³.

Overall, the focus is more on citizen engagement than on citizen participation: formal ways to guarantee citizen participation in policy-making such as petitions and referenda⁴⁴ are present, however, no dedicated strategy is present for citizen participation on the federal state level, which would encourage public sector administrations to make more use of instruments of participative governance.

⁴⁰ <https://www.innovatorsclub.de/innovatorsclub/>

⁴¹ <https://www.bezreg-arnsberg.nrw.de/gigabit/#gigabit>

⁴² https://www.bezreg-arnsberg.nrw.de/themen/b/buergersch_engagement/index.php

⁴³ https://www.bezreg-arnsberg.nrw.de/themen/b/buergersch_engagement/index.php

⁴⁴ <https://www.im.nrw/themen/buergerbeteiligung-wahlen/wie-die-eigenen-anliegen-die-politik-bringen>

ORGANIZATION

Name of the Policy Lab: GovLab Arnsberg

Contact person: Nils Hoffmann

Professional position and organization: Manager, GovLab Arnsberg

Contact email: nils.hoffmann@bra.nrw.de

Webpage: <https://www.bezreg-arnsberg.nrw.de/govlab/>

Country: District Government of Arnsberg, North Rhine-Westphalia, Germany

GovLab Arnsberg, founded in April 2018, is a public sector innovation lab within the District Government of Arnsberg in North Rhine-Westphalia (NRW), Germany. The overall mission of GovLab Arnsberg is to make public administration easier, better, faster and wiser. **New ideas, working methods and solutions are developed, tested and, ideally, implemented.** The GovLab is an experiment in itself, as a tryout that develops iteratively, gradually approaching an ideal state in repeated “operations”, in which innovation is generated. It is a new way of bringing innovation into the public sector sphere. The GovLab is pragmatic, experimental and above all adapted to new challenges such as “digital thinking”. It wants to be a unit that develops future topics for public administration ahead of time. Another feature is the open and inclusive setting. Many different actors work together to develop new ideas and solutions. The GovLab does not work formally, but experimentally and practically, as thematic perspectives and practical experiences are inseparable in the lab. Its focus is on the impact and the core benefits for end-users (citizens as well as administrative staff), which are included in GovLabs’s innovation processes from the beginning. GovLab Arnsberg also works as a kind of “change-agent” within the District Government and beyond. Other objectives of the lab include:

- the development and support of innovative District Government projects
- development and testing of new ideas, methods, tools and solutions
- the support of employees in change processes and turning them into innovators themselves (Supporting the employees “when thinking outside the box”)
- contributing to the government innovation community (regional and international)
- benchmarking: good practice, cooperation and knowledge exchange with digital start-ups, companies, other authorities and science
- networking

To sum up, GovLab is transparent about new governance challenges, develops political awareness, creates a network of innovation partners, has a high risk and thus tolerance of failure. Above all, it stands for a positive future and builds on a positive concept of the

future. As an innovation lab of the District Government of Arnsberg it covers almost all local government topics of the federal state of North Rhine-Westphalia and stands for new governance through interdisciplinary and joint solution finding.

The overall goal of the GovLab Arnsberg is to change the working culture and thinking in administration and politics. Instead of building new labs, this new mindset should arrive in everyday administrative life, so that the overall goal of GovLab is achieved and makes itself virtually unnecessary.

GOVERNANCE

The initial idea for GovLab Arnsberg comes from the President of the District Government Arnsberg and former mayor of the city of Arnsberg. Also inspired by GovLab Austria (see below), he saw the potential of innovative technologies, methods and ways of working to improve or reinvent administrative processes. In addition to coordinating the idea with the Ministry of the Interior of the State of NRW, entrusting an employee with the development and founding of the lab is described as the initial founding moment of GovLab Arnsberg. The start-up phase was a rapid process: first, a project group was organized, which dealt with the basics of such a governance innovation lab and created a first draft. As the structure of the district governments in NRW is determined by the Ministry of the Interior of the federal state of NRW in agreement with the concerned departments, Govlab Arnsberg as a new structure within the District Government had to be approved on that level. The Ministry of the Interior was open to the idea, so GovLab was included as an “innovation lab unit” in the organizational chart.

Nils Hoffmann was commissioned with the development, foundation and management of GovLab Arnsberg as an innovation tool for the District Government. Although the President of the Government is officially responsible for the GovLab, the lab manager is given a lot of freedom and responsibility as head of the lab. Thus, the decision about possible lab activities and projects is up to him. However, these are discussed in weekly *jour fixe* with the President of the District Government. Overall, the collaboration is very cooperative. A basic attitude of the GovLab is that the **projects are free of hierarchies** and that *“you cannot get on alone”*. New ways of cooperation include interdisciplinary project groups and open methods such as design thinking. A strong network of employees of the District Government Arnsberg as well as actors from politics, business and civil society form the basis of partnerships. In addition, the

partner network enables a mutual exchange of experience in the field of innovation and digitization.

Because GovLab Arnsberg is a unit of the District Government Arnsberg it does not have its own budget but can rely on the central budgets like other departments. These consist of tax money, which makes cost-effective work important. In the beginning, the lab manager was the only resource directly allocated to the GovLab. The GovLab team does not aim at getting a relatively high fixed budget but **emphasizes the importance of a zero-budget approach for innovative processes**. This means that ideas and themes for GovLab processes have to be prepared in a way that they can show their potential for bringing solutions to specific problems. Eventually, a budget is allocated to conduct a GovLab process. The actual resources are the full-time position and commitment of the current lab manager, his team of two employees which has been formed during the last months and the strong backing of the President of the Government District.

The lab manager has previous work experience in the banking sector. Thanks to this, he was able to bring in a lot of new knowledge to the District Government and was thus able to change and modernize things in the fields of programming and administrative mechanisms. Before working in the GovLab he was responsible for managing grants at the department of rural development within the District Government of Arnsberg. His **skills in agile ways of working and service design** are beneficial for working in the GovLab. Concerning the composition of the GovLab team, it was important for him that the staff came from within public administration in order to be **well versed in internal structures, well networked and pragmatic**. For the current qualification phase, necessary competencies are to be built up in the following fields: **moderation, facilitating and project support, design thinking and agile project management**. It is also planned that one employee will do a Scrum Master qualification. The other employee, who is more responsible for coordinating tasks, could build up further competences in the field of content design (text and advertising design). Considering career opportunities and paths of the lab staff is an important concern of the manager because he wants motivated and communicative employees.

The GovLab unites a **variety of actors from different fields**: employees of the District Government Arnsberg, from politics, the economy, civil society and science. They all bring different perspectives and experiences, which can be called a 'cross-pollination' or 'cross-innovation'. The **user-centric focus** is fundamental for the work of the GovLab Arnsberg. **End users, are included as experts from the beginning**. GovLab Arnsberg does

not only frame citizens living in the District of Arnsberg as end-users but also all employees of the District Government and its corresponding public authorities.

In the network, the partners profit from each other's experience in the field of innovation and digitization. A close exchange of knowledge and experience as well as support through shared activities, takes place on international level with other public sector innovation labs such as the GovLab Austria (see below), the La 27e Region-Paris (see below) and the Lab in Barcelona (see above). But also with various networks such as Nesta-UK, European Network of Living Labs, the state initiative Future Berlin and universities. Further partners are the companies 'TRILUX Simplify Your Light', 'ORBIT' and 'Insight', the newspaper 'Westfalenpost' as well as the Ministry for Children, Family, Refugees and Integration and a local research project about municipal social innovation labs (KoSI-Lab). The GovLab Arnsberg is open for exchanges with other companies, NGOs, administrative institution, *etc.* who are engaged in innovative projects to create new collaborations and partnerships.

PROCESSES AND TOOLS

As described above, innovative technologies, methods and approaches, such as agile working methods and project management, service design, moderation, facilitation and, above all, design thinking, play a very important role for the processes in the GovLab Arnsberg. However, there are no fixed specifications in the project work. Rather, each project is considered individually and flexibly. **Suitable approaches and methods are chosen in relation to the problem/challenge.** However, it is notable that agile approaches, customer orientation and joint testing and prototyping usually lead projects to fast successes. In the spirit of design thinking, **it is important that the project groups are as interdisciplinary as possible and that users are involved right from the start, open and free from hierarchies.** It is important to create a safe-space so that there is enough freedom to "just do", making everyone aware that "every step counts" and that mistakes are important for learning processes. The GovLab as an innovation lab itself is an experiment that develops iteratively. It experiments, tries, verifies, improves step-by-step, iteratively, uses preliminary solutions, and adds new details. **Processes carried out and the tools and methods used are critically reflected in the end so that new findings and learnings emerge from each project.**

New technologies and digitization are important for GovLab Arnsberg in different ways. The development of today's society and the economy is strongly influenced by the process of digitization. New technologies and practices are increasingly influencing

everyday life and more and more social processes are being transferred to the internet. This applies especially to all citizens of the District Government as well as the administrative staff but also other actors such as companies that need to be supported in order to be able to cope with all chances and challenges of digitization. Therefore, modern and new technologies are an essential and decisive factor for the co-creation processes and for the achievement of the overall goal of the GovLab Arnsberg. New technologies are used, but also (further) developed for the use of public administration. The work of GovLab includes new formats such as video tutorials about administrative procedures for new staff of the District Government. Furthermore, in the project 'Administration Programmed', employees without any programming knowledge created their own tools that make every day work easier and more comfortable. Employee empowerment is the focus. Several applications have already been produced, such as the automatic generation of grant notices or automatic controlling reports for the authorities. A slim, lean and simple toolbox with different project management tools will be created for project leaders in the Government District. The 'Augmented Reality Day', where trainees and experienced employees discussed technologies, ways of working and projects, resulted in over 20 potential pilot applications for augmented reality. Further projects are still in planning.

LEADER-Chatbot: Development of a digital regional manager

All content of this case study description comes from the referenced online sources as well as two interviews with Nils Hoffmann, manager of GovLab Arnsberg.

GENERAL DESCRIPTION

Name of the Initiative: LEADER-Chatbot: Development of a digital regional manager
Website/ link: <https://www.bezreg-arnsberg.nrw.de/govlab/index.html#about>
Location: District Government of Arnsberg, North Rhine-Westphalia, Germany
Initiative Domain: eGovernment
Starting and ending date of the initiative: June 2018 - ongoing

The LEADER-Chatbot is the first pilot project by GovLab Arnsberg. The Chatbot has the purpose to distribute information about the LEADER programme and funding. On an algorithmic basis, information about documents, formal requirements and basic information can be requested. LEADER⁴⁵ is an instrument of Community-Led Local Development (CLLD) within the European Union. It provides a local development method that has been used for 20 years to engage local actors in the design and delivery of strategies, decision-making and resource allocation for the development of their rural

⁴⁵ https://enrd.ec.europa.eu/leader-clld_en

areas. In the rural development context, LEADER is implemented under the national and regional Rural Development Programmes (RDPs) of each EU Member State, co-financed from the European Agricultural Fund for Rural Development (EAFRD). The programme is implemented by around 2 500 Local Action Groups (LAGs), covering over 54% of the rural population in the EU and bringing together public, private and civil-society stakeholders in a particular region. The Ministry of Environment, Agriculture, Nature and Consumer Protection of the State of North Rhine-Westphalia (MULNV NRW) supports the merger of rural communities into LEADER regions in the current EU funding period 2014-2020. In NRW, 28 regions have been selected by an expert jury and are recognized as LEADER regions. In the District Government of Arnsberg are eleven of the recognized LEADER regions. For example, around 28 million Euros are available to rural areas in the District Government through the LEADER funding program. The development of LEADER regions is supported and implemented by local action groups (LAG). The Local Action Groups are often non-profit associations. They decide which projects are funded and steer the implementation of the regional development concept⁴⁶. To support the work of the local action groups (LAG) regions set up a business office, which is home to the regional management. The regional managers perform the following tasks:

- Advising project promoters on project funding
- Accompaniment of project development and implementation
- Support of the honorary acting executive committee
- Preparation and follow-up of the meetings of the board and the competence groups
- Public relations
- Initiation of cooperation with other regions
- Preparation and implementation of internal monitoring

However, the regional management does not decide whether a project is funded or not. This decision is taken exclusively by the Local Action Group (LAG). Furthermore, The District Government of Arnsberg (Department of Rural Development) has to support the decision of the LAG and finally issues the grant decision.

In order to enhance distribution of knowledge about the LEADER programme and to support the regional management in giving information about funding, project requirements etc. the process 'LEADER-Chatbot: Development of a digital regional

⁴⁶ https://www.bezreg-arnsberg.nrw.de/themen/f/foerderprogramm_leader/index.php

manager' was initiated by GovLab Arnsberg. Regional managers of the LEADER programme, employees of the Department of Rural Development of the District Government and GovLab Arnsberg have worked together to develop the tool. The virtual chat partner (robot) responds to a wide variety of questions, e.g. generates answers to the LEADER funding process. The Chatbot can be used in social media and websites of the LEADER regions used by whomever needs information about the programme. The bot is currently in the testing phase and usable on several websites⁴⁷.

GOVERNANCE

The process 'LEADER-Chatbot: Development of a digital regional manager' was initiated by GovLab Arnsberg (top-down approach). GovLab is part of the District Government and has chosen the chatbot project on its own account. In particular, the decision to work on the chatbot project was made by the GovLab manager with permission from the President and the Vice-President of the District Government Arnsberg. The problem framing started with the question **which new technologies could be helpful for addressing eGovernment processes**. It was agreed to have one pilot process on one concrete technology and to develop and test it within one of the departments of the Government District. After a research phase, the chatbot technology was chosen for the pilot process, because it is quite a simple technology and can be easily helpful as a communication tool for public administration. Because of his previous work in the Department of Rural Development, the manager of the lab contacted several former colleagues as well as regional managers of the LAGs to discuss the idea of developing a chatbot. Soon, the LEADER programme was chosen as a testbed for the chatbot.

A very small budget was allocated to the process. Finally, only 60 € were used including the cost for the tool to create the first prototype. LEADER Chatbot was the first innovation process conducted by GovLab Arnsberg. The whole process was initiated because working on a 'LEADER Chatbot' could be realized with only a small number of stakeholders in a very short time frame and with highly likely successful results under a small budget.

STAKEHOLDERS LANDSCAPE

After the decision to work on a chatbot for the LEADER programme was made, the head of the lab invited several colleagues and regional managers in the Local Action Groups (LAG) to join the process. The employees of the District Government could only join the

⁴⁷ <https://www.leader-5verbund.de/>

process following a permission of the head of the Department of Rural Development. It was agreed that the employees could spend one full working day for the kick-off of the chatbot process. The group of participants was kept small on purpose to create an experimental safe-space for developing a rather new idea. The regional managers of LEADER have first-hand experience regarding the needs of the people who want to receive funding. The employees of the Department of Rural Development are responsible for the funding of the programme so they decide who is eligible for it and from their experience they know what kind of questions are frequently asked regarding the funding. Intentionally other relevant departments were kept out of the process such as data protection and IT.

Overall, the chatbot-group consisted of the following stakeholders;

- Manager of GovLab Arnsberg as organizer and facilitator;
- One Employee of the Department of Rural Development, responsible for the LEADER programme with long-term experience in the field within the Department, female, senior/close to retirement;
- One Employee of the Department of Rural Development, responsible for the LEADER programme with expert knowledge on complex project grants, male, relatively young, high affinity to digitization, has work experience in other public administrations;
- One Trainee of the Government District, female, student, new to the field, bringing in 'out-of-the-box thinking';
- One Regional manager of one LAG in the North of the Government District, female, geographer, relatively young;
- One Regional manager of one LAG in the South of the Government District, female, geographer, relatively young;
- One Regional manager of one LAG in the Ruhr Metropolitan area, female, relatively young, Urban and Regional planning;

Motivations on the side of the regional managers of the LAGs:

- Intrinsic motivation to become more innovative as being a promoter of innovation in the region; and
- Extrinsic motivation to minimize work-load especially for first consultations about the LEADER programme if interested applicants can use the chatbot for first information.

Motivations on the side of the District Government staff:

- Intrinsic motivation to become more innovative;
- Extrinsic motivation to gain a “qualification note” for participating in an innovation process of the GovLab in one’s personal records/file.

In general, the group of stakeholders was kept small on purpose to create an experimental safe-space. Furthermore, in preparation of the innovation process, the GovLab manager decided to start off the project with only 5-8 persons for the pilot design thinking workshop. Nevertheless, the group was quite diverse (Heterogeneous gender, age and professional backgrounds; high and low affinity to new technologies; people with only few and also a lot of experience with LEADER). The group knew each other before. There was a trustful relationship and all members of the process were highly engaged with it.

PROCESS STRUCTURING AND ENGAGEMENT

The manager of GovLab decided to apply Design thinking to the development of the Chatbot and prepared the workshop on his own. The goal was to get to a first prototype fast within the time-frame of one day. The first stage of research was to find out what kind of tool was suitable to easily create a chatbot without knowing how to code (all persons involved in the process including the manager of GovLab are interested in IT but no IT professionals). Soon, an editor tool was found and bought by the manager. The second research stage was concerned with the design of the workshop. Knowing that it would have to be suitable for a one-day time-frame and simultaneously taking into account the main principles of design thinking, the manager of GovLab created a three-step design process 1) Building empathy, 2) Idea development, 3) Prototyping.

1) Building empathy

On June 28 2018, a first workshop for the development of the ‘LEADER-Chatbot’ took place. The workshop was facilitated by the GovLab manager. The first step of the process was called “*Building empathy*”. As a **method to gain insights on the end-user perspective, different ‘personas’** (fictional character to represent a user type) were created with questions like: What do applicants for LEADER want to know when applying? What is good about the application process? What needs to be improved about the application process? Furthermore, the group constructed a ‘customer journey’. This is a method that reproduces all single steps a person has to take in order to get from an idea for a LEADER project to a successful LEADER grant.

2) Idea development

The second phase of the workshop was about *“idea development”*. With empathy-building exercises as a basis the group had to form first ideas about what a suitable chatbot would be and would look like. What would applicants like to use? What would they like to see? What functions should the chatbot be able to perform? What kind of language should be used? Should applicants be addressed formally (using *“Sie”* formal you) or informally (using *“You”*)? What kind of design would be appealing? Should different communication tools be used such as videos and text? What kind of background knowledge can be assumed? All ideas were written on post-its and were clustered. There was a fruitful, open and productive discussion and the group came soon to concrete directions within the discussion process. Following that the group worked on ‘terms’ that should be used for/explained by the chatbot. What do people want to know? A list of about 100 terms was created.

3) Prototyping

The third phase of the workshop *“Prototyping/Solution development”* consisted of three groups to create the first prototype. One group worked directly with the chatbot editor tool. The other group worked on a computer. Using all collected ideas that had been developed throughout the day, the groups wrote explanations that could be used by the chatbot. At the end of the day the chatbot prototype contained about 60 questions with corresponding answers. With the “showmode” function of the chatbot editor tool, the group was able to directly see the prototype at work. This contributed to the general perception of a successful workshop and a worthwhile cooperation among participants.

After the workshop the participants agreed to further develop the chatbot (e.g. bring in more explanations, editing, looking for ways of implementation).

Furthermore, the chatbot prototype was presented to the President of the District Government and the Vice-President and received recognition. Moreover, the management level of the District Government was also convinced and it was agreed that the involved employees were allowed to spend further working hours on the chatbot. All participants received access to the editing tool and were able to work on the chatbot on their own accounts for refinement of the chatbot. Two of the regional managers agreed to test the chatbot on their LEADER websites about four weeks after the chatbot prototype. Technical implementation was easy and could be done by the GovLab manager. He developed a data protection note for the chatbot on the respective websites as well as an info tag that the chatbot was in its beta version (therefore no guarantee could be given to the correctness of answers). The regions had to pay to use the chatbot

tool with about 15 € and to be official partner of the chatbot service provider. After a couple of weeks, the lab team decided together to make the tool available to all LEADER regions. The lab team prepared a presentation for all regional managers at a conference at the federal state Ministry of Environment. Regions could use the chatbot if they agreed to share some of the cost, because the chatbot service gets more expensive if more people use the bot. The discussion went live and most regional managers seemed interested. After one year, eight regions have taken up the chatbot for their LEADER websites.

POLITICAL INFLUENCE (INSIGHTS)

GovLab Arnsberg as a part for the regional government has the political decision-making power to lead and coordinate the project. The pilot project about the chatbot resulted from a “new technology and digitization” interest of the President of the District Government which sees it as one of the big challenges for public administration but also for citizens. Therefore, the first innovation process of GovLab Arnsberg was connected to issues of how to implement new technologies in the work of the public sector.

The biggest impact of the pilot process was a contribution to cultural change within the public sector. Now, there is much more acknowledgement of a user-centric perspective among the actors that have been involved in the process. For example, after one year of the ‘chatbot process’ the regional managers have much more detailed knowledge about the diverse field of their users, e.g. LEADER applicants. This results in a continuous refinement of the chatbot which contains already about 2500-3000 questions and answers. Furthermore, the data generated within the chatbot process creates possibilities to improve consultancy on the side of the regional managers regarding the LEADER programme as well as configurations of the LEADER funding programme at the Ministry. On the other hand, applicants can learn very quickly if their project ideas fulfill LEADER funding requirements or not. This saves a lot of consultancy work for the regional managers, too. GovLab Arnsberg can present the ‘Chatbot process’ as an **innovative and co-creative solution** and use it for advertisement about their **approach to public sector innovation**. The Chatbot is a best practice example for digital development, innovative ideas and agile problem solving in the District Government. Furthermore, thanks to the Chatbot, the partners involved (specifically the GovLab) gained knowledge and experience for co-creation and innovation. Co-Creating this project saved time and money, especially in regards of consulting.

MEDIA AND COMMUNICATION

Concerning internal communication there was no special project management tool used. The lab team received updates on the process by e-mail from the GovLab manager. For external communications Twitter was used to distribute information about the Chatbot, e.g. about the kick-off workshop and the start of the beta phase. Furthermore, the project is presented on the GovLab website⁴⁸. There are some articles written on several websites which are directly or indirectly linked to the LEADER programme, like official websites from regional authorities.

Another important impact is the publicity that has been created with the chatbot itself. Regional newspapers have had several articles about the tool. One journalist even interviewed the chatbot. Overall, the regions, Local Action Groups as well as the LEADER programme received a lot of attention and free advertisement through the ‘GovLab chatbot process’. Furthermore, **the GovLab process was praised in the media as a best practice example of innovation in the public sector.**

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

In general, due to the strong mandate for the process by the President of the District Government the ‘Chatbot innovation process’ went rather smoothly without having to overcome huge cultural, organisational or behavioral barriers. Though, the adaption of design thinking for the short time frame resulted in a drawback. For two reasons end-users were not involved in the LEADER chatbot pilot process. On one hand, the time frame did not allow for more research and engagement of end-users. On the other hand, the involved public officials should be able to work in a safe space with high trust among participants and they might not have felt secure and confident enough to work with applicants. Therefore, in this pilot process, other external stakeholders had not been involved on purpose to enhance acceptance for the process among the participating stakeholders and to “make things easier”. As a lesson learnt, the manager of GovLab would not repeat the process in the same way. For example, the *“persona method”* was useful to create imaginations about possible users but it cannot fully substitute for *“real opinions”* and *“real knowledge”* of end-users. In effect, the chatbot prototype contained a lot of technical terminology which has been continuously replaced with “simple language” when integrating feedback from real users of the chatbot. If it was possible to involve applicants or successful applicants in the process from the beginning, this would probably have had an impact on the wording and questions used in the chatbot. As a consequence, the LEADER chatbot was the only GovLab process without active

⁴⁸ <https://www.bezreg-arnsberg.nrw.de/govlab/>

involvement of end-users. In other GovLab processes end-users have been involved resulting in positive outcomes.

“Working around public official’s habits” played a role in another instance as well. During the regional manager’s conference one of the first questions that came up concerned the “mandate of the process” and the GovLab manager was asked by an employee of the District Government whether he had permission from the ministries to work on that topic. Interestingly, the LEADER Local Action Groups are independent entities that do not stand under binding guidance by the Ministry of Environment, Agriculture, Nature and Consumer Protection of the State of North Rhine-Westphalia (MULNV NRW). Therefore, they are free to decide if they would like to use the tool or not. Furthermore, the GovLab manager did not want to involve too many levels of decision-making within the District Government and the ministries, especially if these levels were not absolutely relevant to gain a mandate/permission to work on the chatbot idea. Usually, departments within the District Government are agents of the federal state ministries. They conduct what has been commissioned by the ministries. Therefore, developing a LEADER tool within GovLab Arnsberg without involving different levels of decision-making in the respective public administrations was on one hand unusual but, on the other, very effective in creating a prototype in a short time frame. One can assume that asking for too much permission could have stopped the process. This also contributed to a relatively low staff budget, because a lot of potential decision makers had not been involved. Staff hours converted to paid salary would have been much higher if the process would have been managed in the traditional way of following all hierarchies within public administration. In the end, the Ministry of Environment was open to the usage of the chatbot tool for other regions.

Trust among the participating institutions was very important. Especially because the tool that was used to create the Chatbot could not have been officially bought by GovLab due to data protection issues of the Government District. Therefore, the group of stakeholders had to find other ways to gain access to the tools they needed for the process. Fortunately, one of the participating regions stepped in as a third party that was allowed to purchase the tool.

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

In a reflection on the process, the manager of GovLab Arnsberg stated that creating a spirit for innovation among all participants is much more relevant to the overall mission of bringing innovation to government than to stick to a certain innovative method that is

applied. The mission for the first flagship-process, the LEADER Chatbot, aimed at being fast, rather small in terms of relevant stakeholders and cost-effective. All requirements on the process have been met. The methods and tools used for the project were appropriate. Timeline, level of effort and engagement of the participants were also suitable for all actors involved. The first design-thinking process for LEADER Chatbot only needed one day until there was a first prototype. Furthermore, after the process was successfully implemented the GovLab team requested an offer from professional consultancies for doing the same innovation process. If the process had been outsourced to a professional agency it would have been much costlier than the in-house solution. Overall, only 150 € on material costs have occurred and about 10-12 full days of work spent until roll-out of the chatbot.

Impact has also been achieved on the political level. Especially on management level within the District Government people learned what *“software as a service”* means. For example, using cloud services to gain fast, cost-effective and easy performance for different tasks. This contributed to an acceleration of eGovernment discussions within the public sector. As one example, the Chief Information Officer (CIO) of the Ministry of Business Affairs supports a cabinet draft concerning the usage of cloud services for eGovernment processes. So far, it is not allowed to use cloud services within public administration in the federal state of North Rhine-Westphalia (NRW). The LEADER Chatbot process proved that using GovLab Arnsberg’s thinking and acting about innovation in the public sector yields good results and creates competencies in-house which are required for modernizing policy-making and implementation. Using innovation methods enhances the knowledge about end-users (citizens as well as administrative staff) within bureaucracies. This can support knowledge-based decisions.

Data protection was a major barrier in developing the chatbot. For example, two regions were interested in the process but declined to implement the chatbot due to data protection issues. The problem of data protection seems to be rather in an attitude of risk-averseness to try a new tool without having a legal statement that secures data protection specifically for the chatbot tool. Though, during the whole chatbot process, no claim against data protection violations has been put forward against GovLab Arnsberg.

As an advantage the project was strongly promoted from the beginning and continues to receive a lot of backing by the President of the Government District. According to the President, public administration as a linear organization does not have the means, attitude or perspective needed to disruptively change their own products or services.

The behavior and the task are more oriented towards becoming bigger and bigger. Therefore, it is necessary to find ways to bring innovation to the public sector.

According to the GovLab manager, it is difficult to evaluate the work, as the development and testing of new measures are in focus. Nevertheless, it was provable that the lab builds up very fast powerful knowledge, which would otherwise have to be purchased externally and expensively. The innovative way of working gives a better reflection and a better involvement of the actual users so that ideas can be directly checked for their functionality. Projects are generally documented with a project management tool, so that, for example, the staff and budget used are tracked. Input factors are therefore easily verifiable in contrast to the output factors, which are very project specific. By getting the knowledge building in-house, GovLab Arnsberg can spare externally purchased knowledge. The overall goal of the GovLab Arnsberg is to change the working culture and thinking in administration and politics. Thus, it would be desirable for the manager of the lab, *“[to] close the lab in a few years”*. Instead of building up new labs, this new mindset should arrive in everyday administrative work so that the overall goal of the GovLab is achieved and makes itself virtually unnecessary.

5.6. GovLabAustria

Authors: Christopher Graetz, (TUDO), Tanja Klimek (TUDO), Eva Wascher, (TUDO)

PART 1- CASE DESCRIPTION

GovLabAustria is a public sector innovation lab operated by the Austrian Federal Ministry for the Civil Service and Sport and the Danube University Krems. It is an interdisciplinary laboratory fostering innovation in the public sector through collaboration between experts from the Ministry of Civil Service and Sport, the Ministry for Digital and Economic Affairs as well as experts for E-Government and knowledge- and communication management of the Danube-University Krems. GovLabAustria should make it possible to address central public sector challenges in an open and interdisciplinary experimental space and to develop cross-organizational approaches to solutions involving the respective relevant stakeholders in a scientific and practical context. This document analyses as specific initiative the co-creation of GovLabAustria's project about "Transparency and Participation in Legislative Enactment Procedure".

CONTEXT

GovLabAustria is a public sector innovation lab operated by the Austrian Federal Ministry for Civil Service and Sport (Federal Performance Management Office and Department for Strategic Public Administration Management and Civil Service Innovation) and by the Danube University Krems, department of E-Government. Both institutions have a long history in finding ways to bring innovation to public administration and both have experience in interdisciplinary and collaborative partnerships. The expertise of science, industry and civil society represents a great potential for Austrian administrative and government work. If, for example, charitable organizations are considered, a total of 236 000 people are employed in Austria in this area and 28 percent of the population are formally volunteers at a non-profit organization⁴⁹. Many of these organizations work on societal issues and develop innovative solutions to present and future challenges. Transparency and participation are two essential principles of good governance. In order to put these principles more in the focus of its activities, the Austrian Federal Government has formulated in its work program the goal of "better integration of civil society organizations in political decision-making processes". Cultivating a "more transparent and open design of the legislative process" has been agreed upon. In doing so, it also addresses the improvement potentials identified by the OECD in the area of the transparency of assessment processes and the

⁴⁹ <http://www.govlabaustralia.gv.at/projekt/rechtsetzung/>

involvement of civil society at the earliest possible date, for example, in advance of an official assessment procedure.

New media has revolutionized communication in the private and corporate sectors in recent years. As part of E-Government, the public sector is increasingly using digital communication technologies. In the area of legislation and publication, different systems are used in Austria. However, these systems (Regulatory Impact Assessment IT Tool, Legal Information System RIS, or the homepage of the Austrian Parliament) are only partially networked or integrated into a structured and transparent IT-based legislative, review and publication process. In addition, there is potential for optimization in particular with regard to the accessibility of relevant information and the possibility of a structured and transparent introduction of external expertise, in the sense of participatory legislation.

The Federal Performance Management Office and Department for Strategic Public Administration Management and Civil Service Innovation within the Federal Ministry for the Civil Service and Sport works on several core activities related to innovation in public administration such as performance and innovation management as well as better regulation. The department mainly focuses on activities such as process and project development, quality assurance, consultation and dissemination (circulating knowledge about innovation in administration). Other tasks of the department are on one hand the CAF, i.e. Common Assessment Framework. This is a self-assessment tool that is used to start and monitor innovation processes in administration. The other issue is "knowledge management" in administration due to the challenge that the public service in Austria will lose 50% of its employees to retirement over the next 13 years. Furthermore, following the introduction of a new impact-oriented budgeting and management framework at the federal level of government, a shift in the working mode from input-focus to outcome-focus had to be administratively accompanied.

The introduction of the new budgeting and management framework ("Wirkungsorientierung"), starting in 2013, and encompassing over 130 000 civil servants, was an extremely resource consuming process, that was managed by this department. Other topics, especially 'innovation topics' such as digitization, new services for citizens, new administrative processes, new working methods and new cooperation were second in line. In other words, there was a lack of capacities to cope with new themes that would determine the future of public administration.

Additionally, public sector specific innovation barriers arose and they needed to be overcome. These includes legal frameworks, budget restrictions, risk sensitivity and a risk-averse culture as well as silo-thinking, pressure on impacts, barriers in competence, capacity and/or willingness and a missing focus on end-users.

Fortunately, using **impact orientation as a strategic goal for public administration** opened the gate for looking at possibilities to re-think and re-design processes. Within the impact orientation framework, the scope of individual employees to work on their own account became visible. And this could be used to promote innovation in administration and to design new processes. Furthermore, a long history of cooperation between the Department for E-Governance and Administration at the Faculty of Business and Globalization of the Danube University Krems helped to form the idea of a GovLab.

ORGANIZATION

Name of the Policy Lab: GovLabAustria

Contact person: Mag. Alexander Grünwald, MPA

Professional position and organization: Performance Management & Public Sector Innovation (Head GovLabAustria), GovLabAustria, c/o Bundesministerium für öffentlichen Dienst und Sport, Hohenstaufengasse 3, A-1010 Wien

Contact email: govlabaustralia@bmoeds.gv.at

Webpage: <http://www.govlabaustralia.gv.at>

Country: Austria

Initially, GovLabAustria was developed within the Federal Chancellery of Austria. It was planned to create an advisory institution, an innovation unit, for public sector innovation. By that time, the Division of Impact Management & Administrative Innovation was part of the Federal Chancellery and a few actors within that department saw the potential of creating a laboratory that was dedicated towards experimenting with new methods for administrative innovation. There was an initial moment when the public service staff of the Department for Administrative Innovation of the Austrian Chancellery met like-minded people working on public sector innovation. Especially, the exchange with the German University of Administrative Sciences Speyer led to a reframing of the idea of starting a GovLab. Together with the Danube University Krems and the Strategic Head of Digitization in the Federal Government of Austria, at that time, it was agreed to set up an **innovation laboratory**. Within a very short time frame the team began to set up processes, projects and structures for GovLabAustria (without having extra resources available).

The overall mission of GovLabAustria is to build an ecosystem of innovation. It bridges new partnerships and new stakeholder constellations between different fields of expertise and opens up a new realm of interaction. This helps to overcome silos and boundaries and enables collaboration and co-creation. Furthermore, GovLabAustria provides a safe-space for experimentation which includes possible failures. It sees itself as an experiment. The conceptualized governance model (e.g. sounding board, leading board, management team) is subject to change. It might fail as a whole and this failure would be a legitimate outcome.

The lab is operated by the Danube- University Krems and the Austrian Federal Ministry for the Civil Service and Sport, Federal Performance Management Office and Department for Strategic Public Administration Management and Civil Service Innovation. The governance model is defined in a “Memorandum of Understanding” of the two contracting parties. The “Memorandum of Understanding” includes the statement of the mission and overall goals of GovLabAustria. It is a **non-profit entity which creates space for experimentation to solve challenges of the public sector in interdisciplinary, cross-organisational, cross-sectoral, multi-perspective ways.** Furthermore, the Memorandum of Understanding describes the methodological approaches used by the lab as well as its core tasks and services and resources that are provided by the contracting parties.

The governance model of GovLabAustria consists of a sounding board, a leading board and a management team. Members of the sounding board have an advisory role. The board consists of representatives from administration, science, business and civil society (25 people). The sounding board evaluates current projects of the GovLab and discusses ways of implementation: e.g. are projects on the right path? What is missing? Are projects going too far away from current needs? Furthermore, new project ideas are discussed with the sounding board.

The Leading Board is the strategic steering committee of GovLabAustria. It consists of six people. It is headed jointly by the rector of the Danube University Krems, Friedrich Faulhammer, and Angelika Flatz, Director General for the Civil Service and Public Sector Innovation in the Austrian Federal Ministry for the Civil Service and Sport. The Leading Board also includes members of the founding team of GovLabAustria, e.g. Ursula Rosenbichler, Roland Ledinger (who is now in the Federal Ministry for Digital and Economic Affairs) as well as Peter Parycek and Gerald Steiner (Danube University Krems). This is the strategic management committee. It meets once a quarter. In order

to make communication easier, telephone conferences are used to coordinate activities among the Leading Board team. This is where the central strategic decisions are made such as for new cooperation partnerships or budgetary issues. Every overarching management decision is made in the Leading Board. It is important to note that all decisions are to be made unanimously. This ensures that all actions are done in equal consent without the risk of disadvantaging one of the parties. GovLabAustria wants to ensure that decisions are only taken jointly and that is why unanimity is required. Furthermore, the double structure of representing both contracting parties at all levels of the GovLab is an essential governance principle.

The management of the GovLabAustria office runs the current affairs of organisational unit on behalf of the Leading Board. The Leading Board and head of the office represent GovLabAustria externally. The head of the office is also jointly shared by one person from the Federal Ministry, Alexander Grünwald, and his colleague at the Danube University Krems, Bettina Höchtl. 25% full-time equivalents run into coordination of the office from each partner. As there is a considerable need for coordination, the head team has set up a process of defining job descriptions for all roles and functions of the lab. The skills present in the team are very heterogeneous. The team is composed by members of the Danube University Krems as well as the Department for Strategic Public Administration Management and Civil Service Innovation within the Austrian Federal Ministry for the Civil Service and Sport. This brings together scientific knowledge, especially regarding e-Democracy, with knowledge from public officials, especially about innovation in the public sector regarding 'better regulation'. The GovLab Team does not have an individual budget but uses equal budgets provided by the two contracting parties. It is the task of the administrative head of GovLabAustria to monitor that both parties provide resources equally. GovLab resources do not include staff costs as these are managed by the two institutions without a shared budget. Overall, the lab has one and a half fulltime equivalent positions distributed among several employees. Resources provided for GovLab include a budget for the website, workshops, IT-tools and other non-personnel costs related to specific projects of the lab.

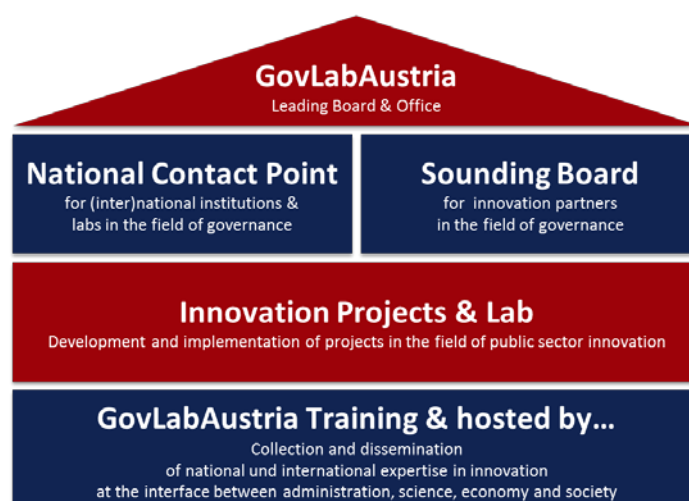


Figure 22 - GovLabAustria four major duties

The objective of GovLab is not to work on any immediately relevant topic but to work on big societal questions. Furthermore, the lab supports cultural change within public administration (Figure 22). It acts as the central innovation and research hub of the Austrian federal government in the field of governance and public sector innovation. GovLabAustria offers different stakeholders a platform fostering intersectoral collaboration, peer-learning and implementation of innovative projects. GovLabAustria facilitates national and international networking in the field of public sector innovation. Its central objective is to support international knowledge transfer and access to international expertise and resources. Current innovation lab projects cover the areas of **knowledge management, digitalization and participation**. To enable different stakeholders to collaborate in an open, modern and safe environment GovLabAustria offers facilities at the Impact Hub Vienna to all of its partners. Impact Hub Vienna is part of the international Impact Hub network and provides one of the world's largest networks focused on building entrepreneurial communities to work on the public good⁵⁰. Impact Hub Vienna has over 500 community members and connects social entrepreneurs, investors, supporters and other actors of the social innovation ecosystem in the city and region⁵¹.

Additionally, to safeguard the dissemination of knowledge, promote innovative projects, processes and methods and to foster the cultural change across the public sector and beyond, GovLabAustria Training offers a variety of workshops, seminars and events in

⁵⁰ <https://impacthub.net/>

⁵¹ <https://vienna.impacthub.net/>

collaboration with the Danube-University Krems, the Federal Academy of Public Administration and other institutions⁵².

GovLabAustria emphasizes that government innovation also means governance innovation in the sense that **innovation processes cannot entirely be developed within the public sector system but have to include diverse perspectives from outside the public sector**. Cooperation with all societal sectors (public sector, science, private business and organised civil society and citizens) is aspired in terms of creating an “Alliance of the willing” for public sector innovation. Cooperating institutions include Impact Hub Vienna, Science transfer Center Danube university, Nesta, NYU Govlab, OECD Observatory of Public Sector Innovation (OPSI), Joint Research Center of the EU Commission, GovLab network of innovators, Hertie School of Governance, WU (Vienna University of Economics and Business).

PROCESSES AND TOOLS

GovLabAustria targets central challenges of the public sector, looking for intersectoral approaches while integrating relevant stakeholders in an academic and practical context in an open and interdisciplinary experimental space. The core targets of GovLabAustria are the prototypical implementation of research and development projects in the field of public sector innovation and evidence-based policy making, international observation of innovative projects, methods and solutions in and beyond the public sector, the establishment of a National Contact Point for innovation labs in the public sector, the integration of expertise from administration, academia, private sector and the public, as well as the dissemination of knowledge through education, training and communication. The work of GovLabAustria focuses on future-relevant issues, using citizen-oriented solution approaches in the context of an open “experimental space” and taking advantage of innovative methods in a problem oriented way. All relevant dimensions, encompassing administration, political system, social system and private sector, are being considered. The team culture of GovLabAustria is based on the principle of a “free room of interaction”; it operates on the following core principles: not part of existing hierarchical structures consensual decision-making with a focus on free discourse, exchange of opinions and cooperation, cooperation is experimental and future-oriented, periodic reflection and impact assessment focused on process improvement and organizational learning.⁵³ The work of GovLabAustria is done on a project-to-project basis. GovLabAustria works together with different partner institutions across sectors

⁵² http://www.govlabaustralia.gv.at/wp-content/uploads/GovLabAustria_Information_EN_2018-07.pdf

⁵³ http://www.govlabaustralia.gv.at/wp-content/uploads/GovLabAustria_Information_EN_2018-07.pdf

in innovation lab projects, on specific topics in an experimental environment. Open experimental spaces, shall encourage the adaptive and situational use of innovative methods such as **co-leadership, co-creation and collaboration, gamification, design thinking and agile development/rapid prototyping**.

Especially the ‘co-ownership’ with the Department of eGovernment at the Danube University Krems brings in knowledge about new technologies that can be used to support co-creative processes, e.g. for citizen participation.

#GLAinno1 - Transparency and Participation in Legislative Enactment Procedure/Law-Making

The following information is taken from three interviews with Alexander Grünwald (Austrian Federal Ministry for the Civil Service and Sport, Head GovLabAustria), Ursula Rosenbichler (Austrian Federal Ministry for the Civil Service and Sport, member of the GovLabAustria Leading Board) and Peter Parycek (Danube University Krems, member of the GovLabAustria Leading Board) in summer 2018. Furthermore, an interview with Alexander Grünwald about the ‘#GLAinno1: Transparenz und Partizipation in der Rechtsetzung’ process has been conducted on 4 July 2019.

GENERAL DESCRIPTION

Name of the Initiative: #GLAinno1: Transparenz und Partizipation in der Rechtsetzung (Transparency and Participation in Legislative Enactment Procedure/Law-Making, abb. #GLAinno1)

Website/ link: <http://www.govlabaustria.gv.at/projekt/rechtsetzung/>

Location: Vienna, Austria

Initiative Domain: Public Participation in Law-Making

Starting and ending date of the initiative: March 2017 – end of 2019

The aim of the pilot process #GLAinno1: Transparency and Participation in Legislative Enactment Procedure is to test how expertise from politics, administration, science, industry and civil society can be brought together in the best possible way and be incorporated into the legislative process in Austria. #GLAinno1 is a research and development project which is implemented prototypically within two years, enabling targeted communication and collaboration between administration, science, business and civil society in the legislative process through the innovative use different forms of stakeholder participation and of information technologies. Following a survey of the status quo in Austria and the identification of international examples of good practice, the national needs in this area have been assessed in a participatory process with the involvement of relevant stakeholders. On the basis of the knowledge gained, a suitable process and a corresponding infrastructure are prototypically implemented, which

enables the pooling of expertise as well as transparent and participatory legislative processes. Interventions that are developed within #GLAinno1 are prototypically implemented and tested as part of a *use Case* project involving all relevant stakeholders. The findings of this process are taken into account in the further development of processes of transparency and participation in legislative enactment procedure and law-making in Austria⁵⁴.

GOVERNANCE

Parallel to the development of the organizational structures of GovLabAustria, the lab team looked for suitable project ideas to start a pilot process. This was meant to help to develop both the know-how for organizational key properties as well as know-how concerning methods and general process facilitation at the same time in a sense of rapid prototyping. Therefore, the process of choosing a problem for the pilot process was rather pragmatic instead of strategically developed. By chance, the very complex issue of Legislative Enactment Procedure emerged as a challenge to be worth working on. At an event IGO (the Interest Group of Public Benefit Organizations) contacted GovLabAustria to talk about challenges of transparency and participation within the system of law-making in Austria. On one hand, this is a topic that GovLabAustria was interested in before and additionally as being part of the Federal Performance Management Office and Department for Strategic Public Administration Management and Civil Service Innovation in the Federal Ministry for the Civil Service and Sports the issue of 'better regulation' was a key concern of the involved public officials. Therefore, the GovLabAustria team decided to further develop the project idea of "Transparency and Participation in Legislative Enactment Procedure/Law-Making" with IGO. Several meetings of a group of core stakeholders after that managed the process together in order to create a competent team. Soon, this became the pilot for GovLab's innovation processes named #GLAinno1: Transparency and Participation in Legislative Enactment Procedure.

There was no specific budget allocated to the pilot process. The resources consisted only of the staff hours of all involved partners, mutual support and the respective organizational resources that each partner could rely on within his or her own organization.

⁵⁴ <http://www.govlabaustralia.gv.at/projekt/rechtsetzung/>

STAKEHOLDERS LANDSCAPE

GovLabAustria invited a group of stakeholders to form the #GLAinno1 team. The task of the #GLAinno1 team was to design the innovation process to successfully integrate other relevant stakeholders and to get to an implementation for the ‘use cases’. Initially, the #GLAinno1 team consisted of 5 people from the following institutions:

- GovLabAustria (project coordinator)
- Federal Ministry for the Civil Service and Sport, Federal Performance Management Office
- IGO – Interest Group of Public Benefit Organizations (project lead)
- Federal Ministry for Digital and Economic Affairs
- Danube University Krems

Before starting off to design the process GovLabAustria conducted bilateral meetings with each stakeholder to learn about respective interests, motivations as well as commitments to bring in resources to the process (staff, time etc.). Afterwards, all partners met together to discuss and re-state commitments that were given in the bilateral talks. During that first meeting with the whole group of core stakeholders, GovLabAustria summarized what had been discussed in the bilateral talks and afterwards the partners confirmed and/or corrected their commitments and capabilities that could be brought into the process. Furthermore, it was decided that IGO had the overall project lead. The meeting was documented with a written protocol to fix the commitments of each partner and it was eventually distributed to all partners to create a common starting point for #GLAinno1.

Overall, the meetings during the initial starting phase of the process were necessary to identify common interests and to see if there was a cooperative working mode with each partner. This rather careful approach was used because of the complexity of the topic and involved stakeholders and especially because this was GovLab’s pilot project. This way, the GovLab team took time to reflect the steps taken in the process. This was necessary, because conducting the pilot process logically creates a lot of learning opportunities.

The project lead was managed by IGO. IGO is short for Interest Group of Public Benefit Organizations in Austria. The organization negotiates interests, bundles resources, and argues and advocates for common concerns to opinion leaders and decision makers in politics, administration, business and media, in order to strengthen non-profit

organizations that work for public benefit⁵⁵. Another stakeholder of the group was the Federal Ministry for Digital and Economic Affairs which is responsible for IT supported participation processes. This was complemented by one person from the E-Government department of the Danube University Krems as part of the double-ownership structure of GovLabAustria and because of the specialist knowledge about digitally supported participation procedures. A main part of coordination and facilitation was done by GovLabAustria. Additionally, the Federal Performance Management Office in the Federal Ministry for the Civil Service and Sport contributed specialist know-how on 'better regulation' within Austria. As a result, the Ministry staff facilitated the process sometimes in a double role of being a staff member of the division but also having a function within GovLab team. This resulted in several role conflicts which are described below.

Furthermore, the group knew that there were other relevant stakeholders that needed to be invited and integrated at best. For internal reasons, it was decided on all sides that some of these stakeholders would receive ongoing updates on the process but they would not be actively involved in the process.

The issue of *transparency and participation as a means of good governance* has been a contested concept among all stakeholders. In brief, the general attitude towards Legislative Enactment Procedure of IGO and most of its member institutions is that there is definitely not enough space for participation and not enough transparency in the system. Therefore, public administration is asked to improve the system. On the other hand, the involved public officials participated more in an attitude of emphasizing that they fulfill political order, that opportunities for participation are already present and that there is likely no necessity for changing the system as it is.

PROCESS STRUCTURING AND ENGAGEMENT

After forming the initial group of stakeholders as a steering group for coordinating #GLAinno1 several other meetings followed. In the second meeting the group worked on designing the participation process for #GLAinno1. It was clear from the beginning among all partners that working on Transparency and Participation in Legislative Enactment Procedure/Law-Making requires a broad, open and transparent participation process involving a great variety of stakeholders. The group developed a milestone plan which is published on the project's website. It lays out all major steps for #GLAinno1

⁵⁵ <https://gemeinnuetzig.at/en/>

connected to a project schedule (kick-off, research phase, stakeholder workshop, use case implementation, final report).

Acknowledging the expertise of the core group of stakeholders the team reviewed several other processes with similar aims within the Austrian public administration and developed a mapping of intersecting projects. Soon, it was found that the parliament's general administration office had also been previously working on citizen participation (e.g. implementation of a contact e-mail and simple voting system for the legislative enactment procedure). Therefore, the parliament's general administration office was invited to participate in the steering group of #GLAinno1.

In a next step, the core group decided to do a state-of-the-art study about transparency and participation in the law-making process in Austria as well as internationally. The goal was on one hand to examine needs of the civil society as well as of public officials and on the other hand to gain an overview about how these issues are discussed worldwide and to find best practice examples. In cooperation with the Hertie School of Governance, a master thesis was commissioned that collected international good practice examples about participation in policy enactment and law-making procedures. Additionally, two surveys were conducted by the GovLab team. The first one was an online-survey for civil society organizations in Austria about the status quo of participation concerning their involvement in policy enactment and law-making procedures (How are actors able to contribute and participate in the process? What kind of information is given before and after consultations? What is the communication like?). The survey was broadly distributed among different organizations. The result of the survey was a rather critical assessment of opportunities for transparency and participation in law-making procedures.

The second survey consisted of 15 -20 personal interviews with public officials about opportunities for participation in policy enactment and law-making procedures. The sample was quite diverse. Employees from different hierarchical levels and different policy fields were interviewed. Although it was a rather small sample the survey yielded meaningful insights. However, the results of the second survey stood in contradiction to the results of the first survey. This holds true for almost every single question of the survey. E.g. public officials were rather skeptical about using new technologies, especially social media tools, to support and improve processes of participation whereas the civil society actors stated that using social media communication could improve the system to a great extent. Overall, public officials seemed satisfied with the system as it

is and only acknowledged that ways of informing citizens and civil society actors could be improved. Hence, the divide between the assessment of opportunities for participation by public officials and by civil society actors became visible.

Following this research stage, the GovLabAustria team wrote a comparative report which analyzed both surveys as well as the international best practice examples. Initially it was planned to derive a model for improved transparency and participation in the law-making process in Austria based on the insights from this research. This model should then have been presented and discussed with stakeholders. But due to the contradicting perspectives on the issue that were visible, the core group of stakeholders decided to develop the model for *improved participation* in a broad stakeholder workshop. This meant to include a large variety of stakeholders very early in the process and to have an open invitation process. GovLabAustria invited organizations and especially umbrella organizations, to participate in the process. Organizations were asked to forward the invitation to their members. Stakeholders had the chance to become part of the process even at a later stage (e.g. because they did not know about the process before).

For the stakeholder workshop GovLabAustria used a newsletter for invitation. Furthermore, central stakeholders have been personally invited either because they were power-relevant or because they had specific know-how about processes of law-making and policy formulation.

The stakeholder workshop took place on 23 November 2017 where over 50 representatives from civil society, administration and science gathered at the Impact Hub Vienna⁵⁶. The GovLab team designed a process for the workshop in a way to enable a fruitful discussion among all participants and in order to get to a phase of ‘model development’. First, the team presented the idea behind #GLAinno1: Transparency and Participation in Legislative Enactment Procedure. In the framework of six heterogeneous working groups, the participants had the opportunity to discuss needs and challenges, to introduce examples of good practice and to jointly develop ideas for initial sample processes. The working groups had been selected by the GovLab team in advance (after reviewing the registration list of participants) in order to have participants from all societal sectors and with diverse backgrounds at each of the six tables. For GovLab it was important to create balanced working groups and to enable constructive discussions. For example, they provided key rules of the *art of hosting* for

⁵⁶ http://www.govlab-austria.gv.at/veranstaltung/shw_rechtsetzung_2017-11-23/

all participants on posters in the room (e.g. listening to each other, reflecting on what was previously said, “Yes Anding”, everyone on the table has a say). The working groups were moderated by one person from the team of core stakeholders and the moderators were additionally briefed to adhere to the rules of the *art of hosting* and to make this explicit during the discussions if necessary. Overall, the focus of discussion was on two periods: on the one hand, possibilities of increased transparency and participation were examined before the completion of the ministerial draft; on the other hand, the period of the appraisal process itself was addressed. Especially in the first phase, that of political development or policy formulation, great potential for co-creation was seen. The working groups received charts with a graphical representation of the processes of policy formulation and law-making as a status quo and one chart for future processes. The groups were asked to collect key properties of the status quo processes and to write them on post-it’s for clustering on flip-charts later on. In the second part of the workshop, the groups were asked to think about the ideal process, in the sense of how could public administration and civil society help each other in this respect. How could processes become more effective and efficient? What would an ideal process of policy formulation and law-making look like? How should cooperation between actors be organized to work better? What is necessary to support processes? What would be helpful? The task was not to criticize the status quo but to formulate positively the steps for a future process. The ideas had been written down and clustered on post-it’s as well. At the end of the day, GovLab achieved its goal of creating a discussion where participants exchange perspectives and create a common understanding of what transparency and participation in policy enactment and law-making procedures could look like in the future. Afterwards, the workshop and each working group were documented with pictures and short summaries. The report was then sent to all participants for comments and refinements and is now publicly available for download on the project’s website⁵⁷.

Following the stakeholder workshop, the #GLAinno1 team met for a debriefing to review what had been done so far, discuss results, what the lessons learnt were until that point and how should the process keep going.

In a next step, the #GLAinno1 team wrote a synthesis report bringing together all findings from the research phase and the results from the stakeholder workshop to create a model for improved transparency and participation in the process of legislative enactment procedure and law-making. For the shared writing process of the report the

⁵⁷ http://www.govlabaustralia.gv.at/veranstaltung/shw_rechtsetzung_2017-11-23/

team used a cloud service and developed the text iteratively within six weeks. This was the basis to derive characteristics for the “use cases”.

The tool “Insights” was used to implement one ‘use case’ for the policy formulation process⁵⁸. It enables a systematized discussion and review about policy documents via an online platform. The tool provides different functions such as half-automated collection and synchronization of individual comments to clustered topics based on algorithms on the one hand. Furthermore, the tool offers collection and synchronization of comments via up- and down-votings as well as further development of previous comments. In effect, it is possible to derive e.g. seven key considerations out of more than 1000 comments that have been submitted to the system. The time necessary for analyzing the participation process is thus drastically reduced. Furthermore, the tool creates transparency because it makes visible which single comments compose a key consideration in the end. This way a *participation black-box* is avoided.

The #GLAinno project will be completed in the fall of 2019 with a project report and an implementation and process recommendation for transparent and participatory policy formulation and assessment processes. The results will be published and presented to the new federal government (following the elections in the autumn of 2019) as a recommendation. A concrete follow-up project has been commissioned to develop a guide to digital participation. In addition, the results of the project were fed into various participation projects and the drafting of a new Better Regulation Strategy.

POLITICAL INFLUENCE (INSIGHTS)

As being part of a ministry GovLabAustria has to deal with political influences on their processes and cannot work entirely separate from day-to-day political business. Notably, changes within the Austrian national government resulted in a restructuring of ministry departments and divisions (e.g. national elections in autumn 2017; vote of no confidence against the government in June 2019). This spawned a project halt several times. For example, previous commitments of public officials to participate in the #GLAinno1 process changed after ministries were restructured. Nevertheless, GovLabAustria received continuous political support for its work since it started in 2016.

⁵⁸ The tool has been tested and used before in the project “#GLAinno2: Austria 2035 - The State and Me”. In that project GovLabAustria develops a vision of the future, which should contain basic principles, processes and technology for efficient, effective and sustainable cooperation among all societal sectors. The aim of the project is to use the “collective intelligence” approach to develop concepts, processes and instruments for future-oriented cooperation between state and society in an open process involving a large number of relevant stakeholders; <http://www.govlabaustralia.gv.at/projekt/oesterreich2035/>

In a next step, the #GLAinno1 team wanted to find “use cases” to test the model characteristics they had derived from the previous research and consultation phase. Unfortunately, due to the restructuring of government and a new political program it was not possible to find a suitable topic and to get a mandate for implementing a “use case” until spring 2019.

MEDIA AND COMMUNICATION

The first year of the process consisted of several workshops which were used to create a common space for communication and exchange among all involved stakeholders. The main goal was to identify common perspectives and deviating views on several issues connected to the overall topic of transparency and participation in legislative enactment procedure and law-making. Deviating views were not used to separate groups but to be an ‘energy provider’ for finding common solutions with all participants, even if this included difficult discussions. It was a central learning that international and external communication about the process is important but that the usage of communicative measures and instruments needs to be reflected upon. Especially in the starting phase of an innovation process, decisions have to be made about when and where to communicate about what and probably also when not to communicate at all. Most information about #GLAinno1 was provided on the website of GovLabAustria and with a newsletter.

As a governance and government innovation lab it is quite difficult to be in the role of the facilitator and to be seen as a ‘neutral’ instance without any biases because the lab is never completely free from political influence. For example, on one hand GovLab wants to present its work and communicate how processes are going. On the other hand, there is the risk of only being heard by the audience as *a part of the Federal Ministry* instead of as *a facilitator of innovation processes*. This is an ongoing difficulty which the GovLab team has to cope with. Many activities of GovLabAustria are focused on building trust across the governance sector.

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

As GovLabAustria is part of the Federal Performance Management Office and Department for Strategic Public Administration Management and Civil Service Innovation in the Federal Ministry for the Civil Service and Sport the lab team has valuable knowledge and expertise in the field of better regulation. This was an advantage and disadvantage at the same time. On the one hand, having this kind of expertise enabled the team to steer a complex process like that. Because of this the team

knew how challenging the stakeholder constellation would be in the #GLAinno1 and how difficult an implementation in a use case could become. Nevertheless, GovLab decided to take the challenging problem of *Transparency and Participation in Legislative Enactment Procedure* instead of going for an ‘easy and nice case’ for the pilot. The reason for this was to learn how GovLabAustria was, or could become, able to work on very complex, wicked policy problems. The pilot process was a test for that. Furthermore, the partners also knew that #GLAinno1 will not result in quick-wins and will challenge all involved actors. One lesson learnt for GovLabAustria is that they had become too involved with the political content of the process instead of only providing facilitation and coordination of the process. As a consequence, for future processes GovLab will try to avoid getting too involved in the role of one stakeholder (e.g. the Federal Ministry) and instead try to stick to the role of facilitator. As a governance and government innovation lab it is quite difficult to be in the role of the facilitator and to be seen as neutral without any biases because the lab is never completely free from political influence.

Concerning the survey to review the state-of-the-art in participation, GovLabAustria wanted to do online-surveys both for the civil society actors as well as for public officials. For the survey for public officials it was decided later on to do personal interviews instead of a broad survey. This decision was based on internal considerations. For example, conducting an online survey within the public sector would probably have resulted in much more publicity for the process among public officials. There is a likely chance that this would have had the potential to disrupt the whole process at an early stage. As there was agreement among the group of core stakeholders to pragmatically work through the process and to avoid or mitigate possible pitfalls a more sensitive approach towards the survey for public officials was used.

Although IGO was officially project lead of the process GovLabAustria had a strong role of project coordinator and committed a lot of resources into the project. For all following innovation processes, GovLabAustria decided not to be in a strong coordinating position but to identify one external stakeholder to take on that role. Furthermore, one lesson learnt is that big questions like *Transparency and Participation in Legislative Enactment Procedure* need to be broken down into sub questions in order to be workable. Overall, the milestone plan was quite ambitious and the deadlines of the project schedule could not be met due to the above mentioned barriers (political as well as organisational influences). As a lesson learnt, GovLabAustria does not publish fixed project schedules on the website anymore and uses agile time schedules internally.

PART 2 -Insights on the Co-creation Process

A central learning of GovLabAustria is that there is much that can go wrong in co-creation processes but there is also a lot that can be successful. For example, looking at the first stakeholder workshop it was worthwhile to take time and to design a process that will enable discussions at a level playing field (in terms of communicative settings, systems thinking etc.). This was because all participants received tasks to work together and the facilitation created commonly shared results. This kind of outcome cannot be achieved with panel discussions and online participation. People have to personally connect and work with each other. The right setting of stakeholder workshops and communication is quite crucial if an innovation process concerns a topic which is politically contested. For example, in an event before the first stakeholder workshop took place the GovLab team wanted to present the project aims and first insights of the research phase of #GLAinno1 after public officials had stated their perspective on the issue. The majority of the audience were members of civil society organizations and they reacted with resentment against to what had been said by the public officials about transparency and participation in processes of law-making. Unfortunately, the moderator of the panel did not allow GovLab to first present their motivation, aims and findings but instead opened the discussion immediately. Therefore, the GovLab team was in a situation where they could not frame the project and instead of bringing perspectives together, the discussion brought more divide between actors. In a consequence, GovLab was very cautious to create a level playing field for their own stakeholder workshop which took place about two months later. In order to avoid this kind of negative discussion the team designed the stakeholder workshop in a way that small discussion groups each with diverse participants could exchange each other's perspectives. Bringing all voices on the table and allowing for an exchange of different point of views. Collaborative co-working and co-creation processes require a very thought-through design of the process and a very precise planning of open, participatory working modes.

Another important insight the head of GovLabAustria highlights is the impact of informal networks for successful innovation processes. Often, informal partnerships and meetings influence a process at all stages without strategic missions in the back. Furthermore, with choosing *Transparency and Participation in Legislative Enactment Procedure* as the pilot process the GovLab team knew that they will not gain fast results and quick-wins. Additionally, the process required so many resources that GovLab was not able to do a parallel third pilot which would have had an easier constellation in all

respects and which could have resulted in quick-wins. Overall, the whole process took much longer than was initially planned. Furthermore, a more realistic and appropriate resource calculation is necessary for this kind of complex process. On the side of GovLabAustria only a 0,25 full-time equivalent position per month was available.

Results from GovLab processes are taken back into the usual policy implementation process by the Department for Strategic Public Administration Management and Civil Service Innovation as input and ideas that can be further developed. GovLab motivates other departments to present use cases which the GovLab team can work on. Furthermore, GovLabAustria is recognized by many departments as an important actor and partner for public sector innovation in Austria and maintains its role while other innovation units fall under restructuring.

After the national government elections in Austria in autumn 2017 and a restructuring of all ministries and other public administrations, the GovLab team needed to rebuild connections to old and new departments. In effect, GovLabAustria needs to constantly scan its political environment to navigate through different landscapes and to maintain perseverance and resilience. For example, current GovLab processes might become topics that are also discussed in other areas in the public sector and beyond. If a process has changed, e.g. because it has become an issue for the national parliament, resources are scarce or other interests become visible, the GovLab team adjusts their processes to the new situation. It wants to create *dynamic stability* to continue working.

GovLabAustria works theme-specific and has not been actively engaged with issues that are highly contested on national political level at the same time. Furthermore, in an ongoing process of evaluation with the sounding board GovLabAustria reflects what went well and what went wrong in previous projects and it reflects on the different roles the lab team had so far. In the end of 2019, the sounding board will develop a new strategy for future tasks and future roles of GovLabAustria. Public administration needs a unit that is allowed to use out-of-the box thinking and acting and be able to experiment – in what form whatsoever.

5.7. Inland Design

Author: Tamami Komatsu Cipriani (POLIMI)

PART 1-CASE DESCRIPTION

Inland Design is a government design and innovation lab working inside the Finnish Immigration Service (Migri). Its mission is to codesign new solutions to improve the immigrant experience through a human-centered design approach, experimentation and technology. As their first big project, Inland codesigned with other Migri employees and their end-users a chatbot to improve customer service. The process was done almost entirely through participatory processes engaging not only immigrants but also front-line staff and management. The project was a success and even led to the creation of a networked service in an attempt to bridge organizational silos between Migri and two other public organizations: the Tax Administration (Vero) and the Finnish Patent and Registration Office (PRH).

CONTEXT

Inland Design is the design and innovation lab and co-creation team inside Migri, the Finnish Immigration Service. It follows a long and interesting history of design in government experiments over the years. **Finland**, in fact, **has had many iterations of bringing design into government on different levels and forms**. From 2009 to 2013, design was first integrated into the Finnish government through the Helsinki Design Lab, which was managed by Sitra, the Finnish National Innovation Fund. Their goal was to apply strategic design to the complex social challenges that were (and still are) arising. Following this, interest was taken up by academia in the form of a 14-week course called “Design for Government” (DfG), launched in 2013, which is part of the Creative Sustainability Master Degree program at Aalto University. The course applies empathic design and system thinking to address complex challenges faced by the government and Finnish public sector and collaborates yearly with one or more Finnish ministries to address a policy challenge. In 2014, the Finnish Prime Minister’s Office launched a tender to find new ways for advanced behavioral and experimental research to support government policy making⁵⁹. Think tanks, Demos Helsinki and Avanto Helsinki, won the bid in collaboration with the DfG course. The project’s outcome was a

⁵⁹ https://issuu.com/aaltouniversity/docs/aum_18_web/18

working model for experimenting in government and how hands-on behavioural approaches can make policy more user-centered ⁶⁰⁶¹.

The emphasis on experimentation in government was taken up by the Governments for the Future project from 2012-2014, under which thought was given on how to create systemic change. As a result of this process, a committee was formed to understand what an experimental culture in government could look like in Finland and what benefits it could bring (OECD, 2017). The Prime Minister at the time, Juha Sipilä, was a part of this committee and in 2015, under his mandate, the Finnish Government initiated two key projects under its Strategic Program *“Finland, a Land of Solutions”*: (1) the digitalization of public services; and (2) the introduction of a culture of experimentation. This came about in response to the changing socio-economic and also political context that Finland found itself in, which included rising unemployment, decreasing economic growth, political instability related to the crisis in Ukraine and conflictual relations with Russia that have affected economic markets, high levels of bureaucracy and over regulation that has affected labor markets ⁶². Consequentially, the government has identified experimentation as a method to bring more concrete and effective solutions and innovation to the public sector. As a result, the key project of the Prime Minister’s Office is called Experimental Finland with the objective of finding new ways to foster societal growth and develop new services; one example of such was the basic income experiment ⁶³.

A dedicated team, platform – Kokeilun Paikka (Place to Experiment) – and advisory board have been established to facilitate this transition towards experimentation. The program took a top-down and bottom-up approach focusing on three levels of experiments: **strategic experiments** (which supported the key objectives of the political agenda), **pooled pilots and partnerships**, and **grassroots level experiments** (which were citizen-led initiatives and more intuitive in nature). It was found that a lack of flexible financing and connection among innovators, as well as difficulty in finding information about viable solutions and innovative approaches were key obstacles towards the spread of innovation and the improvement of government-citizen relations ⁶⁴. It was identified that while experimentation on the local and grassroots level is common in Finland, there

⁶⁰ Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master’s Thesis). Aalto University, Helsinki.

⁶¹ https://issuu.com/aaltouniversity/docs/aum_18_web/18

⁶² Government of Finland. (2015). *Finland, a land of solutions* (12/2015). Finland: Government Publications.

⁶³ https://issuu.com/aaltouniversity/docs/aum_18_web/18

⁶⁴ OECD. (2017b). Embracing Innovation in Government: Global Trends. Retrieved from <https://www.oecd.org/gov/innovative-government/embracing-innovation-in-government.pdf>

is a lack of a common overview of the projects being conducted, thereby isolating learning outcomes. The digital platform was thus created with the intent of overcoming these gaps, working to re-define citizen-government boundaries and shift service development from a top-down approach to a co-created – and even crowdsourced or crowdfunded– process⁶⁵.

Upon the closure of the Helsinki Design Lab in 2013, the D9 group within the State Treasury became the focal point of design in government in Finland. Its mandate to enable cross-agency experimentation started in 2016 and ended in 2018. The team's task was to assist the public sector in creating customer-centric digital services and improve customer experience⁶⁶. D9 was also an important supporter of Experimental Finland.

Furthermore, in 2016, Helsinki became one of the first cities in the world to name a Chief Design Officer to bring a culture of design into the municipality. Anne Stenros served a two-year mandate in this role. In the same year, CDO Stenros set up Helsinki Lab as an experimental collaboration platform meant to run until 2019. The lab's goal is to further embed design practices, digital competences and interaction into the development practices of the city and its agents. In order to further highlight the work being done and spread awareness of the lab's working principles, the open workspace is located in the lobby of City Hall ⁶⁷.

This track record of design experiments in the public arena have served to legitimize design thinking as a way to bring a “new way of doing and thinking” into government. This impetus paved the way for two leaders inside Migri's digital services team to identify it as a means to bring change to Migri's operational procedures and organizational culture. In 2017, they founded Inland Design as an internal design and innovation lab.

ORGANIZATION

Name of the Policy Lab: Inland Design
Contact person: Mariana Salgado
Professional position and organization: Director
Contact email: mariana.salgado@migri.fi
Webpage: <http://inlanddesign.fi>

⁶⁵ OECD. (2017). *Embracing Innovation in Government: Global Trends*. Retrieved from <https://www.oecd.org/gov/innovative-government/embracing-innovation-in-government.pdf>

⁶⁶ Kokki, A. (2018). Experiments: Service design explorations in the Finnish Immigration Service (Migri) (Unpublished Master's Thesis). Aalto University, Helsinki.

⁶⁷ Design Helsinki. (2018, August 30). Helsinki Lab [Blog post]. Retrieved from <https://www.hel.fi/designhelsinki/en/helsinki-lab/>

Country: Finland

Inland Design is the design and innovation lab inside Finland's Immigration Service, *Maahanmuuttovirasto*, officially abbreviated to Migri. Migri manages applications for residence permits, citizenship, asylum and their reception and protection, passport issuance and renewal, deportation, and other immigration-related duties. It is one of the public agencies under Finland's Ministry of the Interior. Migri is divided into four Substance Units (Citizenship, Asylum, Residence Permit and Reception Centre) and five Support Units (Legal and Country Information, Customer Service and Communication, HR, Finance, and Digital Services). Inland is part of the Digital Services Support Unit, *SÄPA (Sähköiset Palvelut)*, within Migri. SÄPA provides advanced technological expertise and is one of the biggest and best IT teams in the Finnish government⁶⁸. Residing in SÄPA thus gives Inland a convenient position from which to combine advance technology with design thinking in its work. In fact, its technology-based projects have validated its work within Migri, supporting its organizational legitimacy⁶⁹. The nature of this work is well exemplified in their Chatbot project, which will be the focus of the next sections.

Consequently, Inland's mission is to **co-design new solutions within Migri to improve the immigrant experience through empathy, experimentation and technology**. Their goal is three-fold: (1) to create organizational change within Migri through an experimental culture, (2) bring a human-centered approach to Migri projects, and (3) launch projects that see cross-agency collaboration⁷⁰. Inland's team is currently composed of three (service) designers, who are Migri employees, and one intern (the intern was also a Migri employee, but she is no longer working with the team). The team has been hired on a 2.5-year contract. It is unclear what will happen at the end, of the contract but likely there will not be a renewal. Being "regular" civil servants has, however, allowed them to gain the trust of their colleagues and gain access to organizational resources and insight. In other words, acting as in-house designers has afforded Inland a position of greater impact by being viewed as being on the same team and not having to sell certain services. Inland was created to bring change to Migri's way of working, especially in response to mounting pressures to digitalize public services and disruptive

⁶⁸ Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master's Thesis). Aalto University, Helsinki. p.38

⁶⁹ Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master's Thesis). Aalto University, Helsinki. p.119

⁷⁰ Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master's Thesis). Aalto University, Helsinki. p.38

technological breakthroughs. The first steps towards this were taken in March 2017 by consulting with Fjord Helsinki on how to get things started, build the concept behind Inland, the brand and visual identity, and to launch four pilot projects in Migri to demonstrate and test what design could do for them⁷¹. As the design and innovation lab was meant to introduce new ways of doing things, a new mindset and ultimately a new working culture, it was made distinct from the rest of the organization in its visual identity and brand. While this distinction has granted Inland the freedom to “be different”, it has also challenged the legitimacy of Inland within Migri as it is perceived as not conforming to the values and norms of the organization⁷². Inland Design was officially launched in August 2017.

Inland’s activities fall under four main strategic objectives that are in line with its mission: (1) to co-create new services with other public agencies; (2) to initiate new projects with/for internal units in Migri; (3) to bring an experimental culture to Migri; and (4) to spread design thinking throughout the organization. Inland doesn’t hold ownership of any of their projects, but rather seeks to wean their presence as leader, leaving the project to run autonomously, assuming a role as either consultant or regular project member. Its activities are divided into two typologies that serve the different objectives: project work which carry out the first two objectives and initiatives which carry out the latter two. Inland has developed four operating models in its year and 8 months of existence, in which the role of Inland changes based on the needs of Migri’s different teams, allowing it to flexibly adapt to organizational needs and thereby serve it better⁷³. The four models are as follows:

1. **from leading to consulting** in which Inland takes the idea given to them from another Migri team or an immigrant and it is the expert lead. Through the process eventually fades out to become a project partner or consultant. An example of this is the chatbot project which will be covered in the upcoming sections
2. **participating**, in which projects are led by other units and Inland brings in its service design expertise
3. **consulting**, in which Inland starts and remains consultants, never entering as a formal part of the team.

⁷¹ Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master’s Thesis). Aalto University, Helsinki. p.38

⁷² Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master’s Thesis). Aalto University, Helsinki. p.119

⁷³ Salgado, M. & Miessner, S. (2019, March 28). Operating models or how do we work in Inland? [Blog post]. Retrieved from <https://medium.com/inland/operating-models-or-how-do-we-work-in-inland-3b61a453d204>

4. building space for collaboration, in which Inland functions as a connector between design expertise coming from different stakeholders: academia, NGOs, other public agencies or even different teams in Migri ⁷⁴.

PROCESSES AND TOOLS

Inland adopts a co-design approach to their project work, making use of a vast array of service design tools to carry out their tasks and engaging users and other service actors in the design process. As Inland is located in the digital services team, technology is a big part of their work and has acted as a figurative “foot in the door” to gain organizational legitimacy. However, it is not a pre-requisite for their intervention. Inland, in other words, seeks to be engaged in non-technological solutions, promoting initiatives that seek to embed a design approach to the work of the entire organization. A part of its activities, in other words, are cultural.

Inland’s goal, in fact, is to bring a human-centered design approach to the work that Migri does and help bring the immigrant, or the user, in the center of services. In order to spread this mindset, Inland has two methods by which they seek to spread design competences and a user-centered approach, both of which are rooted in learning-by-doing processes: project work and initiatives that directly seek to build design capabilities in the organization. A key example of the latter is the Service Design Ambassador program which is a 1-year long training course for civil servants in design competences, in which participants advance their own projects through the help of course instructors and training modules. The first edition just concluded. Each participant had to dedicate 160 hours total through monthly, day-long workshops and monthly “homework” days in which participants were given readings and tasks to advance their projects. The course involved 8 lectures from service design experts, a field trip, project work and readings ⁷⁵. An open call was sent out to all of Migri personnel and 35 people from different departments and positions applied, all of whom were accepted. The course trained 28 ambassadors who have taken what they learned and are applying it in other contexts.

⁷⁴ Salgado, M. & Miessner, S. (2019, March 28). Operating models or how do we work in Inland? [Blog post]. Retrieved from <https://medium.com/inland/operating-models-or-how-do-we-work-in-inland-3b61a453d204>

⁷⁵ Salgado, M. (2019, April 8). Service design ambassador training [Blog post]. Retrieved from <https://medium.com/inland/service-design-ambassador-training-6cf324e9877f>

KAMU, MIGRI'S CUSTOMER SERVICE CHATBOT AND STARTING UP SMOOTHLY

GENERAL DESCRIPTION

Name of the Initiative: Kamu, Migri's customer service chatbot and Starting up Smoothly

Website/ link: <https://migri.fi>

Location: Migri (Finland)

Starting and ending date of the initiative: September 2017 - ongoing

When Inland started its work in August 2017, Migri provided them with visions and a map of prioritized goals and objectives to improve their services and upon which to focus project work. These decisions were based on quantitative statistics to guarantee that the problem being faced would benefit and impact a large user base both internal and external⁷⁶. Based on these statistics, a project to strengthen customer service was identified that also supported one of Migri's four strategic priorities, which are as follows: (1) to be customer oriented; (2) increase operational effectiveness; (3) improve readiness; and (4) have a great workplace. The main input coming from the statistical analysis was that from January to March 2017, only 21% of phone calls were answered. This challenge was caused by the large increase in the number of applicants following the refugee crisis in 2015-2016, which saw over 30,000 asylum seekers in Finland, effectively increasing its yearly asylum requests by 822%⁷⁷.

The first step made was to conduct interviews with the customer service workers about what topics were most covered in the conversations. The results were that customers usually asked questions concerning the two general topics:

1. general information found in the public migri.fi-website
2. inquiries on application status, which required the customer to be identified. This step took by phone a long time (1 to 5 min)

Based on these insights, the team decided that the solution was to lower the number of calls received per day by ameliorating access to key information by automating a part of the calls through a chatbot and a live chat. The chatbot, who's been named Kamu and given a personality, has had considerable success and between May 2018 to January

⁷⁶ Salgado, M. & Miessner, S. (2017a, October 22). From service vision to design concept-strengthening Migri's customer service [Blog post]. Retrieved from <https://medium.com/inland/from-service-vision-to-design-concept-strengthening-migris-customer-service-a65217044e77>

⁷⁷ http://ec.europa.eu/eurostat/documents/299552_1/7203832/3-04032016-AP-EN.pdf

2019 has had more than 45,000 conversations, averaging about 180 a day. It has also been a source of inspiration for other public agencies and has led to a joint project on a network of chatbots between Vero, the Tax administration and PRH, the Finnish Patent and Registration Office, seeking to bridge organizational silos and offer comprehensive events-in-life services. A first prototype was made for foreign entrepreneurs coming to Finland. In January 2018, the Ministry of Finance expanded this concept to a larger scale, calling for a national network of chatbots under the project name “Aurora AI”, to which Kamu served as a best practice.

GOVERNANCE

The idea behind the chatbot project was catalyzed by a look at the statistical data available, paired with Migri’s strategic objective to be more customer oriented. In order to better serve their users – the immigrants – as well as alleviate the burden on front line civil servants working the phones, Migri decided to implement a technological solution to allow its employees to concentrate their effort on cases requiring their expertise and have more general questions be handled by the chatbot or live chat and in the process better serve their clients.

Inland was project leader at the beginning and made heavy initial investments in the concept development, research and development, user testing, prototyping and translation of user and technological requirements. Once the initial phase was over, Inland phased out to become only a project member as the dedicated team, ENNI, took over. ENNI is hosted in SÄPA. All content is made together with the Migri substance units involved, as well as experts coming from the supporting units. All the units furthermore collaborate as a review group to provide feedback on the content quality of Kamu’s responses before they go live.

Kamu is owned by Migri: its content belongs to ASPA (customer services), while the technology development to SÄPA. In the network of chatbots, together with Vero and PRH, each organization remains owner of its own chatbot and is responsible for the content provided.

STAKEHOLDERS LANDSCAPE

In the Kamu chatbot project, Inland took the lead at the beginning with the support of other colleagues from SÄPA, who, already in the initial phases, set up a dedicated team, ENNI, to support the development and future maintenance of the service. While SÄPA provided technological expertise, Inland was responsible for the preliminary research, concept formulation, idea generation, prototyping and evaluation. As their first big

project, Kamu represented for Inland an opportunity to show Migri what design could do and the opportunities coming from adopting a human centered approach. In other words, it was an opportunity for them to demonstrate the value of Inland for Migri.

The users of the service are the immigrants and their families who are requesting for various reasons permission to stay in Finland. As will be further explained below, finding information was very difficult as it was located in four different channels. The chatbot and live chat have helped solve this need and helped ensure that more of their needs were being met. Before Kamu, only 21% of calls were taken and thus the large majority of their questions were left unanswered.

Likewise, the customer service staff who received the calls have benefitted from the additional support. While before they were burdened by a large rise in information requests – most of which was already located elsewhere on the website – Kamu helped customer service employees to invest their time on cases that really required their expertise.

Regarding the Starting up Smoothly project, Inland once again took the lead initially. Vero wanted to start up a chatbot, after seeing the work done with Kamu. They asked Inland to support their concept development through a collaboration between the two services in an experiment that involved Vero's China help desk to help Chinese entrepreneurs who wanted to come to Finland. As shown later on, this was soon expanded to cover entrepreneurs coming from all over ⁷⁸. The experiment was interesting for all parties: for Vero and PRH to start up a chatbot and experiment with its uses and benefits, and for Inland to understand how to create a **network of chatbots**. Immigrant users can now ask questions that pertain to all three organizations and have their answers be given through redirects by the chatbots to the right organization⁷⁹. This has helped bridge organizational silos around life events like starting up a company as a foreigner in Finland, but also as just an immigrant who needs a resident card but also a tax card.

Each organization contributed with it its own expertise and sectoral knowledge. All content is generated and managed by the specific organization as the chatbot remains

⁷⁸ Miessner, S. (2018a, June 15). Starting up smoothly: Co-creating a virtual assistant to ease your entry to Finland [Video file]. Retrieved from <https://www.youtube.com/watch?v=YObCK8ITTDU&feature=youtu.be&t=3283>

⁷⁹ Miessner, S. (2018b, October 31). Starting up smoothly — Connecting government agency information through chatbots [Blog post]. Retrieved from <https://medium.com/inland/starting-up-smoothly-connecting-government-agency-information-through-chatbots-84bccbeafdd7>

the property of the specific organization. The process of designing this service has created new relationships between the three organizations, as well as insight on the working processes of the different departments.

PROCESS STRUCTURING AND ENGAGEMENT

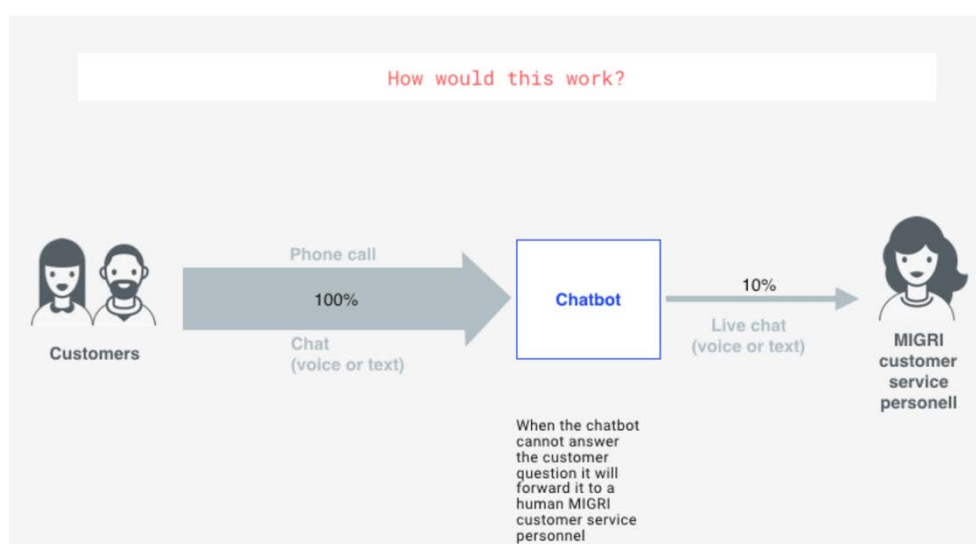
Problem Framing and Ideation

The concept behind the chatbot was catalyzed by an analysis of the statistical findings regarding the poor customer service response rate. This prompted Inland to conduct initial interviews with the customer service staff to understand the problem better and get an idea of the actual need, not only from the user-immigrant perspective but also those of the front-line service providers. These insights helped frame the problem around more tangible and concrete needs. One insight was the difficulty of users to find and filter useful information from Migri's digital services. Information was communicated on four separate channels: the public Migri.fi website, the application portal EnterFinland.fi, the phone service lines and the customer services points spread across the county. Likewise, the customer service staff were pressured to find information quickly, having to search and filter information through various internal channels: emails, Migri.fi, document sharing platforms and EnterFinland. It was clear that Migri's customers needed support finding critical yet also basic information and that these types of requests could be easily taken care of through technological means, freeing up the customer service staff for more complicated cases (Figure 23).

Based on these insights and on the idea of **using conversational interfaces to ease access to digital content for users**, Inland conceived the idea of a chatbot for Migri, supported by a live chat and as a final resort a phone call. Chatbots have become a hot topic for increasing customer service quality in public organizations in Finland for the following features: (1) they conduct natural conversations; (2) information can be given at the user's pace without pressure and the answers remain written in text for later consultation; (3) all information is given in the same window rather than searching and filtering through many tabs or windows; and (4) given the ease of the conversational tool, it doesn't require users to be tech savvy to use it ⁸⁰⁸¹⁸².

⁸⁰ Miessner, S. (2018a, June 15). Starting up smoothly: Co-creating a virtual assistant to ease your entry to Finland [Video file]. Retrieved from <https://www.youtube.com/watch?v=YObCK8ITTDU&feature=youtu.be&t=3283>

⁸¹ Miessner, S. (2018b, October 31). Starting up smoothly — Connecting government agency information through chatbots [Blog post]. Retrieved from <https://medium.com/inland/starting-up-smoothly-connecting-government-agency-information-through-chatbots-84bccbeafdd7>

Figure 23 - Concept for Kamu⁸³

When seeking to explain and describe their concept to their Migri colleagues, the team at Inland used system maps, user journeys and detailed and high-level road maps.

Design

In order to guarantee that the chatbot's content was relevant and would actually reduce the number of phone calls, it was important to **co-design the bot with the customer service staff**. In September 2017, Inland spent three days in Kuhmo, one of Migri's sites where the customer service staff respond to telephone calls. During this session, the team learned a lot about: the everyday work of the staff, what challenges they face, the importance of involving them in content generation and that the staff is often frustrated with other Migri units who often fail to respond to their requests, thus confirming the poor interaction between the units ⁸⁴. The customer service staff furthermore made clear that the bot should inspire **trust** and state clearly that it is a bot. This insight confirmed a research question that the team had had on how to make sure that people trust the answers given by the machine.

The answer to this for Inland was to **design a personality** for the chat bot, which represented another objective of the three days in Kuhmo: to test with customer service

⁸² Salgado, M. & Miessner, S. (2017a, October 22). From service vision to design concept-strengthening Migri's customer service [Blog post]. Retrieved from <https://medium.com/inland/from-service-vision-to-design-concept-strengthening-migris-customer-service-a65217044e77>

⁸³ From: Salgado, M. & Miessner, S. (2017a, October 22). From service vision to design concept-strengthening Migri's customer service [Blog post]. Retrieved from <https://medium.com/inland/from-service-vision-to-design-concept-strengthening-migris-customer-service-a65217044e77>

⁸⁴ Salgado, M. & Miessner, S. (2017b, October 27). Co-designing the customer service chatbot in Kuhmo [Blog post]. Retrieved from <https://medium.com/inland/co-designing-the-customer-service-chatbot-in-kuhmo-eaa2fb024226>

staff what kind of personality the bot should have (Figure 24). Here the team wanted to understand what personality traits the customer service expert used in their daily work. In October/November 2017, the team did further research on the personality of the bot through immersion testing with immigrant users via a survey done at the Helsinki Service Point to understand what kind of customer service servant they expect to find at Migri. The last step was done in February 2018 in which the team tested on users how informal or distant the chatbot should be. Immigrants were given movie tickets for their participation. Following the decision regarding the chat bot's personality, the team asked the Migri employees to vote on a name. Only gender-neutral names were provided for the vote and Kamu was the name that was chosen.

Migri customer service chatbot personality

The design of the personality is based on 4 types of user involvement: (1) Workshop with Kuhmo customer service personall, (2) Survey in Helsinki Service point, (3) User testing of 3 chatbot personalities in Helsinki, (4) all Migri workers to vote on the name of the chatbot.

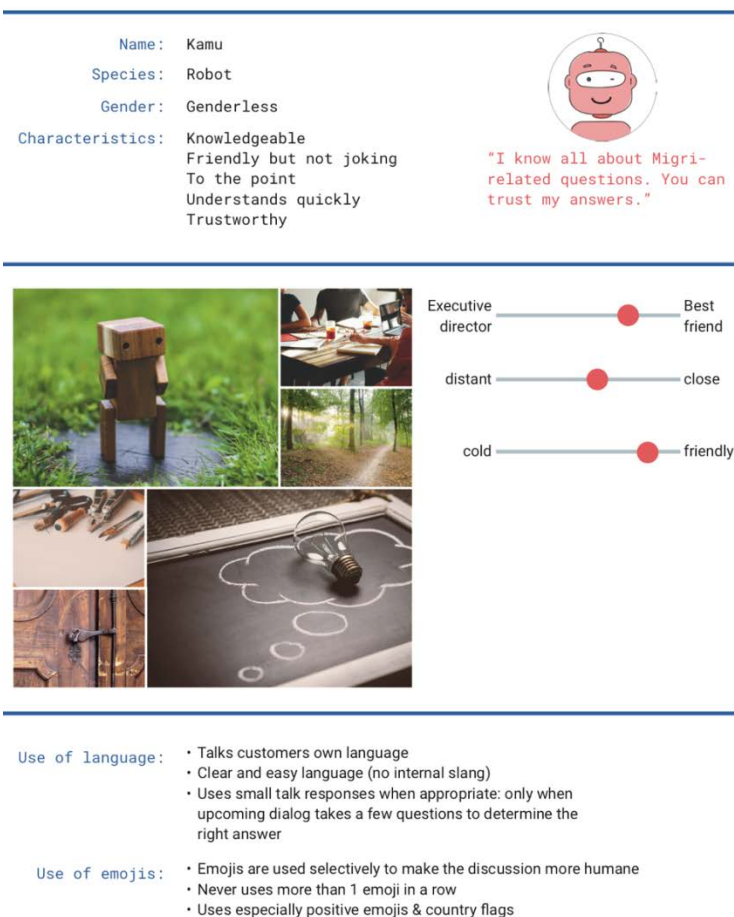


Figure 24 - Kamu's personality profile card⁸⁵

⁸⁵ From: Inland Design. (2019a). Kamu – Migri's customer service chatbot. Retrieved from <http://inlanddesign.fi/work/kamu-migris-customer-service-chatbot/>

Implementation and Evaluation, Monitoring and Measurement

In June 2018, the team ran a pilot of the services and evaluated it during the summer. Overall, Kamu is considered a success. It engaged in 45,000 conversations between May 2018 and January 2019, averaging 180 conversations a day. In terms of organizational gains, the project has helped ingrain a user-centered mindset in the team, making user testing an integral part of their working practices⁸⁶. While there was initial skepticism on the utility of Kamu, the chabot has now become an integral part of the service offering and requests to add new content has now surpassed the team's capacity to produce. Lastly, while at the beginning the live chat was only open for 2 hours a day, it is now open from 9am to 4pm just like the telephone services (Figure 25).

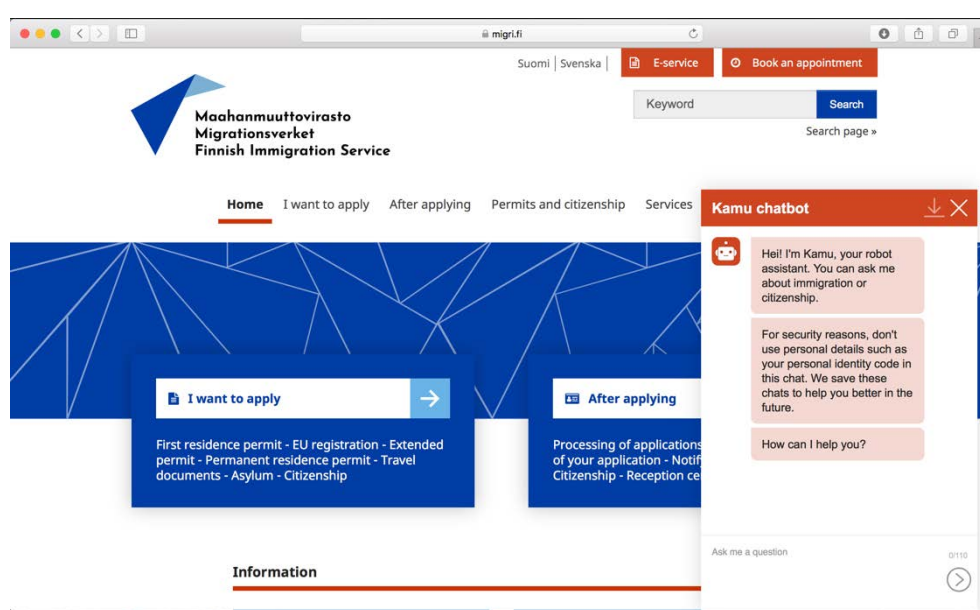


Figure 25 - Kamu chabot on the Migri.fi website⁸⁷

The success of the project has also translated in Migri becoming a leader in chatbot development for public services and the team is often asked to share their experience and help other organizations replicate their experience. This has led to another project led by Inland, Starting up Smoothly, that works to create a networked chatbot service with Vero, the Tax Administration and PRH, the Finnish Patent and Registration Office.

⁸⁶ Inland Design. (2019a). Kamu – Migri's customer service chatbot. Retrieved from <http://inlanddesign.fi/work/kamu-migris-customer-service-chatbot/>

⁸⁷ From: Maahanmuuttovirasto Migrationsverket. (2019). Homepage. Retrieved from <https://migri.fi/etusivu>

STARTING UP SMOOTHLY

Problem Framing and Ideation

In Finland, as is common with most public organizations throughout Europe, public service organizations work in silos to guarantee efficiency. This however results to be problematic or rather less efficient for the user who often must visit various organizations to accomplish tasks related to specific life events: e.g. moving to a new country, birth of a child, loss of a loved one, etc. The need to bridge organizational silos around life events is the key insight that drove the Starting up Smoothly project to create a networked chatbot service. In their concept, each organization remains the owner of their own chatbot and its content. The individual chatbots are then interconnected on an additional network layer to provide a more holistic service. The experiment started with two initial research questions, which were: (1) How can we serve customers through a common channel? Should the customer be aware of organizational silos? (In other words, does it make sense for the customer to have one bot for two organizations? And if so, do they need to know that there are two organizations behind the single bot and which content comes from which?); and (2) How can we collaborate across organizational silos? How can we take another organization on board ⁸⁸? The answer to the first question was that the customer needed to be aware of the two different organizations and their respective areas of expertise should the user decide to go in person to ask for information or to call the phone services, etc. Thus, the decision was made for each organization to keep its own chatbot and to create a networked layer that refers users to the right chatbot. The second question was reflected upon at the end of the process and will be explored below.

Design

The first part of this service took the form of an experiment between Migri and Vero. The experiment was designed to have a short turn around, starting in March 2018 with the expectation of having an initial prototype of the service by June 2018. The initial prompt was to help Vero's China Desk serve Chinese entrepreneurs who wanted to set up a business in Finland. The teams coming from the two organizations met once a week at the Vero offices to learn about substance matters but also how chatbots work, for which the experience that the Migri team had was very beneficial. Some team members

⁸⁸ Miessner, S. (2018a, June 15). Starting up smoothly: Co-creating a virtual assistant to ease your entry to Finland [Video file]. Retrieved from <https://www.youtube.com/watch?v=YObCK8ITTDU&feature=youtu.be&t=3283>

worked on this project full-time while others just on the official day of the week allotted to it, also depending on the tasks of the member and the phase of the project ⁸⁹.

The project had six steps: the first step was an online survey to get to know what kind of content was needed: what were the user's questions, needs, pain points, etc. Three categories of user types were distinguished from this activity, which led to the second step: interviewing 3 users representing the three types to gain further insight. At the end of the user research, the team decided that the struggles of the Chinese entrepreneurs were the same as any entrepreneur coming to Finland, irrespective of country of origin. Thus, the decision was made to change the target to any foreign entrepreneur coming to Finland. The team also decided to limit this to immigrants who wanted to come to Finland to work either in a start-up or a big enterprise, i.e. specialized workers. This was done to find common ground between Migri's target (personal applications) and Vero's target (enterprises) ⁹⁰. At this point of the process, the teams had defined their user target and defined what content they needed to convey. What remained was the personality of VeroBot. As there was not intent to go live immediately, for the sake of the experiment, the teams conducted a quick survey done through a paper questionnaire to understand the characteristics of VeroBot's personality. The fifth step saw the building of the content and in the final step the team tested the bot with target audiences.

In June 2018, the final prototype of the experiment was demoed live with success and participants encouraged them to pilot the service as soon as possible ⁹¹. In August 2018, PRH came on board and the experiment turned into a project to build a common service helping foreign entrepreneurs start up business in Finland. The process took on the same double diamond process (Discover/Research; Define/Synthesis; Develop/Ideation; and Deliver/Implementation) and built the service around three user personas based on the identified targets: limited liability companies or private traders. The personas were: (1) Yu Chen who wants to start up a subsidiary; (2) Vera Allik who wants to start up her

⁸⁹ Miessner, S. (2018a, June 15). Starting up smoothly: Co-creating a virtual assistant to ease your entry to Finland [Video file]. Retrieved from <https://www.youtube.com/watch?v=YObCK8ITTDU&feature=youtu.be&t=3283>

⁹⁰ Miessner, S. (2018a, June 15). Starting up smoothly: Co-creating a virtual assistant to ease your entry to Finland [Video file]. Retrieved from <https://www.youtube.com/watch?v=YObCK8ITTDU&feature=youtu.be&t=3283>

⁹¹ Inland Design. (2019a). Kamu – Migri's customer service chatbot. Retrieved from <http://inlanddesign.fi/work/kamu-migris-customer-service-chatbot/>

own business and (3) Berat Asani who wants to start an import-export company ⁹² (Figure 26).

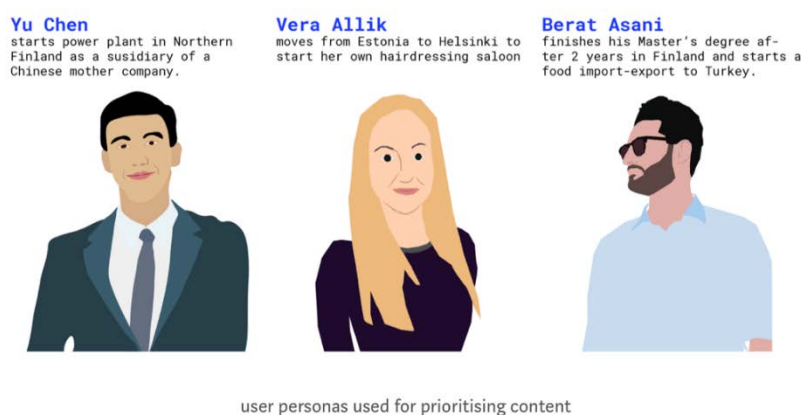


Figure 26 - Starting up Smoothly User Personas⁹³

In the final prototype, users can ask questions to one bot and be referred to another bot for questions that concern the partner organization in the same conversation and window. For example, a foreign entrepreneur may first go to the Vero website interested in how to start up a company in Finland and then be referred to Kamu through VeroBot for questions regarding immigration. Or vice versa, an individual may go to the Migri website interested in getting a work permit and then be referred to VeroBot by Kamu for questions regarding personal taxes (Figure 27).

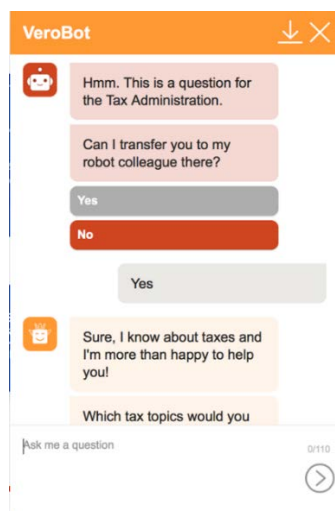


Figure 27 - Kamu to VeroBot referral ⁹⁴

⁹² Miessner, S. (2018b, October 31). Starting up smoothly — Connecting government agency information through chatbots [Blog post]. Retrieved from <https://medium.com/inland/starting-up-smoothly-connecting-government-agency-information-through-chatbots-84bccbeafdd7>

⁹³ From: Miessner, S. (2018b, October 31). Starting up smoothly — Connecting government agency information through chatbots [Blog post]. Retrieved from <https://medium.com/inland/starting-up-smoothly-connecting-government-agency-information-through-chatbots-84bccbeafdd7>

Implementation and Evaluation, Monitoring and Measurement

The service started piloting in December 2018 and will run until June 2019. The main evaluation of the project will then take place during summer 2019. During the process, Inland and the institutional organizations, Migri, Vero and PRH, learned a lot about collaborating within agencies and the bureaucratic and technical hurdles that arise. One insight that came out of this process very clearly is that technology comes after accounting for and understanding user needs. Inland took an agile and collaborative approach to creating an integrated, networked service of organizational chatbots. Rather than investing in large infrastructure and convincing organizations to get on board, Inland chose to connect separate prototypes designed to meet the individual organization's and its users' needs ⁹⁵. In this way, **a networked solution that meets a larger scope is also suitable for specific needs – social, cultural, technical, etc.**

POLITICAL INFLUENCE (INSIGHTS)

Inland Design doesn't have any political ties. It is an internal team of Migri, whose staff are hired internally. They are thus civil servants. This has given them a special position as designers for public sector innovation by allowing them to fully understand organizational needs and constraints. This has allowed them to gain trust from the organization, as there is no hidden agenda or profit motive, as can be the case with external design consultants.

MEDIA AND COMMUNICATION

Inland has documented their work very well through articles on their website, posts on their social media channels, master thesis done by trainees and also through a Medium blog. In addition, we also document and write for our internal website in Finnish. This has allowed them to be read and connected with a diverse array of actors and other design labs working in the public sector, which has been useful in their development. Most communications are in English, as the lead designers are not native Finnish. The working language of the lab is a mix of the two languages.

The constant documentation of their work has also prompted them to reflect on their activities and determine what's working and what could be done better the next time. This critical lens is crucial in design work but is also an element that is often ignored in

⁹⁴ *From: Migri.fi, 2019*

⁹⁵ Miessner, S. (2018b, October 31). Starting up smoothly — Connecting government agency information through chatbots [Blog post]. Retrieved from <https://medium.com/inland/starting-up-smoothly-connecting-government-agency-information-through-chatbots-84bccbeafdd7>

the hype of design thinking and its promises of systematic innovation. This focus on documentation has helped them close this gap.

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

While no formal evaluation has been made on baseline levels and current levels, what can be observed is an increasing appreciation of and trust in the co-design approach and user centricity that Inland promotes. This can be seen in the number of new projects that are brought to them and new groups asking to do user testing, some of whom have not had any involvement in Inland previously. This demonstrates that their work is being followed and shared “through the grapevine”, manifesting the value that Inland’s work is being attributed by Migri.

Furthermore, through additional activities that go beyond project work, Inland’s initiatives promote an experimental culture in the organization. For example, the Service Design Ambassador initiative mentioned above has worked to this effect, instilling a human centered mindset and embedding design capabilities within the organization in a learning by doing process. Moreover, an internal program called “Lunch and Learn”, in which Inland had informal lunches with managers, helped get buy in from the organization and establish informal connections and relationships⁹⁶. Once again, the emphasis of meeting without an agenda ⁹⁷proved to be useful in establishing relationships within Migri.

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

The codesign approach has been fundamental to the work of Inland. In the words of Inland’s Director, Mariana Salgado, “Co-design as a mindset aligns with the key government goals to have more flexible structures and less siloes, be more transparent and less hierarchical in the way the work is organized”. The approach has provided a framework under which to engage diverse stakeholders around a common problem and to encourage everyone on the team to take on a human centered approach. This was clearly seen in the work done with the chatbots. Inland’s strategy of spreading design competences and a human-centered approach through a mix of project work and initiatives has allowed for learning-by-doing and design awareness, which has facilitated the uptake of a new mindset and a bigger acceptance of a new way of doing things. There are three particularly interesting insights coming from the case.

⁹⁶ Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master’s Thesis). Aalto University, Helsinki. p.78

⁹⁷ Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master’s Thesis). Aalto University, Helsinki. p.83

The location of the lab: inside or outside. The value of in-house designers.

Public organizations are characterized across Europe as being risk-averse, burdened with layers of bureaucracy and highly siloed; all of which stifle innovation efforts. However, over the past decade government innovation labs have arisen to help governments and their agencies innovate their practices and services (Tönurist et al., 2017a). Inland Design, being a government innovation lab, housed within a government agency, has an interesting position. As was seen in the case, their location was quite influential to their work in two principle ways: (1) being located inside the government agency as employees, i.e. as civil servants and colleagues, leveled the playing field allowing them to more easily gain trust from the rest of the organization and have inside access to organizational resources and knowledge; and (2) being located in the digital service unit gave them access to bigger projects and also gave them a metaphorical “foot in the door”, being able to demonstrate their value in an area in which design is more easily accepted: technology (as opposed to business strategy).

Being in-house designers rather than external consultants allowed Inland to be viewed as part of the team, rather than agents needing to sell something. This position of being colleagues working to better the department allowed them to gain access to resources, also in terms of insights coming from informal conversations, that helped them direct their operating strategies in a manner that aligned with the strategic goals of Migri but also those of Inland (which were to help Migri change its working practices and better serve its clients). Being in-house has also allowed them to follow their project from conception to implementation, while also changing roles during the process. The hand-off from design expert to project member or consultant is an important moment because it ensures that ownership of the new process and the competences that go along with it are passed on to the organization, while also providing space for guidance and constant support. While a lot of the design work and experimentation being done in public services has often ended at ideation, being in-house has given Inland the possibility of following the project beyond conception and service ideation and into implementation and even evaluation, thereby demonstrating the value behind the codesign approach. In the case of Inland, being located inside government has given it a **strategic position** from which to operate and make an impact.

While being housed within Migri and its digital service unit as internal design experts has its positive features, it also comes with its problems. For example, the nature of the work that Inland is invited to do is mostly service-oriented, and rarely touches upon strategy, where co-creation processes could be quite impactful. This leads to questions

regarding the location of design competences within the organization and to its permanence. In the case of Inland, the designers have a temporary contract which most likely will not continue. As stated by Inland's Director, in order for designers to be able to propose radical solutions and truly impact the organization, "[it] needs to be a permanent resource in public organizations, not a pop-up endeavor or an experiment". This alludes also to the fragmentation of the learning outcomes of design work in public sector innovation efforts thus far. Moreover, the separation of design competences from strategy and limiting it to the design and delivery of service solutions is also found on a macro-scale in the policy cycle, where design is being used predominantly to find and test solutions (McGann, Blomkamp, & Lewis, 2018b). As highlighted by Junginger (2013)⁹⁸, limiting the role of design to policy implementation (i.e. the design of services) can lead to problematic policy outcomes (i.e. the possibility [and futility] of designing [even great] services that implement poor policy). She thus emphasizes the interconnectedness of policymaking and policy implementation as paired design activities. Likewise, on the organizational scale, design can help public sector organizations navigate the complex, emergent and 'wicked' problems and needs that they face, if they are given a seat at the strategy table and if they are taken on as permanent resources. Linking these activities could lead to higher levels of organizational efficacy and efficiency and ultimately public value, which should be verified by future studies.

Using technology to bridge silos

As mentioned at the beginning of this section, governments across Europe are built around siloes for organizational efficiency and are hierarchically run. This division has made it difficult, as was seen in the case, for organizations to respond effectively to user needs that often span across organizational divisions. Understanding how to serve citizens from a life-events approach is critical towards improving the efficacy of public services and bettering the rapport between citizens and government.

Inland's strategy to bridge government silos through technology, in this case through a network of chatbots, is an attempt to help organizations create a networked solution centered around a life event requiring interaction from the user/citizen with several departments (which in the case was on foreigners starting a business in Finland). The important role that technology played as a conduit for this solution is evident as it heavily reduced the work burden of the customer service staff, while contemporarily

⁹⁸ Junginger, S. (2013). Design and Innovation in the Public Sector: Matters of Design in Policy-Making and Policy Implementation. *10th European Academy of Design Conference - Crafting the Future*.

improving the service for the users. Without technology, the solution would have been more costly for Migri (most likely entailing higher labor costs) and less efficient. As we are speaking of the public sector, it is not an issue of cutting profits but rather spending public money in a manner that maximizes public value. Technology here managed to accomplish this and highlights the strategic role that new technologies stand to play in improving public services and generating public value. What is important also to note is its role in supporting and improving existing services which didn't see a reduction of human resources but rather allowed the staff to focus their energy on problems requiring their expertise.

Inland chose an iterative and “lean” strategy that was based on the activation of a unique organizational pilots which were then connected through a network layer of collaborative services. This allowed organizations to get on board in an organic way without bypassing the crucial learning outcomes that are acquired through the design process. In other words, in other more traditional solutions that see the construction of large infrastructures in the hopes that other organizations will join in, learning is disjointed, occurring only in the leading organization. Inland, however, walk each organization through the necessary steps towards creating a chatbot for the specific user group of the organization. In this way, each organization acquires an understanding of the technical and social aspects of the solution, the competences to move forward and also the necessary mindset for collaboration and “doing something new or old in a new way”. The case demonstrates the importance of the learning process that occurs during the codesign process and the benefits it has in terms of successful implementation of an innovation in contexts that are rigid, highly bureaucratic and hierarchical.

Lastly, a case could also be made towards a different strategy: rather than breaking government silos, bridging silos could be an effective strategy. Silos are effective for organizational efficiency. The problem lies in the lack of communication and connection between the organizations, i.e. the closed versus open nature of public organizations and the rigidity of bureaucracy and specific cultures that have impeded collaboration. This is in line with Callon (Barry & Slater, 2002) who stresses the importance of connection and the role of science and technology in accomplishing this: *“what science and technologies do is to maintain or to make possible connections between frames and between different places. So, you are freed from this image of a multilevel society. You don't need several layers, different layers. You don't need infrastructure and superstructure and embeddedness. You only need places that are connected and the possibility for actors and information to circulate from one place to another one... Technologies and sciences*

can be used to frame interactions, but also to mobilize other places and to connect them to the place where interactions are done”(p. 293).

The network of chatbots that Migri, Vero and PRH are experimenting with is an interesting start in this direction. Their strategy, which could be interpreted as “flat-oriented”, pushes away from re-structuring in drastic measures (e.g. infrastructure changes) but rather uses technology to simplify and ameliorate the process of communicating and collaborating between organizations.

Co-design ensures that technology supports social needs (social first, then tech)

In the process of designing Kamu, it became quite clear the importance of structuring the content of the chatbot before diving into the technical aspects. Profound user research regarding their needs and the modality through which this could be met (technical competences but also emotional needs – the personality) were the foundation of the development process around which technical solutions were made. What can be learned is the importance of the social structure when designing the technological infrastructure. The social structure includes more than just the user but extends to all actors of the service system. In Starting up Smoothly, it was equally important to understand the organizational needs of the partners as it was of their users in order to guarantee a fruitful and effective collaboration. It is thus crucial to keep in mind the content (both technical and social) and context of technology when developing innovative solutions (Lea, O’Shea, & Fung, 1995). The case demonstrated the virtue of pairing co-design methods with technological development as the prior focuses on the user and stakeholders of the solution, ensuring that the social structure is accounted for both in terms of the content of the solution but also the context into which the solution will be used.

5.8. La 27e Région, France

Author: Matteo Merzagora (TRACES)

PART 1 - CASE DESCRIPTION

La 27e Région is a policy lab created in 2007, acting as a “public transformation lab”. It aggregates a multidisciplinary team and it mainly operates through partnerships with public bodies. It has an action-research activity, aimed at prototyping new methods for designing and implementing public policies by engaging in experiments in the field, but it also acts as a resource center. La 27e Région operates on very different topics, from libraries to health systems. In this document the project “Gare BZH: Nouvelles formes / nouveaux usages pour les gares TER Bretonnes” is analyzed, about orientations for new forms of local train stations in Bretagne. This project is emblematic of their approach, and particularly relevant for the needs of SISCODE research.

CONTEXT

La 27e Région policy lab was created in 2007, after civil servants, policy makers, researchers, and designers, passionate about “public service” realized that there was too often a mismatch between public policies and the needs of users and the public. Driven by a spirit of independence and a transdisciplinary approach, they started developing new methodologies and procedures that were more adapted to the society of the 21st century, rather than to the 20th century industrial society.

In fact, several French examples show how the failure of public policies can often be ascribed to the lack of understanding of the actual uses by citizens, and the lack of engagement of end-users. Innovative methods to engage users and to conduct immersive field activities can provide useful input for those malfunctioning.

One of the main drivers of the initiative was therefore the need of better dialogue, exchange and transparency between the administration, its public servants and its users or beneficiaries, the citizens.

In the current French landscape where the relationship between citizens and the public authorities is largely being redesigned, many public officers, and in most cases their institutions, recognize the need of experimenting new approaches, instead of relying on well established procedures.

Expertise such as the one of La 27e Région thus become extremely valuable. They are often called upon not to solve well identified and urgent problems, but to provide better insights, understanding and line of actions on relatively general issues.

Some statements extracted from la 27e Région website clearly clarify this situation and the need for a laboratory of policy transformation in the current French policy landscape: “Higher education institutions train future politicians and public officials in numerous skills, from knowledge of institutions to public accounting, from project management to digital issues. But they are not taught to question theoretical instruction and practical tools or to change them in light of actual practices. Because they lack genuine critical capacity, public services run the risk of both programmed obsolescence and excesses of solutionism: management techniques imagined half a century ago still constitute the toolkit of policymakers today, while new technologies – the Internet first and foremost – are seen as the solutions to all our problems of tomorrow. How do we make sense of it all? How do we equip policymakers to enable them to (re)design more desirable public policy?”

ORGANIZATION

Name of the Policy Lab: La 27e Région
Contact person: Nadège GUIRAUD
Professional position and organization: head of programme
Contact email: nguiraud@la27eregion.fr
Webpage: www.la27eregion.fr
Country: France

La 27e Région came into being as the result of a spontaneous initiative on the part of an elected regional official, a dissident consultant and a philosopher of the digital world, all eager to re-examine how public policies are designed and implemented, particularly at the regional government level. Their initiative resulted in an alliance with the Association of French Regions (ARF) in 2008, which subsequently grew to encompass other levels of public authorities, including the national level.

Since its beginnings, the goal of La 27e Région is to play the role of “public transformation lab”. To this end, it mobilizes the capabilities of multi-disciplinary teams composed of designers, idea generators, and social scientists from many fields (ethnography, sociology, participant observation) and engages in ground-level actions (do-it-yourself projects, adult education actions, *etc.*). Both these approaches prioritize the concrete experience of users, civil servants and citizens to serve as the starting point for re-examining public policy.

The work of La 27e Région is two-fold. It conducts action-research programs, such as *Territoires en résidence* and *La Transfo* to prototype new methods for designing and implementing public policies by engaging in experiments in the field. And it acts as a resource centre set up to build and pool knowledge and know-how, and to encourage peer-to-peer exchanges in the public sector.

Initially commenced on a test basis within the FING (The Next-Generation Internet Foundation), La 27e Région became an independent association in January 2012. Neither lobbying agency nor private consultancy, it has been funded since its early phases by the ARF, the Caisse des Dépôts and nine member regions (Aquitaine, Burgundy, Brittany, Centre, Champagne-Ardenne, Nord-Pas de Calais, Pays de la Loire, Provence-Alpes-Côte d'Azur, Rhône-Alpes); it also benefits from European funding (Europ'Act).

Together with the consortium RE•ACTEUR PUBLIC, la 27e Région has worked to improve the convergence between State and local authorities in the field of public innovation. La 27e Région is also associated with various international projects.

The founders of la 27e Région (named after the 26th regional territories of France) have made the choice of positioning themselves not as a service provider and having no customers; it is a project of general interest based on partnerships. Its role is to **produce and pool knowledge, proposals and feedback** to be widely shared for the common good. Partners are local and regional authorities, public administrations and private stakeholders who provide funding to both benefit from and actively contribute to the common good.

In most cases it is the Lab itself that frames the issue, then a partnership is created within this methodological framework and within this governance model.

La 27e Région bases its business model on membership (mainly public bodies), partnership in the framework of their 3 main programmes (Transfo, Residencies and éclaireurs), support of foundations and a small part of services (training, etc.).

Alongside medium-term funding schemes, the lab is currently seeking longer-term funding schemes. For example, it is part of TIGA (*Territoire d'Innovation de Grande Ambition*, innovative territories of high ambitions), a program operated by Caisse des Dépôts and the Ile-de-France Region. This project aims at training local elected officials and developing city centers revitalization projects.

La 27e Région, equipped with a solid and original methodology, operates in many different fields, ranging from health issues (e.g., “rethink health homes” in Auvergne region) to “the work environment of an elected official” in Nord-Pas de Calais region, to “high school high human quality certification” in Champagne-Ardenne, to “the next generation train station” in Bourgogne region.

One of the topics for which 27e Région became widely known is reimagining the library of the future.

The team is composed of 8 persons employed permanently, with 2 part-time employees. Their backgrounds are as varied as cultural projects management, cultural administration, design, marketing and management.

Its interdisciplinary teams are composed of designers, idea generators, and social scientists from many fields (ethnography, sociology, participant observation) and it engages in ground-level actions (do-it-yourself projects, adult education actions, *etc.*). Both these approaches prioritize the concrete experience of users, civil servants and citizens to serve as the starting point for re-examining public policy. Specific projects then involve a large network of designers, artists, social scientists, architects, urbanists, popular education experts... and other professions or expertise relevant to the project.

Its operative team acts more like social entrepreneurs than an NGO, in the sense that the board of director makes strategic choices, but it is not directly involved in operations. Their board is composed of local authorities, that are real partners willing to experiment on change process in public services. They are not elected political figures, but mainly public servants, qualified members, coming from various interdisciplinary fields.

PROCESSES AND TOOLS

La 27e Région conducts action-research programs to test new innovative methods for designing public policy involving all public stakeholders. To this end, it mobilizes the capabilities of multi-disciplinary teams composed of designers, idea generators, and social scientists from many fields (ethnography, sociology, participant observation) and engages in ground-level actions (do-it-yourself projects, adult education actions, *etc.*). Both these approaches prioritize the concrete experience of users, civil servants and citizens to serve as the starting point for re-examining public policy.

An extract from the lab website clearly outlines the principles underlying their approach: “What we call *public policy design* consists of applying the principles of design

– or *user-oriented design* – in the making of public policy. This is both a mindset and a series of methods to re-examine the problems of society, to better understand situations from the perspective of the intended beneficiaries, to involve them in tests and simulations, and to develop prototypes of solutions that can later be deployed with a better chance of success.

The design of public policy is a **multidisciplinary and collective practice**. Designers act as one element of a broader set of professionals versed in the issue of uses: field sociologists, participatory architects and planners, social network professionals, video artists, ethnologists, participatory journalists, philosophers and a number of activists who invent their business practices along the way, by mixing lessons learned from political science, adult education, collective actions, *etc.*

Based on practices implemented in the field, new possibilities arise as a result of creative dialogue with users and by sharing views by means of representation and materialization techniques. These possibilities are then put quickly to the test, the goal being to organize policymaking practices differently and thereby give new meaning to public action.

Technology is considered a useful instrument when needed, not a necessary part of the process. Sometimes low-tech solutions, relying on human interactions or on non-digital communication choices, are considered much more interesting.

La 27e Région acts on 2 different levels: action research and resource centers.

Action research

For the action research activities, three main type of actions are conducted: 1) Territories in residence; 2) La transfo; and 3) Les éclaireurs.

1. ***Territoire en résidence*: local experience in new ways to take public action**
2. A multidisciplinary team resides in total immersion within a public facility or service – a neighborhood organization, school, community center – for three separate one-week periods to question the operation of the entity from the standpoint of its beneficiaries in order to propose concrete improvements. Through experimentation, the goal of *Territoires en résidence* is to demonstrate the value of an approach based on observing current uses, on the expertise of citizens and professionals in the field, and on prototyping and rapidly testing new public policies.

Territoire en résidence is seen as “an alternative to conventional engineering”. Customarily, public players turn to researchers, consultants and evaluators to help design public policy, which is often not only an expensive approach, but one that proves to be inadequate in meeting the challenges of public facilities and services and the needs of their users. How can the implementation of public policies be re-investigated, improved and redirected based on current practices and the experience of users? Inspired by artists-in-residence programs, *Territoires en résidence* has been deployed throughout the country as an alternative to conventional modes of public action.

The following map (Figure 28) shows the variety of residencies realized so far:

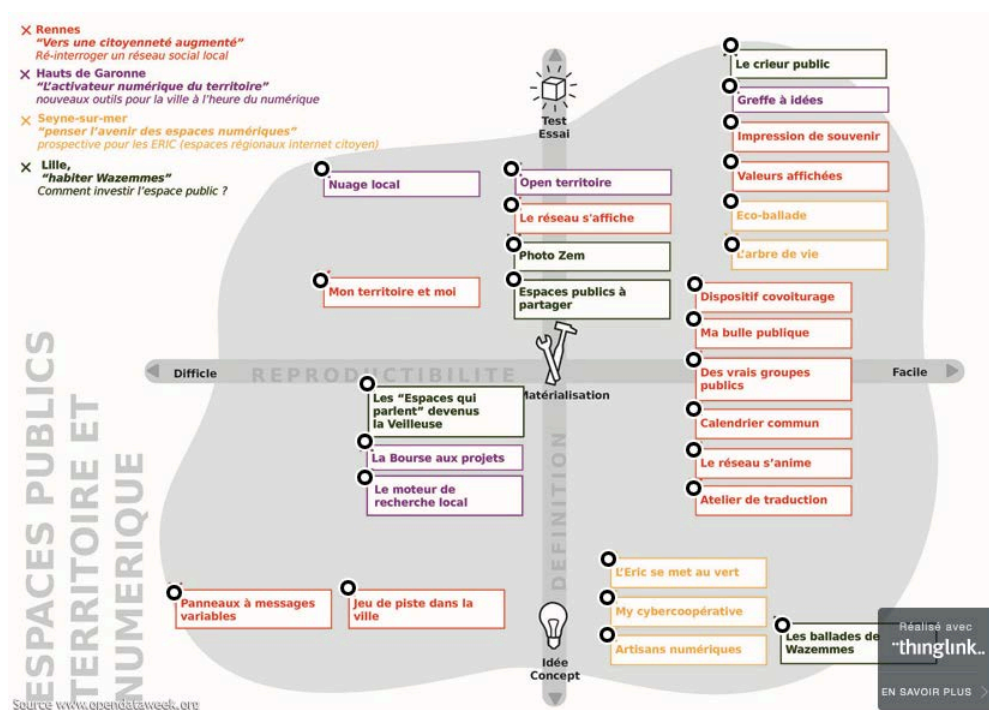


Figure 28 · Interactive map ⁹⁹

La Transfo is an experimental and inter-public services program initiated in 2011. It seeks to create, with its partner public departments, a prototype of their specific innovation function or a “lab”. To this end, a multi-disciplinary team of residents is integrated in the local administration for 7 to 10 weeks to play the role of temporary laboratory. Over a period of 1 to 2 years, the residents work with the public agents, elected officials, citizens and the entire administrative “ecosystem” on a specific topic. Together, they test, in a real situation, the future innovation function, its methods and team, its inclusion in the organization

⁹⁹ From: <http://www.thinglink.com/scene/249882391554818048>

chart, etc. Beyond this operational objective, *La Transfo* is also designed as an open source device allowing for sharing know-how and skills among different public authorities. This is mainly realized through meetings (Intertranfo-days) devoted to exchanging and evaluating methods and actions, by bringing together the teams engaged in the program and the authorities involved in these procedures.

La transfo was experimented in 4 Regions in France: Bourgogne, Champagne, Loire and Provence-Alpes-Cote d’Azur. These Regions then built their own independent (but still in network together) labs. Two years after the initial experiment, *La Transfo* is in the process of preparing a new program to engage ten new public authorities in the process (city halls, sub-regional authorities, regional entities, major public authorities).

According to La 27e Région, the strong points about the temporary lab concept can be described as follows: “To be efficient, the temporary lab is a lightweight mechanism compatible with budgetary restrictions; it is an across-the-board mechanism that can reach out in several directions, and it is neutral from a political standpoint, which gives it a certain degree of independence in relation to the political agenda. The door of the lab is always open; every elected official, civil servant, public authority partner is free to observe, via a real situation, the potential of this procedure and to take part in it directly.”

3. Les éclaireurs – the frontliners: a creative approach to imagining the public service methods and tools of tomorrow ¹⁰⁰

Les Eclaireurs is a collaborative foresight tool developed by La 27e Région to imagine the public service offer of tomorrow. By pointing a finger where a problem lies, *Les Eclaireurs* helps identify the tools, methods and processes that public authorities could employ in the future.

A resource center

The need of a resource center is described as follows: “The goal of La 27e Région is to contribute to a new culture of public action by promoting public service engineering that is more agile, and that targets the end result, leaving room for trial and error and experimentation. At present the demand for training in public innovation is very high, while initial experiments in this field are just starting to become transferable know-how. It is thus essential to pursue the work of defining and formalizing new training formats to transfer these new capabilities to as many public players as possible.

¹⁰⁰ <http://www.la27eregion.fr/en/foresight/>

The activities as resource centers involves:

- 1) A training activity, with specifically developed training resources and training sessions organized regularly
- 2) A publishing activity
- 3) A venue open to the public (*Superpublic*: a space dedicated to transforming public action)

Gare BZH: Nouvelles formes / nouveaux usages pour les gares TER Bretonnes

GENERAL DESCRIPTION

Name of the Initiative: Gare BZH : Nouvelles formes / nouveaux usages pour les gares TER Bretonnes (Station BZH : new forms, new uses for the regional station in Bretagne)
Website/ link: <http://www.la27eregion.fr/cas-pratiques/gares-bzh/> ; <http://garebzh.la27eregion.fr>
Location: Bretagne Region, Montfort-sur-Meu
Initiative Domain: Territoires en résidence 2007
Starting and ending date of the initiative: November 2015 - April 2016

As part of the modernization of the regional railway network, the Region Bretagne and Gares & Connexions (branch of the French National Railway Society) have carried out with the 27e Region a residence project on the new uses of small railway stations.

Stations tend to be categorized according to their frequentation, opposing on one side the stations with a counter, where an agent provides services, and on the other side the stops, where the users are self-sufficient. The question arises of an intermediate range of services, diversified, based on human contact points (whether material or digital), and above all adaptable to the needs of each territory. The occupation of the station premises is also an issue. While railway stations remain emblematic public equipment on the territories, some buildings are underutilized and deteriorate. Can we imagine other uses for these spaces, and simpler ways of enabling local players to occupy stations? This question raises the issue of the complex cooperation between transport operators, the Region (organizing authority), local authorities and civil society. How to strengthen these links, and develop a collective vision of each station, at the local level?

For 3 weeks (3 times 1 week of “residence” over a 6-months period), the team investigated 11 stations on the regional network between Rennes and Lamballe, in particular Montfort sur Meu station, on the outskirts of Rennes. The approach occasionally involved the design students of the Lycée Bréquigny in Rennes.

The methodology (*Territoire en résidence*) is based on field immersions by experts called “residents” (Figure 29). It is a specific model adopted by la 27e Région and already applied in more than 20 cases (such as schools, hospitals, *etc.*) since 2007.



Figure 29- The residents of Gare BZH

In this project, la 27e Région partners with Bretagne region and Gares & Connexions (the station branch of the national railways operator SNCF) to experiment with new uses of the rural train stations in the future. The project was initiated by the Region and SNCF, interested by the idea of testing a new methodology to address an issue only vaguely sketched at the beginning.

La 27e Région underlines how in all their activities, they position themselves as partners, and not as service providers. The governance of the project is thus shared. Their posture is more of a research action with potential outcomes. They often work on a residence “topic”, rather than on a clearly identified need. Having said that, in the case of the Gare BZH projects, the results actually steered several interventions on train stations that occurred after the project itself ended (see below).

The initiative is better described as a “user-oriented conception” rather than as a “co-construction process”. This was an explicit choice. In fact, the type of issue and the type of end-users (passengers passing by) made it difficult to ensure a long-term engagement necessary for real co-construction. The initiative is more a “time of dialogue between stakeholders to explore how to build a shared vision on the future of a train station”.

In the view of the project managers, co-construction (in the full meaning of the term) should occur when suitable, and not as a pre-assumption. In fact, a user driven approach doesn’t necessarily mean to co-create with the users: in this case particularly,

the users are not captive, and most of them participated only in a specific phase of the project. It was 50/50 financed by both Bretagne region (already a member of La 27e Région) and SNCF operator.

STAKEHOLDERS LANDSCAPE

The main actors involved officially in the project were SNCF, Bretagne Region, and La 27e Région. A natural additional partner would have been SNCF -TER (the train operator), but it was not possible to engage them.

Once the project started and after the first residencies, several other partners were engaged on specific tasks: for example, a local group of secondary school students for design hypotheses on potential solutions, the local bakeries that provided food access, local libraries, local users, *etc.* The project was highly convergent for all partners and based on a common interest to experiment on a shared issue. Thus, the convergence of the driving values was the main interest of the key stakeholders of the project. Each of the partners could provide a specific expertise: residents were experts (designers, sociologists,...), bringing a clear methodology to collect users' visions; the Bretagne Region was expert about mobility in the region and socioeconomic data; SNCF Gares & connexions was expert about everything related to train stations, but not necessarily about the actual *uses* of train stations.

Other stakeholders, including end-users, were involved for having direct expertise on the field: for example, local bakers which were involved to analyze how to provide breakfast baskets to frequent travelers, a local design school to participate in field experimentations, local libraries, and member of the community having specific interest in the life of their territory. Several dialogue events were organized to work with these groups (Figure 30).



Figure 30 - Community participation

uses or non-predicted uses than from more developed and controlled uses. The analysis carried out by residents is not always objective, and they purposely pay attention to the sensitive and emotional dimension of uses. This is a fully assumed posture and is considered to add value to the process. The material gathered from the observation phases is then analyzed (the “reframing problem” phase). New themes arise, mapping out of elements of tension and difficulties in the set-up of the services, which allow to draw lines of experimentation and tests.

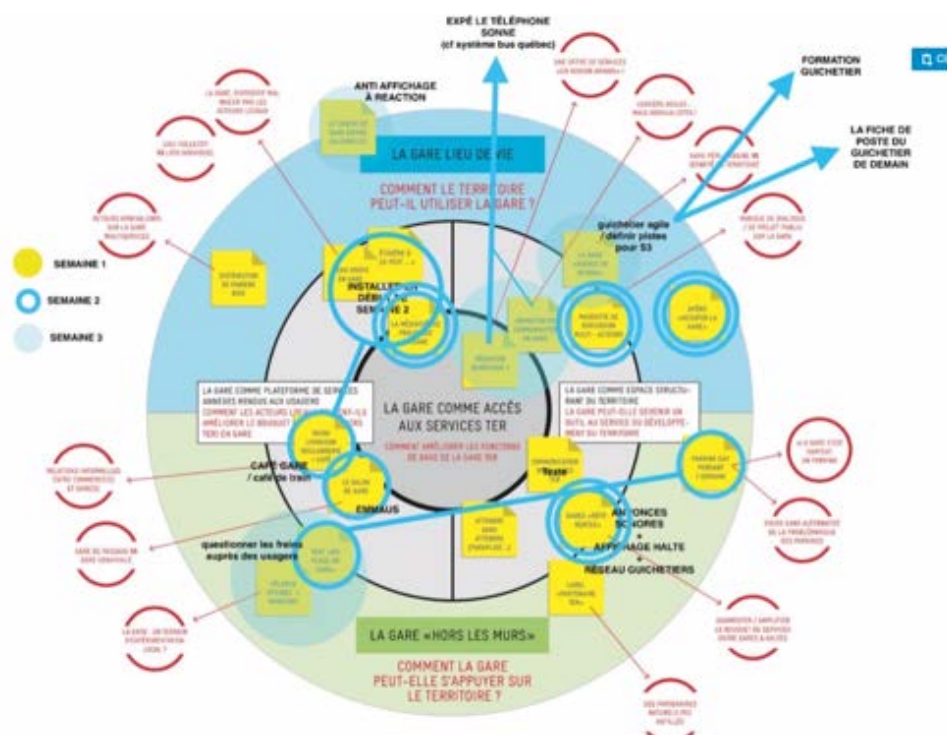


Figure 32 - Mapping elements and reframing problems

1. Week 2 and Week 3

The second and third weeks are phases of idea generation, ideation and prototyping. It consists in conceiving and testing ideas, after reframing the problem and developing new hypotheses. These phases are often carried out through workshops involving local stakeholders. Some examples of prototypes that were developed and tested are as follows:

- A collective pathway to ensure that people easily get to the station after leaving their car at a car park and take their bicycles, to avoid traffic jams in the morning
- Experimenting book-crossing, and how a cultural equipment can be redeployed in a station (in the specific case, this prototype was developed

together with local design students, to gather their view but at the same time sensitize them to public service design)

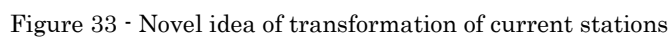
- Testing the distribution of breakfast baskets, or how can the local baker develop an offer in the station (local bakers were involved in the process at this stage)
- Testing a videoconference way of reaching out to a train agent based in a neighboring larger town. The test conducted to the observation that people didn't seem to necessarily need to identify someone in person, as long as they could have someone helping them out answering their immediate need by phone.

2. Week 3 / end of project

Production of the final deliverable: 3 posters with novel idea of transformation of current stations (Figure 33). Presentation of these deliverables to policymakers, local stakeholders and general users.

10 stations were concerned by the study, but the work was focused on 2 of them. All the phases of the process are documented through a dedicated blog¹⁰².

¹⁰² <http://garebzh.la27eregion.fr>



Although the general model has been applied for many years by la 27e Région, project leaders insist on the fact that each case is very different, and that an issue specific-model is adopted every time: the actual tool used to engage stakeholders, perform observations, etc. differ in every residency carried out by la 27e Région, and they are created ad-hoc every time.

The selection was made based on specific needs arising during the development of the project. For example, once it became clear that eating breakfast was an issue for the users, and once the question “who can provide breakfast-baskets?” was posed, it became clear that there was a need to engage local bakers.

The relatively short-term interaction allows to avoid fatigue of the participants: no withdrawal was observed in this specific case. However, this can be the case in other programs which lasts 14 months or more, where public agents are being asked to take part in a process which they find sometimes as a constraint.

As the solutions to experiment can sometimes be quite disruptive or it would need several years to implement (because it involves building works, or human training on a long-term basis), it can be hard to produce the impact envisioned in the residencies.

The objective of the process is not to guarantee specific solutions to a specific problem, but to help policy maker to better understand an issue and widen their perspective in the approach to the issue and to potential solutions. Direct implementation may or may not occur, or may occur on side issues, or in another field, but this is beyond the scope of the action research and residencies.

In fact, two of the architects and designers that participated as residents were subsequently asked by the stations institutions to concretely work on a different problem in different stations, for which the co-construction experience, although not directly related, became essential background material.

So, it can be said that, although not in its initial scope, the residency also had a very concrete outcome and led to implementation of results.

POLITICAL INFLUENCE (INSIGHTS)

The initiative was initiated by the Bretagne region. No specific actions or policy making needs were identified at the start, but the initiative was asked to actually inform and widen the horizon of policymaking on the chosen topic.

Since the project was not linked to a specific decision, action, implementation, etc., there was not political interference during the process. After the residences ended, the regional vice president in charge of mobility and transportations participated in the final discussions, and was made aware of issues, opportunities, *etc.* An innovative renovation program then started in another station (Landivisau), considering the project results. Both these facts appear to validate the soundness of the approach used.

As for the citizens, they were consulted and engaged at many different levels, from being observed and asked for input and feedback on site, to participation in the local workshop.

MEDIA AND COMMUNICATION

The communication and dissemination actions are key to demonstrate the importance of such experimentation. A blog documenting the process is part of the methodology. It was kept with particular care, and it remains a very precious documentation source. The blog opened at the beginning of the initiative, and was updated all throughout the experimentation on site. It continues to be frequently updated and fed with illustrations, pictures, verbatims, and with articles on the experimentation of the residents.

Also, the residency steps and methodology in a timeframe is made visible to participants and partners: this is considered important for stakeholder engagement, and for the initiative to gain credibility.

A methodological guide was produced for Bretagne region and SNCF TER stations so they can have tools to reproduce the experimentation in other projects

Finally, a well-designed, communication-friendly deliverable was produced, consisting in 3 posters of visions of future stations in order to take people's imagination to a wider place and break free from usual representations of what a train station is or should be. This was presented to policy makers, stakeholders and in local stations.

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

The term co-creation is only partially assumed by the project managers. As they have a long-term experience in these topics, they warn from improper uses of terminologies like “design thinking” or “co-creation”, which should be used in their true meanings. In the case described, they prefer to talk about “user-centered conception”.

The whole process is highly experimental. Project managers underline the need of constantly developing *ad-hoc* tools (to run workshops, to engage stakeholders, to document observation), rather than relying on existing, replicable tools.

Although replicated already 20 times, the initiatives allow for new discovery and the development of new methodology every time. This and the way the different actors are engaged, shows an increase of trust for the project during the initiative development, both at the level of civil society engaged, and of the organizations at the origin of the initiative.

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

The following refers mainly to the specific initiative described above.

One of the key expertise of the 27e Région appears to be the capacity to adapt a solid general methodology to local issues. The fact of adapting the composition of the team, to produce *ad-hoc* design tools etc., while still anchoring them in a well-tested process, is one of the strengths of their activity.

Another interesting and sound choice is the idea of not defining a specific, concrete case on which to act, but to analyze the issue as a whole and suggest various possible areas of intervention through exemplar prototypes. This actually opens up greater chances of actual uses of the results by policy makers, although not necessarily directly arising from the specific initiative.

Timing appear to be a critical variable and it is key to the success of the methodology. They carefully trigger the moment and timespan to engage actors in order to maximize their contribution without over-stressing them or promising non-attainable levels of participation.

The timeline is thought out in order to alternate full immersion periods (three times 1 week of residency), with “desk” work allowing reflection and autonomous thinking (6 months overall period).

The process is designed to be adaptable: if the scaffold is strongly defined, the actual activity adapts in the course of the process.

In terms of influence for the policy making process, as stated above, policy impact is already embedded in the partnership sustaining the initiative, and the fact of not addressing a specific problem actually increases policy impact. In fact, the residencies are experimentations and research action initiatives that helps policymaking to better

frame and understand an issue. It appears that this approach generates more actual impact on policymaking than a process in which the desired implementations are defined in advance.

A specific case (two residents were commissioned a renovation work on a station, although in a different area, about a year later) shows that collaboration lasted beyond the project, and that the process generated a change in the way policymakers think about the issue.

We have the impression that one of the keys to the success of the process is also to adapt the level and type of co-creation activity to what it can actually produce, avoiding being too ambitious or not in line with users' needs, expectations and possibility of concrete engagement. In this sense, barriers are anticipated and/or circumvented.

5.9. Disruption Taskforce (DTF)

Author: Ulla Dubgaard (DDC)

PART 1- CASE DESCRIPTION

The Disruption Taskforce (DTF) is an innovation unit under the Danish Ministry for Industry, Business and Financial Affairs. The unit was established in May 2018 to replace the public sector innovation lab, MindLab, and therefore forms a very relevant policy lab case. The focus of DTF is to accelerate a digital transformation within the Ministry of Business and across the Danish business sector by developing, collecting, and implementing digital and technological solutions. Among the main initiatives is currently the GovTech program, which aims to create a new national GovTech framework from scratch, eventually making GovTech a growth area for Denmark. DTF is also tasked with challenging administrative procedures, processes and working methods throughout the Ministry. The taskforce works closely with internal stakeholders and externally with a number of private companies and research institutions, e.g. through its advisory board.

CONTEXT

In 2018, the world's first public sector innovation lab, MindLab, was shuttered after 16 years in operation. Innovators all over the world had modelled their work after MindLab, and the closure had a major impact in the sector. Former heads of MindLab, Thomas Prehn and Christian Bason, described the closure as being partly due to politics, partly due to the fact that MindLab's disruptive focus had run its course and was to be replaced with a unit with a bigger focus on technology and digital transformation¹⁰³.

In its place, and in line with the Danish government's strategy to make Denmark a digital frontrunner by 2025¹⁰⁴, the Danish Ministry of Industry, Business and Financial Affairs established the Disruption Task Force (DTF).

Disrupting the Danish model

The DTF was established in a political context with a major focus on how Denmark, one of the most digitalized countries in Europe¹⁰⁵, could maximize the benefits of new technology in both the private and public sector while safeguarding the main tenets of the Danish welfare model. The Danish government, led by the Prime Minister's Office,

¹⁰³ https://apolitical.co/solution_article/how-denmark-lost-its-mindlab-the-inside-story/

¹⁰⁴ <https://eng.em.dk/publications/2018/april/strategy-for-denmarks-digital-growth/>

¹⁰⁵ <https://ec.europa.eu/digital-single-market/en/desi>

sought out a uniquely Danish model of public-private collaboration and launched a “Disruption Council” in 2017. Consisting of a diverse group of business leaders, labor market stakeholders, innovators and academics, the council had a dual purpose: Uncovering how new technology could benefit Denmark’s growth, while protecting Denmark’s labor market model – not least its renowned flexicurity system that is designed to ensure the adaptability of skills to match employers’ needs while still providing security for the employees.¹⁰⁶

“We see it as a shared responsibility to make everyone feel safe and ready to seize the opportunities of tomorrow. We insist on seeking collective solutions to common challenges. This is why Danish trade unions work with employers and the Danish government to manage disruption... Just last year, we concluded a tripartite agreement on how to upskill and reskill the workforce through public adult vocational education and training,” wrote member of the Disruption Council and president of the Danish Confederation of Trade Unions, Lizette Risgaard, about disruption and the Danish labor market model in Financial Times in 2018.¹⁰⁷

Looking at two examples of how Denmark has interacted with disruptors from the private sector, we see the juxtaposition between disruption and the current reality of the Danish model, namely the labor market and current regulation. This is reflected in the vastly different reactions to the entrance of, respectively, Uber and Airbnb in the Danish market. In 2014, Uber entered the Danish market, and this was met with huge protests from the well-organized taxi unions. Complaints to police, protests and court cases plagued the ride sharing firm, and it eventually withdrew from Denmark in early 2017. Not so with another major disruptor to the private sector, Airbnb. In the summer of 2018, Denmark established the world’s first agreement with Airbnb on automatic tax registration¹⁰⁸, which forces the home rental company to report rental income directly to government authorities. In return, Airbnb hosts were given increased tax-free allowances on their rental income. One interpretation, in an editorial in Danish paper Jyllands-Posten, was that Airbnb was allowed to continue their activities in Denmark precisely because they acted in accordance with the Danish model by agreeing to work with the tax authorities.¹⁰⁹

¹⁰⁶ https://www.regeringen.dk/media/6332/regeringen_disruptionraadet_uk_web.pdf

¹⁰⁷ <https://www.ft.com/content/14a04b3c-2b9f-11e8-9b4b-bc4b9f08f381>

¹⁰⁸ <https://www.thelocal.dk/20180518/in-world-first-airbnb-to-report-income-directly-to-danish-authorities>

¹⁰⁹ <https://jyllands-posten.dk/debat/leder/ECE10612135/hvorfor-goeres-der-forskel-paa-airbnb-og-uber/>

In 2018, the Danish government launched a comprehensive “Strategy for Digital Growth”, which emphasized, among other areas, agile regulation for trade and industry and regulation for new business models¹¹⁰. While the strategy does not directly mention the Disruption Task Force or GovTech, a more efficient and digitalized public sector is the ambition behind several of the 38 concrete initiatives. The overall efforts of the Disruption Task Force, part of the Ministry of Industry, Business and Financial Affairs, should be viewed in this context.

Key policy objectives in establishing DTF

Modelled after innovation units in the private sector, the purpose of the Disruption Taskforce is to accelerate the digital transformation within the Ministry of Industry, Business and Financial Affairs, and eventually across the Danish business sector, using strategies and tools from the startup sphere (Figure 34).

PURPOSE OF THE DISRUPTION TASKFORCE



Figure 34 - Purpose of the Disruption Taskforce

Creating both internal and external value

The strategy is split 50/50 between creating internal and external value (Figure 35). Internally, the DTF is currently examining the role and profile of the future civil servant, focusing on new skill sets required for a digital reality, and working on a new data strategy for the ministry. The DTF also performs a supporting function for the Ministry's agencies. Externally, the taskforce works on developing concepts and initiatives that can create new business models and growth areas. DTF is currently looking into experimental schemes, such as regulatory sandboxes and testbeds, to better learn how to regulate new technologies and services. A specific, current priority for DTF

¹¹⁰ https://eng.em.dk/media/10566/digital-growth-strategy-report_uk_web-2.pdf

is the GovTech initiative, described in detail below. The taskforce wishes to create a new national GovTech framework from scratch, eventually making GovTech a new growth area for Denmark.

DISRUPTION TASKFORCE STRATEGY

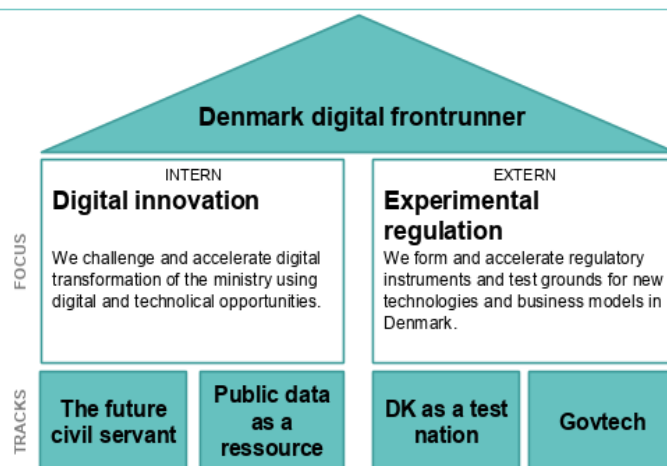


Figure 35 - Disruption Taskforce strategy

Duration

Projects are evaluated after 6 months on the basis of set KPIs, most importantly the long-term viability of the project, i.e. whether the project can survive on its own. DTF's role is not to be project owners in the long term. As part of the learning process, DTF expresses an objective to sharpen the selection criteria for projects (Figure 36).

ROADMAP

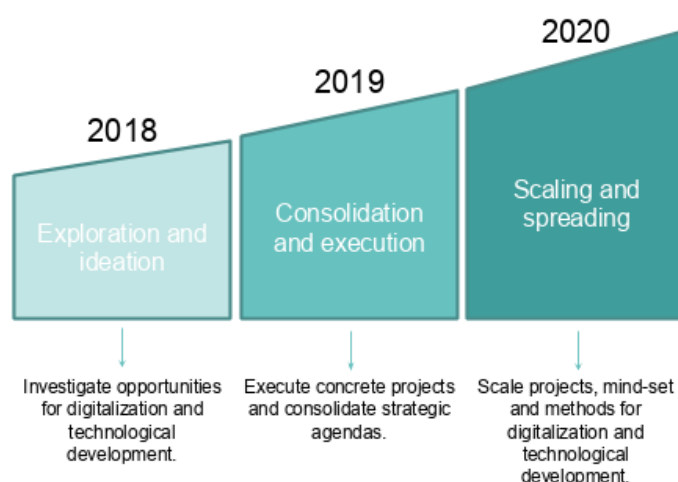


Figure 36 - Roadmap

Currently, the GovTech initiative (see below) is the most mature project, and DTF expects this project to become independent within 6-12 months.

ORGANIZATION

Name of the Policy Lab: Disruption Taskforce
Contact person: Special Advisor Niels Martin Andersen and Head of Disruption Mads Bonde Clausen
Professional position and organization: The Ministry of Industry, Business and Financial Affairs
Webpage: eng.em.dk/
Country: Denmark

The official vision of DTF is to challenge, concretize and accelerate the Ministry of Industry, Business and Financial Affairs' work to make Denmark a digital frontrunner. DTF initiates and executes development projects in partnership with relevant agencies and companies.

Disruption Taskforce was established by the Ministry of Industry, Business and Financial Affairs (top-down) as a part of its 2025-strategy in which digitalization and new technology is the main focus. The taskforce refers directly to the Permanent Secretary, with a mandate to challenge the current processes of the Ministry and push the digital transformation (Figure 37).

GOVERNANCE

FEBRUAR 2019

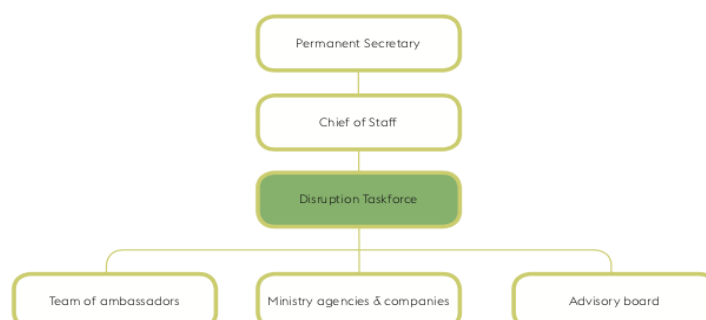


Figure 37 - Disruption Taskforce governance at February 2019

Disruption Taskforce is a publicly funded unit under the Ministry of Industry, Business and Financial Affairs. Certain projects, such as the GovTech initiative, include co-payment from participants.

Current activities have been initiated by DTF in collaboration with ministry management. Other potential activities have been presented by management in other offices and agencies (top-down). The DTF is currently screening those based on time requirements, and how they fit into overall strategy.

Thirdly, DTF performs a supporting function for colleagues in the Ministry. For example, DTF is currently in dialogue with the Ministry's life science team and the government entity Digital Hub Denmark on better use of health data. The role for DTF in this context is to act as internal consultants, trying to conceptualize and scope the task, creating tangible hypotheses and testing them with key stakeholders. This is in accordance with DTF's general way of working that is based on lean start-up principles.

The Disruption Taskforce is a small unit with currently four employees. The total staff will amount to five-six employees when complete. The taskforce works together with a range of stakeholders, including a number of "ambassadors" internally as well as an external advisory board (Figure 38). DTF is headed by the Ministry's Head of Disruption, Mads Bonde Clausen, and reports to Permanent Secretary Michael Dithmer.

ADVISORY BOARD

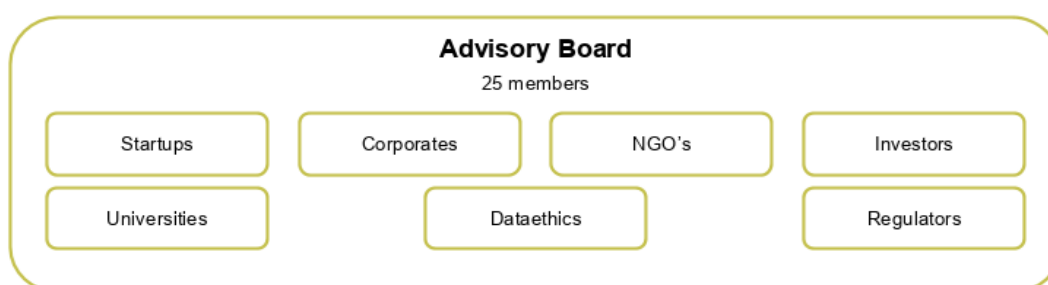


Figure 38 - Disruption Taskforce Advisory Board

The skills in the team are a combination of entrepreneurial mindsets and an interest in politics. In the current search for staff, DTF will look for people with more extensive tech experience or "tech gravitas," as expressed by special advisor Niels Martin Andersen. Project management experience and flexible project skills, as well as stakeholder management experience, are also important assets for the team. "We want to avoid becoming another team of normal policy officers. We need people that are slightly different than the rest of the ministry, but who are also able to navigate in a political system with a complicated stakeholder landscape," says Niels Martin Andersen. Positions within the taskforce are posted according to Ministry guidelines.

Besides the Disruption Taskforce, the main actors are the agencies and companies under the Ministry of Industry, Business and Financial Affairs, and an Advisory Board consisting of 25 people from corporates, universities, start-ups, NGOs, people working in data ethics and regulators.

The Taskforce and advisory board meet approximately every three months. Niels Martin Andersen describes the advisory board as a ‘major asset’ to DTF: “They find it interesting to be invited into the government machinery, and we need external people to qualify and improve our projects and ideas. We should be close to the private sector and not be too much a part of the system.”

However, it is also unprecedented for the Ministry to have an unpaid board with no express mandate, and Niels Martin Andersen says it has been a challenge to figure out “how to use them in the right way.” While DTF does not want to abuse the goodwill of the board members, an approach that is too hands off has not been successful either. “What we have found out is that even these great minds in tech need close coordination, and, frankly, to be told what to do in some cases. Inspiration and ideas are not enough. The board is most successful when its members are close to our projects and well-informed. For the GovTech initiative, for instance, we’ve set up a smaller group with an interest in GovTech, and we have a very fruitful bilateral dialogue with them.”

Working with the team of ambassadors (Figure 39), which includes heads of offices, heads of sections and heads of IT, has also been a learning process for DTF, and Niels Martin Andersen recommends engaging with these stakeholders on a project-to-project basis. “Don’t just pull them into briefing meetings, then it becomes too abstract and just another task in a busy workday. It works when we have a dynamic group working on a project-to-project basis. Don’t appoint ambassadors for, say, 2-4 years.”

The ambassador corps consists of 2-3 highly placed people from each of the seven agencies, which Niels Martin Andersen considers crucial when operating as a small unit in a Ministry with more than 2,000 employees. “You need champions high up, somebody to enforce your voice, if you want to make an impact.”

As a general recommendation when working with external stakeholders in a co-creation process, he says: “Be open about things, you don’t know. And don’t wait too long to engage with other people, you don’t have to have the perfect setup first. It’s a dual process.”

AMBASSADOR TEAM



Figure 39 - Disruption Taskforce Ambassador team

PROCESSES AND TOOLS

DTF works according to a specific method (Figure 40) inspired by design thinking and the so-called lean start-up approach: 1) Defining potential problems → 2) set up some hypotheses → 3) develop some tech concepts → 4) testing them → 5) publish recommendations.

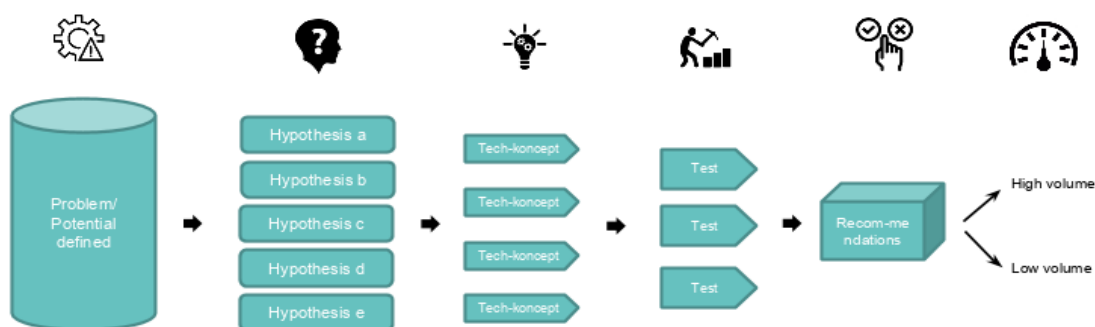


Figure 40 - Disruption Taskforce method of work

DTF finds that the benefit of this approach is the ability to start small with limited budget and, thus, limited damage in case of failure, says Niels Martin Andersen: “The model appeals to risk-averse civil servants. Risk awareness is a major driver in the public system and with good reason.” But the agile model also has its limits in the political world, he explains. “The lean start-up and SCRUM were written in a context, where you can measure everything. You need to understand and respect those limitations in a system like this. You can have a great idea and a way of executing the project, but sometimes things just get political. Either waiting for other ministries or a different political climate, all sorts of reasons can disrupt your project plan.”

He finds that people in the “system” are usually willing to listen to DTF’s ideas. “You rarely get a no, but one answer could be that “we need a process”, and that is in some cases another way of putting it on the backburner. In those situations, you need to be quite persistent. You can’t lose motivation. And other times, you have to fight for your projects and dare to be annoying. Not enough people do that. The system can be challenged, and people expect something different from us. But, just as in a private company, you have to find the balance. We were originally told that our mission was to challenge the system – but a wise person wouldn’t see that as an invitation to challenge everything all the time. You need to challenge the structure and the systems, when you have a solid argument and you are striving to reach a positive result. The system respects that, they know that that’s why we’re here.”

GovTech program

DTF has initiated The GovTech Program, a challenge-based initiative, which seeks to support, strengthen and further develop collaboration between the public sector and technology companies with new solutions for the Ministry of Industry, Business and Financial Affairs.

GENERAL DESCRIPTION

Name of the Initiative: GovTech program
Website/ link: <https://program.dk/#EN>
Location: Copenhagen, Denmark
Starting and ending date of the initiative: 2019-2020

The GovTech program runs in two main, parallel tracks; a 12-month pilot program consisting of five concrete challenges (see examples of challenge descriptions below) from agencies within the Ministry, along with a long-term strategic effort to engage more ministries and expand the effort, linking it to political initiatives and public funding. A third track focuses on the use of dynamic procurement systems and the selection criteria therein, with the UK Government’s Digital Marketplace G cloud¹¹¹ as a case.

The overall objective of the program is to remodel the public sector procurement system in order to help smaller companies get a larger share of the market and shape a precedence for the public sector in Denmark to work more closely with the startup community.

¹¹¹ <https://www.digitalmarketplace.service.gov.uk/>

The five challenges across the agencies within the Ministry are set up with the purpose of both providing concrete solutions and producing proof of concept in order to expand the effort across ministries and the public sector in Denmark.

DTF emphasizes that the program must be able to continue to grow outside the ministry, in the hands of external partners, within six months in order for it to survive.

GOVERNANCE

The GovTech program was initiated by DTF (bottom-up). The operational process and stakeholder management is maintained by the UK consultancy firm/venture fund PUBLIC, which was chosen based on a tender process.

The project is funded by the Ministry for Business. The agencies/challenge owners pay to be part of the programme.

STAKEHOLDER LANDSCAPE

DTF/The Ministry for Business initiated the program. The Ministry is considering inviting other ministries in further down the line to scale the effort but will continue as program owner for now. The Ministry's role is to monitor the progress of the program, and the final evaluation will be done by a body of agency directors within the Ministry together with DTF. Prior to the project, these agency directors approved the criteria for success, and they are regularly updated on the progress of the project.

5.9.1.1. *Other stakeholders:*

- The agencies/challenge owners, including The Danish Competition and Consumer Authority and The Danish Business Authority. The challenge owners have pledged to both participate in the challenge process and do a tender afterwards
- PUBLIC agency, leading the process in close collaboration with management from the agencies. PUBLIC is a UK-based consultancy firm/venture fund, which was chosen based on a tender process. Following the tender, PUBLIC opened an office in Denmark. PUBLIC specializes in connecting startups with the public sector and is currently operating programs in the UK, Germany and France.¹¹²
- The companies, 11 companies from six countries are participating in the final stage of the program, screened by PUBLIC (Figure 41). The companies span a number of sectors, from e-learning (Canopy Lab) to smart tools and 3D printing (Thurmer), smart governance (Polyteia) and construction technology (Rendra).

¹¹² <https://www.public.io/about-us/>

PUBLIC was chosen through a tender process. According to DTF, the following criteria were consequential in the choice of PUBLIC: i) Tech knowledge, ii) international oversight, iii) a strong interest and record in promoting the overall agenda.

The agency works directly with management in the respective agencies. Niels Martin Andersen, DTF: “In many of our agencies, the directors are personally involved. The process requires top-level engagement from the challenge owners, because if we’re successful, we’ll present our challenge owners with technological solutions that are slightly different from the original challenge call. We want to challenge them both in the scope of the problem and in the solution.”



Figure 41 - Tweet from PUBLIC announcing the companies, May 8th, 2019

PROCESS STRUCTURING AND ENGAGEMENT

When framing the overall problem and the need for more technological solutions, DTF looked at several factors, including:

- People expect better government services
- Welfare state needs to save money
- Tech solutions are getting more advanced and cheaper
- The public sectors poor record in working with start-ups and SMEs

DTF says: “Naturally, we see a political push for implementing more technology in the welfare state system and using it as a means to solve challenges in the public sector. Technology frees up hours for the people that are working close to the citizens, whether it’s nurses, caretakers or preschool teachers”

PUBLIC established an office in Denmark in early 2019, soon after being chosen in the tender process and opened applications for the programme in February. The 11 chosen companies are now working with the challenge owners and will present their prototypes in June (Figure 42).

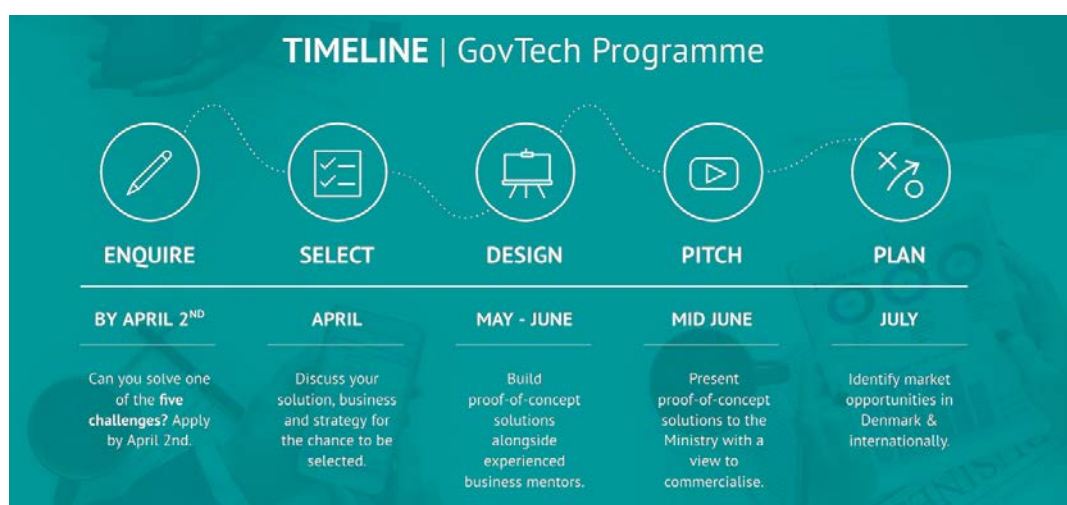


Figure 42 - GovTech timeline ¹¹³

The problem was framed by DTF and approved by leadership in the Ministry. Niels Martin Andersen says: “In this phase, it is important to know the system from the inside. You have to speak the same language. For example, that this sort of communication is done via memos and reports, because that’s just how it’s done.” DTF notes that in other projects cases, the advisory board could be included in this phase.

The specific challenge descriptions were shaped in a dialogue between the agencies and DTF ¹¹⁴:

1. The Danish Business Authority would like to investigate how Danish companies can achieve greater understanding and awareness of how to work ethically with data. How can new technology help to create better data ethics, and how might this field add commercial value to Danish companies?

¹¹³ From: <https://program.dk/>

¹¹⁴ <https://program.dk/#EN>

2. The Danish Safety Technology Authority would like to investigate if new technologies such as laser-scans, 3D technology, image technology etc. can provide new solutions for the production and presentation of housing floor plans to create a clearer overview of a house.
3. The Danish Safety Technology Authority would like to investigate if new technologies can help create a fast and precise overview of piping installations in buildings. This can help uncover illegal and dangerous installations, which may not be visible. One example could be a solution to assist the controls of electrical installations in private homes to uncover fire hazards.
4. The Danish Competition and Consumer Authority would like to investigate how new technology and digitalization can make the economic regulation of the water and waste water sector more efficient, with new data driven opportunities for customers, water companies as well as the wider business community.

In the ideation phase and leading up to the tender, DTF was in dialogue with a number of both internal and external stakeholders. Internally with lawyers to make sure the projects adhered to the strict rules of engagement with private companies surrounding a tender process. Externally with consultants and companies to ensure they designed a program that was appealing to private companies.

The tender process itself was conducted according to the set SKI-framework which regulates all procurement for the Danish government. DTF set up seven criteria for selecting a bidder, including a strong understanding of different challenges in the agencies, technological understanding, international network and project management experience.

The agencies/challenge owners were not a part of the selection/tender process, which was instead led by a steering committee within the Ministry.

PUBLIC was in charge of the detailed market dialogue and made recommendations (Chinese wall between the companies and the challenge owners). DTF emphasizes that although the agencies/challenge owners have pledged to do a tender after the challenge, any agency is ultimately free to decide otherwise pending the outcome of the challenge.

The process is ongoing, and, following the choices of companies, the agencies and PUBLIC will now be in contact on a weekly basis.

Long-term impact

DTF describes the final solutions to the challenges as being “very real, highlighted by the fact that the agencies are actually paying for them. This has been a priority to make sure that they’re not just “nice to have” ideas.” The solutions will be implemented straight away - the short-term impact - but also be a way of testing new things such as flexible procurement to come up with a set of recommendations for the long term that will inspire other public entities to follow the example.

Another potential impact is that the agencies will use a flexible procurement scheme and hopefully look across the board at both small and big companies when choosing a provider to solve the challenge and go beyond just choosing companies that have three previous public clients or a certain turnover, which is often the case.

The program continues to create new relationships between startups and the ministry. DTF is also experiencing a growing interest across the public sector in Denmark. The aim is to scale the program to other ministries in Denmark and, eventually, go global, as per the 2025-strategy to make Denmark a digital frontrunner.

POLITICAL INFLUENCE (INSIGHTS)

Govtech applies to many political agendas, including better adaptation of new technology, better use of taxpayers’ money, engaging SMEs and implementing start-up friendly policies. Niels Martin Andersen says: “The underlying political framework to support the agenda is definitely there.”

The initiative was shaped within the Ministry/DTF and thus within the framework that they operate in (see above). There has been no direct citizen participation in this process.

MEDIA AND COMMUNICATION

DTF participates in a number of conferences, including the Danish Internet Week and the people’s summit “Folkemødet”, tech conferences, as well as the international GovTech Summit in Paris in November.

External stakeholders, not least the advisory board, support the communication of DTF’s work, and DTF states that they prefer communication around the agenda rather than the unit itself.

With the words of Niels Martin Andersen: “while we realize the importance of communication, we are also working hard to establish ourselves as a successful unit.

Meaning that right now we are focusing on executing projects, and we have no wish to be part of the innovation circus.” DTF’s target audience includes municipalities, ministries, other public entities and private companies, rather than the general public. There are no specific efforts in place to target press. “We launched the program with a major conference, and partners like PUBLIC are very active promoting the agenda, including in the media. But press is not a huge focus for DTF” continues Niels Martin Andersen.

Internationally, DTF is involved with the UK-based innovation foundation NESTA and the learning platform Apolitical. Head of the unit Mads Bonde Clausen held a “show and tell”-session about DTF on the Apolitical platform in April with participants from all over the world.¹¹⁵

No specific communication initiatives have been planned around the GovTech program.

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

DTF describes a “general interest” in GovTech from the involved public officials, based on the recognition that “while they may be very good at detecting challenges, they may not be the best at solving them technologically.” But Niels Martin Andersen also acknowledges that there is a “healthy dose of skepticism in terms of what we can achieve”. “It is always difficult creating awareness around a new initiative, and we still need solid proof of concept. But people do think that it is important.”

While the agencies defined their own challenges, DTF assisted in the scoping, ensuring that the main focus was on the end user. DTF found that involved public officials were open to this dialogue.

DTF describes a general trust among the stakeholders as well as a sense of curiosity. As far as the economic incentive - the agencies pay to be part of the program - Niels Martin Andersen says: “Most agencies know that a professional scoping market dialogue is the right thing to do, and that if they were to do it independently, it would also come at a cost. They recognize that there’s a structured and thoughtful process here.”

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

As a unit within the Ministry for Industry, Business and Financial Affairs, DTF clearly operates within the traditional ministry framework. While they do seek ideas and collaboration from external stakeholders, ideas for projects have been shaped mainly

¹¹⁵<https://zoom.us/recording/play/y09PnH57jOenIReUALg64XvNZ4XPwUxTZncn5j4bYhI0gzFT36T-419xmuFHHHAb?continueMode=true>

within the Ministry/DTF and must be approved by management. Similarly, ideas from other agencies have come from management level. Niels Martin Andersen recognizes that this is a necessity to operate as a task force within a government entity. As he says: “We were originally told that our mission is to challenge the system – but a wise person wouldn’t see that as an invitation to challenge everything all the time. You need to challenge the structure and the systems, when you have a solid argument. I think the system respects that, they know that that’s why we’re here.”

Going beyond the Ministry, DTF did engage both public and private partners to shape the GovTech program, ensuring that they were both in line with regulatory frameworks and provided the right incentives for private partners to participate. Engaging with PUBLIC provided DTF with the market insights and network as well as the necessary arm’s length to the private companies. Such a framework may also help support the program’s long-term viability and encourage other, independent GovTech initiatives.

At the moment of writing (June 2019), evidence is not available in regards to the capacity of the taskforce to have direct influence on policy making or create a lasting dialogue between actors beyond the project, as the project is not yet completed.

The process has faced a number of barriers:

Former head of the taskforce, Kåre Riis Nielsen, left the taskforce in February. The new Head of Disruption assumed the position in April. The DTF does not yet have a firmly established funnel for new projects or set criteria for success. An innovation model is underway.

Communicating to a broader public is not a priority at the moment, as the taskforce wishes to spend its limited resources on project work. Further engagement would most likely require stronger communication efforts.

The model with the unpaid board with no clear mandate has been a challenge and it has taken time for DTF to find a good collaboration model. While they do not want to abuse the goodwill of the board members, an approach that is too hands off has not been successful either.

5.10. Torino City Lab

Author: Margot Bezzi (APRE), Chiara Buongiovanni (APRE)

PART 1- CASE DESCRIPTION

Torino City Lab is the new **“Innovation Laboratory”** opened and spread over the entire area of the city of Turin (Torino, in Italian). It is an initiative promoted by the City of Torino to **support companies in co-development and testing of frontier innovations on the territory of Turin**. Relying on a supporting R&I ecosystem, the Lab is strongly inspired by an open innovation approach and less focused on co-creation, with a strong role played by the Municipality itself. Working on open calls as well through spontaneous submission mechanism, the Lab is focusing on autonomously driven and connected vehicles, Drones, IOT and 5G, Artificial intelligence and robotics. These frontier technologies are considered at the service of quality of life, environmental and social sustainability in the city ecosystem. The specific initiative reported in this case study regards smart mobility and is called InTO.

CONTEXT

The city of Turin has been living relevant transformation over the last decades, from both a urban as well as socio-economic perspective.

A political agenda for social sustainability of urban transformation

Ilda Curti, former deputy mayor of the city, describes well such a transition. “In the mid-nineties the City of Turin started to cope with the issues of urban redevelopment and urban regeneration, implementing since then a set of policies, tools and processes, in the framework of two key factors - both exogenous and endogenous - which affected the transformation of the city. On one hand, the **crisis of Fordism** which left more than six million square meters of dismissed industrial areas, forced the city to **re-consider its identity** after being a factory-city during all of the twentieth century. At the same time, it pushed to **re-think about the large urban empty space left** (around 80% of urban areas in Turin). Moreover, investments for the **2006 Olympic Winter Games** gave a further impetus to urban transformation. On the other hand, over the same period, a **urban crisis appeared**, involving the dense, built up and inner areas: historical neighborhoods became stereotypes of conflicts, and citizens’ demand for security broke in the local political agenda often with an adversative and demanding approach, particularly regarding newcomers (migrants above all). In those years, therefore, **many diverse, urban recovery and regeneration processes were launched in combination with**

integrated projects aiming to reinforce the social fabric, (through Urban Recovery Programs, Neighborhood Contracts and Local Development Actions)"¹¹⁶.

“The matter – according to the former deputy major –is about **transforming *with* the city, and not transforming the city**. Providing tools to local communities, and networking cultural and economic resources means **to take up the issue of social sustainability of urban transformation**”.

At the very center of such a political agenda, lays **citizens’ trust on governance**. “I believe that the **authority of public and private governance**, as well as the one of all those having a collective responsibility, is crucial to keep the focus on long-term actions”, she said presenting the Turin regeneration program, currently on going.

Turin: a vision for an urban, open platform

The city of Turin was officially awarded with the second prize as European Capital of Innovation 2016 *for its innovation capability, by triggering innovative processes and solutions as well as strengthening synergies within the innovation ecosystem distributed in the surrounding area*.

Operating since 2018, born under the city Council led by Chiara Appendino and in tight cooperation with her alderwoman to innovation Paola Pisano, **the new Torino City Lab** can rely on a solid and supporting research and innovation ecosystem.

The **vision of an open and innovative city**, implemented at the municipality level through a number of integrated policies, activities and tools, has resulted to be a major “ingredient” of the ongoing urban transformation. Keeping its historical positioning on key sectors such as automotive, aerospace and finance, Turin has been progressively focusing on cutting-edge as well as social innovation approach. Given the broader Italian landscape, such a vision has resulted, over the years, in a unique urban landscape, where **frontier research, open innovation and social impact find quite a common, breeding ground**.

In particular, **the Turin ecosystem counts on several policy and innovation platforms** which most of the times are enabled by the Municipality and run in partnership with major urban stakeholders from the industrial, research, finance, SMEs as well as third sector ecosystem.

¹¹⁶ www.comune.torino.it

Here is a **brief overview** of the ecosystem: an open innovation model supporting social innovation start-ups and creating new market opportunities for urban innovations.

- **Torino Social Innovation** is a public program, a set of strategies and instruments to support new young enterprises able to address social needs in different fields and to create a blended value for society, both social and economic. The aim is to sustain young social entrepreneurs, their creativity, digital competences, and their perception for social improvements. Torino Social Innovation has adopted the model of “**open platform**”, where public and private organizations act in partnership and jointly innovate. This partnership involves the **Municipality of Turin and other 40 organizations**, with the aim of creating an open ecosystem of actors and stimulating synergies among them; this is the added value of TSI. First level partners contribute with managerial advisory in favor of social entrepreneurs that apply for the call Facilito Giovani (see below). Second level partners provide complementary service, for example grants for the testing phase, grants for each job position created by social entrepreneurs that apply for Facilito Giovani, services of social housing at discounted fees.
- **Facilito Giovani** is the service offered by the Municipality of Turin, from 2014 to 2016, to support entrepreneurial projects targeting emerging social needs. Facilito Giovani offered information, technical and financial support for proponents of innovative ideas that were able to create a blended value, both social and economic, in different fields, as education, quality of life, mobility, social inclusion, health. More than 650 000 euros were invested in supporting actions and 200 000 euros in professional advice.
- **Open Incet** – The Center of Open Innovation resulted from a call launched by the Municipality of Turin with the aim of restructuring an old industrial building of 1400 square meters. Opened in 2015, this building is part of a wider area, named “Ex-Incet”, subjected to a process of urban requalification. It is a key element of the Torino Social Innovation platform, created with the purpose of **increasing the effectiveness and the resilience of the local innovation ecosystem** by complementing the existing innovation offer, attracting investments and establishing connections with other local innovation ecosystems at the transnational level. The Center focuses on idea generation, enterprise creation and growth, internationalization and network development.
- The Turin social innovation approach was also directed to public servants themselves. In 2014 - 2015 **Innova.TO** was launched: a virtuous competition

exclusively addressing Municipality employees with the purpose of innovating the administration from the inside. Some of the ideas and collected suggestions were thereafter implemented with the direct involvement of the proponents.

Most recently, **new policy initiatives** completed the Torino Social Innovation framework, and in particular the Torino City Lab, which represents an evolution of the pre-existing Torino Living Lab (further analyzed in the following paragraph), Torino Social Impact and DecidiTO.

- **Torino Social Impact. City Lab for Change** is a platform that aggregates companies, public and private institutions aiming to implement a strategy for the development of high-tech social entrepreneurship in the Turin metropolitan area. This initiative aims to make Turin the main European ecosystem for high-tech social entrepreneurship and impact investing.
- **DecidiTorino** is the new Citizen Participation and Open Government application, active since 2019, promoted and managed by the municipality of Turin. In DecidiTorino, citizens can propose, comment and vote on project proposals, join or start discussions, and contribute to a number of projects the Municipality is working on. New solutions proposed by citizens are taken into account in the Municipality general strategy.
- In addition to the above, it is worth mentioning those major social innovation players which selected Turin as their headquarters, namely **SocialFare**, the first Centre for Social Innovation in Italy and **Nesta Italia**, a partnership between the global innovation foundation Nesta and Compagnia di San Paolo, one of Italy's largest and oldest philanthropic foundations.

Innovative startups: room for improvement and a call for social impact

Regione Piemonte is placed at the 5th position for the number of so-called “innovative startups” on a national scale, counting on a total of 430 out of 8711 ¹¹⁷. Vladimiro Rambaldi, President of Comitato Torino Finanza, presenting data from the last Report “Innovative Startups in Piemonte”, clearly stated **the need for the Region to intensify its effort**, with a view of enabling the creation of new startups as well as attracting startups from the abroad.

In their recent paper “Managing ecosystems for social innovation: the case of Torino Social Impact” (Falomi, De Giorgio, 2018) made available an interesting picture based on data from the Osservatorio imprenditorialità sociale, Camera di commercio di Torino

¹¹⁷ <https://www.to.camcom.it/osservatorio-sulle-imprese-innovative>

(2018), showing the percentage of so called “Social – innovative startups” over the total of “Innovative startups”. Interestingly enough, the Turin's ecosystem counts for the larger share of startup at the regional scale (75,1 % out of 430 innovative startups; 82,6% out of the 46 innovative social startups). Analysing further the aspect of “social impact entrepreneurship”, data is available concerning a variety of organizations acting at the Turing Province level, with a clear mission for social impact generation, regardless of their legal form. Considering the entire spectrum, from B-Corp to Volunteer associations, the total of the **so-called Social Impact Organizations** currently **counts over 2600 entities** (Figure 43).



Figure 43 - Social Impact Organizations in Province of Turin¹¹⁸

Research & Innovation: an ecosystem on the move

Turin is the capital city of the Piemonte region, which is ranked first in R&D/GDP ratio, on the national scale¹¹⁹. Within its regional territory Piemonte hosts a relevant ecosystem for research and technological transfer, counting four Universities with a total of 85 Departments, more than 200 high-quality Research centres focusing on leading tech sectors, 380 laboratories, 2 Science & Technology Parks, 7 Innovation centres, numerous research foundations funded by prominent banks as well as accelerators and incubators. Since 2018, Piemonte has joined the **Pilot action on industrial transition**, with a view to testing new approaches to industrial transition and providing the European Commission with evidence to underpin post-2020 policies and programmes. Torino also hosts the **first Digital Innovation Hub**, set in 2017 within the Confindustria system, the association representing manufacturing and service companies in Italy. In 2018 the **Competence Industry Manufacturing 4.0 Centre**, led by

¹¹⁸ From: Osservatorio imprenditorialità sociale della Camera di Commercio di Torino, 2018

¹¹⁹ Istat, data at 2016

Politecnico di Torino, has been granted with 10,5 million by the Minister for Economic development (MISE), with a focus on IoT, robotics, cyber-security, new materials, and energy efficiency. The city of Turin is involved in many innovative international and European projects, usually with the role of leader, like for example the UAM (Urban Air Mobility). The city is also **part of the network 5GAA** (5G Automotive Association) and it is the first city accepted into the network (composed mainly of automotive and ICT companies).

A vital ecosystem seems then to be in place, when it comes to research and innovation; however, as reported in the Smart Specialization Strategy of the Piemonte Region¹²⁰, **the regional ecosystem is not able yet to fully exploit it**, given the PIL growth – which is slower than other Northern Italian regions – and data related to startups birth and survival rate.

ORGANIZATION

Name of the Policy Lab: Torino City Lab

Contact person: Paola Pisano

Professional position and organization: Alderwoman to Innovation, Municipality of Turin

Webpage: www.torinocitylab.it/en

Country: Italy

Torino Living Lab is an initiative of the City of Turin created to promote, develop and test new innovative solutions in a real context.

“Make Turin the “place” where experiencing tomorrow is a task of today”

Strongly supported and promoted by the Municipality, Torino City Lab relies on a **broadier vision for the city**: positioning Turin at the European and international level as a place where innovation is easier and is a shared challenge for the territory.

Torino City Lab is aimed at creating **simplified conditions for companies interested in conducting testing operations of innovative solutions for urban living, in real conditions**. To do so, Torino City Lab provides simplified access to public spaces and assets, including intangible assets (processes, services and data); expands and strengthens relationships within the local innovation eco-system, through an articulated partner system; allows enterprises to “scale solutions”, promoting them within networks and projects on a local, national and international scale.

¹²⁰ Piemonte Region Smart Specialization Strategy, 2018, https://www.regione.piemonte.it/web/sites/default/files/media/documenti/2019-05/Monit_S3_10%2005_pub%20def.pdf

Torino City Labs is meant to work as an **open and widespread "laboratory of innovation" throughout the city area**, and involves a vast partnership of local subjects from public and private sectors interested in supporting and growing the local innovation ecosystem. Citizens, companies and public administrations explore and **experiment together innovative products, technologies and services in a specific area of the city in order to test its functionality and utility for end users** and assess the impacts on quality of life. End-users and citizens are involved especially through promoting local challenges and supporting the active participation of interested communities through "Call for actions".

The Municipality of Turin is leading the governance of the Torino City Lab open innovation model. Turin offers the entire city for the testing of innovative solutions, providing a system of physical, technological infrastructures, relations and know-how to experiment and then scale up the proposed innovations.

Enterprises working on cutting-edge innovation can either answer an open call from the Municipality or spontaneously submit their proposal for innovations to be tested throughout the city. Once enterprises and proposed solutions are selected by the Municipality, the City of Turin offers constant support to facilitate access and then facilitate the conduct of trials, in relations with Internal Services and Utilities.

By doing so, **enterprises can test their innovation on the field**, receiving direct feedback from final users (citizens) and consequently develop their business model thanks to the ecosystem support. Paola Pisano states that “the main focus for the Municipality is to **enable enterprise to transform their edging innovation into a useful and impactful service for citizens’ life**. If the testing phase supports the adoption – she explains – and we do realize that the innovation is bringing a concrete benefit for the city, **the Municipality becomes partner of the proposing enterprise**, with a view to support the innovation scale-up and the exploitation in the national and international market”. In such a model, **the “contracting authority” for the Lab activities and projects is the Municipality of Turin.**

The vision of Torino City Lab is not just limited to engage the local entrepreneurial ecosystem. Indeed, attracting companies from Europe and the world to engage new trajectories of economic development in sectors with high added-value and to serve the citizens of tomorrow are prominent objectives of the Torino City Lab, whose work is explicitly based on **values such as agility, transparency, openness and social impact.**

Through the Torino City Lab, the City of Turin is surpassing the classic Smart City model in favor of a more open innovation-oriented platform-initiative. The **ecosystem of the City**, that supports the project (large industrial companies, utilities, universities and research world, representative associations) **will also support the companies' experimentations**, when necessary, by providing skills and technological infrastructure.

In terms of **business model**, Paola Pisano explains that the Torino City Lab adopts a **mix-funding model**. “On the one hand we do attract national funds, such as the *Technology House project*, which will provide us with a grant of 7 million euros to work on this. On the other hand, we manage to attract venture and equity funds which constantly monitor innovation in our territory, and if interested can directly invest in them. These investors have also pushed their innovative enterprises to apply for testing their solutions through Torino City Lab”.

A new partnership category is in fact under development; it is called “**International scaling partners**” and includes different subjects, such as networks of innovations from all around the world, and venture capitalists. Those **partners are fundamental for the scalability and the diffusion** of innovative activities tested with Torino City Lab. Therefore, every company which tests with Torino City Lab will have a direct contact with professional investors both in Italy and in the rest of the world with the chance to obtain funds and resources. Extremely relevant in the Torino City Lab’s business model is the option to **transfer the tested solution to other cities around the world**. In this case, the **Municipality of Turin becomes business partner of the innovative enterprise** that developed and tested the solution.

Building on its territorial know-how and industrial past, **Turin is becoming an open laboratory of frontier innovation, able to attract companies and skills** to guide the development of the “City” of the future, specifically focusing on the specific interest areas for the ecosystem. With such a view, Torino City Lab works on **autonomously driven and connected vehicles, Drones, IOT and 5G, Artificial intelligence and robotics**, considering those frontier technologies at the service of quality of life and environmental and social sustainability at the city size.

Coordinated by the alderwoman to Innovation of the Municipality of Turin, a **team of eight persons** runs the entire spectrum of TCL activities. “We do work on high tech projects, but adopt a crosscutting approach, therefore **we need a variety of competences**: from those dealing with legal and bureaucratic issues to those dealing with business

modelling and funds. With such a view, we are working on capacity building”, Pisano says.

The view is to provide at any moment a team of experts from the city able to help the company in applying for permits and authorizations, to reduce the time to market and costs associated with the testing activity. Given the scope of Torino City Lab, at the moment there is no specific quest for **skills and professional profiles dealing with public engagement** and citizen dialogue.

To reinforce the Torino City Lab model, the City promoted official forms of collaboration and partnership with key stakeholders, with the main objective of consolidating aspects of technology foresight and of facilitating the diffusion and scalability of the solutions admitted to testing. These partnerships comprise large companies, international scaling partners, and other fundamental stakeholders co-interested in experimentation activities, such as research & development centers and organizations of civil society. Important partners are represented by public utilities that manage public services and assets, and that therefore are potential enabler of change across different sectors (energy, mobility, water, waste). More specifically, **partners of the Lab network are** (Figure 44):

- **Main business/industrial partners** (8): large companies that offer their help to consolidate aspects of technological foresight, as well as their infrastructures, network and visibility
- **Research and Innovation partners** (20); e.g. universities and incubators, who can help develop the project and bring crucial insights;
- **Utilities** (9); like energy, mobility, water and waste management. Their role is crucial to test innovations in specific sectors since they are responsible for the existing infrastructures.
- **International Scaling partners** (2): including Entrepreneurship support organizations, to help scale the innovation from local to national and international.

Finally, Torino City Lab is an active partner of Enoll - European network of City Labs.



Figure 44 - Partners of the Lab network

PROCESSES AND TOOLS

Torino City Lab operating model

The Torino City Lab is based on a working **model inspired by an open innovation approach**. Companies can submit their proposal – with an always open call – through the website¹²¹. A dedicated expert team analyzes the feasibility of each proposal and proceeds in case with the authorizations for testing. In order to ease and speed up the process, simplified procedures have been put in place. In parallel, the City Administration and/or other Torino City Lab partners can periodically launch specific **“Call for challenges”** linked to sectoral policies, territories and technologies.

Conceptualised as an evolution of the existing “Torino Living Lab” initiative, “Torino City Lab” model, as a permanent **“Innovation Laboratory to allow the testing of frontier innovations”**, is designed on three key features:

1. identification of a **single-entry point within the Public Administration** and definition of targeted simplified procedures and tools for testing authorizations;
2. creation of a **support ecosystem**, including representatives of the business, public utilities and research;
3. **strategic use of public data** and active **participation of citizens**.

¹²¹ www.torinocitylab.it

On this basis, Torino City Lab can be described as the **implementing environment of a peculiar innovation policy**, which is aimed at boosting the three phases: i) Testing, ii) Adoption and iii) Scaling of innovations, within the context of daily life. The Municipality, through the Torino City Lab team, plays a role in easing relations and interactions among different actors within the city ecosystem, in attracting innovation in its own territory and facilitating a test in a real environment.

Once a proposal from an innovative enterprise has been selected, the **Testing phase** within the city ecosystem can get started. The choice on which innovations are to be accepted for deployment on the territory is done by a team of experts together with local enterprises. The **technological test** represents only a small part of this phase; the **real test is constituted by the interaction within the city** (citizens, private, public players).

The **Adoption** phase, in which the economic, technological, legislative and social models are defined, is followed by the **Scaling** phase where innovation must expand and prove its worth in terms of skills creation, new jobs and models.

Citizens are the testers

In Torino City Lab, citizens or other kind of “user” stakeholders are involved in the testing phase, but not in the choice of which technologies deploy and test in the city. As Paola Pisano explains, “**we study the most promising technology trends, and then we work to attract and exploit them within our city**. During our work we mainly deal with the most innovative enterprises and with our research and innovation network of partners”. The fundamental criteria behind the choice of technologies are feasibility and impact potential, as she further explains: “from the point of view of the Municipality, as decision-maker, the issue is not whether we want or not to adopt a given innovation in our city; through the Torino City Lab model we evaluate if a given technology or solution is feasible and impactful”.

For this reason feedback and reactions from citizens during the testing phase are essential, and **are fed back into the product and service development cycle to tailor and customize** them on citizens' needs. The **Municipality considers the testing phase as an explorative one**, to gather insights on impact and benefits for the city ecosystem. This testing/implementation phase, as well as the collection of feedback from users, is a task directly conducted by implementing enterprises.

The city technological infrastructure: the right environment for testing innovations

The city of Turin offers access to its **innovative technological infrastructure** to the innovators applying to Torino City Lab, which includes: 5G network, multi-access edge computing, a cyber-security layer and a platform containing a set of open data called AperTO. The city's infrastructure includes also **two physical areas** specifically developed for testing autonomous driving vehicles (35 km of urban itinerary that includes different kinds of speed limits and obstacles such as traffic lights, roundabouts, pedestrian crossings) and for drone testing (a whole park of the city). Those two areas obtained special authorization by competent authorities and represent a **unique solution in Italy for properly testing autonomous vehicles and drones**.

InTO

GENERAL DESCRIPTION

Name of the Initiative: InTO
Website/ link: https://into.italdesign.it/index_en.html
Location: Turin
Initiative Domain: Smart Mobility
Starting and ending date of the initiative: June 2019 – ongoing

InTO is a service that improves travel on the metro by making any trip more comfortable for the user. At the moment, the technology is installed on all trains as well as inside a specific station (Re Umberto) and pairs a system **measuring the flow of passengers**, with LEDs revealing which railcars are the least crowded for boarding. InTO was created to help the balanced filling of railcars by **allowing passengers to find the least crowded railcars**, thereby improving the quality of the journey.

Currently in the testing phase within the Turin Metro, InTO has been designed and implemented with **three main objectives**: i) reduce crowding on railcars, ii) encourage travel on railcars, and iii) make travel more comfortable on the metro.

The testing phase

Over the initial phase, from June to December 2019, the InTO system will be tested and made available to all travelers at the Re Umberto station metro stop. While the metro is travelling from the previous station to Re Umberto, InTO estimates the number of passengers on each railcar. Once at the Re Umberto Station, InTO uses **coloured lights located on all doors to signal how full the given railcar is**.

The service is dedicated to citizens who use the public transport provided by the Turin Transport Group (GTT). Users can choose the least crowded railcar and enjoy the trip.

The basic idea is that the solution will have an impact on users experience and wellbeing, making their trip more comfortable and reducing the stress caused by overcrowding.

In terms of **applied technologies**, InTO is a system comprising two main components: a very advanced software calculating the percentage of passengers present on a railcar, and LED lights installed at the Re Umberto stop, helping passengers to find the emptier railcars. InTO receives information gathered by surveillance cameras (without storing any images) and uses an algorithm to calculate how full each railcar is. In addition, based on archived data and data collected in real time, InTO is able to predict how many passengers will get off at the Re Umberto stop. The algorithm constantly updates this information by means of machine learning, to fine-tune the outcome.

GOVERNANCE

The project is the result of a collaboration between Italdesign, Città di Torino, GTT – Gruppo Torinese Trasporti, and the technical support of Funkwerkand and IGPDecaux.

Italdesign is the enterprise that developed the InTO solution and proposed it to Torino City Lab. Once selected, following the above described process, the solution implementation is carried out by Italdesign on the basis of the specific agreement reached with the Municipality. Founded in Turin in 1968, Italdesign features more than 50 years of international experience in the mobility industry. Styling, engineering, pre-series, testing, validation and future mobility solutions are among its offered services, and the company has been supplier of original equipment manufacturers worldwide. In 2018 Italdesign opened the new “Mobility Solutions” department dedicated to ideas and projects for smart cities and future mobility.

The experimentation will last about one year from the time of launch. Then the **Municipality of Turin will evaluate** the impact and benefits and decide whether to adopt the solution at the urban scale. At the same time, the Municipality of Turin and the entire Torino City Lab ecosystem will be able to decide whether support the promotion of InTO and the scale up at both the national and international level, including building up a business partnership with the enterprise.

STAKEHOLDERS LANDSCAPE

The **Municipality of Turin** can be considered the initiator of the entire process as well as the contracting authority of the InTO initiative. Through Torino City Lab, the Municipality handles the system of spontaneous calls. Also, the Municipality is involved

throughout the entire testing phase, enabling solutions' implementation and easing interactions between the contracted enterprise and the larger city ecosystem.

The **innovative enterprise Italdesign** proposed the InTO solution, which was selected by the Torino City Lab. Italdesign is responsible for the conception and implementation of the testing as well as for the feedback collection phase, which will be then the basis for iteration (if needed) and the final evaluation phases.

GTT – Gruppo Torinese Trasporti, responsible entity for the city public transportation system, offers the ground for the testing phase.

Funkwerkand, supplier of innovative communication, information and security systems and **IGPDcaux**, leading player in Out Of Home Communication, have both provided technical support.

The **citizens** and all type of underground users have acted as “testers”, during the one-year InTO experimentation period.

PROCESS STRUCTURING AND ENGAGEMENT

InTO was born from the need to favor a balanced filling of all the carriages of the same train, allowing travelers to identify the less crowded ones, improving thus the quality of their journey.

Although **designed for citizens, the InTO initiative is not co-designed with them**. The process of selection, implementation, testing and eventually adoption is responding to a **b2b open innovation approach**, where the Municipality asks for a cutting-edge innovation to be tested within its territory, and Italdesign is selected for doing so through an open call mechanism.

Citizens, in their vest of final users are directly involved in the **role of testers**, on an automatic basis, meaning that - as users of the Metro service - they cannot refrain from being part of the testing. Nevertheless, the algorithm behind InTO provides a service for citizens, guaranteeing their right to privacy: the images used by the security cameras are not stored but exclusively used to count the number of people on board. **A specific attention has been in place to communicate at best the initiative to the involved citizens** and service users, both for making the solution testing as impactful as possible, as well as for informing about the ongoing project to the maximum extent.

Inside the Re Umberto station, **LEDs have been installed** above the doors that allow access on board the carriages. When the train arrives at the station, the LEDs light up

to indicate the state of crowding of the wagon: green in case of a free carriage, yellow in the case of a semi-full carriage, and orange in the case of a full carriage (Figure 45) .

Inside the stations an information campaign has been activated that explains to travelers the objectives and the functioning of the project, also illustrated on the dedicated website¹²².

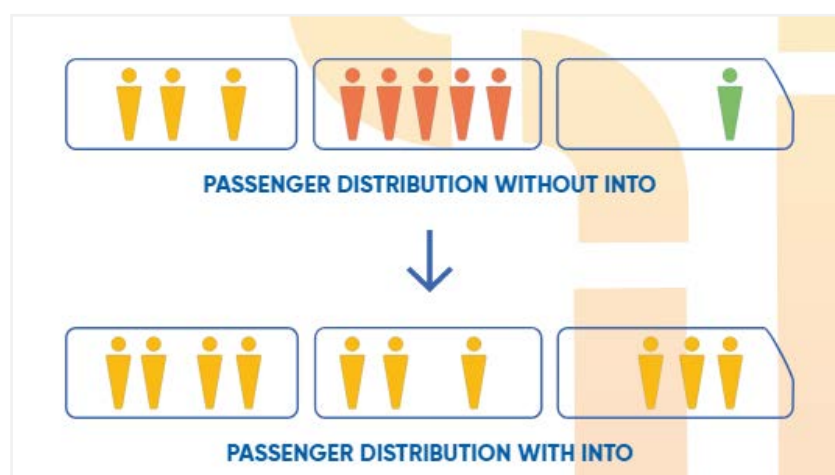


Figure 45 - InTO coloured lights system

The testing phase is planned to last one year. Users' feedback on the service functioning are taken into account by Italdesign with a view to improving it. After one year, an evaluation in terms of impact and benefits will be taken up by the Municipality of Turin to assess whether the innovation can be transformed in a public city service.

The InTO initiative created a **set of new relationships within the research and innovation ecosystem** - a lasting result, that overcome the life-span of the testing phase. In particular, the Municipality and Italdesign could be possibly become business partners with a view to scale up the solution both at the national and international level. As reported by alderwoman Pisano, the **Municipality of Turin is already in contact with major international capitals, such as London and New York** to transfer and exploit the innovative solution within their own urban context.

POLITICAL INFLUENCE (INSIGHTS)

InTo is a concrete result of a wider innovation policy **characterized by an open innovation approach and a strong focus on cutting-edge innovations**.

The scope of the urban innovation policy in Turin relies on a strong political vision and commitment. Both the Mayor, Chiara Appendino, as well the Alderwoman to innovation,

¹²² into.italdesign.it

Paola Pisano, gave much visibility through public speaking to the Torino City Lab as well as to the single initiatives developed within its ecosystem, such as InTO. Not by chance, the alderwoman herself is directly involved in the work of the Torino City Lab.

The policy umbrella under which the initiative took place is clearly outlined and was translated into clear, well-set and shared rules and processes.

The urban ecosystem and its governance at the city level, as enabled by Torino City Lab, seems to perfectly suit the innovation policy objectives promoting the use of the city as an open lab for cutting-edge innovations to be tested and then transformed into services, with a view to boost innovative business development and scaling up. Nevertheless, as explicitly expressed by Paola Pisano, the **connection with national and international innovation programmes remains key** to ensure both the sustainability and the full development of the foreseen opportunities.

The choice not to involve citizens and grass-roots organizations in the operating model of Torino City Lab stems from a clear and explicit political view, which considers the identification of orientations and priorities for technological and innovation investments as a responsibility of policymakers, together with the experts from the ecosystem. Referring specifically to cutting-edge innovations “citizens do not have sufficient expertise and insight to be involved in the debate at this upstream level. On the contrary, with their daily experience within the city, they represent the best testers, essential to framing the impact evaluation at the end”.

MEDIA AND COMMUNICATION

Italdesign is also in charge of the communication for the InTO initiative. In addition to the **Out of House communication effort**, a **digital communication strategy** has been set and is currently under implementation. Regarding social media, an hashtag has been created with a view towards boosting the users’ engagement, namely #InTOProject and a dedicated story stream on the Italdesign Instagram account has been running.

On the Municipality side, a relevant communication effort is put both on online communication - through a well curated website and social channels, namely Facebook, Twitter and LinkedIn - as well as on the press. Such an effort resulted on a good visibility for the Torino City Lab and for the selected initiatives, both on the digital sphere and in the more traditional press, mainly at the local level, with a direct involvement of the Mayor together with the alderwoman to innovation.

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

Interesting insights on cultural and behavioral aspects came from an interview with the **alderwoman to Innovation, Paola Pisano**.

The **answer from the ecosystem has been so far good**, from all kinds of involved stakeholders from the R&I sector. This has to be linked to the context features above described: Turin R&I ecosystem has been evolving since years by now, involving different kind of players and allowing contamination among different issues and sectors.

Nevertheless, Pisano notices how, when it comes to innovation, **the general public answer is very rarely a positive one**, since citizens tend to be conservative and precautionary. That is why, according to her vision, **innovation is something the public administration has the institutional responsibility to lead**, envisaging the directions to take and gradually involving citizens. Citizens need to be guided to discover and experiment how cutting-edge innovation can have a concrete impact in their daily life within the city. Therefore, **co-creation** is not the most appropriate word to represent this system. Also, the dimension of **trust**, in this model, is only partially relevant, being more important the aspect of **responsibility share**.

Referring to public officials, the alderwoman highlights the importance of **a shared vision and of motivation**. Public administration is by nature a hostile system when it comes to procedures, authorization and permissions. “My vision – she says – is to work within the public administration to make innovation in our city possible, by supporting enterprises and the entire ecosystem. To do so **cooperation and active contribution from public officials is key**”. A certain “conservative” attitude from public officials can possibly be overcome by **leveraging on a common vision and a shared consciousness of being pioneering**, and in the position of **inventing new ways to do things**, working with innovations not existing before. “Once this happens, **people are keen to work better and even extra time**, as it becomes their own mission. And I can say I clearly saw this happening within my team at the Torino City Lab”, she stressed.

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

Based on the interview had with Paola Pisano, alderwoman to innovation for the City of Turin, as well as on the conducted research activities on the Torino City Lab, here is a selection of remarkable insights to be shared.

The process results to be effective. This consideration includes the acceptance that **“new” things naturally meet barriers to be overcome**. Innovation is about new things; new things call for new administrative, organizational and governance arrangements. Adjustment is always needed in the ongoing activities, and this is normally a task for the *brave*, those who are ready to challenge the system.

The process reinforces the research and innovation city ecosystem as an open platform. Such a process has a series of effects on the policymaking process, not just in terms of innovation *per se* but also regarding the thematic sectors affected by the tested innovations. Such innovation process calls for a progressive enlargement of stakeholders joining the innovation urban ecosystem, under the guide of the Municipality.

The process is interesting in terms of new partnerships and dialogue. Particularly, the **relationship among public administration and innovative enterprise is reshaped**, going further beyond the traditional procurement model, and getting to consider the option to become business partners on the international market.

Torino City Lab approach and processes seem to be so far well accepted by the ecosystem. Solutions are not co-created with citizens in all phases, and citizens are part of the process in two moments: they can contribute to the Municipality general strategy providing solution ideas and suggestions through the DicipiTorino Platform; then, citizens take part to the innovation testing phase in real environment, injecting their feedback in the service improvement cycle, to customize solutions based on real citizens' needs. The specific selection of which technologies to adopt for testing in the real environment remains prerogative of a team of experts and of the enterprises from the territorial ecosystem. The choice not to include citizens upstream in the R&I urban policy agenda represents a clear and aware political choice, based on the precise vision that **the selection of cutting-edge innovations shall be matter of policy decision-making**, in combination with **specific expertise**, as extensively explained in the case analysis.

In the context of the emerging RRI paradigm, this approach draw the attention on whether there should be **perimeters for citizens participation and contribution, on topics requiring a high degree of technical and sectorial expertise**; and on whom the **responsibility of the innovation process lies**, whenever a balance is to be found between expertise, policy vision and process effectiveness, and consensus, acceptability and sense of ownership.

Barriers could be identified in the administrative procedures, but the aim of the Torino City Lab is also to support innovative enterprises in smoothly dealing with them, relying on an active cooperation from the public officials themselves. Indeed, the lack of a shared **sense of ownership regarding the process and its underlying driving vision** could prevent public officials from taking up such a proactive approach.

Among the **condition-setting factors that have allowed the lab to successfully establish itself**, it is definitely worth to mention **the strong vision cultivated over the years from the policy maker side, and largely shared with the city**. It is interesting to highlight that alderwoman Pisano expressly recognizes the work done from her predecessor, confident that her successor would do the same. In addition, Torino City Lab can count on **a well-designed process and a working model** that enables innovation testing as well as business development. In conclusion, a success factor on the long term is probably **Torino City Lab's overall approach**, well described by Paola Pisano's words, as follows: "Disruptive innovations are difficult to regulate, and thus difficult to scale in urban environments. So, it is crucial for their growth that the public administration creates the right conditions in order to make them successful and impactful. Torino City Lab wants to do this by continuously testing and validating innovations, making their implementation quicker and easier. The City strongly believes that only an active participation from the whole ecosystem can effectively make the innovation to scale. This participation can only happen if companies start to think about starting innovation use cases able to trigger a positive impact on the society as a whole".

5.11. UK Policy Lab

Author: Marília Cunha (SPI), Olga Glumac (SPI), Rita Andrade (SPI)

PART 1 - CASE DESCRIPTION

UK Policy Lab was established in 2014 with the mission of capacitating policy officials in the UK Civil Service by providing new methods, tools and techniques based on design-led innovation and service design. These methodologies include the application of ethnographic research, collaborative idea generation, and prototyping, all in the context of policy making. UK Policy Lab operates projects for – and is funded by the government departments – various departments that commission policy lab to facilitate design processes, while departments are the owners of data collection, analysis and final outcomes, and thus, responsible for monitoring and evaluation of new policies.

CONTEXT

The development in governmental openness and responsiveness of stakeholders' participation in policy making and in design of public services in the United Kingdom (UK) has undertaken progress in the past two decades.

In 2002, the Innovation Unit of the Department of Education and Skills was established with a strong focus on innovation in education and children's services. Since 2006 the Innovation Unit is independent of the government and is defined as a UK non-profit social enterprise which aims at improving public services so to address timely social challenges. Notwithstanding the original idea, the work of Innovation Unit is also focused on innovation in healthcare and local government in the UK, through which it has been promoting the principles of co-production and service design approach.

The **Open Public Services White Paper**¹²³ was published in 2011 to promote: the imperative of passing power to service users (e.g. lay people) to increase their choice in service providers and grant them more control over decision-making; access to public services by all UK citizens; and decentralization to the lowest levels, so that individuals and communities are in charge. Preceding the White Paper, the Institute for Government published a report *Policymaking in the real world*¹²⁴ for the period of 1997-2011 that stressed unsynchronized timescales for evaluation and policy making, due to lack of embedding evaluations directly into the policy design and/or evaluations not

¹²³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/255288/OpenPublicServices-WhitePaper.pdf

¹²⁴<https://www.instituteforgovernment.org.uk/sites/default/files/publications/Policy%20making%20in%20the%20real%20world.pdf>

being recognized as cross-departmental knowledge repositories. The need for openness of government was recognized globally in 2011 – the government leaders of seventy-nine countries and numerous local governments, together with thousands of civil society organizations formed Open Government Partnership (OGP)¹²⁵ to promote accountable, responsive and inclusive governance. For example, the Open Government Pioneers Project¹²⁶ is a society-led initiative which promotes capacity of civil society and UK citizens to use open government methods as a way to secure progress towards the Sustainable Development Goals (SDGs)¹²⁷. The initiative uses Open Wiki to transparently plan the development of an open government civil society movement across the whole UK.

Nowadays, the UK Government has a strong opinion on the use of evidence-based policy making, believing that the core idea of good public services is the one in which decisions are based on collected evidences and generated evidence synthesis of what works best (UK Cabinet Office, 2013). In this manner, it established seven What Works Centres¹²⁸ to serve as a network which is covering a wide range of social policy areas (UK Cabinet Office, 2013). The generation and use of evidence are implemented by the local authorities, commissioners, policy makers and local practitioners, in collaboration with What Works Team in the Cabinet Office (responsible to bridge the information uptake and decision-making between local and national governance) and the Cross-Government Trial Advice Panel (TAP). TAP is coordinated by the What Works Team and is directed by a steering group consisting of members inside and outside the government. Thus, What Works Centres are funded by governmental and non-governmental sources (e.g. Economic and Social Research Council – ESRC). Through the network of What Works Centres, it is possible to test, validate and evaluate variations of policies being implemented in public services. This enables iterations through evidence generations, so the policy makers can make informed decision-making on investment in services that lead both to social impact and have monetary values for citizens.

ORGANIZATION

Name of the Policy Lab: UK Policy Lab

Contact person: Ms Dr Andrea Siodmok

Professional position and organization: Deputy Director at the Cabinet Office where she leads Policy Lab, the Open Innovation Team and SKYrooms network of innovation spaces

¹²⁵ <https://www.opengovpartnership.org/>

¹²⁶ https://opengovpioneers.miraheze.org/wiki/Background_and_opportunity,
<https://opengovpioneers.miraheze.org/wiki/Partners>, <https://www.meetup.com/pro/opengovpioneers/>

¹²⁷ <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

¹²⁸ <https://www.gov.uk/guidance/what-works-network>

Contact email: policylab@cabinetoffice.gov.uk

Webpage: <https://openpolicy.blog.gov.uk/>

Country: United Kingdom

The UK Policy Lab¹²⁹ was funded in 2014 as a consequence of the Civil Service Reform Plan¹³⁰ (2012) in which it was emphasized the need to make policy making more open – to draw conclusions for policy making based on a wider range of expertise and inputs in order to ensure that “policy advisers have up to date tools and data.”¹³¹ The lab is situated at the UK Cabinet Office and its main purpose is to promote and facilitate better policy making in regards to design management of civil services. This is achieved through the lab being a neutral space which encourages cross-departmental collaboration and ensures public engagement together with external experts in key policy areas. The UK Policy Lab model is bestowed on precedent good practices such as MindLab (Denmark), Helsinki Design Lab (Finland), LAB at the Office of Personnel Management (United States of America) and DesignGov (Australia)¹³².

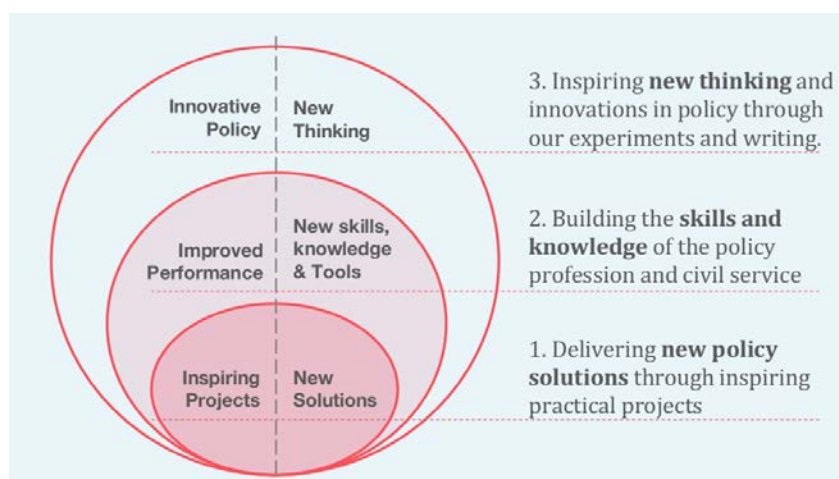
The lab is coordinated by a small team of professionals who have a sound background in design, research, ethnography and policy making. The lab’s efforts are supported by a network of external experts for key policy areas who are invited to participate in any one of the initiatives, depending on the policy area, the issue and their expertise. The lab works closely with Future Policy Network, including Government Digital Service, Behavioral Insights Team, GO Science and Office for National Statistics. The primary function of the lab is responding to any request from policy teams which need and want to trial and test new ways of working. The government’s departments financially support the operations of the lab closely collaborating with and for them and reaching to external organizations and its representatives. The lab facilitates and builds capacity regarding the process of policymaking through use of people-centered design approaches so to improve user experience of departments within civil service. In general, there are three types of services the lab can offer (Figure 46).

¹²⁹ <https://openpolicy.blog.gov.uk/category/policy-lab/>

¹³⁰ <https://www.gov.uk/government/publications/civil-service-reform-plan>

¹³¹ https://researchingdesignforpolicy.files.wordpress.com/2015/10/kimbell_policylab_report.pdf

¹³² <https://www.designcouncil.org.uk/news-opinion/uk-cabinet-office-launches-new-policy-design-lab>

Figure 46 - Types of services¹³³

Up to 2017, the lab has worked in more than 20 policy projects, with over 5000 servants. Some of the projects are enlisted below (Figure 47).

Figure 47 - Example of projects¹³⁴

Besides design, UK Policy Lab also uses data science for analysis of large data and digital tools to reach wider audiences with an online tailored service.

PROCESSES AND TOOLS

According to the Design Thinking Diamond model, UK Policy Lab develops iterative and participatory processes through four stages (Figure 48).

¹³³ From: Open Policy Making slide share, 2017

¹³⁴ From: Open Policy Making slide share, 2017

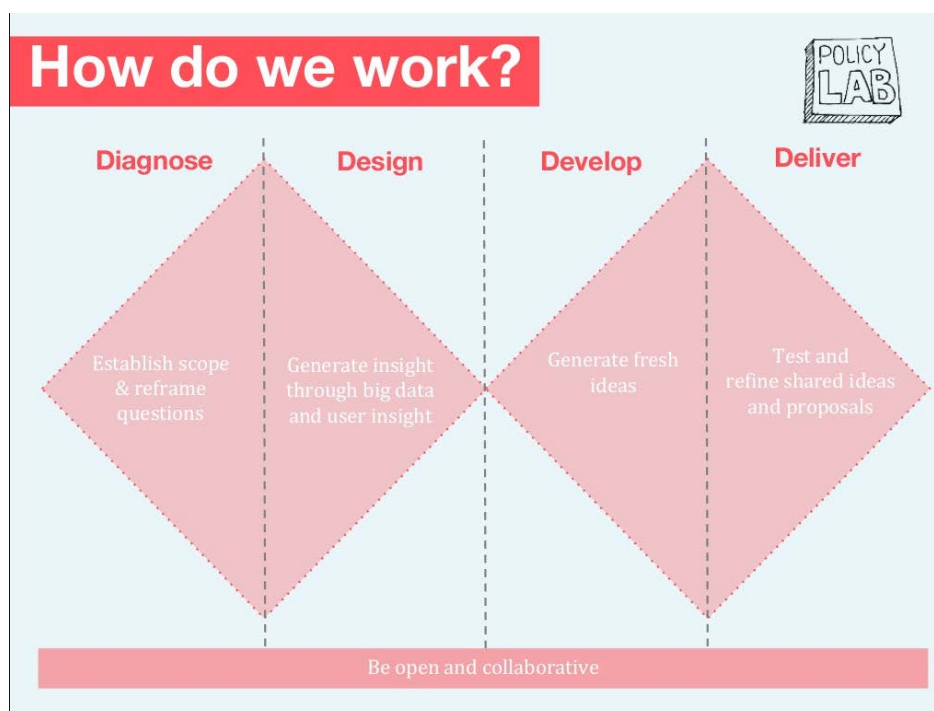


Figure 48 - Design Thinking diamond applied to UK Policy Lab¹³⁵

The lab's effectiveness is bestowed on appropriation, flexibility and iterations. Its primary concern is how its methodologies can be adjusted to understand necessities and respond by designing solutions. Therefore, the lab operates in different ways, always respecting time restriction imposed by the service commissioners:

- “Lab Light” is a 1-day workshop with the policy team to get to know each other and the policy challenge (i.e. contextualization and preliminary problem definition).
- “Policy sprints” is a cycle of collaborative workshops, implemented in one to three days which either serves to kick-off larger projects or as a stand-alone process. This is used to bring a variety of stakeholders working together on mapping and generating new ideas, creating energy and shared responsibility (e.g. Open Policy Days).
- Service design is used for long-term projects. It can be run from three months to a year, and usually it combines the engagement of service designers, ethnographers, data scientists and subject specialists. The process is based on the double diamond: define, discover, develop, and deliver.
- Future scenarios and speculative design techniques are used to experiment and produce a number of policy “firsts” (e.g. what rail travel might look like in 2035).

¹³⁵ From: Open Policy Making slide share, 2017

Each type of intervention can be also located in the Diamond model shown earlier, depending on its purpose and formats (Figure 49).

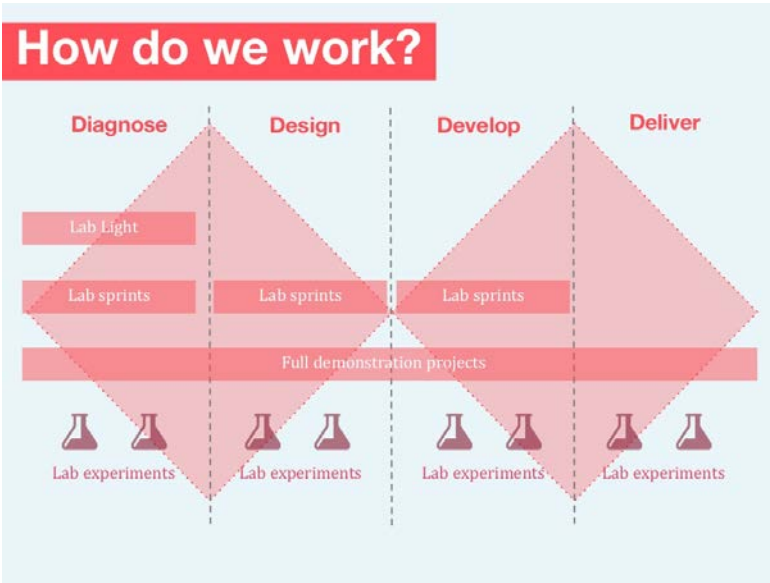


Figure 49 - Stages of policy design process¹³⁶

Considering each stage of design process, the UK Policy Lab proposes specific tools and techniques (Figure 50).

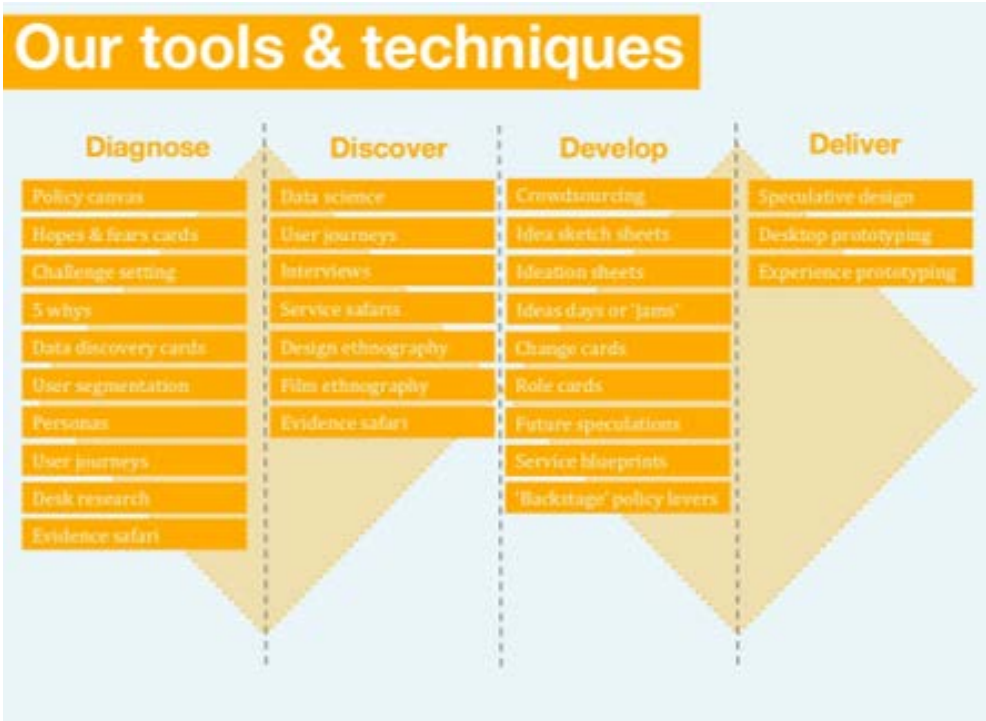


Figure 50 - Tools and techniques for policy design processes¹³⁷

¹³⁶ From: Open Policy Making slide share, 2017

¹³⁷ From: Open Policy Making slide share, 2017

POLICY LAB DEMONSTRATOR PROJECT WITH THE DEPARTMENT OF WORK AND PENSIONS AND DEPARTMENT OF HEALTH

GENERAL DESCRIPTION

Name of the Initiative: Policy Lab demonstrator project with the Department of Work and Pensions and Department of Health

Website/ link: <https://researchingdesignforpolicy.wordpress.com/category/policy-lab-workshop/>; <https://researchingdesignforpolicy.wordpress.com/category/policy-lab-demonstrator/>

Location: United Kingdom

Initiative Domain: Health

Starting and ending date of the initiative: 5 months

This initiative aimed at understanding how the life of people with (or at risk of developing) a health condition is affected, especially in relation to employment. The objective was to support these persons by designing ways of helping them keep on working or returning to it faster.

The team involved in this initiative included policy makers and analysts from the Department of Work and Pensions (DWP) and the Department of Health (DH) who worked together with the Policy Lab for 5 months.

The steps taken were (this information was retrieved from the report Applying Design Approaches to Policy Making Discovering Policy Lab¹³⁸):

1. Set up a collective inquiry into the issue, involving a broad range of participants
2. Take an exploratory approach resulting in new insights, new concepts, new framings and new connections between participants
3. Maintain a consistent focus on creating and using research findings
4. Reorder the policy area by focusing on the experiences of people involved in the issue, both those with a health condition and but also professionals working with them such as doctors and support staff in public and voluntary services
5. Build capabilities across the civil services
6. Develop concepts to a point where there were ready to be explored in more depth using conventional policy making approaches.

GOVERNANCE

¹³⁸ https://researchingdesignforpolicy.files.wordpress.com/2015/10/kimbell_policylab_report.pdf

The initiative was a joint cooperation between the lab and the two governmental departments, the Department of Work and Pensions (DWP) and Department of Health (DH). The action was initiated with a top-down approach and was implemented at the municipal/local level.

STAKEHOLDERS' LANDSCAPE

The three main actors involved in this process and responsible for the implementation of the initiative included:

- UK Policy Lab
- Department of Work and Pensions
- Department of Health

Keep your shoes dirty (a UK based firm) and Uscreates (part of the FutureGov initiative) also supported the implementation.

The main beneficiaries of this initiative were people with health conditions. Nevertheless, doctors, employers, service providers and civil servants, who have direct or indirect contact with people with health conditions, also participated in some of the activities, namely the co-design workshops.

The evaluation of the initiative was the responsibility of a board comprised of civil servants from both departments and from the UK Cabinet Office.

The project team (Policy Lab, Department of Work and Pensions, Department of Health, Keep Your Shoes Dirty, and Uscreates) developed an initial policy sprint in which they shared their expectations for the initiative, their core competencies and the areas in which they needed more knowledge. Their expectations included “a vision for a simple and user need informed customer experience; new ways of seeing/understanding why people remain in work/leave work and how (they) can be supported better”¹³⁹. The team feared that no actual solution was achieved and that the tools produced were not used.

This sprint also served to map the needs of the beneficiaries, define research questions and develop an effective action plan.

Part of the research and data science analysis was conducted by Policy Lab; Keep Your Shoes Dirty was involved in depth interviews with the main beneficiaries.

PROCESS STRUCTURING AND ENGAGEMENT

¹³⁹ https://researchingdesignforpolicy.files.wordpress.com/2015/10/kimbell_policylab_report.pdf

The initiative included 6 different phases. In addition to the project team and the main beneficiaries – people with health conditions – the participants of these phases included doctors, employers, service providers, and civil servants.

Below is a description of the 6 phases:

Phase 1: Policy sprint

A policy sprint is, as explained above, a cycle of collaborative workshops, implemented in one to three days aiming to kick-off larger projects or as a stand-alone process. The objective is to bring a variety of stakeholders working together on mapping and generating new ideas, creating energy and shared responsibility.

This initiative started with a 2 and half day workshop (policy sprint) where the project team discussed needs, expectation and competences. In addition, this activity served to define the research question, plan the strategy and define the next steps.

During this workshop, the team members exchanged views and experiences with other colleagues who had worked directly with disabled or people with ill-health.

Phase 2: Data collection

Phase 2.1: Ethnographically-informed research - the observation and interaction with people in their own environment.

The second phase of this initiative started with this research. It involved 30 people (9 doctors, 9 people with health conditions, 4 Job Centre Plus staff, 3 other service providers and 5 employers). The direct beneficiaries were interviewed to understand their needs and expectations considering their condition. The interviews of the indirect beneficiaries helped also to shape the situation of the people with disabilities or health conditions.

Phase 2.2: Guided visual research (or guided imagery) - a process in which a practitioner helps a participant or patient to generate mental images that stimulate or recreate a perception of the 5 senses. This is often used to complement the data collection done through interviews.

In the second step of phase 2 the participants were asked by the team members to share an image that captured their experience of having or supporting someone with a disease.

The Policy Lab used results from the four-year UK's Understanding Society survey¹⁴⁰ to study those who self-reported being unemployed due to long term illness or disability. These were used to compare it to other types of unemployment and work situations.

Phase 3: Insight sharing workshop - an activity used to share insights during the development of the initiatives.

In the third phase of the project the project's team conducted an insight sharing workshop to review and discuss the research findings at that moment. This workshop served to identify opportunities on how to change from the theory to the practice and define the next steps.

Phase 4: Co-design ideation workshop - a workshop which aims to come up with ideas to solve a specific challenge; this is done through co-creation methods and tools.

The 4th phase of the initiative aimed at the co-creation of ideas: 26 participants (direct and indirect beneficiaries) were involved in this co-design workshop where they came up with ideas on how to actually support the beneficiaries.

In a first moment, 6 ideas were discussed; in a second moment, these were narrowed down to 2. A second workshop was conducted with some of the main beneficiaries (people with health conditions) to involve them in the idea generation. The project team synthesized all the ideas.

Phase 5: Prototyping - the development of a model or product to test a concept or process or to be replicated or learned from.

The 5th phase of the initiative involved the project's team in the prototyping phase. The members worked on some of the ideas developed in the co-design ideation workshop. The solutions were tested by a group of 52 people. The validation test and feedback received allowed to understand if the ideas would be feasible.

Phase 6: Evaluation

The final phase of the initiative included an evaluation process that was the responsibility of a board comprised of civil servants from both of the departments (Department of Work and Pensions and Department of Health) and the Cabinet Office. The evaluation was positive, and the next steps were approved.

¹⁴⁰ <https://www.understandingsociety.ac.uk/>

As expressed in the report, the main aim was to: *“...go beyond looking at people’s experiences of the service propositions. For example, week-long prototyping in job centers or with other organizations would explore the fit with existing services and the resources required to deliver the services. The project’s research findings are also being used in other ways inside the departments”*.¹⁴¹

POLITICAL INFLUENCE (INSIGHTS)

This initiative involved two central government bodies from the UK Government’s Cabinet Office: The Department of Work and Pensions (DWP) and The Department of Health (DH). The involvement of the political institutions in the demonstrator was a driving force for the success of the initiative, as the representatives seemed to be highly motivated to reshape the way policy was produced taking into account the perspectives of the users and external expertise, as one of the DWP policy advisor’s comments:

“Thinking about things from the user end is alluring because policy tends to come down from central government and ends up with the people on the front line doing their best to try and combine all of that with what’s in front of them. So, we need to reverse some of that thinking, to strengthen that input from the user end, to counterbalance some of the centrally driven stuff. That’s why it’s appealing. What we’ve been trying to do is look at all the tiers together. And make sure there isn’t such a big gap between head office and the front end”.¹⁴²

The involvement of both political and non-political entities in the demonstrator produced positive impact in the way of engaging in policy work. The grassroots and civil society level participation was able to introduce inputs that originated a new hybrid format of policy work, which responds to the needs both from the governmental side, as the representatives described, and from society’s side, as the new policies arising from the co-creative policy design would better represent their needs and priorities.

The Policy Lab and the Keep Your Shoes Dirty organization were key in the introduction of new knowledge during the initiative’s workshops. They were responsible for providing in-depth ethnographic information based on research from interviews directly with people with health conditions. This information was particularly important to deliver the end-users’ perspectives in the policy work, providing a glance into how policies impact them, what they need, what is there that is unnecessary and what they view the priorities should be. This information was a valuable input for the political

¹⁴¹ https://researchingdesignforpolicy.files.wordpress.com/2015/10/kimbell_policylab_report.pdf

¹⁴² <https://openpolicy.blog.gov.uk/2015/01/28/testing-policysprints/>

level participants, as described by a Policy Advisor from DWP: *“It would have been weird if we had been surprised by anything. I think the value is in reordering things. There are multiple considerations and it added more power and authority to some. It gives them a status which they might not otherwise have. Like some of the softer things around user experience... It’s stuff that people are aware of, but it gives it a stronger status.”*¹⁴³

The engagement between the different stakeholders involved and impacted by policy resulted in the identification of opportunities and new ideas for services. The involved departments from the Cabinet Office reviewed the research and the new insights and decided to move the project forward, providing further in-depth involvement of grassroots and civil society in the design of services and policy.

CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

In the UK, following the growing trend around Europe over the last decade, the interest in shifting the way of doing policy into a more design-thinking approach has been more and more prominent. This approach is largely influenced by data (Ipsos Mori survey) showing that only 19% of the people in the UK trust politicians (2018). Politicians are the second least trusted professions, only better than advertising executives. The Open Government Network members (part of the Open Government Partnership, described previously in this case study) call for the UK government, among other things¹⁴⁴, to:

- increase lobbying transparency
- improve consultation practice
- open policy making pilot projects
- Provide a single point of contact for public requests for evidence
- Make all parliamentary data freely available
- Increase citizen involvement in the legislative process

Trustlab (an OECD initiative with academic partners) studied the factors associated with people’s distrust in government in UK¹⁴⁵ (Figure 51). The perception that the government is unreliable, and that corruption is highest at the political level, have strengthened the disconnection with the neighborhood and in other people:

¹⁴³ <https://openpolicy.blog.gov.uk/2015/01/28/testing-policysprints/>

¹⁴⁴ <https://www.opengovernment.org.uk/open-government-manifesto/>

¹⁴⁵ <https://www.oecd.org/sdd/statistical-insights-trust-in-the-united-kingdom.htm>

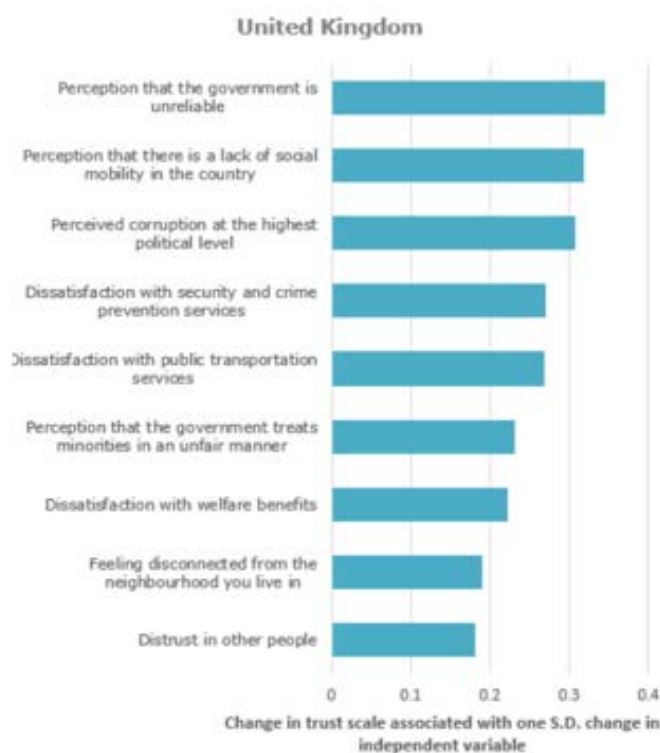


Figure 51 - Factors more strongly associated with people's distrust in government¹⁴⁶

Based on these statistics and with many new initiatives emerging in civil society's landscape, there is a rising recognition that an effort should be made for policy work to address the many and diverse challenges communities are facing in the UK¹⁴⁷¹⁴⁸. The Policy Lab demonstrator can be recognized as one of the ways government entities are reaching out for expertise in design-thinking to improve the response to these challenges.

One of the hints that the attitudes from Government officials are shifting toward a co-design approach to policy is the UK Open Government National Action Plan 2016-18, which is the third document and follows the open policy-making approach through co-creation that was already in motion in the previous version, however learning from experience. The foreword by the Minister for the Cabinet Office and Paymaster General gives a revealing glimpse into the thought process of this Action Plan: *"Open government means accepting that we don't have all the answers and putting data and power in the hands of people who might"*.¹⁴⁹

¹⁴⁶ From: OECD

¹⁴⁷ <http://www.drs2016.org/498>

¹⁴⁸ <http://www.drs2016.org/314>

¹⁴⁹ <http://www.gov.uk/government/publications/ukopen-government-national-action-plan-2016-18>

However, Bailey and Loyd (2016), based on several interviews with government officials, argue that the driving agenda is, indeed, frugal and quantifiable: saving resources and reaching higher efficiencies.¹⁵⁰

In terms of the attitude from policy experts and researchers towards the design-thinking approach and co-creation, Kimbell (2015) argues that there has been an interest in some decades. However, even though there seems to be curiosity toward the design-approach, there is still not a lot of engagement in understanding the latest advances in the practice.¹⁵¹

Design ethnography, used in the Policy Lab demonstrator, has been regarded as useful as a research method for advising policy, but it has also raised issues for policymakers as not being “sufficiently representative, quantifiable, or reliable.”¹⁵²

The approach from Policy Lab delivered a channel that can bridge the gap between policy intent and its results by bringing to the discussion table a range of people in cooperative examination of a policy issue. The concept of what is important is, thus, rearranged by introducing the complexities involved in the experiences of the people impacted by the policy or policymaking process, enhancing trust in the production and delivery of policy. Kimbell (2015) explains: “*The approach enables people inside and outside of government to collaborate effectively by enabling more equal participation, generating a shared language and approach and acknowledging difference constructively.*”¹⁵³

PART 2 - INSIGHTS ON THE CO-CREATION PROCESS

SPI believes that the approach for this initiative was suitable, however, it seemed to be only for an initial stage and could be implemented further. In general, the report does not detail several of the phases, namely the prototyping stage which does not allow taking in-depth conclusions. Five-months part-time seemed enough to conduct the initial phase of the project. It seems that next steps were taken, but no information is given on the chosen case study. No information is given on adjustments made, even if an insight sharing workshop occurred to evaluate the initiative internally. It is unsure if there was a lasting dialogue with all the stakeholders outside the scope of the initiative. In the interview with a former representative of the UK Policy Lab it was stated that there were overall financial and structural constraints.

¹⁵⁰ <http://www.drs2016.org/314>

¹⁵¹ <http://www.drs2016.org/498>

¹⁵² <http://www.drs2016.org/314>

¹⁵³ https://researchingdesignforpolicy.files.wordpress.com/2015/10/kimbell_policylab_report.pdf

The UK Policy Lab surely benefits from its connections with the UK Government as shown in this initiative developed jointly by the lab and two of its departments.

The success rate of the policies that were co-produced in cross-sectorial collaboration among civil servants and other stakeholders is unknown, so is the overall impact on the societal change (i.e. how they were implemented, how they were accepted, what they contributed to, how they were monitored and evaluated). The UK Policy Lab informs the UK Government and policymakers on the benefits from incorporating participatory and qualitative design methods and techniques into evidence-based policymaking (e.g. iterative experimentation and prototyping). Taking into account the information collected on the initial policy sprint, some of the project's team members seem to have some concerns on how to actually implement the ideas.

Conversely, the UK Policy Lab still needs to put efforts in building capacities for awareness and responsiveness of government and policymakers towards embedding co-creation when: i) identifying matters of concern/challenges; ii) defining methodologies for design and implementation of policy-making; iii) prototyping and co-production of policies with other stakeholders (i.e. issue of anticipation of possible solutions “which are bound up with ideological and political narratives”; and iv) monitoring and evaluating implemented policies.

6. Comparative analysis and lessons learnt

As mentioned in at paragraph 3. Methodology, the comparative analysis of the cases has been conducted on the basis of a set of dimensions explored in the cases and connected issues, implications and questions drawn from literature review. The comparative analysis thus draws generalizations and insights from the cases, that finally converge in a set of recommendations that contingently aim at providing guidance to the project but also, and much more broadly, to increase and systemize knowledge on emerging questions to inform the current debate.

In the following table (Table 5 - List of dimensions explored in comparative analysis), we report a list of the explored dimensions and main issues to be discussed in the comparative analysis.

Explored dimension	Implications and questions
Background and Context	<p>Discuss background and context at different scales and levels of governance: organizational; local; regional, national and systemic.</p> <p>With reference to the cultural context, examine to which extent and how it influences the capacity for co-creation.</p> <p>With reference to governing paradigms, examine if co-creation takes place only under the most favorable (networked governance) or if labs are challenging other paradigms and using co-creation also as a tool for organizational and systemic change.</p> <p>With reference to the political context, question the neutrality of PSI labs with respect to politics and political agendas that are backing the same labs or the issues and challenges that they deal with (set the ground for the discussion about the specific dimension “Relationship between politics and policies”).</p> <p>Question if the characteristics of the context and background conditions determine a sort of “co-creation readiness” of the ecosystem or of the single organization.</p>

<p>Organization, structure and governance</p>	<p>Investigate the implications of the location and ownership of PSI labs: inside or outside government.</p> <p>Discuss the permanence of PSI labs, also in connection with the previous question.</p> <p>Discuss the connecting competences and processes of PSI labs, and the ways in which they build internal links with their parent organization and external links with citizens and stakeholders, acting as a bridge between the two.</p> <p>Investigate matters of agency and autonomy.</p> <p>Investigate the ways in which PSI labs create buy-in and gain trust.</p> <p>Deepen questions of organizational legitimacy and knowledge transfer for organizational transformation.</p>
<p>Sustainability/business model and budget allocated</p>	<p>Discuss business and sustainability models of PSI labs: allocated to single initiatives, to the lab, or both.</p> <p>Investigate connections between budget allocation and impact measurement (i.e. is there any explicit connection between the results achieved by the labs and their financing?).</p> <p>Draw possible connections between this dimension and the life expectancy/permanence of the labs already discussed.</p>
<p>Skills and team</p>	<p>Investigate the characteristics of the i-teams and competences that they include.</p> <p>Investigate how they manage transversal and vertical competences: specialized versus interdisciplinary teams.</p>
<p>Impact measurement</p>	<p>Investigate the timeframe of the expected impacts (short, medium, long).</p> <p>Verify if the impact measured at the level of the projects or at the level of the organization, or both.</p> <p>Verify if PSI labs adopt any impact measurement framework and tools, and their characteristics</p>

	(qualitative, quantitative, mixed).
Methodologies and stakeholder engagement	<p>Investigate the methodologies used and for which reasons.</p> <p>Verify if experimentation and iteration are part of the methodology, and investigate how they are managed.</p> <p>Investigate if and how PSI labs are able to integrate new approaches, methodologies and tools in daily practices, transforming the “ways of doing things” in their parent organization or network.</p> <p>Investigate the “who” behind participatory processes.</p> <p>Discuss questions of (democratic) representation: direct participation of citizens or use of stakeholders as “proxies” to gather public opinions and sentiment.</p> <p>Investigate the forms of engagement and incentives, as well as the management of conflict resolution and negotiations.</p>
Relationship between politics and policies	<p>Investigate PSI labs’ political relationships, mandates and or sponsorships.</p> <p>Question the ways in which they manage the relationship between the policies that are object of co-creation and the political landscape.</p>

Table 5 - List of dimensions explored in comparative analysis

6.1. Context, organization, structure and governance

The cases analyzed revealed interesting insight on the importance of context and location and structure of PSI labs in co-creation processes.

PSI labs work under traces of all three governing paradigms in the public sector.

Most of the PSI labs in our collection were tasked by the heads of government to disrupt public sector practices and create innovative solutions to 21st century problems (e.g. democracy deficits through technological solutions allowing for direct democracy (Decidim) and participatory policymaking (Geneve Lab; GovLab Austria)), as well as to understand how to digitalize the public sector and make use of new technological solutions (Inland; 27 Région; GovLab Arnsberg). What we observed was that logics and infrastructure under the ‘traditional’ public administration paradigm constrained the co-creation processes and likewise shaped how the process unfolded

(primarily in the first, framing stages, as well as in the very last, implementation and evaluation). This was evident in the framing stages, in which *how* the problem was framed was important for receiving authorization and support from leadership. DTF for example frames the problem before the co-creation process begins in order for the project to get approval. The Director, Niels Martin Andersen, stresses the importance of language and knowing the system from the inside. It is for this reason that the communication choice was that of memos and reports “because that’s just how it’s done”. Likewise, GovLab Arnsberg hired only internally from within the public administration in order to have staff that knew how to navigate the system’s internal structures but that also brought along a network of allies. Likewise, DTF’s Director stated the need for people that are slightly different than the rest of the ministry, but who can also navigate a political system with a complicated stakeholder landscape. Pragmatism was seen as a value here. It is evident that in order to push innovations through the public sector, with its siloed structure and hierarchical management, ‘speaking the language’ and understanding the system is pivotal to getting things done (differently, yet through the same channels).

The labs acted as knowledge providers harking back to NPM’s focus on externalization of public policy advice. This conceptualization of how to source and generate knowledge (i.e. through commissioning) also influenced how and mostly where the labs were located and their connecting power to influence, which will be seen in the next insight. The cases implicitly demonstrated that the reinforcement of these schemes made the issue of communication and legitimization of extreme importance in order to have impact, find resources and survive political turbulence and turnover (i.e. political mandates). For example, GovLab Austria needed to rebuild its network of allies due to a restructuring of ministries and public administrations following the elections in Autumn 2017. This case, along with others (27e Région, GovLab Arnsberg,) showed the need to scan the political environment in order align activities with politicized topics as well to frame problems and initiatives in ways that resonate and speak to political objectives. This, in turn, highlights an obstacle towards the integration of bottom-up and top-down processes, and speaks also to the not often mentioned political nature of co-creation processes.

While co-creation seeks to be a neutral, apolitical and democratic process, it revealed itself to be political, as each choice in the various stages carries implications. This is in line with literature on the political nature of design. Co-creation brings together lots of perspectives. This requires negotiation and is a fragile and long process that

must always be curated. This was observed in the cases through the choice of who to involve in the process, when to engage them and how the contribution would take place. For example, in the case of Torino City Lab, citizens were only engaged as testers, similar to the case of 27e Région. In the first case, the decision was made because of knowledge gaps in terms of advanced technologies and in the second due to the nature of the project it was determined that their contribution, in terms of knowledge, was usage and experience and thus their contribution was made, “unconsciously” (notice was given) through their daily commute. Furthermore, the issue of problem framing and also how the knowledge and data coming from the lab (i.e. which political issues it is wielded to support) is contextualized and used can also become political and risks becoming manipulative. This could also work to the detriment of co-creation processes in terms of trust by actors. For example, in GovLab Austria, the difficulty of maintaining a neutral role as facilitator without bias was difficult as the lab was seen to never be free from political influence. The UK Policy Lab also stresses the importance of being a neutral space to encourage cross-departmental collaboration and ensure public engagement with external experts in key policy areas. In the case of the S3 drafting process with Aster, the project’s lead, Giorgio Moretti, highlighted that trust was incremental, growing through the process itself. He furthermore emphasized that trust in the regional institution was a key issue for ensuring a genuine and committed stakeholder engagement. In particular, the need for precise objectives to be set and a clear agreement on the *usage* of the process results were at the very core of process effectiveness. The cases evidence the need for co-creation leaders to consider the ‘political’ nature of their choices in going forward.

The labs, through the co-creation processes, encouraged policymakers and other public sector actors to adopt different roles in line with a networked governance interpretation. This was observed mostly through the creation of a collaborative space, either virtual (Geneve Lab, Inland Design, GovLab Arnsberg) or physical (Torino City Lab, Aster, GovLab Austria, Decidim, DTF, DDC, 27e Région, UK Policy Lab), that allowed for new forms of collaboration and empowerment.

Recommendations: Our cases demonstrated the need for PSI labs to tailor their strategy to the political context. Having to contend with constraints arising from the remains of the ‘traditional’ public administration (hierarchical systems, bureaucracy,

one-size-fits-all solutions, etc.), PSI labs should equip themselves with the language and skills to navigate these systems and be entrepreneurial in acquiring the resources and authorizations needed, as well as spotting opportunities. Knowing how to speak the language and frame problems with the necessary stakeholders (especially from the top-level) can be pivotal in launching projects. This is important in the initial stages, as afterwards, like trust can be built through the process, frames are re-defined and aligned during the co-creation process. PSI leaders should also be aware of the ‘political’ aspect of design choices of inclusion/exclusion, sharing and adoption.

Developing and working in a ‘protective space’, being networked, and having top-level political support are instrumental to the success and positive impact of PSI labs.

Alongside what was already discussed above, the need to operate autonomously and unburdened by organizational cultures and bureaucratic processes characterizing the public sector was found to be essential to the mission and daily operation of the labs. The team culture of GovLab Austria, for instance, is based on the principle of a “free room of interaction”, detached from the existing hierarchical structures. At the same time, being highly networked in the system proved to be essential, as was clearly observed in DTF, but also being rooted in a specific organization carried with it valuable resources and connections, as seen in Geneve Lab and Inland Design. The latter case however also demonstrates the dangers of being too ‘protected’ and not embedded enough in the organization, preventing more strategic level actions and higher impact activities. Inland’s case furthermore highlights the ephemeral nature of these labs, having contracts that only last a few years, signifying that all the trust and legitimacy acquired will just drop off. Longer term contracts and more strategic postings in the organization are necessary for the organization to accomplish and perhaps even propose more radical changes. This is quite paradoxical considering the vast majority have been established to disrupt.

What we can observe, regardless of the location (inside or outside government), is the high value of being networked both internally with other agencies, policymakers, public managers, departments, etc., and externally with private companies, third sector actors and civil society. As is mirrored in the case of Inland Design’s network of chatbots, the networked level of the service allowed for multiple agencies to collaborate and communicate without radically changing the infrastructure. What we saw tangibly in that case is the use of technology to support emerging socio-technical

systems that link different locations. Likewise, what can be observed from a macro-perspective of the cases is the important role of networked individuals in creating links between different “resource beds” for innovation.

Another important aspect to this is understanding who to engage and when, as indicated above. The DTF case emphasizes the need to not “exhaust” the stakeholder network and only involve them when necessary and when their contribution can be valuable. What is observed across the cases is the “ad hoc” nature of the project support; in other words, the labs tend to engage stakeholders around the project as they come up and as needed based on how the process unfolds rather than having a fixed network. These actor networks are thus ever shifting and based on the needs of the day.

The cases support what was found in literature (Tönurist, Kattel, & Lember, 2017b) regarding the importance of having top-level support to help break out of niches and quite simply to survive. For example, in GovLab Arnsberg, having the mandate for the process from the President of the District Government allowed the process to go on rather smoothly without having to overcome huge cultural, organizational or behavioral barriers. Similarly, in the case of Aster, while the region did not interfere with the participative process and its output, the overall strong political commitment and presence of the councilor in many of the key phases, contributed to the speed and efficacy of the process.

Recommendations: PSI labs should take special care to cultivate and nurture their networks of actors, engaging them on a project-to-project basis. Fueling these relationships can not only ensure more positive and fruitful collaboration but also, and particularly when engaging top-level support, legitimize action and protect the quality of the process.

A favorable, cultural context was an important enabler of co-creation processes.

Overall, the cases demonstrated that the cultural context was an important driver of the PSI labs’ activities and in the successful management of the co-creation process. This was particularly evident in the cases of Aster (Emilia-Romagna Region, Italy), Torino City Lab, Decidim (Barcelona) and Inland Design. All four cases demonstrated a history of social engagement and collaboration, as well as a current focus on ‘instrumentalizing’ these attitudes towards a new form of governance and engagement (and also responsibility) in public affairs. While the cases weren’t enough

to make any generalizations, a small trend was observed in the scale of the co-creation processes with those having a ‘fertile and already tested’ ecosystem of collaboration resulting in processes with wider breadth. This is also due to the accumulated social capital and trust already established in the social fabric.

Recommendations: cases here collected show that the introduction of the co-creation culture in public sector is a long-term process. PSI innovation labs are clearly established with the operative aim of supporting public sector organizations to develop innovations out of the box to help them to face the continuous solicitations to innovate. However, some of our cases show that labs can also play the role of an implicit agent of change of the culture of the mother organization they belong to. To achieve this objective, the establishment of a robust system of information sharing and interchange between the labs and the mother organization would work to better support this not expected strategic role.

6.2. Sustainability/business model and budget allocated

The analysis of the financial sustainability dimension is aimed at understanding at which extent these models could be linked to issues such as life expectancy, or if other variables – such as political support, recognition and legitimation of co-creation processes – could be more influential in determining the solidity of a Lab.

Public funds appear to be the first and most common source of financial resources, however, additional funds are often searched as a complement.

The majority of Labs are hosted and/or funded by one or more departments within public administrations, and are directly funded through their budget, such as Genève Lab, the Disruption Task Force, Inland Design, UK Policy Lab, GovLab Arnsberg or GovLab Autria. Among the Labs directly linked to public administrations, Torino City Lab stands out because of its interesting funding-mix model, that complements national funds as with the attraction of venture and equity funds. Investors sometimes push their innovative enterprises in applying for testing their solutions through the Torino City Lab, considered as a testing playground. Extremely relevant in this business model is the for the Municipality of Turin to transfer and sell the tested solution to other cities around the world, becoming a business partner of the innovative enterprise that developed and tested the solution.

Others are entities that are physically and legally independent, but receive public funds. This is the case of the Danish Design Center, which is a Private limited company owned, together with other 2 sister companies, by Design Society, that channels the State funds coming from the Ministry of Business and Growth.

Other entities, such as ASTER or La 27e Region, are funded respectively by their shareholders and associate members which are mostly public entities. However, funding is often complemented through national funding, international funding opportunities including H2020 or Interreg, or the delivery of services (workshops, trainings, lectures, etc.). This applies for example in the cases of ASTER, Genève, Danish Design Center. The case of Decidim is a bit hybrid. With an important contribution of the City of Barcelona to develop the platform, the project will most probably continue to benefit in 2019 from a big and more general municipal support. Despite this, Decidim remains a fragmented reality composed by a number of self-funded communities, where disparities might arise in terms of sustainability possibilities, depending on the actual available resources, or on the level of engagement in each local community.

Being funded from the public sector can influence operational aspect since budget allocation might be limited to certain priorities or budget costs.

The rationale for budget assignment significantly varies across the different entities analyzed. More complex entities, such as for example ASTER or Danish Design Center, independently administer their financial resources allocating them to a variety of activities, among which co-creation ones. Some Labs, such as Genève, receive a budget aimed at supporting not only single co-creation initiatives but also more general activities. In other cases, more specific and restrictive arrangements appear. The UK Policy Lab, government's departments support financially those operations that the Lab undertake with and for them. In the Disruption task force, certain projects, as the GovTech initiative, include co-payment from participants. As concerns GovLab Arnsberg it can rely on the central budget like other departments; however, a *zero-budget* approach for innovative processes, which means that budget is allocated only under condition that the potential for bringing solutions to specific problems is showed. GovLab Austria does not have an individual budget assigned, and for what concerns, for example, website, IT-tools, and other non-personnel costs related to specific projects of the lab it uses equal budgets provided by the two public contracting parties. Regarding staff costs, these are not assigned to the Lab, and are independently managed by the two contracting institutions – i.e. without shared budget.

Being funded from the public sector does not ensure solidity on the long-term.

In the narrations collected, the aspect of financial sustainability does not appear to be critical or prioritary. In some of the reality analyzed, because of solidity of the organization (such as for example ASTER), or because of the current strong political backup, long-term survival does not seem an issue. The Genève Lab, through the funding of the cantonal office cantonal of information and digital systems can guarantee its sustainability on the long term, and the same goes for Danish Design Center, through the financial support from Ministry of Business and Growth. The Genève Lab is also living a moment of strong expansion and investments, and has gained the trust of other public administrations and citizens, which further reinforces its position.

In other entities, it is not always easy to infer at which extent the funding sources and methods can impact on the Labs' life expectancy, because sometimes the latter might depend also on other variables, such as, for example, the political support or the definition of the Lab's mission. In the case of the Disruption Task Force, or of GovLab Arnsberg, both are born with the explicit mission of challenging the status quo, by bringing new capacities, approaches and working methods within the public administration, and in the case of DTF, also in the private sector, making the most out of the digital transformation. However, we know that DTF partially took over the work of the pre-existing MindLab, that was terminated after a political shift. Regarding how the definition of a Lab's mission can influence its life expectancy, an interesting insight is given by GovLab Arnsberg: they consider their final objective to be achieved once they have "made themselves unnecessary". In the case of Inland, even if more explicit reasons are elaborated, the 2.5 years contract of the three service designers composing the team very "likely" will not be renewed.

In the case of Decidim and Torino City Lab, it is difficult to make forecast. In Decidim, even if wider and longer-terms investments have been made by the City of Barcelona to support citizen participation rights, it is not clear if there is a specific budget allocation for the Decidim platform. Regarding Torino City Lab, the strength of the initiative is very much linked to the vision coming from a specific administration, therefore this is one of the cases where the political dimension might play a critical role.

La 27e Region, which is an association whose financial resources depend mostly by its associates' memberships and foundations' support, is currently searching for long term funding schemes, through orienting its operations towards territorial innovation - mainly through policy makers training and city centers revitalization projects.

Recommendations: Public funding sources appear important for labs subsistence and autonomy in the short-term, or for the launch of specific initiative. However, for what concerns long-term sustainability other aspects are capable to make the difference. In order to counter-balance the possible volatility of political support, some key steps appear important in order to strengthen the position and resilience of policy labs. The organizations investing in positioning themselves, as enablers and facilitators of cross-cutting societal change and transformation are more likely to build higher recognition and legitimacy around their role, independently of any specific priority or outcome to be pursue.

6.3. Skills and team

The dimension of competence and skills, and the way they combine and complement each other in a team is considered central in enabling and facilitating innovation processes as well as the competitiveness and resilience of enterprises, as demonstrated by the utmost importance given by investors to startup team evaluation. The purpose analyzing the dimension of skills, is to identify which competence approach was used (based on specialized and vertical competences, or interdisciplinary), if the emergence of new set of competences is evident, and how different competences and cultures are combined.

The majority of lab recognizes the added value of interdisciplinary teams, although focusing on different set of skills and competences. It emerges an attention for observing the emergence of new types of skills, and of investing in new set of competences and new profiles.

In the specific cases of Genève Lab, DDC, UK Policy Lab and La 27e Région we see a declared and conscious attitude towards capturing and making the most out of the combination of very different - and therefore complementary - disciplines. These types of labs attribute utmost attention to all those disciplines providing insights on how managing transformation and change processes, and on how analyzing and taking into account users experience, discourse and contributions. These are also the labs that more clearly aimed at describing themselves with a cross-cutting, independent and institutionalized position as facilitator of transitions and transformations, within the public administration and for the wider community.

In Genève Lab diversity and complementarity of profiles and skills are considered key factors for success, as well as "humility, curiosity, benevolence, openness, collaboration

and mutual support”. The team covers the transversal areas of digital innovation, change management and organizational change, public sector innovation and smart cities, entrepreneurship, policy design, open data, design thinking, prototyping and experimentation. In DDC, the mixture of various skill is an explicit strategic component of the organization’s value, and strategic attention to skill and business development is present at the management level. Competences considered relevant are business, design, communication, technology and digitalization, social research, and since employees are not hired to fit into a specific profile, people with different educational backgrounds and skills are considered an asset. UK policy Lab is coordinated by a small team of professionals with a sound background in design, research, ethnography and innovative policy making and innovative thinking. La 27e Region has a core team with backgrounds in cultural projects management, cultural administration, design, marketing and management. GovLab Arnsberg stresses the importance of interdisciplinary and multi-actor approaches and open methods, such as design thinking. Partners’ mutual exchange in the field of innovation and digitalization is equally considered important. The lab manager brings skills in agile ways of working and change management, and important investments are ongoing to acquire additional necessary competencies for the team, in terms of moderation, facilitation and project support, design thinking and agile project management, including investing on a SCRUM Master qualification. In this lab the fact of having worked within the public administration is considered an asset, valorizing informal aspects such as being well networked and versed in internal structures. GovLabAustria works through inter-sectoral approaches, bringing relevant stakeholders together in academic and practical contexts, in open and interdisciplinary experimental space. The team brings together academics and public officials, combining heterogeneous skills and knowledge, especially on e-Democracy, public sector innovation and ‘better regulation’. This GovLab intends systematizing internal competences, setting up a process to define job descriptions for all roles and functions of the lab. Decidim shows a strong interdisciplinary approach where social science competences are intertwined with IT ones, with special attention to a sociological approach to ICTT. The technological competence component concerns architecture and software development for the platform; the sociological component comprises communication and sociological disciplines for the construction of a common and creative discourses around the platform, community management, and the creation of a culture of transparency, openness, co-creation, and collaborative research.

Other Labs present a stronger inclination towards technological or vertical competences, either because of an intentional choice, or simply because of a continuity with the set of competences composing the team.

In the Disruption Task force the team comprises a combination of entrepreneurial mindsets and an interest in politics. Project management experience and flexible project skills, as well as stakeholder management experience, are considered important assets, but in the current search for staff, DTF will look for people with more extensive tech experience or “tech gravitas”. The Inland Design team is composed of three service designers, offering capacity and training to Migri in terms of digital transformation of public services. In Inland, that is located within the Digital Service Support Unit (SÄPA), advanced technological expertise represents an important asset. In ASTER, The S3 co-creation process was managed by a unit dedicated to technological development. Internal staff with vertical and sectorial competences moderated the events and acted as facilitators. No external experts either on process creation or facilitation were involved. Torino City Lab is guided by a Municipality alderwoman with a background in computer science and innovation, and a team bringing expertise in public administration. The need for varied competences is openly stated, especially to help companies with permits and authorisations, in order to reduce the time to market and costs associated with activity testing. Therefore, the most needed profiles deal with legal and bureaucratic issues, as well as business modelling and funds. Interestingly, given the scope of TCL, at the moment there is no relevant quest for skills and professional profiles dealing with public engagement and citizen dialogue, since citizens are involved at the testing stage. Regarding the attitude towards the role of technology, it is worth reporting the position of La 27e Region which considers technology “a useful instrument when needed, but not a necessary part of the process, since sometimes low-tech solutions, relying on human interactions or on non-digital communication choices, are considered much more interesting”.

Almost all Labs are attentive to mobilize external relevant expert knowledge when and where most needed

A number of policy labs make frequent use of regular external expertise for specific competences. For example, the effort of UK policy Lab is supported by a network of external experts for key policy areas, whom are invited to participate in all initiatives, depending on the policy area, the issue, and their expertise. In Genève Lab, competences

in user-driven service design methods are also supplemented through collaboration with key partners. In the Digital Task Force, a fundamental asset is the advisory board, composed by external members providing skills in data ethics and regulation, supporting project development and coordination with a hands-on approach. Moreover, in the initiative analysed, a UK consultancy firm/venture fund was recruited through a tender to support the operational process. In Inland the team also functions as a connector with design expertise coming from external stakeholders. Decidim and La 27^e Region strongly draw from external expertise at the local and community level. In Decidim, competences are selected and activated at the level of each Meta-decidim community, joining forces between the local public bodies concerned and the constellation of external stakeholders, and drawing from competences concerning sharing economy, social economy, commons, IT visualisation devices and digital democracy. For specific projects, La 27^eme Region mobilizes more relevant capabilities from the specific territories, in particular to better engage in ground-level actions and focus on the concrete experience of users, civil servants and citizens. These are designers, idea generators, artists, social scientists, architects, urbanists, popular education experts, mobility experts, as well as social scientists from many fields (ethnography, sociology, participant observation).

Recommendations: many of the labs here mapped claim for a multidisciplinary approach that quite often is obtained through the enrollment of temporary external experts or professionals. If this attitude allows labs team to stay small and guarantees flexibility and team building from the other side the lack of internal and stable profiles especially on the areas of competences of design thinking and policy design can block the process of competences introjection that in turn negatively impact on the change in the mind set of people in public sector towards a user centric culture.

6.4. Impact measurement

Concerning the existence of evaluation and monitoring frameworks, information obtained from the collection of cases here analyzed is very fragmented and disomogeneous, mainly concerning the measurement of the state of advancement of the specific initiatives. The majority of Labs did not give sufficient evidence of systematically applied frameworks and tools for the evaluation and measurement of the achieved results and impact, especially concerning the organization level. Information received correspond more to qualitative accounts than to real measures. However,

starting from the objectives that each lab set for itself impact measurement is discussed at two main levels: 1) organizational and policy making culture, attitude and processes; 2) stakeholder landscape and relationship networks.

All the labs demonstrate the capacity to attract the attention of other departments and structures, and where the design thinking approach is applied, the added value is perceived, contributing to cultural change in terms of policy making culture and attitude.

Almost all cases combine two main long-term ambitions: on the one hand developing new sustainable services, welfare models, and new dialogue dynamics with the civil society; on the other hand, contributing to changing culture and attitude of public officials towards policy making and co-creation processes, extending co-creation methodologies and building capacities across the civil services and public administrations. Some Labs, such as DDC, ASTER, or Torino City Lab also pose a strong emphasis on the empowerment of companies and of the private and productive sector, to make the most of the technological revolution.

Experiences such as the Genève Lab, the Danish Design Center, Inland, the UK Policy Lab, and La 27e Region, stress, in different way, their capacity to generate attraction around different public administration departments and to be requested to provide assistance in experimenting new ways of doing things. For GovLab Arnsberg, the contribution to cultural change within the public sector has been even defined as the biggest impact of the pilot process. This series of design experiments in the public arena showed on the one hand the increasing acknowledgment, appreciation and trust for co-design user-centric, iterative and exploratory approaches promoted by the labs, and on the other hand serves to promote and legitimize design thinking as a way to bring a ‘new way of doing and thinking’ into government, contributing to overcome traditional linear approaches. Similarly, the Torino City Lab, stresses how a change in attitude has been observed when people realize that things can be changed and there is a real opportunity for inventing new way of doing things, following a common vision and developing a shared consciousness of being pioneering. For GovLab Austria it was a success the fact of being recognised by many departments as an important actor and partner for public sector innovation, maintaining its role while other ‘innovation units’ may easily fall under restructuring.

The evaluation done by the UK Policy Lab also highlighted that the project’s research findings spread, and were eventually used in other ways inside the departments,

expressing thus a wider innovation potential of design-based solutions. In the case of La 27e Region, the specific experience analyzed confirmed a change in the way policymakers approached the specific issue (renovation of urbanistic assets). In particular, about one year after the project ended, two residents were commissioned a renovation work on a station, although in a different area. In the Digital Task Force, at the moment of writing, evidence is not available regarding the capacity of the taskforce to have a direct influence on policy making or create a lasting dialogue between actors beyond the project, as the project is not yet completed. However, DTF is also experiencing a growing interest across the public sector in Denmark, and the aim is to scale the program to other ministries and, eventually, go global, as per the 2025-strategy to make Denmark a digital frontrunner.

Some experiences show the capacity to influence actions at a higher policy level, through direct influence on policy actions with the potential of legitimizing the culture of co-design at an institutional level

The cases of Decidim and GovLab Arnsberg, show that a certain impact was achieved also at a wider political level. Regarding Decidim, the platform has enriched the deliberative process and the process of collective construction of public policies, qualitatively and quantitatively. Decidim increased participation in all processes, opening up new spaces for proposals and debates, while allowing qualitative change in the way of managing information, results, and interactions (including face to face), systematizing inputs in an open, transparent and public manner. It is important to highlight that the co-creation experience of Decidim influenced the policy making culture through an well-defined step: a specific *Pact* was signed regarding participated policy making in the city. The document - collaboratively designed includes a specific part dedicated to the consolidation of the participation and shared governance, ensuring that the values of cooperation between institutions and stakeholders is recognized and institutionalized. In the case of GovLab Arnsberg the management level of the District Government learned how a “software as a service” approach allows to achieve a fast, cost-effective and easy performance for different tasks. This contributed to accelerate eGovernment discussions within the public sector, as well to support proposals concerning the usage of cloud services for eGovernment processes. Finally, it is worth noting that the Lab frames its own long-term desired impact in terms of “making itself virtually unnecessary”.

Some of the labs show the capacity to impact their stakeholders' network at different levels

Some experiences had a strong impact in the stakeholders' landscape, contributing to strengthen existing relationships, producing a number of new informal relationships, and creating networks of meaningful connections. These relationships last beyond the initiatives and enhance the capacity of the public administration to address the right partners or stakeholders in future collaborations, with efficacy and continuity. In the cases of ASTER, Genève Lab or Digital Task Force, this aspect was considered as an important added value obtained from the co-creation process.

In ASTER, the first phase of the process had an impact on the stakeholder landscape, which in turn substantially influenced the second policy making process, both in terms of priority configuration and policy content, and in terms of governance and processes. In particular, as a result and outcome of the first S3 co-creation process “priority setting” (2013), new permanent and institutionalized actors within the R&I regional ecosystem were born. These entailed changes in terms of stakeholder identification and engagement process, and also at the governance level of the whole second phase, “evaluation of implementation and redefinition of strategic priorities” (2018). An additional impact related to this change is that the composition of ClustERs ensured a continuative dialogue while enforcing collaboration between regional actors beyond the analyzed initiative.

In Torino City Lab, new types of relationship concern especially the potential exploitation phase of the solutions. An interesting relational dimension created by this experience is that the Municipality and the enterprise involved in the project could become business partner with a view to scaling up the solution both at national and international level. Currently, the Municipality of Turin is in contact with major international capitals, such as London and New York to transfer and exploit the innovative solution within their own urban context. Another relational dimension created by the TLC experience is that of “International scaling partners”, a new category of partnership including actors – such as networks of innovations from all around the world and venture capitalists – that are fundamental for the scalability and the diffusion of innovative activities tested with TCL. Every company working with TCL will have direct contact with professional investors both in Italy and in the rest of the world.

Outside of the core stakeholder network some of the analysed labs have been able to produce impact on the larger network of actor in their ecosystems. The Genève Lab produced an impact also at the educational level, drawing the attention towards the needed skills and competences underpinning its work. The Institute of Information Service Science (ISS) of the University of Geneva is currently developing an academic continuous education program (Certificate of Advanced Studies) in design thinking, with the contribution of Genève Lab members. Decidim created insight on the role of technologies in supporting participation in any type of policy making processes. In that sense, a number of organisational and ethical dimensions of the hybrid co-creation ecosystems are brought on surface, and highlighted for further observation: personal data rights and technological sovereignty, representatively and selection processes through ICT, inclusivity, quadruple helix and local agency, capacity to shift from participation to co-production, and social innovations.

Recommendations: Positioning the Lab as an in-house service – as directly employed by the institution – is considered influential in two principle ways: it allows the Lab to gain trust from the rest of the organization, while gaining direct access to organizational resources, knowledge and informal insight. The fact of being located within a technological unit, in addition, increases the possibility to access bigger projects and thus to demonstrate the approach's value, since the area of technology is more prone to accept design approaches. (Inland Design). Under this condition what emerges from our labs indicates that being perceived as a neutral actor can encourage cross-departmental collaboration and ensuring public engagement, together with the engagement of external experts in key policy areas. (UK Policy Lab). Conversely the perceived lack of neutrality was reported as barrier and bottleneck by GovLab Austria.

The lack of a systematized framework for impact measurement, and the prevalently qualitative approach kept, might act as a barrier for Policy Labs to factually demonstrate their added value to administrations, in a moment where their presence in public administrations is still fragile and not institutionalized. On the other hand, the capacity to bring qualitative insight and to read problems from a different perspective than the traditional or institutionalized one, is what distinguishes the added value of these experimental experiences. The perception and communication the labs added value, is of particular importance since it could be beneficial to facilitate a more permanent and cross-cutting positioning of co-design support services in public organizations, and

long-term sustainability. Also, it could be beneficial in promoting a presence of co-creation not only at the level of implementation, but of policy-making and strategy creation.

6.5. Methodologies and stakeholder engagement

All the PSI labs here analyzed have as main objective to craft new solutions with stakeholders and citizens by applying Design Thinking (DT) methodology through an iterative process that starts from co-creating ideas with all the stakeholders and proceed by implementing them through concrete prototyping and experimenting activities.

However, the cases show a diversity of evidences with respect to the way in which iteration is implemented depending on the object of design, the role and mission of the labs, and their internal competences.

As a general result, all the cases aim to push policy makers to speed up the learning loop about the benefits that the application of co-creation and design thinking in policy making can bring about, even though none of the labs has elaborated an evaluation framework to monitor the outcomes and the impacts of their projects and activities.

All of the labs adopt practices of engagement and include processes and competences for ecosystem activation

All the PSI labs consider engaging with citizens and stakeholders as a strategic process: it is through the engagement that principles of human centrality and societal-challenge orientation can be operationalized. However, labs show different engagement modalities, depending on their working model and the objectives and mission that they pursue.

Specifically, we individualize 2 main modalities:

- Engagement process at the project implementation level. In this case engagement is at the core of the application of DT in the innovation process.
- Engagement process at the level of the labs. In this case engagement becomes a strategic activity for the sustainability of the labs.

Many of the labs individualized work by innovation projects commissioned by their internal stakeholders to generate new conceptual solutions for specific issues (idea generation). This kind of projects require the engagement of citizen and stakeholders to gather from them additional information on the challenge to be addressed, their experiences with the current solutions and their needs. To achieve this result, labs have

used different typologies of tools, ranging from classical consultation tools like meeting with representative from all the stakeholders, online surveys and open consultation platforms (Aster, Decidim, Genève Lab, GovLab Austria), to more empathic and interactive tools like events and workshops (Decidim, Genève Lab, DDC, Inland, UK Policy Lab, La 27eme Region, GovLab Arnsberg).

For this engagement modality, stakeholder engagement is primarily connected to the phases of problem understanding and idea generation.

This evidence seems to depend on a few specific reasons.

Firstly, the analyzed labs quite rarely follow all the process of design from problem understanding, to the development of solutions, to prototyping and implementation. The majority of them develops experimental projects focusing on the initial phases of the innovation process, while the subsequent steps are often carried on by their parent organizations or externalized (LA 27eme Region, Genève Lab, Torino City Lab, DDC).

Secondly, all PSI labs have multidisciplinary teams that may or may not include specific design competences. The presence of design knowledge can influence the specific approach applied to engagement: where these competences are present engagement tends to become more complex, supported by different forms of “quick and dirty” prototyping and short- or long-term experimentation, like in the cases of Inland, UK Policy Lab, La 27eme region, Decidim and DDC; where design competences are included in the team, engagement tends to become closer to consultation with a significant involvement of different typologies of external subjects as experts (technological companies, academics and intermediaries from different sectors), like in the cases of Aster, Torino City Lab, GovLab Austria, DTF.

Finally, all the labs work by projects that quite often are concentrated on the delivery of innovative concepts, which forces the labs to operate in the very initial phases of the design process. The focus is then on the number of ideas produced and on their degree of novelty with respect to current practices, more than on their implementability and scalability (Torino City Lab, GovLab Austria, DTF, UK Policy Lab, La 27eme Region).

Engagement in projects is mainly addressing citizens: all the labs claim that citizens are their main target. However, citizen engagement may occur in direct or indirect ways.

In some of the labs co-creation primarily occurs between experts and stakeholders that may eventually work on data gathered from citizens before the co-creation process. In other words, the voice of citizens informs the co-creation process, but they do not take part in it directly. This is for the cases of Torino City Lab, Genève Lab, DTF, GovLab Arnsberg, Austria GovLab, Aster. Citizens do not act as co-designers but as owners of

specific knowledge and sets of data and information that can be collected through a process of consultation or by other means, and used as input for the co-design process. In these situations, citizens can also be involved in testing phases when they occur: this is for example the model adopted by Torino City Lab.

When citizens become active co-designers in the project, engagement refers to the specific of the design process, that recommends activating all citizens/users affected by a specific challenge, as well as all the stakeholders that are affected from and/or interested in solving it. Under these conditions, labs such as La 27eme Region, UK Policy lab, Inland, Decidim, DDC, engage citizens and stakeholders from the context in order to:

- Analyze the context of the challenge/problems and collect evidences on the specific citizen/user experience;
- Co-design, typically through workshops, potential solutions for the individualized problem(s);
- Take actively part in short- or long- term experimentation by the means of a living prototype that is implemented in a real context.

These engagement processes are typically supported by emphatic design tools and many toolkits have been developed to support their conduction. One important fact to be mentioned is that the effectiveness of the process of active engagement is significantly affected by the competences available in the labs.

Under this specific modality, labs mainly behave as an internal agency of the governmental system in which they are located. They rarely develop their own stable stakeholder network and they mainly activate processes of engagement depending on the specific projects they are involved in. Citizen and stakeholder engagement are interpreted as a fundamental working methodology for the conduction of the projects, and stakeholder networks change in relation to the projects' nature, contexts and domains of application.

On the contrary, some of the labs behave like “stakeholder-focused” organizations which means that they have a stable network of stakeholders they cultivate and with which they entertain continuous short- and long-term interactions. In these situations, labs collaborate with stakeholders to develop common strategies and visions for the future. The process of engagement for this typology of labs is strategic and directly connected with their sustainability model (Aster, DDC, Decidim, Torino City Lab, GovLab Austria, Genève Lab). For these labs, stakeholder engagement is continuous and guided by an enlarging strategy.

For example, the Genève Lab has a stable network of stakeholders that include companies, associations from the third sector and civil society, representatives from the academy and the public sector. Working together with its network, the Genève labs aims to elaborate a vision and a direction for the digital transformation of the city. The lab can also work on specific projects, like EU-funded projects that require the activation of a specific stakeholder network to be run.

Aster is also an actor with a stable network of stakeholders at the regional and national level, which was developed in more than 10 years of activity as an autonomous territorial agency for technological development. Aster was appointed by the Regione Emilia Romagna to lead the process of the S3 strategy policy co-creation also on the basis of this specific characteristic: the agency was able to activate a specific network of stakeholders for this task by simply exploiting its larger network.

DDC is a design center with a long history of collaborative projects and interactions with different stakeholders, especially coming from the world of business and production. DDC is committed to produce value for clients and adopt stakeholder engagement as a project methodology. Recently DDC has moved into the domain of policy design, becoming a privileged interlocutor for the Danish government, but its nature remains that of an independent stakeholder-focused organization that serves the public sector for different purposes, from supporting service innovation to educating policy makers to the use of design thinking in their processes.

Recommendations: Innovation labs or teams should include specific competences for ecosystem activation at both project and strategic level.

One insight that emerges from our analysis is a general lack of competences to actively engage citizens: in some cases, the labs declared to have difficulties in building capacity to empathically interact with citizens (Turin City Lab, Arnsberg). This lack can seriously impair the effectiveness of co-design processes preventing labs from developing a real user centric approach to innovation.

A second insight that emerges is that those labs that have been able to structure a stable network of stakeholders they work with, like la 27eme region, UK policy lab, DDC and Decidim, seem to be more resilient and stable than those that work only as internal agency more exposed to political changes.

Iteration, as the process of prototyping, experimenting and learning to support improvements in policy design is differently implemented and used in the labs

Iteration is at the core of DT: to make it happen, designers develop prototypes as alternatives of a solution to be experimented in real contexts. This gives the opportunity to choose the most effective alternatives and to create a feedback loop to hone them (experimentation). Among the results of the experimentation, there is also a learning effect in the network of stakeholders engaged (learning-by-doing and learning-by-interacting) that can draw a final decision on the better solution to be implemented. The iteration process in PSI labs here analyzed seems to depend, among other factors, on:

- the real object of design;
- the objective pursued through the iteration process.

Firstly, we would like to notice that while iteration has been successfully adopted in quite diverse fields of design and with many different objects of design, there is still an extreme difficulty in the application of the iteration process when the object of design is a policy.

Prototyping and testing a policy is a long process that often is not in line with governmental agendas at different levels of governance. In the case of Aster, for example, the iteration process of experimenting and testing with the S3 policy would have eventually conflicted with the timeline for the implementation of the policy established at the national and EU levels. In the case of Decidim, only few of the policy proposal submitted by citizens have been experimented through prototypes and only at the level of the city neighborhoods. Experimenting with a policy means running projects in real contexts under the conditions framed by the policy.

In the analyzed cases, experiments often take the form of complex services. In the case of Inland, in Finland, the mission is to support the MIGRI service to improve the immigrant experience through empathy, experimentation and technology. In such a case, a process of continuous experimentation with service prototypes is implemented with the aim to generate insights to redesign a policy.

Also in the case of the UK Policy Lab the process of policy design is implemented by running demonstrator projects, in which the object of design is not the policy itself but complex services that are prototyped starting from the analysis of the current experience of those that interact with a policy through a service. By documenting the real experience of citizens, the UK Policy lab aims to show to policy makers the effect of the current policy, and by designing prototypes the lab aims to suggest to policy makers possible improvements of a policy.

In all the other collected cases, we did not observe long-term experimentation, as the

majority of them concentrate their effort on generating ideas and representing them through the development of “quick and dirty” prototypes.

This is for example what happens in the case of La 27eme Region, where the design activities on the territories have a twofold aim: to develop with local stakeholders and citizens possible solutions to local challenges, and to represent them through prototypes to be used as show cases for policy makers. Here experimentation and iteration phases are eventually delegated to the local policy makers and public authorities.

Recommendation: since the application of the process of iteration for policy design can be complex and time consuming, a good strategy that is working for the more mature labs we analyzed (Inland, UK Policy Lab, but also La 27eme Region) is to apply the process of iteration on the design of services/processes/products as means that operationalize policies. Supporting policy makers to access these solutions can trigger learning mechanisms that can support them in the redesign of policies.

The majority of the cases analyzed adopt methodologies and tools coming from the design discipline.

The majority of the labs adopt tools that come from user centred design, empathic design, co-design and service design. Each of these sets of tools is suitable for a different purpose. User centered design methodologies and tools have been extensively used in the design of the interaction between people and ITC-based solutions. This set of tools is used by those labs that focus on ICT and digital transformation in the public sector. This is the case of the Turin City Lab, GovLab Arnsberg and Genève Lab. User centred design support labs along all the phases of the design process, even though the phase of experimentation is much more a phase of testing of the solution with end users in usability laboratories.

Empathic design methodologies and tools have been developed to catch the experiences of the users and use this knowledge to both engage people to inform the design of new solutions and monitor the process of experimentation. Empathic design tools are complex and require expertise to be correctly handled. They are diffused especially in the more mature labs (La 27eme region, UK Policy Lab, DDC, Inland) to document the experience of citizens for policy makers and stakeholders. The UK Policy Lab, La 27eme region, Inland use these tools especially for investigating the contexts and documenting the process of experimentation. Even though these tools are powerful because they

support the direct access to people experiences in contexts, they have been already criticized in policy design as not being “sufficiently representative, quantifiable, or reliable” (Bailey & Lloyd, 2016). Here the issue is on one hand their scientific reliability and on the other hand the representativeness of the data that they produce.

Co-design and service design methodologies and tools primarily support the labs in the phases of ideation and “quick and dirty” prototyping. They are mainly made by canvases that guide collaborative activities. All of the labs analyzed are massively using them, also thanks to the availability and open accessibility of toolkits for service and public sector innovation. Some of the labs have already created their own toolkit, like in the case of Decidim: on the platform citizens can plan the entire process of policy design thanks to the availability of a set of tools. The plan can be then composed of different on-line and in-person activities and supported by specific tools available on the platform.

Recommendations: Co-design is a complex process that requires specific competences. There is a widespread idea that co-design and service design tools can be used by anyone independently from their background and previous knowledge of the design discipline. In general, there is a strong bias in the scientific discussion as well as in practice that co-design is all about the use of a set of tools to conduct co-design workshops. Diverse toolkits have then been developed to support PSI labs to manage the design process without including design competences in their team. However, comparing the cases we notice that those labs that include design competences are more likely to move from ideation to experimentation and fill the gap between ideation and implementation (DDC, La 27eme Region, UK Policy Lab, Disruption Taskforce). On the contrary, those that do not include design competences are more likely to focus on engagement and ideation and they rarely produce prototypes (GovLab Austria, Genève Lab) that impact in some way a public policy, service, process.

None of the Labs adopt a monitoring system of the outcomes and impact of their projects.

Although involving citizens and other end users and stakeholders in collectively framing problems and ideating solutions may be an important normative ideal, there is little evidence that demonstrates whether this produces better policies and public service. One of the main reasons of this lack of evidences is the scarce attitude of the labs to monitor and measures their outcomes and impacts (short and long terms).

As discussed in the case of La 27eme region as the solutions to experiment can sometimes be quite disruptive, or would need several years to implement (because it involves building works, or human training on a long-term basis), it can be hard to produce the impact envisioned in the “residencies”.

Thus, it seems that labs primarily engage in rapid prototyping as the output of the engagement process and there is less interest in long-term monitoring, although scalability is one of the most stressed aspects in the new bottom up and citizen centric innovation solutions.

Often labs explain this lack with the argument that the objective of DT in policy design is not to guarantee specific solutions to a specific problem, but to help policy maker to better understand an issue and widen their perspective in the approach to the issue and to potential solutions. UK Policy Lab, La 27eme Region, Genève Lab, Disruption Taskforce, GovLab Austria are all mentioning that their main goal is to increase the awareness of policy makers about the value of citizens engagement in the process of policy design.

In this sense, simple solutionism (rapid prototyping, quick and dirty approaches) takes hold while complex system dynamics are underestimated. For instance, it has been already discussed (Deserti & Rizzo, 2019) that in the case of social innovation long-term engagement through small scale experimentation is fundamental to have a real impact. Stakeholder engagement and co-creation with citizens is seen as key, but the outcomes of innovation labs are produced for ministerial departments and other government agencies. Here the issue is that DT can lose potentialities as the evidences it produces from the real experimentations are not supported with numbers and patterns of facts. Diverse reasons can be individualized behind the lack of metrics. First all the labs here analyzed (and beyond) operate on the basis of a self-generated income plus low operating budgets. As a consequence, innovation labs do not look for strenuous performance evaluations nor the need to collect quantitative metrics to make their outputs measurable. Secondly, labs here discussed (and beyond) are relatively small and agile, this characteristic in some sense force them to act “quick and dirty”, and in this way they resemble startups. Third rarely our labs are engaged in implementation and/or scaling activities, as well as in policy decision-making where quantitative evidences are required to take reliable decisions.

Some of our labs show a certain degree of correspondence between the lack of a system of metrics and the aspect of the policy process they focus on. As we already notice in the majority of the cases here observed the attitude is to focus their activities on problem

understanding and idea definition showing difficulties in developing prototypes and running experiments. In fact, the majority of our labs are much more concentrated on the process of engagement per se and do not mention a specific objective at all. It seems that there is an implicit political assumption behind the support to the action of the labs: the involvement of citizens is a virtue in itself, like it has been for e-democracy and/or transparency.

Recommendation: To show the potentialities of the application of DT in policy design would help labs to gain legitimation about their role and the approach they adopt. None of the labs analyzed here have shown the use of an evaluation framework to measure the outcomes and the impact of the DT approach on policy design as well as on PSI. The development of such a framework/s would eventually support qualitative information produced in the design process with quantitative measures; this in turn would speed the DT process of take-off and institutionalization in PSI.

6.6. Relationship between politics and policies

The political level exerts different degrees and types of influence on the labs. The majority of cases here analyzed present a strong political presence, but to be intended in the sense of political commitment. This type of influence is not automatically translated into political influence or dependency, but rather as wider driving force setting the direction track and providing support and backup.

Political commitment can be a driving force for setting priorities, speeding up processes, and exploit outcomes.

In many Labs, the political commitment is prominent for example in the very first phases, where political macro priorities are set, without necessarily influencing the participative phases of the different initiatives. This is the case of the S3 co-creation process led by ASTER, which was originated from a clear and strong political commitment by the Emilia-Romagna region, on its capacity of ERDF authority; of The Smart Greater Copenhagen project, initiated as a top-down political initiative from the Capital Region of Denmark, and then realized at a regional level.

In Genève Lab, political commitment was considered important and influential, as a “force capable to trigger success”. In the case of the S3 strategy, the strong political commitment contributed – also through the direct presence of the regional alderman to

the productive activities, “contributed to speed up and make the entire process as effective as it resulted to be”, but without any interference with the participative process and its final output. Similarly, GovLab Arnsberg can count on the strong backing of the President of the Government District, but without this support to turn into specific influence. In the case of GovLab Arnsberg, the choice to undertake the chatbot project was made in total independence by the Lab manager, following a more general interest the President of the District Government for new technology and digitation.

The political level can be important to reinforce the relevance of specific initiatives if it strengthens, supports and legitimates the outcomes of the process, or demonstrate interest in exploiting either the participative process itself or its outcomes, as it was the case in for the S3 Strategy of Region Emilia-Romagna, for the creation of the thematic Clust-ER associations.

Political commitment as an underlying force to drive disruptive changes, pursue a vision and shape the future

In many cases a clear political commitment and motivation in exploring how to reshape the way policy can be collaborative produced, making the most out of different expertise, is at the basis of the political commitment towards Policy Labs’ experimentations. This is the case, for example, of the Department of Work and Pensions (DWP) of the UK Government’s Cabinet Office, following a more general interest in the UK towards shifting the way of doing policy into a more design-thinking. In Austria, the Austrian Federal Government has set as a goal in its program the “better integration of civil society organizations in political decision-making processes”, largely based on a wider request of transparency and participation, considered as a means of good governance. In Finland, the government has identified the “introduction of a culture of experimentation” as an objective and a method to bring more concrete and effective solutions and innovation to the public sector, in response to issues such as rising unemployment, decreasing economic growth, crisis in Ukraine and relations with Russia. In Germany, the wider context of GovLab Arnsberg is closely connected to its major proponent, the former mayor of Arnsberg and current President of the District Government Arnsberg, whom had a primary role in interpreting a new way and role for public administrations, to be intended as an agency for civic engagement, for co-planning and co-production of services. In Denmark, the President of the District Government pointed to technology and digitalization as one of the big challenges for public administration as well as for citizens. In the case of La 27e Region, the initiative

described was initiated by the Bretagne region. In that case there was not a specific policy need, but a generic interest to inform and widen the horizon of policymaking on the chosen topic was present. Finally, the Barcelona experience is part of a wider and strong political scenario and set of actions, aiming at redesigning citizenship in the digital and technological context, with a strong emphasis on creating public control of data and strengthening active and smart citizens' participation in policy making. In other cases, the focus of the political attention was not the policy making process itself, but the wider urban or economic landscape, and the best way to introducing disruptive changes and transformations. In Barcelona there is a very strong political intention to transform the city, to stimulate and revitalize the associative fabric and to strengthen the empowerment of the citizens as a whole. In the Genève Lab experience, the presence of a clear political vision recognizing the need to design a policy for all and with long-term implications was considered fundamental. Similarly, The case of DDC is very much linked to the long-running national strategic ambition to promote the growth of design in Denmark.

In the case of the Digital Task Force in Denmark, and of the Torino City Lab, it is about a strong political willingness of shaping the future appearance of the city and/or of the economic fabric of the city/country, reaping the benefits of new technology in both the private and public sector. This is done the strong cooperation and alliance of the private sector, showing new models of public-private collaborations. More in particular, in Denmark, the political framework where the DTF was created, aimed at maximize the benefits of new technology in both the private and public sector, while safeguarding the Danish welfare model. In Turin, the work of the Torino City Lab is framed within a number of integrated urban innovation policies, activities and tools that implement the vision of an open and innovative city and an urban transformation. The scope and vision of these urban innovation policy strongly relies on strong political vision and commitment, and are important condition setting factor for the Lab to be successfully established and operated.

Political commitment can turn into influence and pose some boundaries to Labs' operation that may create some uncertainty

Others cases show stronger ties with political priorities and a clear political influence in Labs' daily business, also at the level of the choice of topics and priorities. For example, GovLab Austria, following the national government elections and the related administrative restructuring at the level of Ministries, had to rebuild its network and

connections. The commitment of public officials towards the #GLAInno1 process changed after ministries were restructured, affecting the time schedule of the project. For this reason, the Lab needed to take into account the ongoing political debate and priorities, adapting processes and priorities to the current political landscape, avoiding to be actively engaged on possibly highly contested topics. The strong political influence is also reflected on the fact that the Lab is not perceived as a neutral actor, which affects its capacity to play the role of facilitator – which by definition shall be neutral.

Another example of influence created by the shift of political power – in this case from the regional level to the municipalities – is that of Smart Greater Copenhagen. The shift generated a number of uncertainties on whether the original policy line will be maintained, since it is not clear at which extent the strategy has been adopted at that level.

The Digital Task Force highlighted how political logics must be taken into account as a unavoidable influence that can disrupt a project plan. It may be due to the change of a political climate, or simply because – no matter how lean and agile a process is design – “things just get political”, and these limitations needs to be understood and respected. The attitude of GovLab Austria towards the changes triggered by politics is described as “dynamic stability”, for the perseverance and capacity of the Lab to navigate different political landscapes and to maintain sustainability and resilience to changes.

Recommendations: the analyses of case studies to suggest that in order to avoid uncertainty that depends on the influence of political change on the lab activity (and existence) a strong process of legitimation should occur. Contrary to this expectation the case (not here analyzed) of MindLab in Denmark (the first PSI lab established in Europe more than 10 years ago) shows that legitimation is a process that may not work alone. Labs should develop a strategy of long terms sustainability that should relies on their own stakeholder network and on gaining a strong position in the ecosystem where they operate.

7. References

- Ansell, C., Sørensen, E., & Torfing, J. (2017). Improving policy implementation through collaborative policymaking. *Policy & Politics*, 45(3), 467–486.
<https://doi.org/10.1332/030557317X14972799760260>
- Arnstein, S. R. (1969). A Ladder Of Citizen Participation. *Journal of the American Institute of Planners*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>
- Arundel, A., Casali, L., & Hollanders, H. (2015). How European public sector agencies innovate: The use of bottom-up, policy-dependent and knowledge-scanning innovation methods. *Research Policy*, 44(7), 1271–1282.
<https://doi.org/10.1016/j.respol.2015.04.007>
- Bailey, J., & Lloyd, P. (2016). The introduction of design to policymaking: Policy Lab and the UK government. *Proceedings of DRS 2016*, 3619–33. Retrieved from <http://www.drs2016.org/498/>
- Barry, A., & Slater, D. (2002). Technology, politics and the market: An interview with Michel Callon. *Economy and Society*, 31(2), 285–306.
<https://doi.org/10.1080/03085140220123171>
- Bason, C. (2010). *Leading public sector innovation: Co-creating for a better society*. Bristol, UK ; Portland, OR: Policy Press.
- Bason, C. (2014). *Design for policy*. Farnham, Surrey, England ; Burlington, VT: Gower.
- Bason, C., & Schneider, A. (2014). Public Design in Global Perspective: Empirical Trends. In *Design for Social Responsibility Series. Design for policy* (pp. 23–40). Farnham, Surrey, England ; Burlington, VT: Gower.
- Benington, J., & Hartley, J. (2001). *Pilots, paradigms and paradoxes: Changes in public sector governance and management in the UK*. Presented at the International Research Symposium on Public Sector Management, Barcelona.

- Blomkamp, E. (2018). The Promise of Co-Design for Public Policy: The Promise of Co-Design for Public Policy. *Australian Journal of Public Administration*, 77(4), 729–743. <https://doi.org/10.1111/1467-8500.12310>
- Borins, S. F. (2012). Making Narrative Count: A Narratological Approach to Public Management Innovation. *Journal of Public Administration Research and Theory*, 22(1), 165–189. <https://doi.org/10.1093/jopart/muq088>
- Bouckaert, G., & Peters, B. G. (2002). Performance Measurement and Management: The Achilles' Heel in Administrative Modernization. *Public Performance & Management Review*, 25(4), 359–362. <https://doi.org/10.1080/15309576.2002.11643672>
- Bourgon, J. (2011). *A new synthesis of public administration: Serving in the 21st century*. Montréal: School of Policy Studies, Queen's University.
- Bradwell, P., & Marr, S. (2008). *Making the most of collaboration. An international survey of public service co-design* (No. 23). Retrieved from Demos in association with PwC's Public Sector Research Centre website: <https://www.demos.co.uk/files/CollabWeb.pdf>
- Brandsen, T., & Honingh, M. (2016). Distinguishing Different Types of Coproduction: A Conceptual Analysis Based on the Classical Definitions. *Public Administration Review*, 76(3), 427–435. <https://doi.org/10.1111/puar.12465>
- Brown, A. W., Fishenden, jerry, & Thompson, M. (2014). *Digitizing Governmentâ€”Understanding and Implementing New Digital Business Models*. Retrieved from <https://www.palgrave.com/br/book/9781137443625>
- Cairney, P. (2017). *The Politics of Evidence-Based Policy Making* (Vol. 1). <https://doi.org/10.1093/acrefore/9780190228637.013.268>
- Carstensen, H., & Bason, C. (2012). Powering Collaborative Policy Innovation: Can Innovation Labs Help? *The Innovation Journal*, 17(1), 2–26.

- Christensen, T., & Lægreid, P. (2007). The Whole-of-Government Approach to Public Sector Reform. *Public Administration Review*, 67(6), 1059–1066.
<https://doi.org/10.1111/j.1540-6210.2007.00797.x>
- Christiansen, J. (2014). *The irrealities of public innovation. Exploring the political epistemology of state interventions and the creative dimensions of bureaucratic aesthetics in the search for new public futures*. University of Aarhus.
- Clarke, A., & Craft, J. (2019). The twin faces of public sector design. *Governance*, 32(1), 5–21. <https://doi.org/10.1111/gove.12342>
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(1), 128.
<https://doi.org/10.2307/2393553>
- Craft, J., & Howlett, M. (2013). The dual dynamics of policy advisory systems: The impact of externalization and politicization on policy advice. *Policy and Society*, 32(3), 187–197. <https://doi.org/10.1016/j.polsoc.2013.07.001>
- Creswell, J. W., & Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed). Los Angeles: SAGE Publications.
- Denhardt, R. B., & Denhardt, J. V. (2000). The New Public Service: Serving Rather than Steering. *Public Administration Review*, 60(6), 549–559.
<https://doi.org/10.1111/0033-3352.00117>
- Deserti, A., & Rizzo, F. (2014). Design and Organizational Change in the Public Sector. *Design Management Journal*, 9(1), 85–97. <https://doi.org/10.1111/dmj.12013>
- Deserti, A., & Rizzo, F. (2019). Context dependency of social innovation: In search of new sustainability models. *European Planning Studies*, 1–17.
<https://doi.org/10.1080/09654313.2019.1634005>

- Dunlop, C. A., & Radaelli, C. M. (2013). Systematising Policy Learning: From Monolith to Dimensions. *Political Studies*, 61(3), 599–619. <https://doi.org/10.1111/j.1467-9248.2012.00982.x>
- Durose, C., & Richardson, L. (2015). *Designing public policy for co-production: Theory, practice and change*. Bristol: Policy Press.
- European Commission, & Directorate-General for Research and Innovation. (2013). *Powering European public sector innovation: Towards a new architecture : report of the expert group on public sector innovation*. Retrieved from <http://bookshop.europa.eu/uri?target=EUB:NOTICE:KI0113825:EN:HTML>
- Feld, L. P., & Kirchgässner, G. (2000). Direct democracy, political culture, and the outcome of economic policy: A report on the Swiss experience. *European Journal of Political Economy*, 16(2), 287–306. [https://doi.org/10.1016/S0176-2680\(00\)00003-3](https://doi.org/10.1016/S0176-2680(00)00003-3)
- Feldman, M. S., & Khademian, A. M. (2007). The Role of the Public Manager in Inclusion: Creating Communities of Participation. *Governance*, 20(2), 305–324. <https://doi.org/10.1111/j.1468-0491.2007.00358.x>
- Foa, R. S., & Mounk, Y. (2016). The Democratic Disconnect. *Journal of Democracy*, 27(3), 5–17. <https://doi.org/10.1353/jod.2016.0049>
- Fuller, M., Conseil & Recherche, La 27e Région, European Commission, Joint Research Centre, & Lochard, A. (2016). *Public policy labs in European Union Member States*. Luxembourg: Publications Office.
- Gottweis, H. (2007). Rhetoric in Policy Making: Between Logos, Ethos, and Pathos. In F. Fischer, G. Miller, & M. S. Sidney (Eds.), *Handbook of public policy analysis: Theory, politics, and methods* (pp. 237–250). Boca Raton: CRC/Taylor & Francis.

- Hart, P. 't, & Vromen, A. (2008). A New Era for Think Tanks in Public Policy? International Trends, Australian Realities. *Australian Journal of Public Administration*, 67(2), 135–148. <https://doi.org/10.1111/j.1467-8500.2008.00577.x>
- Hartley, J. (2005). Innovation in Governance and Public Services: Past and Present. *Public Money & Management*, 25(1), 27–34. <https://doi.org/10.1111/j.1467-9302.2005.00447.x>
- Head, B. W. (2008). Three Lenses of Evidence-Based Policy. *Australian Journal of Public Administration*, 67(1), 1–11. <https://doi.org/10.1111/j.1467-8500.2007.00564.x>
- Hood, C. (1991). A public management for all seasons? *Public Administration*, 69(1), 3–19. <https://doi.org/10.1111/j.1467-9299.1991.tb00779.x>
- Hood, C. (1995). The “new public management” in the 1980s: Variations on a theme. *Accounting, Organizations and Society*, 20(2–3), 93–109. [https://doi.org/10.1016/0361-3682\(93\)E0001-W](https://doi.org/10.1016/0361-3682(93)E0001-W)
- Kimbell, L. (2016). Design in the Time of Policy Problems. *Proceedings of DRS 2016*, 3605–18. Retrieved from <http://www.drs2016.org/498/>
- Kimbell, L., & Bailey, J. (2017). Prototyping and the new spirit of policy-making. *CoDesign*, 13(3), 214–226. <https://doi.org/10.1080/15710882.2017.1355003>
- Kimbell, L., & Macdonald, H. (2015). *Applying design approaches to policy making: Discovering Policy Lab*. University of Brighton.
- King, C. S., Stivers, C., & Box, R. C. (1998). *Government is us: Public administration in an anti-government era*. Thousand Oaks, Calif: Sage Publications.
- Latour, B. (1999). *Pandora's hope: Essays on the reality of science studies*. Cambridge, Mass: Harvard University Press.
- Lea, M., O'Shea, T., & Fung, P. (1995). Constructing the Networked Organization: Content and Context in the Development of Electronic Communications. *Organization Science*, 6(4), 462–478. <https://doi.org/10.1287/orsc.6.4.462>

- Lijphart, A. (2012). *Patterns of democracy: Government forms and performance in thirty-six countries* (2nd ed). New Haven: Yale University Press.
- Lykketoft, K. (2014). Designing legitimacy: The Case of a Government Innovation Unit. In *Design for Social Responsibility Series. Design for policy* (pp. 133–146). Farnham, Surrey, England ; Burlington, VT: Gower.
- Maiello, A., Viegas, C. V., Frey, M., & D. Ribeiro, J. L. (2013). Public managers as catalysts of knowledge co-production? Investigating knowledge dynamics in local environmental policy. *Environmental Science & Policy*, 27, 141–150.
<https://doi.org/10.1016/j.envsci.2012.12.007>
- Manzini, E., & Rizzo, F. (2011). Small projects/large changes: Participatory design as an open participated process. *CoDesign*, 7(3–4), 199–215.
<https://doi.org/10.1080/15710882.2011.630472>
- March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), 71–87. <https://doi.org/10.1287/orsc.2.1.71>
- Markard, J., & Truffer, B. (2008). Technological innovation systems and the multi-level perspective: Towards an integrated framework. *Research Policy*, 37(4), 596–615.
- McGann, M., Blomkamp, E., & Lewis, J. M. (2018a). The rise of public sector innovation labs: Experiments in design thinking for policy. *Policy Sciences*, 51(3), 249–267.
<https://doi.org/10.1007/s11077-018-9315-7>
- McGann, M., Blomkamp, E., & Lewis, J. M. (2018b). The rise of public sector innovation labs: Experiments in design thinking for policy. *Policy Sciences*, 51(3), 249–267.
<https://doi.org/10.1007/s11077-018-9315-7>
- McIlaverty, P., & Halpin, D. (2008). Deliberative Drift: The Emergence of Deliberation in the Policy Process. *International Political Science Review*, 29(2), 197–214.
<https://doi.org/10.1177/0192512107085612>

- Mintrom, M., & Luetjens, J. (2016). Design Thinking in Policymaking Processes: Opportunities and Challenges: Design Thinking in Policymaking Processes. *Australian Journal of Public Administration*, 75(3), 391–402.
<https://doi.org/10.1111/1467-8500.12211>
- Mulgan, G. (2014). *The radical's dilemma: An overview of the practice and prospects of Social and Public Labs. Social and public labs*. Retrieved from https://www.nesta.org.uk/sites/default/files/social_and_public_labs_-_and_the_radicals_dilemma.pdf
- OECD. (2013). *Government at a Glance 2013*. https://doi.org/10.1787/gov_glance-2013-en
- OECD. (2017). *Systems Approaches to Public Sector Challenges: Working with Change*. <https://doi.org/10.1787/9789264279865-en>
- Osborne, D., & Gaebler, T. (1992). *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. New York, N.Y: Plume.
- Parsons, W. (2002). From Muddling Through to Muddling Upâ€”Evidence Based Policy Making and the Modernisation of British Government. *Public Policy and Administration*, 17(3), 43–60. <https://doi.org/10.1177/095207670201700304>
- Pierre, J. (Ed.). (1995). *Bureaucracy in the modern state: An introduction to comparative public administration*. Aldershot, England ; Brookfield, Vt., USA: E. Elgar.
- Pollitt, C., & Bouckaert, G. (2011). *Public management reform: A comparative analysis: new public management, governance, and the neo-Weberian state* (3rd ed). Oxford ; New York: Oxford University Press.
- Potts, J., & Kastle, T. (2010). Public sector innovation research: What's next? *Innovation*, 12(2), 122–137. <https://doi.org/10.5172/impp.12.2.122>
- Puttick, R., Baeck, P., & Colligan, P. (2014). *I-teams. The teams and funds making innovation happen in governments around the world*. Nesta and Bloomberg Philanthropies.

Quick, K. S., & Feldman, M. S. (2011). Distinguishing Participation and Inclusion.

Journal of Planning Education and Research, 31(3), 272–290.

<https://doi.org/10.1177/0739456X11410979>

Rebolledo, N. (2016). The value of service design in policy making. In B. Mager (Series Ed.), *Service Design Impact Report: Public Sector*. Köln: Service Design Network.

Ribera-Fumaz, R. (2019). Moving from Smart Citizens to Technological Sovereignty? In P. Cardullo, C. Di Felicianantonio, & R. Kitchin (Eds.), *The Right to the Smart City* (pp. 177–191). <https://doi.org/10.1108/978-1-78769-139-120191013>

Roberts, N. (1997). Public Deliberation: An Alternative Approach to Crafting Policy and Setting Direction. *Public Administration Review*, 57(2), 124.

<https://doi.org/10.2307/977060>

Rowe, G., & Frewer, L. J. (2005). A Typology of Public Engagement Mechanisms.

Science, Technology, & Human Values, 30(2), 251–290.

<https://doi.org/10.1177/0162243904271724>

Saint-Martin, D. (2001). How the reinventing government movement in public administration was exported from the US to other countries. *International Journal of Public Administration*, 24(6), 573–604. <https://doi.org/10.1081/PAD-100104397>

Schot, J., Hoogma, R., & Elzen, B. (1994). Strategies for shifting technological systems.

Futures, 26(10), 1060–1076. [https://doi.org/10.1016/0016-3287\(94\)90073-6](https://doi.org/10.1016/0016-3287(94)90073-6)

Schuurman, D., & Tönurist, P. (2017). Innovation in the Public Sector: Exploring the Characteristics and Potential of Living Labs and Innovation Labs. *Technology Innovation Management Review*, 7(1). Retrieved from

<http://timreview.ca/article/1045>

- Smith, A., & Raven, R. (2012). What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy*, 41(6), 1025–1036.
<https://doi.org/10.1016/j.respol.2011.12.012>
- Stake, R. E. (1978). The Case Study Method in Social Inquiry. *Educational Researcher*, 7(2), 5–8. <https://doi.org/10.3102/0013189X007002005>
- Stake, R. E. (1994). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 236–247). Thousand Oaks: Sage Publications.
- Stake, R. E. (2006). *Multiple case study analysis*. New York: The Guilford Press.
- Steen, M., Manschot, M., & De Koning, N. (2011). Benefits of Co-design in Service Design Projects. *International Journal of Design*, 5(2). Retrieved from <http://www.ijdesign.org/index.php/IJDesign/article/view/890/346>
- Tenbenschel, T. (2006). Policy knowledge for policy work. In H. K. Colebatch (Ed.), *The work of policy: An international survey*. Lanham: Rowman & Littlefield.
- Timeus, K., & Gascó, M. (2018). Increasing innovation capacity in city governments: Do innovation labs make a difference? *Journal of Urban Affairs*, 40(7), 992–1008.
<https://doi.org/10.1080/07352166.2018.1431049>
- Tönurist, P., Kattel, R., & Lember, V. (2017a). Innovation labs in the public sector: What they are and what they do? *Public Management Review*, 19(10), 1455–1479.
<https://doi.org/10.1080/14719037.2017.1287939>
- Tönurist, P., Kattel, R., & Lember, V. (2017b). Innovation labs in the public sector: What they are and what they do? *Public Management Review*, 19(10), 1455–1479.
<https://doi.org/10.1080/14719037.2017.1287939>
- Voorberg, W., Bekkers, V., Timeus, K., Tonurist, P., & Tummers, L. (2017). Changing public service delivery: Learning in co-creation. *Policy and Society*, 36(2), 178–194. <https://doi.org/10.1080/14494035.2017.1323711>

- Wagle, U. (2000). The policy science of democracy: The issues of methodology and citizen participation. *Policy Sciences*, 33(2), 207–223.
- Weber, E. P., & Khademian, A. M. (2008). Wicked Problems, Knowledge Challenges, and Collaborative Capacity Builders in Network Settings. *Public Administration Review*, 68(2), 334–349. <https://doi.org/10.1111/j.1540-6210.2007.00866.x>
- Williamson, B. (2015). Governing methods: Policy innovation labs, design and data science in the digital governance of education. *Journal of Educational Administration and History*, 47(3), 251–271. <https://doi.org/10.1080/00220620.2015.1038693>
- Yang, K. (2005). Public Administrators' Trust in Citizens: A Missing Link in Citizen Involvement Efforts. *Public Administration Review*, 65(3), 273–285. <https://doi.org/10.1111/j.1540-6210.2005.00453.x>
- Yin, R. K. (2014). *Case study research: Design and methods* (Fifth edition). Los Angeles: SAGE.

Appendix A: Template for Case Analysis

Guidelines for case studies production under T4.2.

Main object of the analysis is the Policy/ Innovation labs as such, with a major focus on its governance and organization (section 1.2 and 1.3). To gain a comprehensive picture and sufficient material for further analysis and lesson learnt to be drafted, two additional sections are foreseen, dedicated to the **Context** (section 1.1) in which the lab is set and operates; and to one selected **Initiative performed by the Lab** (section 1.4), which better exemplifies the Lab work processes as well methods and tools used.

How to draft the Case study through the Template. We suggest you start compiling the **template** through a desk analysis. For those questions that is impossible to complete by desk analysis, we suggest to set up a direct interview with a contact person of the Lab and/or of the selected initiative. **Any additional more specific perspective or subjective story** emerging from the interview is welcomed, and besides the mandatory questions of the template, you can create and add your own questions to conduct the interview.

How to writhe the actual Case study. A list of questions is provided to guide the input collection phase. However, the final result is supposed to be a fluid narration, structured in paragraphs, where the guiding questions disappear (please refer to the example provided for what concerns the narrative style). In the following the final structure that each case should follow is reported. **Deadline: end of April**

Template structure for writing the Case studies

PART 1. CASE DESCRIPTION

Case Summary – max 6-8 lines

1.1 Context

1.2 Organisation

1.3 Processes, tools

1.4 Specific initiative(s)

1.4.1 General description

1.4.2 Governance

1.4.3 Stakeholder landscape

1.4.4. Process structuring and engagement

1.4.5 Political influence (insights)

1.4.6 Media and communication (if applicable)

PART 2. INSIGHTS ON THE CO-CREATION PROCESS

TEMPLATE PART 1. CASE DESCRIPTION

Please provide here a Summary of max 6-8 lines of the case, giving the reader all most important information about the case. E.g.: name of the lab; geographical and temporal setting; hosting/promoting institution; objectives; stakeholders involved; main features...

1.1. CONTEXT

Discuss the issues related to the socio-economic and policy framework within which the Policy lab operates

- Please describe under what socio-economic context the Policy/Innovation lab operates; highlighting if the lab's existence is tied to particular political and/or policy objectives, or to the duration of the political mandate.
- Please describe which specific culture of dialogue, exchange and transparency characterizes the context (e.g. prior to the Lab, was a pre-existing culture of dialogue and exchange between citizen and politics in place?; prior to the Lab, was a public institution culture of openness / transparency was in place?)
- Are monitoring & evaluation processes in place, concerning the implementation of policies?

1.2 ORGANIZATION

In this section, please describe the Policy/Innovation Lab. Here we would like to understand the nature of the lab and how it operates. Listed below are some questions to help guide you in the task.

Name of the Policy Lab:

Contact person (name, surname) (if applicable):

Professional position and organization (if applicable):

Contact email (if applicable):

Webpage:

Country:

- What is the mission of the Policy Lab?
- What is the governance model?

- Who are the “contracting authorities” for the Lab activities and projects?
- What is the business model/sustainability model (if any)? (In other words, is the lab externally funded or is it self-sustaining? How is this managed?)
- What are the main areas of activities?
- Who makes up the operative team?
- What skills are present in the team?
- Which actors compose the labs network?

1.3 PROCESSES AND TOOLS

Discuss the approach, methods and tools that inform the lab’s project work. Use the listed questions to conduct your research.

- Does the lab have a set approach or is the work done on a project-to-project basis?
- What approaches, methods and tools are used in their project work?
- Describe the role of ICT or other kind of technologies. Please highlight if technologies can be considered as a substantial and decisive enabler of the co-creation processes. If yes, please indicate which processes were usually supported by technology, and if you used specific platforms (e.g. managing communications and sharing information; community building and management; structured multi-actor dialogue through a dedicated platform).

1.4 SPECIFIC INITIATIVE

Please select a characterizing project or initiative that exemplifies their work processes and the methods and tools used.

1.4.1. GENERAL DESCRIPTION

Name of the initiative:

Website/ link:

Location:

Initiative domain (e.g. STI Policy):

Starting and ending date of the initiative:

Please briefly describe the initiative or the project and its key objectives.

1.4.2 GOVERNANCE

- Describe the governance dimension of the initiative, specifying if the action was initiated by the political level (top-down), or if the request originated bottom-up, and at which governance level the action realized (Municipal/local; Regional; National).

- Was a specific budget allocated for this co-creation process? And where did the budget come from?

1.4.3 STAKEHOLDER LANDSCAPE

- Please list the main actors involved in the process, also indicating their roles (e.g. who initiated the process; who led the process; who implemented; who benefitted; who evaluated the process...).
- For each actor involved, identify each actor's corresponding need, and its underlying driving values. Highlight any divergent need, if applicable.
- Which were the assets brought by the different actors into the process (such as sector-specific knowledge; resources; experiences; competences)? Try to identify for each actor which assets they were depositary of.
- Did conflicts arise during the process? And if yes, how were they managed?

1.4.4. PROCESS STRUCTURING AND ENGAGEMENT

- Brief description of the process from problem framing to solution building, with particular attention to the participative phases (max: 2500, characters, spaces included)
- Who were the participants engaged?
- How were the participants engaged (max 1000 characters spaces included)?
- In the spectrum which goes from ideation to production of the given solution, in which phase(s) did the co-creation take place?
 1. Ideation phase
 2. Design phase
 3. Implementation/production phase
 4. Impact monitoring and measurement phase
- Was any iteration present?
- Was the dialogue between the actors structured based on codified approach and/or methodology?
- Was the dialogue guided by professional facilitators?
- Talking about the participants, which criteria were used to select them?
- Were incentives used to involve actors?
- Did the intensity of collaboration diminish during the process (disaffection)? If yes, is it possible to identify the reason why this happened?
- Was any measure/initiative taken to correct such a "disaffection - effect"?
- Is the solution expected to produce relevant impact on the short-term (1-3 years) or on the medium/long-term (3-8 years)?

- Did the initiative produce new relationships? And if yes which form did they take (e.g. partnership, informal relationship...)
- Can the project/process be replicated/imitated/adopted in other contexts?

1.4.5 POLITICAL INFLUENCE (INSIGHTS)

- Can the initiative be explicitly connected (e.g. endorsed) to any direct political programme?
- Did any positive or negative political power¹⁵⁴ play a role in the process, in an unintended and unexpected way? If any, please explain how such a political influence played a major role (e.g. in accelerating/slowing down/stopping the process; guiding the process towards given results rather than others; misappropriation of the process and or of the results...)
- Would you state that the governance level(s) (national, regional, local) of the initiative had a specific impact in the result?
- Would you state that any specific input from citizens and/or civil society organizations played a role in shaping and/or reshaping the process as initially designed?
- Referring to the specific initiative, would you consider the Lab as *the* space where the political level and the grassroots /civil society level can effectively meet and interact with each other?

1.4.6 MEDIA AND COMMUNICATION (IF APPLICABLE)

- Please briefly describe how communication activities were designed and managed (Max 1500 characters, spaces included)
- Was any specific public communication initiative designed to:
 1. Prepare in advance the ground for the dialogue (e.g. overall roadmap presentation; objectives communicated)
 2. Manage eventually emerging/unexpected challenges or expectations
 3. No initiatives planned
- Was there any specific activity targeting media?
- Was mediatic coverage satisfactory (if any media monitoring was conducted)?

1.4.7 CULTURAL, BEHAVIORAL, ORGANIZATIONAL (INSIGHTS)

Please specify if the insights are drafted based on interview to a relevant stakeholder (in this case provide details) or based on researchers further understanding about the initiative). If you feel you do not have enough elements to reply, please state it.

¹⁵⁴ We mean the contextual unintended possible influence of any political representative/political interest.

- Would you consider the attitude of involved public officials as “co-creation-minded”?
- Would you consider the attitude of involved experts/researchers as “co-creation-minded”?
- Would you say that there was trust of stakeholders towards co-creation, dialogue with institution and participation at the beginning of the process?
- Would you say that there has been an observable variation of such a trust dimension during the process?
- At which extent do you think that the sense of trust for the institutions played a role within the process?

TEMPLATE PART 2. INSIGHTS ON THE CO-CREATION PROCESS

This section mainly consists of comment/opinions by the researchers. It elaborates more qualitatively on the information previously collected.

In this section, please discuss insights as emerging from your research. Reflect on the practical insights gained on the co-creation process, as well as on more generalized lessons on how co-creation can facilitate STI policy making processes in Europe. Connect these lessons back to literature for further support.

- Were the approaches, methods and tools used suitable for the project? Please support your answer with a reflection on why they were or why they were not.
- Was the process organization (timeline, level of effort and engagement, etc.) suitable for the needs of the project and the involved actors?
- Were adjustments needed? Did the process influence these factors in return?
- Did the process influence the policymaking process?
- Was the process effective in creating a lasting dialogue and collaboration between actors even beyond the life of the project?
- Could you identify the most relevant external, organizational, behavioral barriers to a full uptake of co-creation in policy making?
- Please list any identified barrier and provide a brief comment.
- What condition setting factors have allowed the lab to successfully establish itself?
-

Appendix B: Materials used for Case Analysis

1. Agency for Territorial Development of the Emilia-Romagna Region (ASTER)

- Interview with Giorgio Moretti, Responsible manager for the High Technology Network
- RAPPORTO 2018 SULL'ECONOMIA REGIONALE Union Camere Emilia-Romagna & Regione Emilia Romagna, 2018. <https://www.ucer.camcom.it/studi-ricerche/analisi/rapporto-economia-regionale/pdf/2015/2018-rapporto-economia-regionale.pdf>
- S3 “Individuazione orientamenti innovativi per la strategia regionale di Innovazione per la Smart Specialisation Strategy”. [https://fesr.regione.emilia-romagna.it/s3/s3_aggiornamento_set2018.pdf/@download/file/S3_Aggiornamento_set2018%20\(1\).pdf](https://fesr.regione.emilia-romagna.it/s3/s3_aggiornamento_set2018.pdf/@download/file/S3_Aggiornamento_set2018%20(1).pdf)
- Annex 1 of the S3 “Individuazione orientamenti innovativi per la strategia regionale di Innovazione per la Smart Specialisation Strategy”. http://fesr.regione.emilia-romagna.it/s3/s3_allegato1.pdf/@download/file/s3_allegato1.pdf
- RIS3ER Regional and Innovation Strategy for Smart Specialisation , Regione Emilia-Romagna. https://s3platform.jrc.ec.europa.eu/documents/20182/225192/IT_Emia-Romagna_RIS3_Final.pdf/709ccb97-f34a-4cb8-bacf-c9b535b6f356

2. Danish Design Center (DDC)

- Interview with Christian Bason, CEO of the Danish Design Centre

3. Decidim.BARCELONA

- Three interviews of one hour with respectively (1) Antony Oliva, executive director of the 22@network and (2) David Martinez (Director of Projects) and Pau Planelles Oliva (Project Manager) of BIT-Habitat, (3) Albert Martin i Gómez (Technical representant of active democracy and decentralisation in charge of the process Repensem 22@ at the city council).
- Different Decidim websites (Metadecidim, Decidim, Decidim.barcelona, github.com/Decidim)
- PLA “BARCELONA DIGITAL” 2017 - 2020 Transició cap a la Sobirania Tecnològica Més enllà de l'Smart City: Cap a una ciutat Oberta, Equitativa, Circular i Democràtica. https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/99397/1/BCN_Digital.pdf
- Report 2016-2019. Decidim, la plataforma digital oberta i lliure per la participació i la innovació democràtica Regidoria de Participació i Districte Març 2019 Ajuntament de Barcelona, sota les llicències Creative Commons BY-SA

(Reconeixement Compartir Igual) Internacional (v.4.0) y GFDL (Llicència de Documentació Lliure de GNU) CC BY-SA: Creative Commons Reconeixement Compartir Igual 4.0 Internacional. https://media-edg.barcelona.cat/wp-content/uploads/2019/03/02185426/Informe_Decidim_20191.pdf

- Report: Informe memòria final del Procés participatiu del districte De sant martí: repensem el 22@. Repensar des de la ciutadania els Reptes socials, econòmics I Urbanístics del poblenou i el 22@.
https://ajuntament.barcelona.cat/santmarti/sites/default/files/plenari/fitxers/repensem_22_-_memoria.pdf.
- Participation of two events from the DECODE and METADecidim community:
- 01/04/2019. *DDDC Finale. Beyond surveillance capitalism: towards digital democracy and data Commons*
<https://dddc.decodeproject.eu/processes/main/f/4/meetings/18>
- 26/04/2019. LAB Metadecidim - Sessió 16. *decidim.pimpam: Planificació estratègica i pressupostos participatius* <https://meta.decidim.org/assemblies/eix-lab/f/87/meetings/1173?locale=en>
- Participation of various co-creation activities and open in Barcelona and Poblenou since January 2019.
- Ribera-Fumaz, R. (2019). Moving from Smart Citizens to Technological Sovereignty?. In *The Right to the Smart City* (pp. 177-191). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-78769-139-120191013>
- Iaione, C., De Nictolis, E., & Berti Suman, A. (2019). The Internet of Humans (IoH): Human Rights and Co-Governance to Achieve Tech Justice in the City. *Law and Ethics of Human Rights, Forthcoming*.
- Klimowicz, K. A. (2017). New Social and Political Movements and the Democratic Ideals. *Dialogue and Universalism*, (1), 117-122.
- Foster, S., & Iaione, C. (2018). Ostrom in the City: Design Principles and Practices for the Urban Commons. *Forthcoming, Routledge Handbook of the Study of the Commons* (Dan Cole, Blake Hudson, Jonathan Rosenbloom eds.).

4. Genève Living Lab

- Interview with Patrick Genoud, Genève Lab
- Online material and websites listed in the text
- Feld, Lars and Kirchgässner, Gebhard, (2000), Direct democracy, political culture, and the outcome of economic policy: a report on the Swiss experience, *European Journal of Political Economy*, 16, issue 2, p. 287-306.

5. GovLab Arnsberg

- Two interviews with Nils Hoffmann, manager of GovLab Arnsberg
- Online material and websites listed in the text

6. GovLabAustria

- Three interviews with Alexander Grünwald (Austrian Federal Ministry for the Civil Service and Sport, Head GovLabAustria), Ursula Rosenbichler (Austrian Federal Ministry for the Civil Service and Sport, member of the GovLabAustria Leading Board) and Peter Parycek (Danube University Krems, member of the GovLabAustria Leading Board)
- Interview with Alexander Grünwald about the ‘#GLAinno1: Transparenz und Partizipation in der Rechtsetzung’ process
- Online material on websites listed in the text

7. Inland Design

- Personal communication with Mariana Salgado, director of Inland Design
- Barry, A. & Slater, D. (2002). Technology, politics and the market: an interview with Michel Callon. *Economy and Society*, 31(2), 285-306. doi: 10.1080/03085140220123171
- Design Helsinki. (2018, August 30). Helsinki Lab [Blog post]. Retrieved from <https://www.hel.fi/designhelsinki/en/helsinki-lab/>
- Eurostat. (2016). Asylum in the EU Member States Record number of over 1.2 million first time asylum seekers registered in 2015 Syrians, Afghans and Iraqis: top citizenships. [online] Eurostat News Release, 44/2016, 4 March, 2016. Retrieved from http://ec.europa.eu/eurostat/documents/299552_1/7203832/3-04032016-AP-EN.pdf
- Government of Finland. (2015). *Finland, a land of solutions* (12/2015). Finland: Government Publications.
- Kokki, A. (2018). Experiments: Service design explorations in the Finnish Immigration Service (Migri) (Unpublished Master’s Thesis). Aalto University, Helsinki.
- Lea, M., O’Shea, T. & Fung, P. (1995). Constructing the Networked Organization: Content and Context in the Development of Electronic Communications. *Organization Science*, 6(4), 462-478.
- Maahanmuuttovirasto Migrationsverket. (2019). Homepage. Retrieved from <https://migri.fi/etusivu>

- Miessner, S. (2018a, June 15). Starting up smoothly: Co-creating a virtual assistant to ease your entry to Finland [Video file]. Retrieved from <https://www.youtube.com/watch?v=YObCK8ITTDU&feature=youtu.be&t=3283>
- Miessner, S. (2018b, October 31). Starting up smoothly — Connecting government agency information through chatbots [Blog post]. Retrieved from <https://medium.com/inland/starting-up-smoothly-connecting-government-agency-information-through-chatbots-84bccbeafdd7>
- OECD. (2017a). *Systems Approaches to Public Sector Challenges: Working with Change*. Paris: OECD Publishing. doi: <https://dx.doi.org/10.1787/9789264279865-en>
- OECD. (2017b). *Embracing Innovation in Government: Global Trends*. Retrieved from <https://www.oecd.org/gov/innovative-government/embracing-innovation-in-government.pdf>
- Inland Design. (2019a). Kamu – Migri's customer service chatbot. Retrieved from <http://inlanddesign.fi/work/kamu-migris-customer-service-chatbot/>
- Inland Design. (2019b). Starting up smoothly – a network of chatbots for foreign entrepreneurs coming to Finland. Retrieved from <http://inlanddesign.fi/work/starting-up-smoothly-a-network-of-chatbots-for-foreign-entrepreneurs-coming-to-finland/>
- Junginger, S. (2013). Design and Innovation in the Public Sector: Matters of Design in Policy-Making and Policy Implementation. *10th European Academy of Design Conference - Crafting the Future*.
- McGann, M., Blomkamp, E. & Lewis, J. (2018). The rise of public sector innovation labs: experiments in design thinking for policy. *Policy Sciences*, 51(3), 249-267.
- Salgado, M. & Miessner, S. (2017a, October 22). From service vision to design concept-strengthening Migri's customer service [Blog post]. Retrieved from <https://medium.com/inland/from-service-vision-to-design-concept-strengthening-migris-customer-service-a65217044e77>
- Salgado, M. & Miessner, S. (2017b, October 27). Co-designing the customer service chatbot in Kuhmo [Blog post]. Retrieved from <https://medium.com/inland/co-designing-the-customer-service-chatbot-in-kuhmo-eaa2fb024226>
- Salgado, M. & Miessner, S. (2019, March 28). Operating models or how do we work in Inland? [Blog post]. Retrieved from <https://medium.com/inland/operating-models-or-how-do-we-work-in-inland-3b61a453d204>

- Salgado, M. (2018, December 12). Initiatives to bring co-design to the organization [Blog post]. Retrieved from <https://medium.com/inland/initiatives-to-bring-co-design-to-the-organization-6f1dd6ec100c>
- Salgado, M. (2019, April 8). Service design ambassador training [Blog post]. Retrieved from <https://medium.com/inland/service-design-ambassador-training-6cf324e9877f>
- Sinclair, J. (2016). *Design for Government* [Magazine 18], 18-19. Helsinki: Aalto University.
- Swan, K. (2018). Leading with Legitimacy in Government Design Labs: Introducing Design Thinking to the Finnish Immigration Service (Unpublished Master's Thesis). Aalto University, Helsinki.
- Tönurist, P., Kattel, R., & Lember, V. (2017). Innovation labs in the public sector: what they are and what they do?. *Public Management Review*, 19(10), 1455-1479.

8. La 27e Région, France

- Interview with Nadège Guiraud, the head of programmes
- *La 27 Region* web site (www.la27region.fr)
- the annual activity report 2018,
- specific publications (La 27e Region, *Chantiers ouverts au publics*, ouvrage collective orchestré par Pauline Scherer, La documentation Française, 2015).

9. The Disruption Taskforce

- Interview with Special Advisor Niels Martin Andersen and Head of Disruption Mads Bonde Clausen
- Strategy for Denmark's digital growth, Ministry of Industry, Business and Financial Affairs <https://eng.em.dk/publications/2018/april/strategy-for-denmarks-digital-growth/>
- DESI Report 2019, <https://ec.europa.eu/digital-single-market/en/desi>
- Prepared for the future of work Follow-up on the Danish Disruption Council, The Danish Governments https://www.regeringen.dk/media/6332/regeringen_disruptionraadet_uk_web.pdf

10. Torino City Lab

- Interview with Paola Pisano, alderwoman to innovation of Turin municipality
- Online material and websites listed in the text

- Osservatorio sulle Imprese Innovative della Provincia di Torino, Camera di commercio di Torino, 2018, <https://www.to.camcom.it/osservatorio-sulle-imprese-innovative>
- La Strategia di specializzazione intelligente del Piemonte, IRES Piemonte, 2018 https://www.regione.piemonte.it/web/sites/default/files/media/documenti/2019-05/Monit_S3_10%2005_pub%20def.pdf

11. UK Policy Lab

- Interview with a former representative of the UK Policy Lab
- Bailey, J., & Lloyd, P. (2016). The Introduction of Design to Policymaking. In DRS2016: Design Research Society Conference, Brighton, UK.
- Drew, C. (2015). Testing policy sprints. <https://openpolicy.blog.gov.uk/2015/01/28/testing-policy-sprints/>
- UK Open Governmental National Action Plan (2016). <http://www.gov.uk/government/publications/ukopen-government-national-action-plan-2016-18> (Retrieved on 10th July 2019)
- Kimbell, L. (2015). Applying design approaches to policy making: discovering policy lab.
- Kimbell, L. (2016). Design in the Time of Policy Problems. Proceedings of DRS 2016, Design Research Society 50th Anniversary Conference. Brighton, UK
- Lucy Kimbell & Jocelyn Bailey (2017) Prototyping and the new spirit of policymaking, CoDesign, 13:3, 214-226, DOI: 10.1080/15710882.2017.1355003
- White Paper (2011). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/255288/OpenPublicServices-WhitePaper.pdf (Retrieved 5th June 2019)
- <https://www.instituteforgovernment.org.uk/sites/default/files/publications/Policy%20making%20in%20the%20real%20world.pdf> (Retrieved 5th June 2019)
- <https://www.opengovpartnership.org/> (Retrieved 5th June 2019)
- https://opengovpioneers.miraheze.org/wiki/Background_and_opportunity (Retrieved 5th June 2019)
- <https://opengovpioneers.miraheze.org/wiki/Partners> (Retrieved 5th June 2019)
- <https://www.meetup.com/pro/opengovpioneers/> (Retrieved 5th June 2019)
- <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> (Retrieved 6th June 2019)
- <https://www.gov.uk/guidance/what-works-network> (Retrieved 22nd April 2019)

- <https://openpolicy.blog.gov.uk/category/policy-lab/> (Retrieved 19th April 2019)
- <https://www.gov.uk/government/publications/civil-service-reform-plan> (Retrieved 19th April 2019)
- <https://www.designcouncil.org.uk/news-opinion/uk-cabinet-office-launches-new-policy-design-lab> (Retrieved 10th June 2019)
- <https://www.understandingsociety.ac.uk/> (Retrieved 11th July 2019)
- <https://www.opengovernment.org.uk/open-government-manifesto/> (Retrieved 11th July 2019)
- <https://www.oecd.org/sdd/statistical-insights-trust-in-the-united-kingdom.htm> (Retrieved 11th July 2019)

