Aug 11th, 12:00 AM

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**Citation**
Rizzo, F., Schmittinger, F., and Deserti, A. (2020) Expanding innovation capacity in public sector by design projects, in Boess, S., Cheung, M. and Cain, R. (eds.), *Synergy - DRS International Conference 2020*, 11-14 August, Held online. [https://doi.org/10.21606/drs.2020.355](https://doi.org/10.21606/drs.2020.355)

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Expanding innovation capacity in public sector by design projects

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doi: https://doi.org/10.21606/drs.2020.355

Abstract: The demand of a new generation of public services is leading to a systematic exploration of what design can do for public organizations. The article presents and discusses, with the help of 2 design projects conducted in the Municipality of Turin, a design based theoretical framework for organizational change by conducting long terms process of engagement and exposition of employees from public sector to design culture. The two cases show as the raise of innovation capacity in public sector based on the practice of service design projects must consider the necessity of coping with long-standing challenges, i.e. the innovation of public bodies; the peculiarities of organizational learning processes and of the absorptive capacity of the organizations; and the overall resistance to change in people and organizations instead of trying to circumvent them.

Keywords: public sector innovation; co-creation; organizational culture; experiential learning; innovation capacity; design thinking

1. Introduction

Confronted with a range of complex challenges, public administrations (PA) are faced with increasing pressure to improve their innovation capacity (Cavenago et al., 2016; Potts & Kastelle, 2010). The emergence of the “co-society” paradigm nurtured by open innovation and digital technologies has given way to completely new citizens behaviours (Garaud, 2016), such as mobilization for the “commons”, data sharing and service sharing. Hence, the user is no longer simply a receiver or a spectator but an actor (Flucity, 2015). This new trend is questioning both the decision-making and the implementation processes in the public sphere and is putting increasing expectations of greater citizen participation in the design and delivery of public services and societal challenges that require new solutions. The demand for smarter solutions and for a new generation of citizen-centred services is growing both among citizens and within administrations, as a consequence there is an urgent need to promote innovation and experimentation in the public sector.
As a response to these challenges, many public administration (PAs) have introduced design practices as a tool with a particular emphasis on the development of a more citizen-driven approach to innovation in order to build a better society. The peculiarity of these structures is the adoption of diverse user-centred design approaches to idea generation and experimentation because their structure and mandate allow them to circumvent certain characteristics of the public administration often individualized as barriers (EU commission, 2013) to public innovation (Bason, 2010; Puttick et al., 2014; Tõnurist et al., 2017).

But innovation labs have several limitations that different scholars already pointed out. In particular, they appear too isolated from their parent organization. As the role of innovation 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 organizations.

However, many barriers continue to prevent the development of an agile citizen-centric approach to innovation.

- Lack of specific skills to engage with users. Is there collaboration with citizens and public service end users? Do employees receive training for interacting with citizens? Do employees feel ‘safe’ in testing new ideas with citizens?
- Lack of competences to activate public organisation ecosystems. Is there collaboration with diverse actors? Is there communication across policy divisions?
- Lack of knowledge and infrastructures to exploit opportunities coming from digital technologies. How intensively do managers and employees utilise technology? How is technology shaping innovation processes within the local public administration? What is the role of ICT in innovation processes?
- Scarce presence of an innovation culture with a prevalence of the exploitation mindset (delivering of the everyday activity) instead of an exploration one (experimenting with new opportunities). Is there a ‘zero error’ culture or is risk-taking encouraged? Do employees have time and resources to develop new ideas? Do employees receive training for developing innovation?
- Scarce reactivity to the emerging of the societal issue primary dependent on the lack of a knowledge management system to collect and learn from the citizens and ecosystems feedback. Are there systems for acquiring, storing and utilising knowledge? Are feedback- and learning- systems in place?

The difficulties and barriers that arise from public services adopting new and alternative principles like co-creation that are rooted in design and represent a more horizontal approach are notably linked to their complex, vertical and often fragmented structure as well as their organizational culture.

Participatory activities for their nature contain a high potential to tackle exactly this complexity faced by governments and public institutions. They further have the premise to be able to include unused resources of knowledge and ideation into processes despite or
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Exactly because of their contrasting nature clashing with the existing culture and steady chain of processes. On the basis of these premises we argue that the focus on end-user/citizen’s innovation skills (Bason, 2010) to address the need for an agile and citizen-centric culture in PAs poses the problem that little reflection is being made on how public organizations can internalize and integrate the new knowledge, and how the change process can be fostered or managed: this omission could easily lead to reject the new practices, or confine them to a cosmetic role (Deserti & Rizzo; 2014).

In this article the authors present and discuss the obtained results of a long term program of design projects they are developing in the municipality of Turin. The program aims to support the municipality to develop a system of innovation capacities, defined as the set of skills, knowledge and competences that public organizations have or need to utilize in order to generate, adopt or develop innovations. Such a set enables public organizations to reconnect their capacities to generate new solutions (new services, new business models, new policies) together with their capacities to implement, scale-up and deliver them.

The program is based on the assumption that the introduction of user centric innovation culture (Deserti & Rizzo; 2019) in the public sector must rely on developing a long term process of interaction between the public sector culture and the design culture of innovation.

In the following, the theoretical framework as the base for the implementation of the design program in the municipality of Turin is presented. Consecutively the application of the program through the implementation of 2 projects is discussed i examining the results with respect to the previous findings and the theoretical framework. Finally, conclusions are identified for the long terms framework experimentation.

2 Expanding innovation capacity in public sector through design projects: a theoretical framework

Even though there are evidences of an increased rate of experimentation of user centred innovation methodologies within the public sector (Bouwman & Grimmelikhuijsen, 2016), it remains unclear under which conditions these become institutionalized practices. How organisational environments authorise and legitimize innovation practices by way of learning and education remains one of the most relevant challenges. To address this issue the authors propose a program of design projects that relies on the idea that introduction of innovation capacities in the public sector, should be based on its practice, or else in a learning-by-doing framework that can be complemented with reflection to achieve a sustainable transformation. This is not only in line with generic organisational learning principles (Schein, 1999), but also with the construction of innovation knowledge and culture, which is historically bound to practice. In such a context, the role of experience, a core ingredient of the design disciplines, can be regarded as key to knowledge creation and appropriation.

The notion of design program proposes to combine advanced human centred service development (DT) with a learning framework to set up a learning environment (Beckman
& Barry, 2007) in which to make possible for a range of diverse actors operating in the municipality of Turin to experience the processes of innovation. In particular, a design program for capacity building in public sector should implement a learning cycle, based on Kolb’s experiential learning framework (Kolb, 1984) representing at the same time the core structure of a DT process (which can be complemented with appropriate tools and applied to the co-creation of new services) and of an organisational learning process (which can be complemented with appropriate structures and actions and applied to the introduction and integration of new knowledge). If we interpret the organisation not only as a closed structure, typically represented by a core actor (a municipality, an hospital, a public transportation service provider etc.), but also as a network of actors the learning process must be regarded as extended to the whole network, and functioning through to the afore-mentioned interactions. DT is particularly effective in this perspective because of two main reasons:

- it grounds the innovation process in co-design activities that are human centred and involve multiple actors and perspectives, which is not only useful to better develop new solutions, but also to enable interaction, sharing of information and mutual learning;
- it is based on an experimental design/prototype/test/redesign loop, which can be effectively connected with triple loop learning, which is particularly valuable in connection with innovation within complex settings and organisations.

3. Design thinking for public sector transformation

Design Thinking (Owen, 2007) is today becoming a mantra in the different areas of innovation: including social and public-sector innovation (Manzini & Rizzo, 2011; Deserti & Rizzo 2014a). Design-led innovation 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 or open conflicts. These processes go beyond the established principle of designing for context-dependent problems, extending the idea 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 individualised and established in some institutional form. In this perspective, DT emerges as a suitable approach to user centred innovation.
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DT innovation cycle is based on 2 main pillars: (1) a human oriented approach to innovation that considers the end users of the solutions those who possess the fundamental expertise on the problem/challenge to be solved; (ii) a context based approach to innovation that considers actors from the external environment as well as the tangible and intangible PAs infrastructures and resources (people, processes, technologies, procedures, knowledge) as enablers or barriers to innovation. DT pursues the activation of the ecosystem as strategic in the process that move from innovation ideation to its real implementation. The design program interprets the real practice of the iterative design cycle as key for the introduction of design methodologies and tools to support the development of a co-creation culture in public contexts. To reach this objective the project integrates the DT methodology in the form of an iterative design process, with Kolb’s (1984) model of experiential learning. The design program it is based on the idea that DT innovation process processes can be exploited to set up and pilot experiential learning within organisations. While co-design is widely recognized as a way to transform, improve or newly develop services involving all actors in the process, it is also discussed as a practice to transform organizations and even societies (Sangiorgi, 2010).

4. Organisational learning
The design program for the municipality of Turin relies on the ambition that the development of credible pathways and effective actions to support the raise of innovation capacity in public sector must consider the necessity of coping with long-standing challenges, i.e. the innovation of public bodies; the peculiarities of organizational learning processes and of the absorptive capacity of the organisations; and the overall resistance to change in people and organisations instead of trying to circumvent them (Albury, 2005). Innovation
labs proposition is that by operating in a separate but adjacent space from the rest of the organization, they are able to improve internal administrative efficiency and drive cultural change. Innovation labs are allowed to experiment with new methods and focus expert knowledge on innovation because they are somewhat shielded from the issues and constraints of the traditional organizational structures (Bason & Carstensen, 2002). In particular, the design program takes into account the idea that the introduction of new knowledge must be connected with the overall question of the cultural transformation of organisations and systems, with the development of new skills among staff and workplace innovation, which call for a deep integration between the introduction of the new knowledge and the management of systemic and organisational change. This question is particularly relevant if we look at emerging innovation challenges and at the general lack of attention that previous experiences have paid to the issues that the introduction of innovation capacity in new fields raises. In particular introducing user centric innovation culture in public sector means changing the scenarios and the ways in which the public services are not only conceived but delivered and used.

5. The Design Program in the Municipality of Turin

Awarded with the second prize as the European Capital for Innovation in 2016 the city of Turin has been undergoing an important path of transformation throughout the last years. On its way towards an open and innovative city Turin has notably invested in social innovation apart from its traditionally strong sectors like the automotive one and therefore providing a common ground for boundary research, open innovation and social impact. (Bezzi et al., 2019). For example, the Torino city lab is an initiative of the city enabling enterprises to test their innovative solutions directly with stakeholders and citizens closely collaborating with the municipality itself. This is just one example of many that are all an outcome of the city’s approach and vision and do not just produce new services but its success leads to a deeper reflection on how services are developed in relation to policy makers, civil servants and citizens. Within this context the Municipality of Turin had identified the necessity of an outside-in transformation in the public sector with co-creation as one potential means to trigger and drive this shift of working methodologies and the acquisition of new skills and capacities.

Citizens, end-users and other stakeholders are to be engaged as co-designers not only as new and unused resources in development mechanisms but to initiate a general process of transformation towards a user-centred culture in public services. In this effort, the strategic vision and willingness to implement this transformation happened in close collaboration with the alderwoman for innovation of the city, currently Minister for innovation of the Italian government, through a strategic dialogue on building and internalizing innovation capacities in the Municipality of Turin. This dialogue started thanks to the first design project, part of SIC Horizon 2020 funds (an experiment on a smaller scale developing one single service) and resulted in a second, more extensive project, conducted to improve the access to the services in the Central Registry Office.
6. First project: TO-Home a service for vulnerable citizens at risk of eviction

Turin is the third largest Italian city well known in the world as the hometown of FIAT automobiles. The crisis of the automotive sector that started in 2007 led to the delocalisation of the production and to a relevant increase in the level of unemployment, which has become the biggest challenge for the city. Under these premises, one of the objectives of the Municipality in 2017 was to develop TO-Home a service meant to respond to the complex needs of vulnerable citizens at risk of eviction (families or individuals that received an eviction notice or are at risk of receiving it) due to insufficient income. Politecnico di Milano mentored the Municipality through a service co-design process as a way to develop innovative solutions based on an integration between the employment, housing and social services, which are traditionally approaching the risk of eviction with different perspectives (a labour issue vs. a housing or a social one). The mentoring run through 4 phases: analysing the challenge, envisioning new solutions; detailing the design, prototypes. In phase one participants were supported to understand the challenge from the end users perspective. In the second phase participants were guided to the envisioning of new solutions with end users and co-design rough concepts for the new service. In phase 3 the focus was on moving from ideation to its implementation in the context of the organisation. The last phase included the support to prepare the tender to implement the service and the design of the service experimentation with end users. The analysis of the Turin experience shed light on a few critical issues: (i) the difficulty of the employees to assume the point of view of the end users as an alternative perspective from which to analyse the current services and design the new one; (ii) the employees’ difficulty in overcoming internal resistance to change and barriers bound to the current organisational structure; (iii) the difficulty of the employees to reconnect the design of the new service with its real implementation. In particular, during the design of the service blueprint participants were unable to come out with effective solutions to four main problems, which could ultimately affect the delivery of the new service: (i) how to individualise the competences of the operators that should deliver the new service; (ii) how to make the service visible and how to communicate it to the end users; (iii) how to obtain the availability of enough houses to accommodate fragile families; (iv) how to engage the users of the services in co-production mechanisms.

7. Second project: the redesign of the register services

Being reputed one of the Italian excellent centres of innovation, the city of Turin aims to improve its public services providing new ways of accessing remotely and improving the general access to fundamental services for citizens. The Central Register Office in Turin provides a range of services directly to the citizens that involve a wide range of different public entities on diverse regional and national levels. Services provided are regarding the civil status, the registration and change of residence and the issue of identity cards. Offering a range of fundamental services not just for Italian citizens but for all residents in the city, the context is multi-ethnic, multilingual and hosting citizens of all ages. Following the
growing need of citizens to carry out procedures remotely, different from most other Italian cities, several services to the citizens are offered online supported by the national digital authentication system, but the system still lacks integration with the services provided on-site, that are left behind. Having a strong connection behind the scenes of on- and offline procedures, conflicts cause all operations to slow down or face obstacles. Long waiting times for service delivery are paired with more practical problems on site linked to the building itself, its organization and spaces. Having been constructed as a psychiatric hospital the monumental building has been reconditioned to host the central public offices of the registry office. Hence the architectural structure of the building itself bears a challenge in managing and organizing the spaces according to its new purpose without changing the landmarked structure itself. The project aims at facilitating the citizen’s access to the offered services and the comprehension of the procedures. The project, divided in different phases starting from an introductory workshop with employees, followed by a period of user research, further workshops to co-create the new services with the stakeholders and a final phase of development and implementation. The potential and critical issues identified in the first project conducted in 2016-2017 have been used as a foundation of this new one. Having already gained a set of insights on existing and potential barriers in the systems of the Municipality, a knowledge base was available for the set-up of the following activities. Different from the first project, the second one, extensively reported in the following, is aiming at improving and eventually complementing a wider range of existing services in the Registrar’s Office in Turin.

7.1 Project methodology

The entire project is informed by different techniques of co-design applied to innovation in the public sector following 4 key principles:

1. Co-design with users
Perceiving users as a resource of knowledge and ideas instead of treating them as passive objects not included in the development process.

2. Analysis of the context of interaction
Gaining a broader knowledge on the context of research and including users in the examination to be able to apply all activities in an appropriate way for the organization.

3. Approach based on piloting
Testing the solutions developed with the possibility to reflect on and refine the outcomes as well as studying the influence of design on the existing culture.

4. Service design as a driver for organizational change
Exploring the effects of integrating service design in the specific organization – its effects and reactions.

The central sources of the data have been authentic observations made by the researchers
themselves during the process along all of the phases and interviews with the civil servants. The report shared with all participants at the conclusion of every phase did not just function as a summary of activities and results but at the same time as an additional source of data being a method for reflection on the activities conducted, reactions provoked and potential improvements in the strategy of applying the methodology. Being a single case study not as a part of a greater project or conducted parallel to other studies the data retrieved is exclusively qualitative not having enough data provided for a significant sample or comparison.

7.2 Project description

The entire project is oriented towards a redesign of the access to the public services in the central Register’s office in Turin set up as collaboration between Politecnico di Milano and the Division of Innovation of the city of Turin.

The reason for this is that major difficulties have been found in citizens facing difficulties in identifying, accessing and comprehending the services leading to dissatisfaction and confusion. The main services provided by the Register’s office are the change of residence, the issuing of identity cards and official certificates. The services are offered in the central office in the city center and 13 smaller, decentralized offices spread over the different districts. All of these services are producing documents do not just allow citizens to identify themselves and benefit from other services in the city, but the services themselves, their organization and planning is therefore closely linked to various different entities and designed and delivered by different and specialized team of employees not connected among them. These highly specialized teams are usually focused on one specific element rather than working in groups with mixed competences. With respect to these observations the aim, apart of improving the actual services, is breaking out from old schemes of designing services and introducing new ways and instruments that are following the 4 key principles described in the previous chapter. The project for the register office was set with a duration of 13 months, from January 2019 until February 2020 including execution and testing of the pilots. The research and design phase was to be concluded in July 2019. The objectives were on one hand to redesign the access to the services provided in the building while introducing competences for design-driven innovation and collaboration across co-design processes inside the organization. The project developed from 2 initial assumptions coming from literature (Cilliers & Greyvenstein, 2012; Stone, 2004) as well as from the evidences of the first project:

- the quantity of the entities necessarily involved in the entire service delivery is one of the main barriers in adapting to change;
- the strong organizational culture characterizing public services based on silos is completely opposite to the principles of design.

The second project was also meant as a learning environment were to cope with these two main barriers to transformation. The entire project is divided in three main phases, at the
moment only the first 2 have been implemented specified as:

1. Research and design;
2. Execution and
3. Piloting and testing.

The first phase is itself subdivided in three different phases of research and design which were all conducted in direct contact with the stakeholders from the municipality and related offices.

1. Co-design workshop
The workshop functioned as an introductory element to reclaim the methodologies established in the previous project and newly introduce them to employees that had not participated in such activities yet.

2. Analysis of the context as a whole and of existing touchpoints
Having a phase of user research allowed the researchers to deep-dive into the project, the surroundings and its issues while leaving space for users to contribute to the final outcome. The user engagement mentioned earlier is taking place in this second phase, that are laid out in the same period of time and involving them in a process of user research characterized by shadowing and user interviews. There were already crystallizing main issues linked to unsuitable spaces, confusions on processes and routes as well as difficulties with the style of language and communication causing difficulties of comprehension.

3. Co-design of the new services
Keeping a strong connection to the previous phases, a customer journey elaborated as a starting point together with four dimensions of intervention identified together with users have been tackled together to collaboratively ideate solutions for the problems found confronting and balancing among departments and institutions. Especially this phase of research and design allowed the exploration of the collaboration among different departments and internal dynamics. In conclusion of this phase, four areas of intervention for the most critical points identified have been proposed: 1. Spaces, 2. Communication on-site, 3. Forms, 4. Remote communication.

The development phase has been concluded in July delivering an executive project plan for three of those four dimensions (postponing the 4th one, remote communication, to a second moment having the ICT systems undergoing a complete transformation at the time).

7.3. Project outputs
As an outcome, three of the four suggested dimensions of intervention have been tackled. The first one linked to the physical space that creates discomfort for users and an improper working environment for operators. Dividing the spaces of the operators strictly from the waiting areas the issues with privacy, noise and distress are tackled (Figure 1). A system of digital and physical wayfinding is creating a friendlier atmosphere eliminating handwritten
notices and supporting the user in finding his way through the labyrinthine building (Figure 2). To support comprehension and transparency, the forms have been redesigned (Figure 3) indicating the important elements for the user supported by an informative leaflet with a checklist of documents applying gamification for assistance throughout the entire procedure. The executive project delivered in July 2019 has been highly appreciated and given into production to then run a testing phase after summer. Following some difficulties in the actual implementation as well as retrieving the necessary budgets, some elements of the executive project have been postponed. Some reasons for these complications are to be analyzed also with respect to the theoretical framework and the previous experience in the following section. At present, the first parts have been implemented and gone through first testing procedures while others are still in the production process.

Figure 1 Waiting room developed for the intervention in space
8. Main findings and issues emerged

Especially the research phase and the transition from design to implementation shed light on some issues demanding a closer look and analysis. Already the initial research phase zoomed
in the disconnected and highly fragmented structure of the public office that later on appeared to be interconnected to several other obstacles found during the process. Some of these elements are listed in the following to be then explained further.

- Vertical hierarchical structure;
- Missing culture of holistic planning;
- High specialization.

8.1 Vertical hierarchical infrastructure
For the first insight the authors notice that the structure being organized in a strictly vertical hierarchy did seem to hinder the building of new capacities especially at the level of civil servants. Having the impression of being purely executing other’s decisions and plans has found to be a barrier to the building of new capacities. Building the team/s with the skills and motivation to develop the solution/s was one of the biggest challenges for the project. The employees who had actively participated in the workshops but did not feel enough incentive to keep developing the solution deciding to take a role in driving the development. In this second project the development of the innovations were taken on by a smaller group of actors, who were willing and asked to commit to a longer term process of developing and testing the innovation. The larger groups of employees that participated in the phase of ideation did not take part in that of implementation. As consequence the project failed in creating a sense of ownership of the as the level of engagement decreased moving from ideation to implementation of the innovations. In particular, the top management of the register officer became the leader of the project. This insight reflects a larger phenomenon in the process of co-creation that often sees the phase of ideation being characterized by an intensive and active involvement of all the employees but, as soon as the process move to implementation decision, responsibility and power remain in the hands of the top management impairing the opportunity to transform the organizational culture (Sangiorgi, 2010).

8.2 Missing culture of holistic planning
The second insight tells about the absence in the municipality of the practice of a systemic approach to innovation at the level of the middle management to oversee complex processes and thinking across disciplines but fragmenting and splitting them instead has found to be one of the main barriers in the adoption of the design culture, which claims holism one of its pillars (Stickdorn, 2011). The redesign of the register office has been based on the attempt to match the grassroots experimentation with the larger strategic vision of the municipality of introducing a user centric prospective where the public actors, the citizens and the local stakeholders work together in envisioning and co-producing new solutions. This attempt has been driven by the strategic dialogue with the top management of the organization and the deputy of major to innovation. The implementation of this strategic approach has, in turn, questioned the cultural transformation of the organization as the development of new skills
among staff and workplace innovation called for a need to overcome silos. The insight then shows that having a strategic vision and a plan to implement it can be not enough if the introduction of the new knowledge is not complemented with the management of systemic and organizational change.

8.3 High specialisation

The last relevant point the authors identified is the evidence that high specialization of departments, typical not just for public organizations (March, 1991) prevented the adoption of different points of view like the one of users or stakeholders and from considering all necessary factors. This difficulty to change the perspective from where to develop services is closely linked to a topic noted mainly in the implementation phase of the project regarding the non-perception of the various parts of the project (as those presented in figure 1, 2 and 3) as interconnected elements of a whole to make available a coherent experience for the citizens. The management of the register office has in fact decided to modify significantly what has been designed together with the researchers and the designers in the phase of ideation because the budget available for the implementation was not sufficient. Furthermore, official procedures like public procurement obliged to split the execution in parts realized by different entities which requires a high level of attention and holistic coordination not always applied by the management in charge of the realization of the project. The remaining interconnection, even not executed by the same entity, of the various elements and its importance for the functionality of the designed experience has hardly been perceived mainly because of the lack of experience of the management in the service implementation phase. As already stated in the first experiment during the SIC project the passage from ideation to implementation (Deserti & Rizzo, 2018) is rarely run by the internal competences of public organizations. The heavily introduction of the process of externalization as a strategy to cut costs in public sector has negatively affected the capacity of the employees to follow a cycle of design-implementation and redesign transforming them in merely executors of solutions conceived and implemented somewhere else from their workplaces. In this case especially the struggle to allocate human resources, overcome unplanned architectural hurdles and retrieve financial resources for the realization of fundamental elements notably impacted on the executive phase and showed the difficulties in linking and uniting the research phase with that of the project development with actually putting ideas into effect.

9. Conclusions

This article discusses a design based theoretical framework to face organizational change by conducting long terms process of engagement and exposition of employees from public sector organization to design culture. The framework combines advanced human centred service development (DT) with a learning framework to set up a learning environment in which to make possible for a range of diverse PAs and actors to experience processes of innovation. What is clearly emerged from the 2 projects is that the process of transformation
of the public sector towards a culture of innovation cannot be exclusively driven by the
practice of innovation as a bottom-up process delegating it to marginal sectors of application
as well as to organizational structures that never affect organization core processes and
functions. This is especially true for public sector where little reflection is being made on
how public organizations can internalize and integrate the new knowledge, and how the
change process can be fostered or managed: this omission could easily lead to reject the new
practices, or confine them to a cosmetic role. The authors proposal relies on the ambition
that the development of credible pathways and effective actions to support the raise of
innovation capacity in public sector must consider the necessity of coping with long-standing
challenges, i.e. the innovation of public bodies; the peculiarities of organizational learning
processes and of the absorptive capacity of the organizations; and the overall resistance
to change in people and organizations instead of trying to circumvent them (Albury, 2005;
Brown & Osborne, 2013; Sørensen, & Torfing, 2012). The approach proposed claims that a
possible solution to this problem is to reduce the gap between the strategic management
and governance structures of public organisations and the everyday implementation of
innovation by developing internal processes, spaces, procedures, profiles within public
organisations to better integrate the two levels. These spaces should allow a system enabling
exchange and dialogue, via an intermediate “exchange” layer, like the program of design
projects suggested in the article, to be designed between top-down innovation strategies
and policy that should learn from the every-day innovation implementation and viceversa.

10. References
Albury, D. (2005). Fostering Innovation in Public Services. Public Money & Management, 25(1), 51–56.
Bason, C. (2010). Co-creation is key to innovation in government. Ipsos MORI Understanding Society: 14-17.
Bason, C., & Carstensen, H. V. (2002). Powering Collaborative Policy Innovation: Can Innovation Labs Help? The Public Sector Innovation Journal, 17(1).
Beckman, S. L., & Barry, M. (2007). Innovation as a learning process: Embedding design thinking. California Management Review, 50(1), 25-56, Retrieved from: https://journals.sagepub.com/doi/pdf/10.2307/41166415
Bezzi, M., Buongiovanni, C., Deserti, A. (2019). SISCODE Deliverable 4.2. – Transformations in STI policy making: Trends, opportunities and barriers, EC No. 788217, submitted 31 July 2019
Brown, L., & Osborne, S. P. (2013). Risk and Innovation. Public Management Review, 15(2), 186–208.
Bouwman, A., & Grimmelikhuijisen, G., (2016). Experimental public administration from 1992 to 2014: a systematic literature review and ways forward, International Journal of Public Sector Management, 29(2).
Cavenago, D., Trivellato, B., & Gascó Hernandez, M. (2016). Making Milan a smart city: an emerging strategy of innovation in governance. In P. D. L. Julnes & E. Gibson (Eds.), Innovation in the Public and Non-profit Sectors: A Public Solutions Handbook (pp. 110–128). Routledge.
Cilliers, F., & Greyvenstein, H. (2012). The impact of silo mentality on team identity: An organisational case study. SA Journal of Industrial Psychology, 38(2), 75-84.
Deserti A. & Rizzo F. (2014). Design and Organisational Change in Public Sector. Design Management Institute Journal, 9(1).
Deserti A., Rizzo F. (2014a). Design and the cultures of enterprises, Design Issues, Vol 30, Issue 1, pp 36-56, MIT Press, doi:10.1162/DESI_a_00247.

Deserti A. & Rizzo F. (2018). A service design experiment in the Municipality of Turin to overcome organisational silos, Proceedings of ServDes Conference Milano 18-20 June.

Deserti A. & Rizzo F. (2019). Embedding design in the organizational culture: Challenges and perspectives. In Guy Julier et alii (Eds), Design Culture Objects and Approaches, Bloomsbury, London.

EU-Commission. (2013). Powering European Public Sector Innovation: Towards a New Architecture. Report of the Expert Group on public sector innovation, EUR 13825 EN

Flucity (2015). Xavier Crouan “Vers l’émergence d’une nouvelle société menée par les citoyens”. https://medium.com/@Flucities/xavier-crouan-vers-l-émergence-d-une-nouvelle-société-menée-par-les-citoyens-ee07a477fac8#oo61ijqva

Geraud, A. (2016). Rencontre avec le chercheur américain Boyd Cohen, sur la vision de l’évolution du profil de l’entrepreneur à l’origine de la smart city de demain. Retrieved from: http://www.atelier.net/trends/articles/villes-ne-se-rendent-compte-potentiel-citoyen-entrepreneur_439456?banner=1

Junginger, S. (2017). Design as an economic necessity for governments and organizations. In Clive Dilnot; Suzane Boztepe (Hrsg.), Design and the Creation of Value (S. 31-38). London, UK: Bloomsbury Academic.

Kolb, D. A. 1984. Experiential Learning: Experience as the Source of Learning and Development. Englewood Cliffs, New Jersey: Prentice-Hall.

Manzini, E. & Rizzo F. (2011). Small Projects/Large Changes: Participatory Design as an Open Participated Process. CoDesign: International Journal of CoCreation in Design and the Arts, 7(3-4).

Owen, C. (2007). Design thinking: Notes on its nature and use. Design Research Quarterly, 2(1), 16-27.

Potts, J., & Kastelle, T. (2010). Public sector innovation research: what’s next?. Innovation, 12(2), 122-137.

Puttick, R., Baeck, P., & Colligan, P. (2014). The teams and funds making innovation happen in governments around the world. London: Nesta & Bloomberg Philantropies.

Sangiorgi, D. (2010). Transformative services and transformation design. In Service Design and Service Innovation Conference (pp. 65-76). Linköping University Electronic Press

Sørensen, E., & Torfing, J. (2012). Collaborative Innovation in the Public Sector. The Public Sector Innovation Journal, 17(1).

Schein E. H. (1999). The Corporate Culture Survival Guide. San Francisco: Jossey-Bass Publishers.

Senge P. M. (1990). The Fifth Discipline: The Art and Practice of the Learning Organization. New York: Doubleday Currency.

Stickdorn, M., Schneider, J., Andrews, K., & Lawrence, A. (2011). This is service design thinking: Basics, tools, cases (Vol. 1). Hoboken, NJ: Wiley

Stone, F. (2004). Deconstructing silos and supporting collaboration. Employment Relations Today, 31(1), 11.

Tõnurist, P., Kattel, R., & Lember, V. (2017). Innovation labs in the public sector: What they are and what they do? Public Management Review

2008
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