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SOCIAL INNOVATION IN THE PUBLIC SECTOR: AN INTEGRATIVE FRAMEWORK

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About LIPSE (GA no: 320090)
LIPSE or "Learning from Innovation in Public Sector Environments" is a research project studying the drivers and barriers of successful social innovation in the public sector. With a budget of 2.5 Million Euros - funded by the 7th Framework Programme of the European Union - it is one of the largest projects on social innovation in the public sector. The research is being conducted by EU researchers from 12 different universities in 11 countries. The project starts on 1 Feb. 2013 and will run for 3,5 years. It is coordinated by prof. Victor Bekkers and dr. Lars Tummers from the Erasmus University Rotterdam.
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Abstract

Social innovation is one of the 'magic concepts' that during the last years has been embraced as new modernization or reform strategy for the public sector. Social innovation is an inspiring concept because it stimulates people to explore new ideas about how society deals with challenges such as austerity, globalization and vocal citizens. However, social innovation is also a vague concept which is hard to operationalize. Given the various challenges with which the public sector is wrestling, is important that we are able to improve our understanding about social innovation practices. The EU project LIPSE (Learning from Innovation in Public Sector Environments) takes up this research challenge. In this first LIPSE paper we develop an integrative framework for the projects that will be carried out under the umbrella of the LIPSE project. We will firstly discuss the nature of innovation and social innovation. Next, we identify drivers and barriers related to social innovation processes. Three dimensions are distinguished: drivers and barriers relating to a) the innovation environment, b) the innovation process and c) the adoption of innovations. Various factors were found, such as the (negative) influence of a strong legal culture, the (positive) influence of leadership linking various stakeholders and the (positive) influence of proper risk management strategies. We ended the paper with some methodological challenges which we should take into account when studying innovations, such as taking a holistic approach, well-grounded comparison between cases and the pro-innovation bias. By doing this all, we aim for this paper to become a useful source for future studies analyzing public sector innovation.

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1   Introduction

Social innovation is one of the 'magic concepts' that during the last years has been embraced as a modernization or reform strategy for the public sector (Pollitt & Hupe, 2011). President Obama has established a Social Innovation Fund. This fund is a policy program of the Corporation for National and Community Service (CNCS), which combines public and private resources to grow promising community-based solutions that have evidence of results in any of three priority areas: economic opportunity, healthy futures, and youth development. The idea behind this fund is derived from a speech that Obama gave on June the 30th, 2009. The idea is that "Solutions to America's challenges are being developed every day at the grass roots -- and government shouldn't be supplanting those efforts, it should be supporting those efforts" [1] . The British prime-minister Cameron incorporated social innovation in his view on the so-called ' Big Society'. In this manifest, dated 2010, he tries to reframe the role of government, thereby embracing the idea of social entrepreneurship. The idea is to give local communities more power and to encourage people to play an active role in these communities. The assumption is that these communities set up co-operations, charities, mutual and other social enterprises to deal with the local and concrete needs that citizens encounter. [2] Last but not least also the European Commission has embraced social innovation as a relevant reform agenda. Social innovation is " about new ideas that work to address unmet needs. We simply describe it as innovations that are both social in their ends and in their means"[3].

Social innovation can serve two main goals. The first goal of social innovation is to overcome vital challenges with which modern Western societies are nowadays confronted. An example is the increased life expectancy of citizens, which leads to an increased demand for specific services and new ways of organizing health care, pensions and housing. Another example is the deprivation of specific areas in cities and in the countryside, which leads to new social, economic and cultural inequalities that might influence the access that children have to education (Mulgan, 2009). Social innovation is seen as a way of dealing with these challenges. The second goal of social innovation is more general, and related to the (diminishing) role of the government. This is related to the financial and budgetary crisis in the public sector. As a result of this austerity, a discussion has been started regarding the role that government organizations play in the provision of all kinds of services and (semi-) public goods. For instance, is it possible or desirable to have a public library without having a professional librarian present? Or, is it possible and desirable that the inhabitants of neighborhood, together with relatives, take care of the sick and elderly people by providing them with warm meals, companionship and other forms of social support.

On the one hand social innovation is an inspiring concept because it stimulates people, politicians and policy makers to explore and implement new ideas about the ways in which a society can deal with a number of challenges. Social innovation can be seen as a story, a seductive tale that policy makers, politicians, social entrepreneurs, citizens and consultants tell about how to tackle specific social and political challenges. In doing so, concepts like social innovation provide a common language (Edelman, 1967, 1976). On the

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[1] http://www.whitehouse.gov/administration/eop/sicp/initiatives/social-innovation-fund
[2] The big society The Times 14-Apr-2010
[3] http://ec.europa.eu/enterprise/policies/innovation/policy/social-innovation/index_en.htm

other hand we must stress that social innovation is a rather vague concept which is rather hard to operationalize. Not only it is difficult to define what an innovation is, also in relation to the concept of change which is also often used. It is also difficult to understand the meaning of the adjective 'social'. In doing so, the risk might exist that social innovation is "everything..... and nothing" at the same time. Simultaneously, we observe the emergence of new practices emerge in the public sector that are being defined as social innovations. Hence, social innovation is also a 'real world' practice, in which new ways of working and organizing have come forward in order to with specific societal challenges and needs. Given the various challenges with which the public sector is wrestling, is important that we are able to improve our understanding about these social innovation practices.

The EU project LIPSE (Learning from Innovation in Public Sector Environments) takes up this research challenge. The project has three main goals. Firstly, we aim to identify relevant drivers and barriers that explain the success or failure of social innovations in the public sector. Secondly, we aim to learn from cross-national and cross-sectoral comparisons to understand how social innovation practice convergence or diverge between EU member states. Thirdly, based on these findings we aim to advise policymakers and researchers on potential future pathways for social innovation in the public sector that can enhance productivity, growth and competitiveness in Europe.

In this first LIPSE paper we want to develop an integrative framework for the projects that will be carried out under the umbrella of the LIPSE project. Although these projects are focused on a different theme or aspect of social innovation - which raises specific research questions - these projects have also much in common. First, all the projects refer to the process of innovation. Hence, it could be argued that specific characteristics of this process, and the drivers and barriers that influence the nature, course and shaping of this process, will be present. In order to improve the comparison of the research findings of these projects as well as to translate these findings in terms of relevant trends and scenarios, it is important to have a common understanding about the influence of these drivers and barriers. Secondly, the fact that this research program has a comparative nature, implies that we also have a shared understanding about the possible influence of state of governance traditions that are present in specific countries, which also could influence the nature, course and shaping of social innovation practices. Thirdly, it is important to acknowledge that innovation processes in the public sector differ from innovation processes in the private sector, given the specific institutional context in which innovation takes place. Especially the role of politics should be taken into consideration. Hence, it is also important to have a common understanding about how specific characteristics of the institutional context of the public sector influences social innovation practices.

This brings us to the outline of this paper. Section 2 will provide a background on innovation and social innovation. The next step is that we – based on a literature review – discuss important drivers and barriers which can influence the process and outcomes of social innovation processes in the public sector (Section 3). Based on this overview we will develop a conceptual framework that can be used to study social innovation practices. Section 4 then addresses various methodological issues which have to be dealt with when studying social innovation practices. In Section 5 some conclusions will be drawn.

2   A background on innovation and social innovation

In this section we address a number of relevant issues which are important to understand the nature of innovation and social innovation. First we address the question: what is the nature of innovation? In doing so we will show that innovation refers specific outcomes in terms of newness. Innovation also refers to the process of innovation, thereby stressing the importance of a radical learning process that is open and embedded in a specific context. Furthermore, we address the question, what is typical for innovation in the public sector? Last but not least we focus on the question, what makes an innovation a social innovation.

2.1   The nature of innovation

An innovation has been mostly defined as "an idea, practice or object that is perceived as new that is brought into implementation" (Rogers, 2003:12; Moore & Hartely, 2008:4, Fagerberg et al., 2006). An innovation can be seen as a specific product, as a specific outcome in terms of newness. In especially the private sector literature on innovation, technology changes as well as the development of new knowledge are often seen as an important driver for innovation, because these new technologies and this new knowledge breaks up existing socio-economic business models, which give rise to the development of new markets, new products and services or new production an distribution processes. Internet and social media are examples of the transformative power of ICT driven technologies (Drechsler et al, 2008).

Types of innovation
Several attempts have been made in the literature to classify different types of innovations, thereby focusing on the outcomes of the innovation process These classifications vary to some extent, but are rather similar in other ways (Schumpeter, 1942; McDaniel, 2002; Mulgan and Albury, 2003; Fagerberg et al, 2005; Moore and Hartley, 2008; Windrum, 2008). Looking at possible outcomes in the public sector, the following classification of types of public innovations can be proposed (based on Bekkers, Edelenbos & Steijn, 2011:15-16):

- Product or service innovations, focused on the creation of new public services or products, such as the creation of the youth work disability benefits;
- Technological innovations that emerge through the creation and use of new technologies, such as the Internet, social media or surveillance or dna-technologies that are used in the fight against crime
- Process innovations, focused on the improvement of the quality and efficiency of internal and external business processes. An example is the creation of a 'one-stop shop' by a municipality, where citizens can get various services at one location;
- Organizational and management innovations, focused on the creation of new organizational forms, the introduction of new management methods and techniques, and new working methods. An example is the introduction of teleworking in organizations.
- Conceptual innovations. These innovations occur in relation to the introduction of new concepts, frames of reference or even new paradigms that help to reframe the nature of specific problems as well as their possible solutions. An example is the introduction of the paradigm that when looking at a person's work (dis)ability, insurance physicians no longer analyze what people cannot do, but instead analyze what they still can do, hence focusing on work ability potential.

- Governance innovations, which are directed at the development of new forms and processes of governance in order to address specific societal problems. An example is as the governance practice that attempts to enhance the self-regulating and self-organizing capacities of policy networks;

However, it is important to note that these innovation types are not mutually exclusive. Innovations are very often clustered or interrelated innovations with all kinds of spill over and, and thus, mutual change effects (Damanpour, 1991; Damanpour & Evans, 1984). For instance, the introduction of the internet as a form of technological innovation enables governments to redesign the information and transaction relations and processes with citizens and companies in order to optimize working and information processing processes (in terms of process and organization innovations). Very often technological innovations facilitate the adoption of other, more administrative and organizational innovations (Damanpour & Evans, 1984).

Innovation as a transformative learning process
Innovation can also be defined as a process. One of the founding fathers of modern innovation theory, Joseph Schumpeter (1942) defined innovation as a process of creative destruction in which 'new combinations of existing resources' are achieved. In his view, innovation cannot be separated from entrepreneurship. They are two sides of the same coin. He defines entrepreneurship as 'Die Durchsetzung neuer Kombinationen': the will and ability to achieve new combinations that have to compete with established combinations. Innovation requires change and the willingness to learn, but change is not always necessarily innovative, while a learning process does not always turn in new ideas or practices (Lundvall et al., 1992; Rashmanm & Hartley; 2002; Downe, Hartley & Rashman, 2004; Korteland & Bekkers, 2008). Hence, it is important to make a distinction between change and innovation.
An important issue in the discussion between change and innovation, is the question how radical the innovation is and how transformative the learning process is that lies behind an innovation. Osborne & Brown (2005:121) argue that the issue of discontinuity with the past is an essential distinction in order to understand the nature of innovation, both in terms of the transformation of an idea into actual reality and also in terms of its impact upon the host organization, the existing policy sector or a community. That is why it is important to make a distinction between organizational development and service improvements on the one hand and innovations on the other hand. Both lead to changes but in the case of an innovation the change is more radical, more transformative, because an innovation changes the paradigm which people and organizations use: in doing a paradigm shift is being accomplished. These paradigm shifts are also closely related to the introduction of new technologies which offer the possibility to create new business models (Mulgan & Albury, 2003; Osborne & Brown, 2005; Drechsler et al, 2008). As a result a process of institutional conversion emerges (McDaniel, 2002; Thelen, 2003).

Innovation as a sense making process
Innovation can be understood as learning process which results in new services, new service delivery process or new governance process. This learning process is focused on creating outcomes that present something new means to achieve specific goals. In doing so, a rather rational and functional perspective may prevail. However, especially in the public sector, innovation processes can also be seen as a process of sense making, in which especially an

organization tries to convince the external environment in which they operate as well to the members of the organization, that the organization makes sense (Weick, 1969; 1995). Innovation processes and innovation adopting processes are important symbolic processes in which an organization tries to establish a process of normative integration between the central and dominant values and developments which are important in the environment of the organization and the values that are important in the organization (Dimaggio & Powell, 1983; 1991). Innovation processes can be therefore seen as a process in which the involved stakeholders within and outside an organization try to develop a new, common frame in order achieve legitimacy. Feller (1981) has called this process of normative integration 'conspicuous production', while following Meijer & Rowan (1977) innovation and innovation adopting processes can also be seen as a myth or ceremony to which organizations have to comply in order to guarantee their legitimacy towards their external and internal environment. Now that we have argued tried to capture the essence of the innovation process, in terms of transformative learning and sensemaking, the next step is to understand how this learning process takes place.

2.2   Innovation as an embedded and open process

We have argued in the previous section that is it is important to see innovation as learning and sense making process. However, at the same time it is important to stress that this learning process does not take place in vacuum. It has been found that learning processes which are necessary for innovations are locally embedded (for an overview, see Fagerberg et al. 2005; see also Osborne & Brown, 2005; Bekkers, Edelenbos & Steijn, 2011). This implies that it is important to recognize the influence of the specific environment in which innovation processes take place. Here, Castells (1996:3) talks about 'innovation milieus'. The result is that, given this local embeddedness of innovation processes, innovation processes and outcomes are rather contingent ones (Walker, 2007). Based hereon, some scholars argue to study innovation from an ecological perspective (Brown & Duguid; 2000; Greenhalgh et al. 2004; Walker, 2007; Bason, 2010; Osborne & Brown, 2011).

This ecological perspective emphasizes that innovations processes are shaped by the local, and thus contingent and institutionally embedded interactions of relevant stakeholders that attach different meanings to a possible innovation; meanings that reflect the specific interests and values of the involved actors and/or that stem from different (political, economic, socio-cultural, technological) environments (Bekkers & Homburg, 2007). Choosing for a more ecological perspective on innovation processes in the public sector has the advantage that we are able to take into account the different governance traditions that are used in various countries, as well as the role of politics and the network characteristics. In this paper, an ecological perspective on innovation is used.

Related to this, modern innovation theory stresses the open character of this learning process (Chesbrough, 2003[1,2], 2006; Von Hippel, 1976, 2005, 2007). Innovation is not something that can be attributed to a capacities and capabilities of a specific perso n (the entrepreneur as Schumpeter presumed), or a systematic process of research and development that is been institutionalized in laboratory or a R & D department (like Drucker presumed, see Drucker, 1985). The study of innovation practices shows that innovation processes require the ability and willingness of relevant actors to cooperate and to link and share ideas, knowledge and experience beyond traditional organizational borders, as well as to exchange vital resources such as staff. It refers to the rather free and interactive exchange of knowledge, information and experiences, in which new ideas and concepts are discussed

in intra- and inter- organizational networks (Chesbrough, 2003, 2006; Von Hippel, 1976, 2005, 2007). Moreover, it requires the existence of an open culture and a safe context in which 'trial and error', 'reflection' and 'learning' can take place without one being penalized for making 'mistakes' or not realizing immediate results. Mostly recently we see that this process of learning by trial and error is being supported by the idea of rapid prototyping in order to generate insights, especially of possible end-users that help to get beyond assumptions that block effective solutions (Bason, 2010, Brown & Wyatt, 2010). Hence, it is important to have safe places for incubating and prototyping in order to learn. Hence, innovation can be seen as a process which needs open spaces and an open culture (Albury, 2005).

In sum, it can be concluded that innovations can be seen as embedded in a local context, and have a rather open character, in which there is a need to cooperate and share ideas, knowledge and experience beyond traditional (organizational) borders. In chapter three we will explore which factors are important in this local and open shaping processes. But before analyzing these factors, it is also important to see what are relevant sub processes and activities within this innovation process, thereby trying to open up the black box which is called the 'innovation process'.

2.3 The innovation process as an innovation journey

Studies reveal that the innovation process - which can be described as an innovation journey (e.g. Van de Ven et al, 2008) or as a set of innovation activities (Damanpour & Schneider, 2009) - does not resemble a simple linear model, in which an innovation goes through different stages. This linear model is very often dominant in the more normative and prescriptive innovation models (e.g. Mulgan,2007; Bason, 2010). However, it has been found that innovation processes are a rather messy and complex progress of events which points in all kinds of directions and which makes use of all kinds of different feedback loops (Fagerberg, 2006). However, some patterns of similarity in the progress of these events can be observed (Van de Ven et al, 2008: 23-24; see also Rogers, 2003; Osborne & Brown, 2005; Damanpour & Schneider, 2009). These are described below.

The initiation period

1. Innovation are not initiated on the spur of the moment, or by a single entrepreneur. The cannot be seen as 'manna from heaven' (Fagerberg: 2006:9). In most cases, there was an extended gestation period which lasted several years and in which the need for change was being explored. The idea that scientific knowledge plays a role a dominant role in this gestation period should be put into perspective. Other triggers or other sources of innovation seem to be more important, like the needs of customers (Von Hippel, 2007).

2. Concentrated efforts to initiate innovations are triggered by 'shocks' from sources within or outside the involved organizations. Very often these shocks create 'policy windows' that makes it possible to link specific problem definitions to specific solutions and vice versa (Kingdon, 2003; Baumgartner & Jones, 1993, 2004).

3. Plans are developed and submitted to decision-makers that control resources that are necessary to launch the development of an innovation. In most cases, these plans serve as 'sales vehicles' in order to gain support.

The development period

4. When development activities begin, the initial innovative idea proliferates into numerous ideas and activities that proceed in divergent, parallel and convergent paths of development. In doing so this development process can be seen an a ongoing process of variety, retention and selection (Weick, 1969; Bijker et al, 1987).
5. Setbacks and mistakes are frequently encountered, because plans go awry or unanticipated changes significantly alter the assumptions behind the innovations that are being developed, which also may influence the ability of relevant resources, the choice of criteria to applied to judge the (alleged) success and failure of an innovation, as well as the availability of the necessary time that is need to develop innovations.
6. The people side of innovations should not be forgotten. Most tend to be involved on a part-time base, have high turnover rates and experience euphoria in the beginning, frustration and pain in the middle period and closure at the end of the innovation journey.
7. Investors and managers are frequently involved throughout the development process en perform contrasting roles that serve as checks and balances as one another. Their commitment is in most cases seen as a vital intervention in order to deal with the problems that innovators encounter.
8. Innovation development also entails setting up relationships with other organizations and actors which sometimes 'lock in' innovators and innovation units into specific courses of action which often lead to unintended consequences;
9. Innovation participants are often involved in setting up an infrastructure that is needed to support the development and implementation of an innovation, which presupposes collaboration with other private and public organizations as well non-governmental organizations.

The implementation/termination period

10. The adoption and implementation of an innovation occurs throughout the developmental period by linking and integrating the 'new' with the 'old' or by reinventing the innovation to fit the local situation (see also Rogers, 2003).
11. The role of implementers of the innovation is often forgotten. Change management and policy implementation literature stress that innovations are 'nothing but paper' until implemented by civil servants, clients or others. During this process, implementers can use their discretion to adapt the innovation to specific circumstances (Tummers, Steijn & Bekkers, 2012).
12. Innovations are finalized when implemented or when resources run out. They also stop when investors or top managers make attributions about the success or failure of an innovation. In doing so the determine to some extent the fate of an innovation.

The diffusion and adoption period

13. When the added value of an innovation is being discovered by other organizations or actors, a process of diffusion and adoption take place. In doing knowledge, information and experiences are transmitted to other possible users. In this diffusion and adoption process a process of re-invention very often takes place, in which the original innovations is adapted to the specific situation and needs of the adopting organization.

Not only the flexibility to tailor this innovation in order to achieve a specific degree of complementary with existing practices influences the degree of adoption, but also the persuasiveness of the innovation itself, in terms being able to produce short term, concrete and visible outcomes (also in terms of costs and benefits) that really matter, given the specific challenges and needs of the adopting organization (Rogers, 2003, Osborne & Brown, 2005; Korteland & Bekkers, 2008).

Damanpour (1991; see also Damanpour & Schneider, 2009; Salge & Vera, 2012) argues that given the messy and multidimensional character of the innovation process, in essence two main innovation processes can be distinguished: innovation generating processes (which refer to the initiation, development and implementation of an innovation) and innovation adopting processes. When discussing possible drivers and barriers later on in this document, we will focus on these two processes as being the main innovation processes.

2.4   Innovations in the public sector: in search of public value

Now that we have shown what the essence of innovation is in terms of possible outcomes as well as an institutional and local embedded process of transformative learning and sense making , the next step is to understand how innovation in the public sector might differ from the innovation in the private sector. In the private sector, innovation is almost by definition valuable: it is a means to ensure competiveness in new markets or to revive flagging markets (Hartley, 2005). Although liberalization and marketization has also been introduced in public sector environments as way to especially ensure efficiency based forms of innovation, the main driver for public innovation is to create public value, which is more than sheer efficiency. What is public value? What are relevant values to be taken into account (Moore & Hartley, 2008?

Public sector innovations deal with several values, which may conflict or reinforce each other, and thus have to be balanced in any assessment (Moore,1995; Bason, 2010). In general, we can argue that all activities in the public sector, including innovation, are organized around and influenced by two logics (Korteland & Bekkers, 2008; Bekkers, Edelenbos & Steijn, 2011; March and Olsen, 1989). From these logics, specific values, norms and criteria can be derived that trigger innovation, especially if these values are related to the societal challenges with which governments and societies are wrestling.

Firstly, innovations can be judged from the perspective of the consequences they have and the preferences and expectations that precede them. March and Olsen (1989) call this the 'logic of consequence'. What are relevant consequence that should be taken into account? First, an innovation in the public sector may have substantive value in terms of its productivity and the results to be achieved (Moore, 1995; Bason, 2009). Efficiency and effectiveness are values that say something about the results that have been achieved, about the question if the innovation really works, really has substantive value. Relevant questions, for instance, are: what are the results of the innovation in terms of the outputs, and especially outcomes in relation to specific target groups? Does the innovation result in more efficient use of government resources, or safety on the streets?

However, some authors also argue that it is difficult to link the added value of an innovation to efficiency and outcome-effectiveness, given the fact that efficiency and outcome-effectiveness in the public sector are influenced by a lot of other (interrelated) factors and

developments. Feller (1981) argues therefore that especially in the public sector innovation can be considered as 'conspicuous production'. It is a way of public managers to show their effectiveness in sectors were few, if any, objective measures of success exist (Osborne & Brown, 2005:143). By being involved in innovation processes public managers try to give meaning to the public services they provided or the implementation of policy programs in which they are involved. According to Feller (1981) this implies that governments are involved in the development and adoption of new technologies whose use is not warranted under specific efficiency criteria. Being involved in innovation processes can therefore be seen as a symbolic act by which public managers and politicians try to achieve legitimacy and support for the work that they are doing. This implies that perhaps also other values and other logics seem to be important. .

Secondly, innovations in the public sector can refer to the 'logic of appropriateness'. The logic of appropriateness means taking into account the specific political and societal context in which governments have to operate (March & Olsen, 1989). In other words, there should be a 'fit' between the innovation itself and the context in which it is being developed. Four implications should be taken into consideration. First, an innovation should be legitimate and politically sustainable, for instance by being able to continually attract support, authority and money from the authorizing political environment (Moore, 1995:71). Secondly, public innovations might refer to various democratic values that citizens consider important when they are confronted with an innovation. An innovation might lead to increases in citizen access, participation and empowerment, transparency, accountability and equality (Bason, 2010). Thirdly, the results of an innovation might also refer to the needs of citizens in the sense that it addresses problems which they encounter and which affect their daily life (Vigoda-Gadot et al, 2008; Korteland & Bekkers, 2008). Hence, it is important to take into account the responsiveness of an innovation. As such, an innovation that is able to meet the actual wishes of citizens and companies may contribute to the 'publicness' of the public sector, thereby improving its legitimacy (Newman & Clark, 2009). Last but not least, the public value of an innovation could also depend on the question if an innovation is legally feasible, by respecting specific legal values since governments operate within the framework of the rule of law (Wilson, 1989; Kelman, 2008; Korteland & Bekkers, 2008).

Hence, it is important when assessing the added value of innovation in the public sector, that this added value is not only approached by taken into account the efficiency and effectiveness of an innovation. It is also important to take into account the question, how appropriate is this innovation, in terms of democratic and legal values that to be respect but also in terms of responsiveness to the needs of society. If we look at the concept of social innovation, which will be addressed in the next section, we see that especially this aspect of responsiveness is very important.

2.5   The concept of social innovation in the public sector

Perhaps social innovation is even a more fuzzy concept than innovation. Moreover, it is in many cases a normative concept. Furthermore, the literature on social innovation is dominated by 'grey literature', such as policy advisory reports, applied research memoranda and normative 'to-do' lists (Mulgan, 2009; Howaldt & Schwarz, 2011). Mulgan (2006) defines social innovation as innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through

organizations whose purposes are social". Bason (2010:96) defines social innovation as innovation for the social and public good, or as new ideas (products, services and models) that simultaneously meet social needs and create new social relationships or collaborations. (Bates, 2012: XIX) perceives social innovation "as the process of addressing the world's most pressing challenges with novel solutions that are better than current solutions, new to the world and benefit society as a whole and not just a single entity. Cels et al. (2012:4) perceive "social innovation as the attempts to transform the way societies address social problems and produce public goods and services (…) in order to improve social outcomes and creating public value". The European Union (2010) looks at social innovation as innovation that is social in its ends and in it means, thereby embracing new ideas that meet social needs by creating new social relationships and collaborations. At the same we see that social innovation as a concept is also often being linked to social entrepreneurship . For instance, Mair (2010:19)) defines social entrepreneurship to "a process of catering to locally existing basic needs that are not addressed by traditional organizations. Depending on the needs addressed the process usually involves the provision of goods or services and/or the creation of missing institutions or the reshaping of inadequate ones (..) in order to change or modify the social/or economic arrangements that create the situation of failure to satisfy basic needs".

Looking at the literature and taken into mind the previous discussion about the nature of innovation, we argue that social innovation refers to four elements.

1. Social innovation particularly stresses to produce <u>outcomes</u> that are <u>need-oriented</u>, in such a way that they try meet the needs of society or specific groups in society in a long lasting way, given a number of challenges with which societies are wrestling, like the ageing of the population or unemployment (Mulgan, 2006; European Union, 2010; Mair, 2010; Cels et al. 2012; Bates 2012).

2. In order to develop and implement these need-driven innovations, it is import that end-users as well as other relevant stakeholders participate in the development, implementation and adoption of these innovation. That is why social innovation is been seen as the outcome of <u>an open process of co-creation</u> (Bason, 2010; Lee 2012), that very often takes place in 'collaborative innovation networks' (Gloor, 2005; Bommert, 2010; Sörensen & Torfing, 2011). Relevant stakeholders bring in their knowledge, information, experiences and resources so that they can be shared in order to produce innovative outcomes that are relevant to them. This, however, presupposes the trust-based circulation and cross-fertilization of new and creative ideas across organizational, sectoral and disciplinary boundaries and rather positive attitude towards risk-taking in a socio-political environment as well as the formation of joint ownership and responsibility (Mulgan, 2006; Bommert, 2010; Sörensen & Torfing, 2011; Lee, 2012)

3. Social innovation also stresses that the <u>innovation fundamentally changes the relationships between stakeholders</u>. In doing so, a process of 'roundaboutness' (Majone,1998:97) or 'institutional conversion' (Thelen 2002:224) is being aimed for. The way in which stakeholders relate to each other, how they interact with each other, how they collaborate with each other is radically changed. Social innovation tries to act as a 'game changer', breaking through 'path dependencies'. Through social innovation, it is argued that the governance capacity of a society order to deal

with new pressing demands and challenges is being enhanced, because the game is being changed (European Commission, 2011:33). As a result of social innovation processes it is argued that need-driven services require the establishment of new collaborative relationships and new institutional arrangements (European Union, 2010; Sörensen & Torfing, 2011; Bates, 2012)

4. Next to this, the social innovation concept emphasizes that these outcomes are not by definition related to science and technology driven innovations. It is important to look beyond technological innovations (Howalt & Schwarz, 2010).

5. Given the fact that in this research project the object is social innovation in the public sector, the public sector context adds, to this that social innovation also refers to the allocation and/or re-allocation of public values that are to be achieved by the social innovations, given a number of challenges with which societies are wrestling (Cels et al 2012; Mulgan, 2006). In the achievement of these values it is not only important to look at the presumed or achieved consequences of the innovation in terms of effectiveness or efficiency. The public values that are being pursued by social innovation also try assure that the innovation is an appropriate one, for instance because it adds to the value of democratic citizenship or really addresses – in terms of responsiveness – the needs of citizens.

These characteristics of social innovation in the public sector are important, when selecting innovations in the different working packages.

2.6 Conclusion

We can derive a number of conclusions based on Section 2. When studying innovations, it is firstly important to look beyond the different forms of innovation that can take place. Studying innovations implies that we especially should focus on the process of innovation which can be considered as an process of transformative learning, which is not only focused on the creation of new ideas and applications to achieve specific goals. It can also be defined as a symbolic process of sense making in which the innovating organizations tries ensure legitimacy. Secondly, it has been argued that this process is an open and embedded process, where multi-value driven learning processes take place in which different actors share relevant resources, capacities and capabilities are shared in order to develop a common understanding. Thirdly, when studying *social* innovations in the public sector, it is important to look to look at nature of the innovations involved. They are primarily robust need-oriented innovations and they refer to a conversion process, introducing new relationships and playing rules between the involved stakeholders. In the social innovation literature it is argued that in order to facilitate this conversion process and to produce relevant outcomes, it is important that relevant stakeholders, especially citizens and their representatives as possible end-users, are able to participate in the development and implementation of social innovations, by putting them in a position of co-creator which presupposes collaboration.

3 Drivers and barriers of social innovation: a literature review

The previous section (section 2) provided a background on (social) innovation and the process of (social) innovation in the public sector. In this section we will address a number of relevant drivers and barriers for innovation in the public sector. Although we talk about drivers and barriers, the distinction between a driver and barrier is to some extent rather artificial. Factors can be, dependent on the level of the factor and the specific context, either a driver or a barrier. Hence, drivers and barriers could also be seen as factors influencing social innovation.

The drivers and barriers are based on a literature review. We primarily focus on empirical literature addressing innovation in the public sector (not the private sector), and somewhat less on conceptual or normative literature, as we are interested in drivers and barriers that were present 'in real life'. Next to this, we focus especially on evidence stemming from the public sector.

The literature review generated a number of drivers and barriers. We have ordered these according to three main dimensions: Drivers and barriers related to

- The innovation environment (Section 3.1)
- The innovation process (Section 3.2)
- The adoption of innovations (Section 3.3)

Section 3.4 concludes by showing an overview of the drivers and barriers. This overview can be used a theoretical framework for analyzing social innovation in the public sector.

We acknowledge that the three dimensions are not always mutually exclusive. Leadership is for instance important in both the innovation process and during the adoption of innovations. We have used the dimensions as an analytical device to structure the discussion.

3.1 Drivers and barriers related to the innovation environment

Our starting point for studying social innovations in the public sector is that social innovations take place in a specific environment in which different actors can be distinguished. These actors collaborate with each other in terms of sharing relevant resources in order to develop and implement new ideas, new ways of working or new ways of organizing. This implies that characteristics of the environment can be seen as a relevant drivers and barriers. These characteristics can either function as a trigger for innovation while at the same time they can also function as relevant constraints. Based on an analysis of the literature, we have found that the following aspects of the environment could function as important drivers and barriers of innovation:

1. The <u>social and political complexity</u> of the environment in which public organizations operate which leads to specific demands that function as an external 'trigger' for innovation
2. The degree of <u>legal culture</u> in the country or policy sector
3. The type of <u>governance and state tradition</u> in the country or policy sector
4. The allocation of resources, resource dependency and the quality of relationships <u>within the networks</u> among the involved stakeholders

1. Political and administrative triggers from the public administration environment
According to Schumpeter (1942) the absence of market competition explains to some extent the limited innovation within the public sector (Sörensen & Torfing, 2011). However, there are

suggestions that there are other drivers and mechanisms that may create competition-like elements and give the public sector a specific kind of complexity and dynamic that explains why there is public sector innovation (Kelman, 2008; Pollitt, 2011). In the literature the following relevant mechanisms are distinguished:

a) Challenges related to the <u>environment</u> of public administration – such as globalization, individualization, fragmentation and computerization (Osborne & Brown, 2005) – as well as the <u>political and administrative problems</u> that emerge from them can be a trigger for public sector innovations (Walker, 2006). In several studies these political problems are related to a discussion about the actual performance of specific public organizations compared to citizen needs (Damanpour & Evans, 1984; Walker, 2006; Fernandez & Wise, 2010:993; Borins, 2000; Vigoda-Gadot et al, 2008; Salge & Vera, 2012). This has also been framed in terms of a 'performance deficit' that does not only refer to possible shortfalls in the efficiency and effectiveness of the internal operating of the involved innovating organizations. It also refers to the way this deficit questions the legitimacy of these organizations (Fernandez & Wise, 2010:993; Borins, 2000; Salge, 2010; Salge & Vera, 2012).

b) The pressure to innovate and to look for new combinations is also triggered by the <u>multi-rationality of public administration</u>, which generates a competition between values that have to be reconciled. Policy problems can be understood in terms of a permanent struggle between different rationalities and values (Snellen, 1987; Moore, 1995). The emerging tensions can create a dialectical process in which compromises between these values are reached on a higher level, thereby creating new combinations of problem definitions and problem-solving strategies (Stone, 2003; Hartley, 2005).

c) There is also a trend in which the <u>competition</u> within the public sector is increasing, although its nature differs to some extent from the market-driven competition in the private sector. If we look at the competition-like element which might stimulate innovation, the next considerations are put forward in literature.

- Due to the privatization and liberalization within specific service domains, public services have to increasingly compete with private initiatives. Public procurement programmes have stimulated this and, as a result, citizens are increasingly perceived as consumers that also act as consumers in terms of having growing customer expectations especially if they have a choice (Windrum & Koch, 2008; Tummers, Jilke & Van de Walle, 2013).

- Given the increased role for benchmarking and other performance management systems that make the quality and outcomes of public services transparent, government organizations are increasingly compared with each other. In many cases, this acts as an incentive for service improvements (Dorsch & Yasin, 1998; Folz, 2004).

- There is increased competition between regions and cities in terms of being an attractive place to work, live or visit. In order to be attractive, local and regional governments, and also national governments, often use the quality of

services as a source of competitive advantage (Berry & Berry, 2007; Walker, 2006; Bailey, 2011; Sörensen & Torfing, 2011). This highlights the importance of looking at the geography of public innovation practices and the presence of so-called regional innovation systems (Cooke et al., 1997; Asheim & Gertler, 2005). For instance, it is interesting to note that, in the public sector, innovations repeatedly occur in the same cities and regions. Why is this the case? What does this tell us about the local environment or the geography of public innovation (Gloor, 2005)?

d) Fourthly, there is increased <u>political competition</u> for the consent of citizens, who are increasingly becoming - in an electoral sense – footloose, and who have increasingly higher expectations and demands (Walker, 2006; Bekkers, Edelenbos & Steijn, 2011). The desire to improve the quality of public services, in combination with the desire to cut red tape, has increasingly become a political issue and is an incentive for the public sector to innovate.

2. The legal culture of the public sector

In the literature, it is argued that the dominance of a legal culture can be seen as constraint for the willingness of the public sector to innovate. Hence, a strong legal culture can act as a barrier for innovation. Very often this legal culture also influences the way in which the civil servants in general thinks and acts (Kickert, 2007).

Based on the idea of this legal culture, three elements seem particularly important.

First, a strong legal culture can result in stressing <u>standardization and formalization</u> practices. Standardization and formalization also refer to the 'Rechtsstaat' in which the rule of law, providing legal security and equality before the law, is considered paramount (Damanpour, 1991; Borins, 2001; Kelman, 2008; Sörensen & Torfing, 2011). Standardization and formalization foster these values because they add to stability and predictability. On the other hand, they discourage initiative, creativity and risk-taking (Schumpeter, 1942; Burns & Stalker, 1961; Damanpour, 1991; Scott, 1998; Walker, 2007). More mechanistic, rule driven organizations seem to favour incremental innovations instead of transformative innovations (Damanpour, 1991). Although standardization and formalization are often viewed as barriers to innovation, they also guarantee universal free and equitable access.

Related to this, standardization and formalization generate a lot of 'rules', which are translated in procedures, routines and systems and other grown practices that are taken for granted (March & Olsen, 1989). In doing so specific <u>rule-driven 'path dependencies'</u> may emerge which limit the way in which new concepts, methods, technologies as well as handling processes are accepted (Pierson, 2000; Bernier & Hafsi, 2007). The self-evidence of these 'Rechtstaat' based 'rules' are often being challenged, if new ideas, concepts and methods are being introduced, which may result in resistance to change (Hofstede, 1980; Deal & Kennedy, 1982; Handy, 1985; Schein, 2005; Bernier & Hafsi, 2007).

The willingness to share resources, experiences, knowledge and information is very often frustrated by the use that the involved stakeholders, especially government agencies, make of their <u>legal mandate and their jurisdictions</u> (Feller, 1981; Kelman, 2008; Matthews et al., 2009). Innovations that cross these jurisdictions and mandates are more difficult to get adopted (Feller, 1981; Matthews et al., 2009). At the same time, there is evidence that inter-organizational innovations ('joined up innovation', Huijboom, 2010) do take place, crossing jurisdictions.

3. State, governance and civil service traditions

In the private sector innovation literature, a relationship is being put forward between the competiveness of a country and the presence of national innovation regimes. The specific structuring and interactions in these regimes, especially between business, education, research and development to some extent the national innovation capacity of a country (Cantwell, 2006; see also Berry & Berry, 2007). This idea can also be translated to the public sector by connecting state and governance traditions of a country to social innovations.

Innovation in the public sector is dependent on the discretion that public sector organizations have to explore and implement new ideas, to get involved in a process of 'trial and error'. It can be argued that the state and governance traditions in a country, or even in a policy sector, influence the degree in which these organizations have the willingness, the capacity and capabilities to embark on an innovation journey. In line with this argument it can also be argued that the dominant civil service culture in a country or even in a policy sector echoes the dominant state and governance tradition. For instance, Kickert (2007) talks about the influence to the so-called 'Napoleontic statemodel' on the dominant civil service culture and its willingness to change and innovate in France and Italy, while, for instance, in Spain the introduction of a more Rechtstaat c.q. Napolentic oriented state model was seen as a way of coping with the negative effects of the long lasting influence of the Franco regime on the Spanish bureaucracy

The state and governance tradition of a country reflects to some extent the dominance of specific assumptions regarding the capacities of government in dealing with societal and political challenges vis à vis the self-regulating capacities that are present in society (Bouckaert & Pollitt, 2011). These governance capacities relate to the availability of resources that are needed to successfully cope with societal and political challenges (Scharpf, 1997; Kattel et al, 2011). For instance, Scott (1998; see also Van Gunsteren, 1976; Schön 1971) has argued that the dominance of a state-dominated, central rule-approach, based on the premises of authoritarian high modernism, often destroys the local intelligence and practical knowledge, and thus local learning processes, which are needed to develop tailor-made approaches that address citizens' needs. Moreover, it can also be argued - given the idea that social innovations requires the sharing of relevant resources between stakeholders that operate in different (public and private) domains and at different levels - that a governance tradition in which collaboration is being embraced as relevant asset in order to deal with specific societal and political challenges, will stimulate the emergence of social innovation practices. At the same time such governance tradition will also also stress different values, knowledge, skills and competences of the civil service than a governance tradition that is more hierarchical and rule-oriented.

Hence, specific state and governance traditions as the dominant civil service culture could influence the shaping and outcomes of social innovation. However, it is important to notice that these traditions are not mutually exclusive. In some countries, a combination of different styles can be found. A number of traditions can be distinguished, shown in Table 1.

Table 1 State and governance traditions and their first links to innovation capacity (based on Loughlin & Peters, 1997; Pollitt & Bouckaert, 2011). Note: not mutually exclusive.

Type of state and governance tradition	Characteristics	Examples
Strong central and unitary state	- Strong command and control regime where rules and regulations are considered an important policy instrument - Government is seen as a unity, where relation between units and layers are top-down and mechanistic - Political system often based on majoritarian rule - Unity is seen as paramount to protect 'public interest' - Possibly positive for radical innovations led from the top	The United Kingdom, France, Rumania, Slovakia, Estonia
Decentralized structure with strong local/regional governments	- In a more decentralized, it is also necessary that the central and local/regional or federal levels have to co-operate which each other - Often federal structure - Political system often based on consensus-making: Central and local/regional or federal levels have to co-operate which each other, which also leads to all kinds of coordination, collaboration and consensus-seeking practices in which negotiation and exchange processes take place. - Possibly positive for innovation which meet local needs and wishes	Belgium, Denmark, Germany, The Netherlands
Corporatist tradition	- Lots of collaboration and consensus-processes between employer organizations, trade unions, labour unions and governments - Possibly positive for innovation which need a lot of support and effort from various stakeholders	Belgium, The Netherlands, Germany, Spain
Market driven tradition	- Strong belief that market driven incentives based on liberalization and public procurement, generates more effective, more efficient and more innovative services - Government intervention based on the creation of 'level playing field' which facilitate markets or quasi-markets - Possibly positive for innovation, if real markets would appear and the price mechanism would lead to new products and markets.	United Kingdom, Estonia
Legalistic tradition	- Government intervention based on administrative law. Rules and regulations are being considered as the most important set of policy instruments - Related to command and control governance - Possibly negatively influencing innovations, given the focus on standardization and formalization	Belgium, France, Germany, Italy, Spain
Strong civil society	- Strong non-governmental organizations and (third-sector) institutions that manifest interests and will of citizens, such as churches, voluntary organizations and grass-root movements - Strong social entrepreneurship - Possibly positive for 'bottom-up' innovations, started at the grass roots where citizens develop innovations	Italy, Germany, The Netherlands, United Kingdom

4. Resources and resource dependency within organizations and networks

Next to discussing the broader legal culture and state and governance traditions, it is also important to analyse the role of <u>organizations and inter-organizational networks</u> in the innovation environment. It has been argued that such networks can be important drivers for innovation. That is why in the literature people speak about 'collaborative innovation networks' (Gloor, 2005; Sörensen & Torfing, 2011). Collaboration in these networks can facilitate the exchange and sharing of resources which may trigger innovations. Through collaboration the resources that are embedded in these networks can be made accessible (Lin, 2001).

First, and when talking about these resources, it seems important to consider the capacities of an organization (e.g. people, money, time, competences, information, knowledge, political support and contacts), in terms of '<u>slack</u>' that can be devoted to support innovation activities (Newman et al., 2000; Downe et al., 2004; Hartley, 2005; Schein, 2005; Sörensen & Thorfing, 2011; Maranto & Wolf, 2012; Salge, 2012). Walker (2006; see also Damanpour 1991; Berry, 1994, Rogers, 2003) argues that the larger an organization is, the more 'slack' this organization has, because it has more opportunities for the cross fertilization of ideas as well as a larger variety of relevant skills that can be exploited (Fernandez & Wise, 2010; Bhatti et al, 2011; Maranto & Wolf, 2012).

Secondly, <u>cultural diversity,</u> as an aspect of slack, which also stresses openness, can be seen as an important asset and a capacity that an organization can bring in (Foldy, 2004; Van Buuren & Loorbach, 2009). Cultural and staff diversity can stimulate innovation because they contribute to functional diversity through which alternative perspectives are mobilized and new ideas opened up.

A third important factor relating to organizational environment is <u>the customer and learning orientation within the organization</u>. Research has shown that an organization with a culture of strong customer orientation will give high priority to continuously findings ways to provide superior customer value. In doing so these organizations proactive want to be engaged in meeting customers in order to learn from them (Han, Kim & Srivastava, 1998). Such organizations are not more involved in innovation generating process to develop new service products, services and processes. Next to this, they are also more easily convinced of adopting innovations that have been developed elsewhere, thereby conversing new knowledge (Salge & Vera, 2012). In such organizations a culture exists in which people are willing to learn from the actual state of the service provision and the needs of service users. Learning is as a valuable asset (Zhao & Olivera, 2006; Salge & Vera, 2012). This also implies that organizations that embrace customer orientation in combination with an open attitude towards learning are more likely to bring in time and other resources in innovation activities that improve public service quality (Salge & Vera, 2012).

Fourth, Bernier and Hafsi (2007) argue that the innovation capacity of an organization, defined as public entrepreneurship, seems to depend on the <u>age of the organization</u>. Entrepreneurship seems to disappear when organizations mature, as the main preoccupation becomes making it operate like a machine. As a result innovation is stifled in bureaucratic rigidities, while the innovations that are being pursuit have a more incremental nature, thereby focussing to improve existing practices, routines and processes. This

requires a form of systematic entrepreneurship. More heroic, individual and rather forceful forms of public entrepreneurship are more likely to occur, when newly created organizations are involved that have to deal with new problems and new activities, which generated more transformative innovations. Hence, we can argue that the age of an organization, as a relevant capacity, seems to negatively influence the degree of innovation.

Next to organizational factors, it is important to take into account factors that influence the exchange and sharing of resources within networks, such as public-private partnerships (Koppenjan, 2005). An interesting question is how the allocation of organizational capacities influence the innovation ability of networks. Literature on network management and network strategies (e.g. Koppenjan & Klijn, 2004; Sörensen & Torfing, 2011) shows that the recognition of mutual dependency is a vital factor. Recognition of interdependency implies that the involved actors are able and willing to explore, if their interests can support each other instead of compete with each other, thereby enhancing collaboration (Van Buuren & Lohrbach, 2009). Moreover, interdependency recognition supports the sharing of resources, capacities and capabilities across boundaries (Koppenjan & Klijn, 2004).

Mutual dependency tell us something about the connectedness of the actors in a network: the positions that these actors take in the network and the 'ties' that connect them. This issue has also been addressed in terms of 'strong' and 'weak ties .On the one hand it is argued, especially in the private sector literature, that strong and close ties imply that actors know each other very well, which can generate trust. Trust is seen as a necessary condition for the exchange and sharing of resources. In the literature trust and social capital within and between organizations is therefore also mentioned as a relevant factor which can influence innovation (Walker, 2007; Lewis, 2010; Lewis et al., 2011). Trust is an asset of a network, and it can be seen as a necessary condition for innovation. However, in many cases, it is absent in the beginning and has to be developed. The notion of trust is related to the social capital which is present within organization and networks. Innovation networks, which operate as free and informal spaces in which ideas are exchanged, can only be shaped if social capital is present within a specific sector, or can be developed. Furthermore, the coming together of people at the periphery and even in the centre of a network does not occur automatically but have to be organized. On the other hand it is argued that 'weak ties' can facilitate innovation, because trying to link up and strengthening the ties with these loosely coupled people or even organizations may create an opportunity to bring in new perspectives, new ideas and other resources (Granovetter,1973; Powell & Grodall, 2005).

Although weak ties are 'thinner' and less durable, they may provide access to more non-redundant information. Closely related to this idea of 'weak ties' is that is important to create bridges between parties that lack ties and do not know each other, so that weak ties are created. Burt (1992) has deepened this argument by pointing out specific collaboration arrangement in networks that are focussed to link specific 'structural holes' in the network to the more central positions of actors in a network, might create opportunities for innovation. At the same time it is not clear as to whether strong or weak ties, or bridges or structural holes offer greater opportunities for innovation (Powell & Grodall, 2005). Ahuja (2000) argues in a influential study that the variation in network structures is associated with different content in personal relationships, which makes leads to the preliminary conclusion that the relationship between innovation capacity and network structure is rather contingent. Moreover, what

constitutes an enabling social structure for one specific type of action may well disabling for others. Thus, the form taken by social capital is likely to be contingent on what actors seek to enable through it (Ahuja: 2000:452).

Do these arguments also apply to the public sector? Lewis et al (2011) state a social network analysis based approach has been seldom applied to address innovation in the public sector. The research that has been carried out by Lewis et al (2011; Considine & Lewis, 2007) show that informal networks contribute to an explanation of innovation inside government. The results clearly show that how you conceive an innovation, what position you hold and who you communicate with are all significant in shaping whether you are regarded as an innovator. However, network relationships are the most important predictors of innovation status. Although network centrality is related to hierarchical seniority, Lewis et al. (2011) show that innovators who are more adept at working through relationships outside formal structures, get more things done. Being a central person in more strategic information networks seems to more important in being perceived as an innovator than being a central person in advice networks (Considine & Lewis, 2007). Also Mintrom & Vergari (1998) argue that policy networks are important resources where successful policy entrepreneurs draw upon for developing and diffusing new ideal. External policy network involvement facilitates the generation of new ideas and the diffusion of existing innovative policies, while internal policy involvement is crucial for gaining attention for an innovation. Huijboom (2010) has shown in a cross country case analysis of the innovation in electronic identification data management systems, and based on a combination of social capital and advocacy coalition framework theories, that the characteristics of the actors involved (e.g expertise and position), their ties (strength and levels of trust) and the networks (closure, heterogeneity and broker position) generate certain network dynamics (e,g, negotiations, coalition formation, consensus building and agreement) which affect the innovation strategy, decision, output and impact. All cases point at the fact that in the initiation and development phases social capital factors (e.g. ties, trust and brokers positions) are more important than in latter phases. Moreover, Huijboom (2010) shows that it is not the limited access to new ideas, but the limited access to the demands of end-users (service providers and citizens) as being in a rather 'structural whole' position or being considered as a 'weak or absent tie' that hampered the innovation processes.

Furthermore, innovation is alleged to emerge in environments where there is high openness and variety. However, openness and diversity are hard to manage, while at the same time, diversity might also be hard to achieve within an organization or an organizational network that is rather homogeneous (Rogers, 2003; Mulgan, 2009; Bason, 2010; Koppenjan & Klijn, 2004). Hence, the management of openness and diversity, as an important aspect of managing innovation. This is especially related to the creation of safe havens and grey informal spaces. Openness refers to the absence of boundaries and the free flow of ideas, knowledge and experiences. Openness also refers to the availability of a variety of perspectives that can be utilized and challenged. It refers to a free and informal space in which there are few restrictions on developing new and creative ideas and concepts (Foldy, 2004). Innovation often takes place in the 'grey, informal' area between formal structures, in the informal settings where managers of public governmental bodies meet with private and societal organizations, without the burden of formal responsibilities, positions, rules and power plays (Nooteboom, 2006; Considine et al., 2009; Lewis et al.,2011; Van der Voort,

2011; Voets & Rynck, 2011). These 'grey informal areas can be seen as 'safe havens' (Edelenbos, 2005; Van Buuren & Loorbach, 2009). Moreover, it requires the existence of an open culture and a safe context in which 'trial and error', 'reflection' and 'learning' can take place without penalty for 'mistakes' or for not realizing immediate results (Hartley, 2005; Cooke et al., 1997; Bason, 2010).

Last, research indicates that a relevant factor is the degree in which the involved actors are able to find a somewhat equal distribution of costs and benefits – quantitative as well as qualitative – among the relevant stakeholders (Edelenbos & Klijn, 2006; Bekkers, 2007). And, if this is not the case, it is important that they are able to find ways of compensation.

3.2   Drivers and barriers related to innovation process

The innovation process is an embedded process, and embedded in a specific innovation 'milieu', or environment (Castells, 1996; 2009). Hence, in order to understand innovation as a learning process, one has to understand the nature of this learning process as well as the conditions under which this learning process can take place. Sometimes these conditions are related to the environment of the innovation (as described in the previous section). Other times, the conditions are related to the innovation process itself. In this section, we will discuss the following conditions of the innovation process:

- The linking nature of the leadership involved

- Support of and co-creation with end-users

- Risk management and innovations

- The role of ICT and social media

1.   The role of linking administrative and political leadership
The literature on public sector innovation and change management stresses the importance of leadership (Hartley, 2005; Bason, 2010; Osborne, 2011; Kuipers et al., 2013). In relation to public sector innovation it is important to make distinction between administrative and political leadership. Administrative leadership relates to the leadership of public managers like head of departments, while political leadership relates to the leadership that is executed by politically appointed leaders like ministers or.city managers. Looking at the literature, for innovation important characteristics can be linked to both types of leaders.   Borins (2000; 2001) shows that the individuals who drive innovations (as innovation champions) very often act as informal leaders. In doing so they proactively try to solve problems before they become crisis, by taking opposition seriously and attempting to deal with it forthrightly trough persuasion or accommodation, rather than through power politics; by developing a clear vision of an innovation and staying focussed on that vision and by objectively an innovation to see if it is working (Borins, 2000:506). In doing so, politicians and senior management as relevant public leaders can create an organizational climate that will either stifle or support innovation. Important in the creation of this climate is also the question how the involved political and administrative leaders define a possible innovation as risky, given the fact that innovation presupposes trial and error, and thus that mistakes can be made, while at the same time well-established practices, which create stability and predictability, are being fundamentally discussed. Hence, the perception of risk and risk taking behaviour is also an

aspect of leadership that should be taken into consideration. However, this aspect is broader than just being an aspect of leadership. Therefore we will address this issue separately.

Looking at a number of public innovation studies, Bekkers, Edelenbos and Steijn (2011) argue that, in the public sector, leadership typically deploys a linking structure for innovation. This 'linking leadership' involves various aspects. First, linking leadership refers to boundary spanning (Williams, 2002). Boundary spanning leaders reach across organizations and borders to build relationships, interconnections and interdependencies. This is required to link people, ideas and resources, also in relation to idea of try to bring in the knowledge, expertise, information and perspectives of weakly or non-involved actors (Voets & De Rynck, 2008). Secondly, linking leadership also refers to connecting the political realm with the innovation project. This can increase the legitimacy of the project and mobilize the necessary resources, like the acquisition of new or the protection of already allocated budgets (Considine et al., 2008; 2009; Voets & De Rynck, 2008). Thirdly, different values need to be linked and balanced, such as values related to the logic of consequence (efficiency, effectiveness, compliance) and values referring to logic of appropriateness (such as trust, support and legitimacy) (Fugslang & Pedersen, 2011; Van der Voort et al., 2011; Van der Scheer et al., 2011). Linking leadership is focussed on linking these values, and very often the interests and claims of stakeholders that are closely related to these values. Lastly, linking leadership is related to the notion of innovation champions. As noted, openness is important in innovation. It also refers to the idea that innovations are often the result of a process in which developments in different types of environment co-evolve, and merge together locally. An important question is how, and under what circumstances, these changes will link to each other (Nardi & O'Day, 1999; Dunleavy et al., 2006; Bekkers & Homburg, 2005; Bason, 2010; Fernandez & Wise, 2010). Policy entrepreneurs or 'innovation champions' play an important role in coupling these changes, thereby giving space for specific innovations as potential answers to problems. As such, the management of innovations also refers to the possibility of managing the political agenda and acting as a policy broker that make use of relevant policy windows and triggering events, as well as being able to ensure relevant support for a specific type of framing in which problem definitions and possible new solutions are coupled to each other (Kingdon, 2003; Horne, 2008).

2. Support of and co-creation with end-users
The second relevant driver during the innovation process refers to the involvement of end-users, or citizens. In the previous section, when discussing the network character of innovation, we noted that connecting various stakeholders from various organizations can foster innovation environments. The success of an innovation process in the public sector also depends considerably on the support and representation of implementers of the innovation, such as policemen, teachers or municipal civil servants, and of the end-users.
Given the supply-oriented nature of many public services it is the question, if these voices are really heard. In the literature it is argued that new, innovative ideas come from actors who are not at the centre of a network. It can be noted that relative outsiders, who are only loosely connected with the key players in the network, are more often a source of innovation than the actors who are closely linked with each other. Actors who know one another quite well are not surprised by each other's ideas and insights. Actors who do not know one another very well, often represent new insights, ideas and perspectives (Powell & Grodal, 2005). Public sector innovation research shows that new insights stem from taking into

account the ideas, insights and experiences of groups of end-users which voices are often 'weakly institutionalized voices', like:

- Citizens as end-users (Davenport, 1993; Oudshoorn & Pinch, 2003; Alam, 2006; Von Hippel, 2007; Vigoda-Gadot et al, 2008),
- Middle management of public organizations (Behn, 1995; Borins, 2001; Fuglsang & Pedersen, 2011),
- Civil servants who are engaged on a daily basis in rendering services to society, known as 'street level bureaucrats' or 'street level professionals', like police officers, teachers, doctors, nurses and social workers (Borins, 2001; Alam, 2006; Fuglsang & Pedersen, 2011; Tummers, Steijn & Bekkers, 2012).

In order to take account of insights from various groups, the literature talks about the importance of seeing innovation as a process of <u>co-creation with these end-users</u> (Oudshoorn & Pinch, 2003; Van Hippel, 2007). The involvement of end-users can range from passive to active (Lowndes et al, 2001; Bekkers, 2012). Passive involvement of end-users implies that information is gathered about the wishes and characteristics of end-users, for instance through the use of data mining methods thereby combining existing but different data sources and data or through the use of surveys. In such a case end-users are seen as a source of information which can be exploited to develop new services or improve existing service. Active involvement of end-users implies that end-users are seen as a source of knowledge, experience and ideas that can be exploited by given them a participatory position in the (re-)design of services (Mulgan, 2009).

Next to this, it has been noted that the <u>support of end-users</u> is a critical factor in determining the success of an innovation. However, to date many innovations – such as new policies – are not readily accepted by end-users, especially public professionals who need to implement these innovations. In the literature, this is discussed using the notion of policy alienation (Tummers, Bekkers & Steijn, 2009). Policy alienation is described as a feeling of psychological disconnection from the policy (or innovation). When end-users feel that their views are not taken into account (in other words, when they feel powerless) or when they feel that the innovation has no substantial value (in other words, when they feel that the innovation is meaningless), they will most often be resisting the innovation. Studies have indeed shown that many professionals cannot identify with innovations as they feel that they do not add value to society in general, such as delivering more security on the streets or better healthcare (Tummers, 2011). Furthermore, many resist because they feel that their autonomy is diminished to an extent that they cannot tailor the innovation to the needs of the client (Tummers, 2011). Next to implementing professionals being alienated from the policy, it can also be the case that either managers or citizens experience policy alienation, for instance because they feel that an innovation does not match their specific circumstances. Hence, it seems important to increase the support end-users. One of the most powerful levers to gain support is to let end-users participate in the design of the innovation (Judson, 1991). A number of possible factors can influence the participation of end-users (Boyle & Harris, 2009). Here, we focus especially on citizens as end-users, given their often neglected role, and given the importance that the social innovation literature adds to their role.

The first factor relates to the expectations that end-users have of the possible outcomes of their participation, also given the limited number of time they have and the transaction costs that are involved (Berman, 1997; Pestoff, 2012). This is also known as the performance

expectancy, which has been shown to indeed influence behaviour very strongly (Venkatesh et al., 2003). Citizens are often cynical about the degree in which they think that governments are actually prepared to address the needs and wishes that citizens bring forward (Berman,1997). If it can be made very explicitly, that participation in the innovation process generates outcomes that are really in the interest of citizens, then they are more willing to participate (Alford, 2009). These outcomes do not really have to refer to the self-interest of citizens, they can also refer to intrinsic motivations and rewards that refer to social values that motive people. Moreover, citizens that participate, also acquire more attention and approval, which also stimulates participation as being a relevant democratic value (Alford, 2009). Schudson (1998) argues that citizens, who in general have a rather passive attitude, are actually willing to mobilize themselves in order to participate if vital interests are being threatened. Vigoda-Gadot et al. (2008) argue that the image of sector also influences the willingness to participate. This depends on the trust in the governance of the sector as well as on the perceived satisfaction of the possible innovations that might be generated.

The second factor relates to the effort needed to participate. This is known as the effort expectancy (Venkatesh et al., 2003). End-users need information, knowledge, skills and competences to participate. This is also dependent of the complexity of the innovation and the outcomes that are being pursued (Bovaird & Löffler, 2011, Nesta, 2008). The growing role of (social) media is relevant in this regard. The omnipresence of modern (mobile) information and communication technology, especially internet and social media, provide an network like infrastructure which enhances the easiness to exchange scattered or loosely coupled experiences, ideas and knowledge in terms of (open) access (Bekkers, 2004; 2012; Benkler, 2006)). As a result new innovation models appear in which participation and open access are embraced as relevant values, like crowd sourcing and open idea banks (Mulgan, 2009).

Next to focusing on the role of the citizens, it is also important to recognize that citizen participation can be linked to institutionalized policy practices. Interactive governance research shows that politicians and policy makers have difficulty to link outcomes of public debates to the internal policy debate and the policy processes that lay behind these debates (Edelenbos, 2005; Lowndes et al, 2001). This also relates to the idea that policy makers, public managers and politicians are afraid to lose control and to lose status (Bovaird & Löffler, 2011).

The third factor refers to the representativeness of the citizen voices. Interactive governance research shows that citizens who already participate and who are already involved, make use of the extra opportunities that are offered to get involved (Bekkers, 2004). The issue of representativeness also relates to the role that intermediary parties, which very often claim to have the position, the knowledge and the skills and competences, play in voicing end-users needs, given the fact once an intermediary organization have been erected other, more internal goals and personal motives may replace the original representation goals. In this way, goal displacement (Merton, 1949) may take place, where the goals of the intermediary organizations (which should be means to voice the concerns of their supporters) become the ultimate goals. Such developments can also occur with public professionals who have to implement policies. It has been found that influence of professional associations does not by definition heighten the support of the professionals themselves (Tummers, 2011). This non-significant influence can be an indication of the re-stratification thesis, stating that 'everyday'

professionals are different and disconnected from the elite representing them in their associations (Freidson, 2001).

3. Risk definition and management

Innovation, as has been discussed, depends on the addition of new ideas, in which trial and error is important. However, this can be risky. Innovation in itself is a risky process, because a commitment is required regarding a process and regarding unknown outcomes (Brown & Osborne, 2013). Given the fact that innovation is an open process in which different stakeholders participate, it is important to understand how these stakeholders, their representatives and their leaders, define the risk fullness of an innovation process.

Risk taking is not always favoured. First of all, in the public sector there is a negative attitude towards risk and risk-taking (Feller, 1981; Brown, 2005; Bernier & Hafsi, 2007; Matthews et al., 2009; Osborne & Brown, 2011). Bureaucratic and political cultures are perceived as risk-avoiding, including in relation to accountability issues (Borins, 2008; Kelman, 2008; Albury, 2005). Secondly, the short-term orientation of politicians increases delivery pressures and forces them to not be very risk-taking (Van Gunsteren, 1976; Albury, 2005). Politics is characterized by short-termism, focused on winning the hearts of potential voters and interest groups through 'quick wins'. The possibility of increased media coverage, especially in relation to possible failures, tends to increase this (Borins, 2001; Sörensen & Torfing, 2011). Drucker (1985) stressed the importance of 'systematic innovation and entrepreneurship', implying that organizations should develop a long-term, goal-oriented and systematic perspective on how to mobilize resources - such as knowledge, people and funds - in order to look for 'new combinations', thereby creating fruitful conditions for innovation. Investments in research and development and the setting up of research & development departments are examples of systematic innovation. Thirdly, the dominance of performance management systems in public administration could also influence the degree in which public sector organizations and their management are willing to take risks. It has been shown that the proliferation of performance indicators can stymie innovation (Newmann et al, 2000; Sörensen & Torfing, 2011).

4. The role of ICT and social media

The fourth factor we identify relates to the role of <u>information & communication technology (ICT), including social media</u>. Two roles are important. First, it can be argued that ICT and social media are important <u>sources of innovation</u>, given the fact that technology in general is an important source of innovation because technological innovations are very often give birth to all kinds of innovations. In doing so ICT and social media are important drivers for innovation, which become even more important if we acknowledge information and communication are vital resources in rendering specific services, in developing and implementing policy programmes as well as in monitoring and enforcing the outcomes of these programmes. The innovative potential of ICT and social media refers to a number of characteristics that are embedded in these technologies like the ability to process large amounts of data in more sophisticated way, the ability to improve the access of relevant information and knowledge across all kinds of functional, geographical boundaries, the power to improve the transparency of all kinds of processes, behavior and organizations, the ability to monitor and control these processes and behaviors as well as the potential to communicate, to visualize and to facilitate all kinds of interactions (Bekkers & Homburg, 2007; Bekkers, 2012). In case of the internet and social media especially the ability to link the

communications, the information, experiences, knowledge and contacts of people, groups and organizations is a vital source of innovation (Fountain, 2001; Benkler, 2006). Within the public sector many ICT driven innovations are closely relate to the creation of electronic government. The interesting is that these characteristics facilitate the emergence of new policy and service delivery processes, new organizational and governance practices which has the potential to fundamentally changes the course and contents of processes, relations and positions . However, in order to understand the innovation potential of ICT it is important to understand the social and political shaping of technology, which also influenced by the co-evolution of specific developments and changing value propositions different environments (political, technological, socio-cultural and organization environment) that merge with each other, given the specific interaction between relevant stakeholders that play a role in the development and implementation of these new technologies (Dunleavy et al, 2005; Bekkers & Homburg, 2007; Moreover, ICT innovations very often tend to reinforce existing biases, interests, positions and relations, because ICT is often used as powerful resource (Kraemer & King, 1986; 2006; Kumar & Van Dissel, 1996).

The second role that ICT and social media can play in innovation is that it can operate as <u>an open information exchange and communication infrastructure in</u> order to support the exchange of ideas, knowledge as well as learning. Especially its ability to explore and link different people and various sources of knowledge and information, implies that new knowledge can be created and mobilized (Benkler, 2006; Meijer, 2011). This is why concepts like crowd sourcing, and open source software and communities can support innovation processes (Surowiecki, 2004; Europa Innova, 2011). Depending on various circumstances, ICT can either support or stymie innovation practices. Many often these circumstances also refer to the factors that influence the success and failure of innovations in general (as they are described in this paper). Important questions relate, for instance, to the variety and the quality of the people that are engaged in virtual collaborative ways of innovation and the knowledge, experiences and competences that they bring in, as well as how this new knowledge can be linked (or not) to existing routines and practices within well-established public organizations (Keen, 2007; Bekkers, 2012).

3.3   Drivers and barriers related to the adoption of innovations

After discussing the drivers and barriers related to the innovation environment and the innovation process, we will shortly discuss the drivers and barriers related to the adoption of innovations. Successful innovation in the public sector also depends on the diffusion, adoption and upscaling of innovations by other organizations. This can be considered as process which is only loosely coupled with the innovation process itself. That is why Damanpour and Schneider (2009) argue that in essence two types of processes can be discerned: innovation generating activities and innovation adopting activities. Although the previous factors also play a role in the adoption of an innovation, the adopting process itself is also influenced by specific drivers and barriers.

We must note that, although diffusion and adoption is a recurring issue in the private sector, hardly any systematic attention has been paid to this critical aspect of innovation in the public sector (Greenhalgh et al., 2004) . Most public innovation diffusion studies focus on the first stages of diffusion. Hardly any attention has been paid to the latter stages in the diffusion and adoption process. Furthermore, the emphasis lies primarily on the early adopters, with hardly any attention being paid to the followers, late adopters and 'laggers'. As such, the up scaling process has not been sufficiently investigated (Albury, 2005).

Based on the limited research that exists we are able to distil a number of relevant drivers and barriers. We start by analyzing factors that are relevant in the diffusion and adoption process and which are highly related to the drivers and barriers of the innovation environment and process. Hereafter, we analyse a number of factors specific to the diffusion and upscaling process.

1. The allocation of resources and the characteristics of organizations
Firstly, it has been found that the adoption of the innovation seems to be depend on organizational wealth and capacity in terms of slack resources that can be used by managers, for instance like having a professional staff or being able to control personnel policies (Walker, 1969; Fernandez & Wise, 2010; Bhatti et al, 2011; Maranto & Wolf, 2012). To some extent this also being influenced by the size of an organization (Walker, 2006): the larger an organization the greater the opportunities are for cross fertilization of ideas and necessary skills (Damanpour, 1991; Berry, 1994) Bhatti et al (2011) go even one stop further and argue that the more professional a public organization is, the higher the likelihood of adopting an innovation, like citizen service centres. Professionalism matters, because professionals, especially as they come from outside the organization, bring in new knowledge, new incentives and new norms. In doing so they do not only push change by demonstrating their value to the organization, but they also reduce uncertainty regarding the unknown effects of an innovation (Bhatti et al, 2011).

2. The role of opinion leaders, innovation champions and knowledge intermediaries
Next to this, it has been noted that the people (very often professionals), and organizations that promote an innovation are often crucial for the innovation process. People can act as innovation champions because they influence relevant opinions . In this way, leaders can foster change, by actively and enthusiastically promoting an idea, building support, reducing resistance to change; marshalling the necessary resources; and ensuring the effective implementation of an idea (Fernandez & Wise, 2010). Secondly, people can act as knowledge intermediairies. Here, people link innovations, organizations and others (Greenhalgh et al 2004; Korteland & Bekkers, 2008; Behn, 2008; Bhatti et al, 2011).

3. Diffusion and adoption as a learning process
A number of factors are especially relevant for the innovation diffusion and adoption process. First of all, Hartley (2008) notes that diffusion and adoption is about inter-organizational learning and that prizes and awards, by creating attention, play an important role in diffusion and adoption. Next to this, some authors argued (Greenhalgh et al., 2004; Korteland & Bekkers,2008) showed that it is important to pay attention to the particular characteristics of the diffusion strategy that the original innovator or intermediaries pursued in order to promote an innovation, which also depends on the availability of resources (time, money) to support these promotion activities. This diffusion strategy should pay sufficient attention to codify the (tacit) knowledge and experiences that were gained during the innovation processes (Greenhalgh et al. 2004; Korteland & Bekkers,2008). The codification of knowledge makes it easier to convince possible adopters of the added -value of an innovation. Moreover, diffusion strategies which are only focused on presenting the advantages of an innovation – using brochures, websites etc. – will not be that successful. It seems important that potential adopters have the possibility to learn from each other's experiences. Learning refers to 'trial and error', to experimenting, triability, and to re-invention as well as to the concrete visibility of an innovation's relative advantages, especially in relation to satisfy the needs (Greenhalgh

et al. 2004; Korteland & Bekkers, 2008; Bhatti et. al, 2011). Research also shows that an innovation that can be moulded, in order to fit with the specific circumstances and local practices that are relevant for a possible adopter, has a greater chance of being adopted (Rogers, 2003; Greenhalgh et al, 2004; Korteland & Bekkers, 2008).

4. The influence of looking-alike: isomorphism

A last factor to be taken into consideration stems for the idea of 'isomorphism' , which tries to explain why organizations that work in a specific sector or branch look similar. Meyer & Rowan (1977) argued that institutional environments influenced all organizations in modern societies, making them more isomorphic; that is, more identical towards each other. DiMaggio & Powell (1983) nuanced this general assertion and noted that isomorphic tendencies were bounded to organizational fields: organization in the same field (such as healthcare or education) became more alike. This can also be linked to the adoption of innovations, as most organizations tend to conform themselves to new ways of working, new methods, new ideas, and thus also to new innovations (Meyer & Rowan, 1977; DiMaggio & Powell, 1991). Adoption is seen as way of trying to ensure the legitimacy of organization by showing that an organization is able to integrate the values and norms that are embedded in an innovation and which are also considered to be significant by the environment of this organization into their own practices. Greenhalgh et al. (2004) define this process as a process of assimilation. Conformity can be achieved through the adoption of specific rules and regulations in which in obligatory way changes have to be implemented (coercive isomorphism), through the adoption of specific values and norms that are pushed forward by relevant peers and professional organizations (normative isomorphism) and through copying and mimicking (mimic isomorphism). A number of scholars (Smullen, 2007; Pollitt & Bouckaert, 2011; Roy & Seguin, 2000) showed that New Public Management based innovations have spread in the public sector in different countries in which mimicking seems to be an important driver for the adoption process.

3.4 Conclusion

In this Section, we identified a number of potential drivers and barriers for public sector innovation. In Figure 1, these are shown schematically. This figure can be used as a theoretical framework for analyzing innovations. We acknowledge that public innovations are embedded in a specific context, such as a policy sector within a specific country. Not all barriers and drivers are relevant in each instance. However, the figure can be used as a heuristic to analyze the potential role of various drivers and barriers, on various dimensions. Table 2 describes the various drivers and barriers in detail.

Figure 1 Framework of potential drivers and barriers for public sector innovation
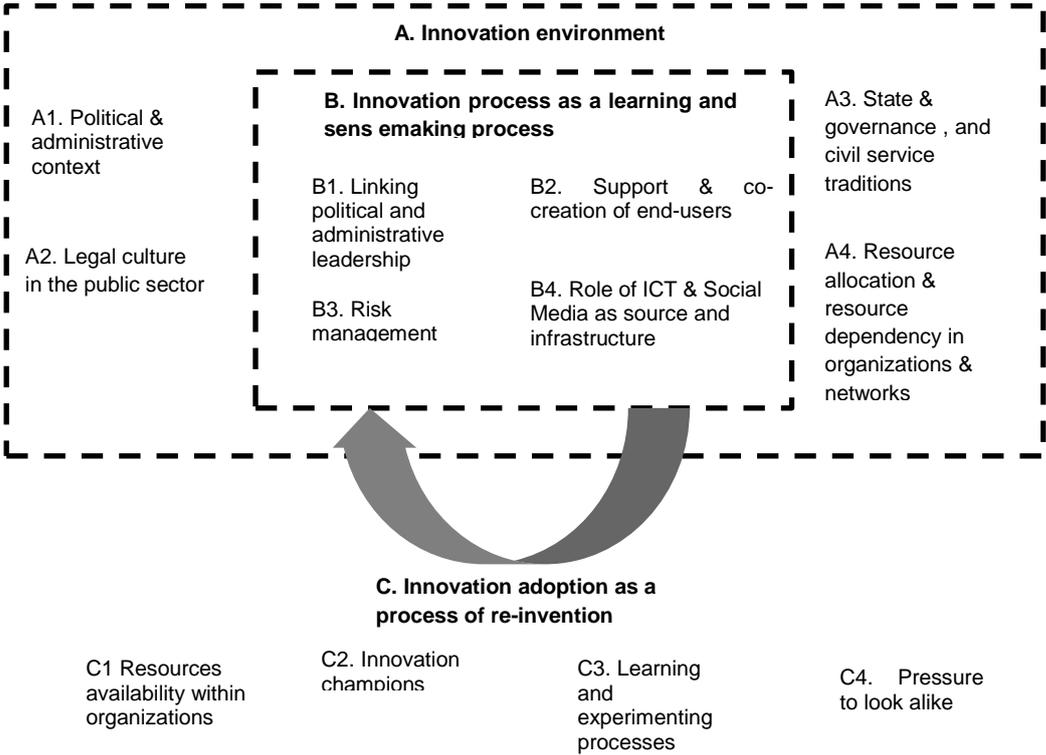
A. Innovation environment

A1. Political & administrative context

A2. Legal culture in the public sector

B. Innovation process as a learning and sens emaking process

B1. Linking political and administrative leadership

B2. Support & co-creation of end-users

B3. Risk management

B4. Role of ICT & Social Media as source and infrastructure

A3. State & governance , and civil service traditions

A4. Resource allocation & resource dependency in organizations & networks

C. Innovation adoption as a process of re-invention

C1 Resources availability within organizations

C2. Innovation champions

C3. Learning and experimenting processes

C4. Pressure to look alike

Table 2 Detailed list of potential drivers and barriers for public sector innovation

Dimension	Sub-dimension	Driver/barrier	Expected influence on public sector innovation
A. Innovation environment	1. Political and administrative triggers from the public administration environment	Political and administrative problems	+
		Multi-rationality of public administration	+
		Introducing market like competition	+
		Political competition for voters	+
	2. Legal culture of the public sector	Strong formalization and standardization	-
		Rule-driven 'path dependencies'	-
		Innovations crossing legal jurisdictions	-
	3. State, governance and civil service traditions	Strong central and unitary state	- (especially for radical innovations)
		Decentralized structure with strong local/regional governments	+ (especially bottom-up innovations)
		Corporatist tradition	+ (especially for innovations which need lots of support)
		Market tradition	+ (if real markets can develop)
		Legalistic tradition	-
		Strong civil society	+ (especially bottom-up innovations)
	4. Resources and resource dependency in organizations and networks	Slack (money, time, people) available	+
		Cultural diversity	+
		Customer & learning orientation	+
		Age of the organization	-
		Recognition of mutual dependency within networks	+
		Trust and social capital	+
		Weak ties and structural holes	+/- (depending on situation)
		Openness and variety within organizations & networks	+
		Equal distribution of costs and benefits within organizations & networks	+
B. Innovation process as a process of learning and sensemaking	1. Linking administrative and political leadership	Boundary spanning and scanning activities of leaders	+
		Connecting political realm with innovations	+
		Linking and balancing contradicting values	+
		Acting as an innovation champion	+
	2. Support of and co-creation with end-users	End-user perspective brings in new information, knowledge and experiences (weak ties)	+
		Performance and effort expectancy of end-users for the innovation (ease, salience, powerfulness and meaningfulness)	+/-
		Representativeness of involved end-users	+/-
		Compatibility with internal routines, procedures, systems and other grown practices	-
	3. Risk management and innovations	Risk-avoidant political and/or administrative culture	-
		Short-term orientation of politicians	-

Dimension	Sub-dimension	Driver/barrier	Expected influence on public sector innovation
		Dominant performance management structures	-
	4. ICT & social media	ICT as source of innovations provided new capabilities and thus new ideas	+/- (depending on situation)
		Degree of openness of ICT as an infrastructure that facilitates the exchange of information, knowledge and communication across borders	+
C. Innovation adoption	1. Allocation of resources and the characteristics of the organizations	Slack (money, time, people) available	+
		Customer & learning orientation	+
		Professionalization of organization	+
	2. Innovation champions & knowledge intermediaries	Acting as an innovation champion	+
		Acting as a knowledge intermediary	+
	3. Diffusion and adoption as a learning process	Prizes and awards	+
		Codifying (tacit) knowledge	+
		Possibly of moulding innovation and visible outcomes (triability, visibility)	+
	4. The influence of looking-alike: isomorphism	Many organizations using innovation which generates peer pressure	+

4   Studying social innovations: some methodological remarks

Studying innovation processes has a number of methodological challenges which should have to be addressed when applying the theoretical framework. The following question have to be addressed:

- The importance of a more or less holistic approach
- The importance of cross country and cross sectoral comparison
- The selection and of innovation practices
- The importance of multi-actor assessment

4.1   A holistic approach

We have argued that innovation is locally and institutionally embedded. The course, content and outcomes of these innovations is shaped by the multi-level interactions of relevant stakeholders – such as public organizations, citizens and companies – that have different interests and different resources. Moreover, also the characteristics of these stakeholders have to be taken into consideration, especially if it involves organizations or organizational units (e.g. like age and size, the degree of formalization, standardization, professionalization of the culture and mission orientation). The nature of the interactions can be seen as incremental or transformative learning processes. In order to understand the complex interplay of and interrelationship between all these factors and actors it is important that we try to develop a holistic research approach (Damanpour, 1991;Greehalgh et al., 2004, Fagerberg, 2006).

At the same time we also have to focus, given the specific research question that prevails in the different working packages. Therefore it is important that this process of focusing takes place in the context of this integrative approach, in which we show how specific factors that are relevant for this specific research question relate to the more overall integrative framework. Taking the integrative framework into account when studying particular innovation processes – such as adoption of innovation or co-creation processes – can benefit the insights developed in the research.

4.2   The nature of comparison

The adoption of an ecological and holistic approach to social innovation processes, and thus the local and context shaping of these processes and their outcomes, implies that that these processes and outcomes are contingent (Walker, 2007). This has also some implications for the nature of comparison. In our understanding contingency does not imply, especially in relation to the comparison of case studies which are dominant in this project, that it is impossible to compare. In order to understand the contingent nature of social innovations, it is important that we select social innovation practices that are as most similar as possible, because their embedding in local networks and country specific institutional embeddedness generates it itself a lot a variety in terms of dissimilarity (Pollitt, 2011). Hence, we most carefully design the cross-country and cross-sectoral comparisons, in order to gain as much insights as possible about the nature of innovation (see also Tummers & Karsten, 2012).

4.3   The selection of innovation practice

A third methodological challenge is the fact that most innovation studies suffer from a pro-innovation bias (Rogers, 2003). Innovation scholars predominantly focus on those practices that have proved to be an innovation, while at the same time they seem to like to study only

'early adopters'. Failed innovations are hardly taken into account, also because they are harder to find. There seems to be a 'graveyard of innovations' (Cleff, 2008). Although it is more than interesting to study these 'failed' innovations, it often rather difficult to acquire the co-operation of the involved stakeholders, because they are afraid to get blamed for the negative effects of this innovation in terms being a 'scape goat'. This is called the individual blame bias' from which innovation studies suffer (Rogers, 2003). This implies that, if it is possible to acquire the necessary co-operation, it would be interesting to see if 'disrupted' social innovations can be identified and studied.

We also often see that the innovations are often studied, just or after their development, introduction or after their adoption. In this period they draw a lot of attention (Rogers, 2003). However, we do not take into account their long lasting effects, for instance 5 years after their introduction. At that time they do not attract of attention, because they are often perceived as a 'normal' practice. This also explains why innovation scholars seldom study the 'laggards' in innovation adoption processes. However, in order to cope with these pitfalls it could be interesting to use a more longitudinal perspective. The necessity to opt for a more longitudinal perspective also matches with the idea that social innovations have to have sustainable outcomes.

Not only the question how to avoid a pro-innovation bias should be take into account, also the question how to determine a (social) innovation as an innovation. This is an important question, also in relation between the discussion between change, improvement and innovation. Furthermore, it is also important, although this difficult given the fuzziness of the concept, to distinguish between public innovation on the one hand and social innovation in the public sector on the other hand. For the selection of the innovation to be studied we propose the following criteria:

a. The content of the (social) innovation to be studied should really have a radical character, in order to prevent that we would study changes that refer to improvements. Hence, it must be made clear that the innovation to be studied refer to a qualitative discontinuity with the past and with existing practices. Based on the definition of a social innovation, this implies that the radical character of the innovation refers to radical changes in the relationships between the involved actors.

b. The outcomes of the innovation to be studied have to be visible and robust. Hence, it is important not to study innovation that are developed at this moment or that are in a rather embryonic stage.

c. If possible, it would be interesting to look for innovation practices that were not so successful.

4.4   Multi-assessment

The fact that a social innovation involves the participation of many different stakeholders also implies that these stakeholders may assess the course, content and outcomes of the innovation generating or adoption process, in a different way, given their position, interest and the values that they find important. As result some stakeholders would describe the innovation as success, while other actors might define it as disappointing. In order to deal with this issue, it is important that we, when we discuss the outcomes and the drivers and barriers, try to link these judgments to the specific position of the involved actors. Success and failure are relative as they depend on the position and interests of the actors involved, especially if success and failures is linked to the outcomes (and not the outputs) of a social

innovation. Hence, these assessments are subjective assessments which puts the desire to have an overall evaluation into perspective. The most feasible type of evaluation is an evaluation that is based on intersubjectivity. This means that, when assessing the success or failure of innovations, the perceptions and attitudes of various stakeholders should be taken into account. For instance, when analyzing the success of a co-creation project where citizens are being involved in developing innovations aimed at increasing safety on the streets, the performance of such innovations should be assessed via various criteria, such as the perceptions of the citizens, of government officials, of organizations and using hard data (such as a decreased number of burglaries). This methodological challenges runs parallel to findings from public sector performance researchers, who argue to take a multidimensional perspective on performance, using criteria from different sources and different stakeholders (Selden & Sowa, 2004).

4.5 Conclusion

This section identified various methodological challenges which should have to be addressed when applying the theoretical framework. We firstly noted that studies should take a holistic approach, thereby using the integrative framework as a reference. Furthermore, we noted that we should be wary of choosing proper criteria for case selection, so that we are able to gain additional insights based hereon. Thirdly, we noted that it is important not only to look at successful innovation. Failed innovation should also be taken into account, as otherwise we could develop a bias in the results. Next to this, we should not forget to study the later phases of the innovation process. Much research has already been done on the first innovation phases, while analyses regarding the latter stages remain scarce. Lastly, we noted that – when we want to analyze whether an innovation is a success – this should be analyzed using various criteria from various stakeholders.

5   Summary and conclusion

We starting this paper with the assertion that social innovation is one of the 'magic concepts' that during the last years has been embraced as new modernization or reform strategy for the public sector (Pollitt & Hupe, 2011). On the one hand social innovation is an inspiring concept because it stimulates people, politicians and policy makers to explore and implement new ideas about the way which a society deals with a number of challenges. On the other hand social innovation is a rather vague concept which is rather hard to operationalize. Given the various challenges with which the public sector is wrestling, is important that we are able to improve our understanding about these social innovation practices. The EU project LIPSE (Learning from Innovation in Public Sector Environments) takes up this research challenge. In this first LIPSE paper we aim to develop an integrative framework for the projects that will be carried out under the umbrella of the LIPSE project.

We started the paper by discussing the nature of innovation in the public sector. Following Rogers (2003:12), innovation is defined "an idea, practice or object that is perceived as new that is brought into implementation" (Rogers, 2003:12; Moore & Hartely, 2008:4, Fagerberg et al., 2006). The public sector is defined as "those parts of the economy that are either in state ownership or under contract to the state, plus those parts that are regulated and/or subsidized in the public interest" (Flynn, 2007:2). The concept of an innovation refers to specific new outcomes (e.g. products, processes, technologies) but also to the process of innovation. In our study we primarily focus on innovation, which considered as a transformative learning and sense making process. The fact that innovations are embedded in a public sector also influences the nature of innovation in terms of the values that are at stake. (Social) Innovations in the public sector do not only focus on the achievements of specific outputs or outcomes in a more efficient and effective way. Innovations in the public sector are also directed on the achievement of other more democratic and legal values, like legitimacy, responsiveness, legality and public and political support. Hence, social innovations should not only be judged on their consequences but on their appropriateness. We further noted that innovations are locally and institutionally embedded and that they are locally shaped by the interactions of involved stakeholder, their views, interests and resources. That is why innovations are contingent upon the characteristics of the context in which they are developed, implemented and adopted. In this respect, Castells (1996:3) talks about so-called the existence of 'innovation milieus', which implies that studying social innovations in the public sector can best dealt with by making use of ecological perspective (see also Brown & Duguid; 2000; Walker, 2007; Bason, 2010; Osborne & Brown, 2011).

Next to discussing the nature of innovation, we should also discuss the notion of social innovation in the public sector. We argue that social innovation refers to four main elements: a) It produces sustainable outcomes that are relevant for society. Innovations refer to challenges with which society is wrestling (e.g. aging of the population) and are thus need-oriented, b) it fundamentally changes the way stakeholders interact with each other, in terms of positions, relations and playing rules (it is a game changer), c) it contributes to societal changes (not only technological innovation) and d) it is open by nature, because relevant stakeholders are involved in the innovation and adoption process.

Based on a review of the literature, we then analyzed the drivers and barriers related to social innovation processes, shown schematically in Figure 1 (Section 3.4). Three dimensions were distinguished: drivers and barriers relating to a) the innovation environment,

b) the innovation process and c) the adoption of innovations. We found in total twelve potential influential factors. We acknowledge that there are other possible influential factors, and in the LIPSE project we hope to identify those.

Regarding the innovation environment, we especially analyzed the characteristics regarding public characteristics of this environment. We argued that especially the political and administrative context, the legal culture of the public sector, state and governance traditions (in combination with a dominant civil service culture) and the resources between and within organizations as well as the dependencies and ties between them, could facilitate or impede innovations.

Many factors could influence the innovation process. A number of studies found that the way leadership links various stakeholders to work together on the innovation was an strong driver for innovations (Hartley, 2005; Bason, 2010; Osborne, 2011; Bekkers et al., 2011; Kuipers et al., 2013). Hence, 'linking leadership' was depicted as an important factor. Next to this, we noted that the degree in end-users and other stakeholders were willing and able to participate in the innovation process (in terms of co-creation) could also facilitate innovation, as well as the way in which relevant stakeholders define, select and manage risks (innovation is a risky business). We also looked at the role of ICT and social media. One the one hand ICT is an important source of innovation, which makes new services, new types of organization, new service processes or new governance arrangements possible. One the other hand ICT and social media can provide an infrastructure for the exchange and sharing of knowledge, information and communication which helps to link and develop ideas across all kinds of borders.

The last dimension focused on the drivers and barriers relating to the adoption of innovations. This is a rather understudied area compared to innovation environments and innovation process. However, successful public innovation also depends on the diffusion, adoption and upscaling of innovations by other organizations. This can be considered as process which is only loosely coupled with the innovation process itself. Damanpour & Schneider (2009) argue that in essence two types of processes can be discerned: innovation generating activities and innovation adopting activities. Although the previous factors also play a role in the adoption of an innovation, due to the fact that adoption is very often a process of re-invention, the adopting process itself is also influenced by specific drivers and barriers. We have indicated four main potential factors influencing adoption processes: a) enough resources within organizations (both people, skills and money), b) use of innovation champions (for instance people who act as knowledge intermediaries, connecting organizations), c) learning and experimenting and d) the (peer) pressure that organizations are feeling to conform themselves to new innovative ways of working, methods or ideas that are increasingly embraced by other similar organizations in order to be perceived as innovative).

We ended this paper with a number of methodological challenges which we should take into account when studying innovations, arguing among else that studies should take a holistic approach, using the integrative framework as a reference. Furthermore, we should be wary of choosing proper criteria for case selection, so that we are able to gain additional insights based hereon. Thirdly, we noted that it is important to also analyze why innovations have failed, not only looking at successes. Furthermore, we also look for innovation that really brought radical changes and that have robust outcomes. Fourthly, we should not forget to study the later phases of the innovation process as analyses regarding the latter stages

remain scarce. Lastly, we noted that – when we want to analyze whether an innovation is a success – this should be analyzed using various criteria from various stakeholders.

Concluding, the aim of this paper was to provide an integrative framework of public innovation. We hope that it will prove a useful background study for future studies analyzing public sector innovation. All in all, public innovation seems to be an interesting topic, with much potential for both scholars and practitioners wrestling with challenges for the public sector. Embracing and further researching co-creation during public innovation should therefore provide a fruitful endeavor for both researchers and practitioners alike.

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