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**Collaborative innovation: A viable alternative to market-
competition and organizational entrepreneurship**

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Abstract:

There are growing pressures for the public sector to be more innovative but considerable disagreement about how to achieve it. This paper uses institutional and organizational analysis to compare three major but different public innovation strategies. The paper commences by confronting the myth that the market-driven private sector is more innovative than the public sector by showing that both sectors have a number of barriers as well as drivers of innovation, some of which are similar while others are sector-specific. The paper then systematically analyses the three strategies for innovation. These are: New Public Management which emphasises market competition; the neo-Weberian state which emphasises organizational entrepreneurship; and collaborative governance which emphasises multi-actor engagement across organizations in the private, public and non-profit sectors. The article concludes that the choice between different strategies for enhancing public innovation is contingent rather than absolute. Some contingencies for each strategy are outlined.

Keywords:

Innovation, public innovation, new public management, competition, organizational entrepreneurship, collaboration, neo-Weberian state, co-creation.

Introduction

There is a growing demand and pressure for the public sector to become more innovative (Borins, 2008; Osborne and Brown, 2011) in response to rising citizen expectations, dire fiscal constraints and a growing number of ‘wicked problems’ that due to their complexity cannot be solved by standard solutions or by increasing the funding of existing mechanisms. While the effects of public innovation are sometimes evaluated differently by public and private stakeholders and may contain significant trade-offs (Abrahamson, 1991; Hartley, 2005; Tidd and Bessant, 2009), there is a growing perception that innovation can contribute to growing productivity, service improvement and enhance problem solving capacity in the public sector, though not all innovations are effective or involve improvement. However, there seems to be considerable disagreement about how to spur and sustain public innovation. Therefore, in order to better understand the drivers as well as the barriers to public innovation, this article endeavours to compare three different public innovation strategies in order to show that, although market-driven and bureaucratic innovation strategies have important qualities, a collaborative approach to public innovation seems to have some comparative advantages in certain contexts.

In the last two decades proponents of New Public Management (NPM) reforms have claimed that the public sector should imitate or learn from the private sector. The public sector should become more innovative, flexible and efficient by introducing market-based competition and private sector management techniques (Osborne and Gaebler, 1992). Critics claim that that the marketization of the public sector has not helped to make the public sector more innovative. They suggest instead that public innovation should be enhanced by means of strengthening organizational entrepreneurship in neo-Weberian bureaucracies through a combination of transformational leadership (Bass and Riggio, 2006), institutional and

organizational integration (Christensen and Lægreid, 2010), trust-based management (Nyhan, 2000) and increased responsiveness towards the demands from citizens and users of specific public services (Pollitt and Bouckaert, 2004). Although both of these strategic recommendations, under the right conditions, may help to spur public innovation, we will argue that the dichotomous opposition between market-based competition and bureaucratic reform is an unfortunate and false choice. Unfortunate because both strategies tend to favour 'in house' innovation (i.e. by managers and staff) and thus fail to reap the fruits of inter-organizational, inter-sectoral and open innovation. False, because a collaborative approach to innovation highlights the role of multi-actor engagement to inform the understanding of the problem to be addressed as well as how to create and implement innovation and to garner support and ownership of the problem and the innovation. However, although collaborative innovation seems to be supported by new trends associated with New Public Governance (Osborne, 2010), there are both merits and limitations to this particular strategy and it may require the development of new kinds of innovation management.

The argument proceeds in the following way. First we confront the myth that the market-driven private sector is more innovative than the public sector by showing that both sectors are characterised by a number of barriers as well as drivers of innovation, some of which are the same and others are sector-specific. These insights are used to critically scrutinize the extent to which NPM can enhance public innovation. After having identified the limitations as well as the drivers in the market-competition approach of NPM, we briefly explore the limitations and drivers of the second innovation strategy which is based on reforming public bureaucracies in order to enhance organizational entrepreneurship. Finally, we analyse the comparative merits of the collaborative approach to public innovation and discuss how the drivers and barriers here might be harnessed through developing new kinds of innovation

leadership and management. In the conclusion we emphasize that this consideration of the drivers and barriers of these three institutional modes means that the choice between different strategies for enhancing public innovation is contingent rather than absolute, and we outline some of the contingencies for each strategy. Before proceeding with the argument we will provide a brief outline of our theoretical starting point and define some of the key concepts.

An institutional approach to public innovation

This article draws on institutional and organizational theories in public administration and governance in order to answer the increasingly important question of how to understand, analyse and enhance public innovation. Institutional theory asserts that situated actors act within an institutional framework of rules, norms, knowledge and sedimented discourses (March and Olsen, 1989; Peters, 2011). The institutional conditions are reproduced in the course of action, but they may also be modified or transformed by intentional or non-intentional actions that involve collaboration based on resource interdependency as well as conflicts rooted in different interests, interpretations and world views. The institutional perspective on innovation is important because it draws attention to the organizational and cultural conditions that might hamper or drive social and political actors aiming to produce innovative solutions.

There is no agreement in the literature about how to define the concept of innovation, but in order to avoid conflating innovation with creativity, we insist that innovation not only involves the generation, but also the practical realization of new, creative ideas (van de Ven, 1986; Damanpour, 1991). Hence, innovation can be defined as a complex and iterative process through which problems are defined, new ideas are developed and combined, prototypes and pilots are designed, tested and re-designed, and new solutions are

implemented, diffused and problematized. Figure 1 describes the different analytical phases of the innovation cycle.

Figure 1 about here

Innovation involves change, but not all kinds of change qualify as innovation. Hence, we reserve the notion of innovation for those forms of change that break with established practices and mindsets of an organization or organizational field, creating something new (Damanpour, 1991) so innovation is a step-change or a disruptive change (Lynn, 1997; Osborne and Brown, 2011). Innovation can either be radical or incremental, and it can be based on either the generation of an original invention or the adoption and adaptation of others' innovations (Damanpour and Schneider, 2008). Hence, it is not the source of innovation, but the local site of implementation that determines whether something is an innovation (Roberts and King, 1996).

The article focuses on innovation in the public sector, but we do not define the public sector in legal terms as a public realm separated from civil society and the economy. Public sector is here defined in terms of a collective effort to produce and deliver public value that is authorized or sponsored by federal, state, provincial or local government. Innovation in the public sector is still under-theorised and under-researched and is only just emerging from a period of being dominated by studies from the private sector (Moore, 2005, Hartley, 2013). This explains why we need to focus on the specific conditions and strategies for public sector innovation.

The myth of private sector superiority in innovation

The myth that the private sector is much more innovative than the public sector is widespread. It stems from the fact that much of the generic innovation literature is ‘context-blind’, assuming the existence of firms, markets and competition as a precondition of innovation (Lynn, 1997; Hartley, 2013). The centrality of markets in theories of private sector innovation has created a particular, though inaccurate, form of reasoning. Innovation enables firms to survive in competitive markets (Schumpeter, 1950; Johnson, 2008); public organizations do not operate in markets; ergo the public sector lacks the ability to produce innovation. The further apparent logical consequence is to try to make the public sector more like the private sector in structure, culture and management.

It is futile to try to assess whether there is ‘more’ innovation in one sector or another. Measures are indirect, approximate and incommensurate across different innovation dimensions and organizations. Cross-sector comparison may also hide important sub-sector variation, including variation across types of services, different organizations and across governmental levels (the last notably in countries like the USA). However, a comparison of the institutional conditions for innovation in the public and private sector is illuminating and tends to undermine the myth of private sector superiority in innovation.

The institutional conditions for private sector innovation bear examination. Markets are institutional orders based on rules, norms and regulations that aim to encourage free competition among buyers and sellers. Competition creates a clear and undeniable incentive for firms to innovate since failure to do so will tend to eliminate them from the market.

However, while market-based competition can drive innovation it can also act as a barrier. Teece (1992) shows that market competition tends to generate both too little and too much

innovation. There can be too little innovation because firms are unable to effectively exclude other firms from exploiting the innovations that they have developed (the 'free riding' problem). However, competition also tends to produce too much innovation because firms over-invest in the early stages of innovation to be first at the patent office but consequently deplete their exploitation opportunities and fail at the point when the serious development work begins (the 'overbidding' problem) (Teece, 1992).

Despite its limitations, competition clearly motivates organizations in market environments to innovate their products, production methods and marketing techniques. However, we should not forget that many private firms operating in competitive markets are organized as bureaucracies, which is an organizational form which acts as a barrier to innovation (Burns and Stalker, 1961; Halvorsen et al., 2005). Therefore, organizational entrepreneurs in private business will tend to be hampered by hierarchical decision making, risk-averse leaders, departmentalisation, inflexible rules and routines, professional boundaries, and institutional seclusion. In this sense there are similarities with many public organizations. Rainey and Chun (2005) conclude that there is mixed evidence as to whether public or private organizations are more bureaucratic, and that where differences are found they are not large. So, competition may create pressures for firms to innovate but it does not provide a specific method for developing and implementing innovation.

Turning to the institutional conditions for public sector innovation, it appears that the myth of an inertial public sector can be problematized by examining some of the barriers and drivers of public innovation. The barriers to innovation in the public sector have been well-rehearsed, even over-rehearsed (Halvorsen et al., 2005). Public organizations have no clear financial bottom-line to use in measuring the value of innovation and the public value of innovations is hard to assess. Public organizations and partnerships often lack financial incentives to

innovate and are rarely allowed to keep cost-savings from innovations. Public organizations develop innovations in the presumption of openness and transparency and often with contested goals and outcomes, magnified by media interest, which has enhanced the view that public organizations are risk-averse in their innovation decisions (Brown and Osborne, 2013). Finally, public organizations are governed by politicians who have to take account of multiple stakeholders in innovation, while knowing that innovation failure may be exploited by the political opposition.

However, arguably the barriers to public sector innovation have been overplayed, mainly from a private sector perspective, while the drivers are under-acknowledged. Despite recent attempts to create public quasi-markets, market-based competition still carries limited weight as a motivating factor and there are other drivers of innovation. Some lie in the organization and some in its institutional context. Koch and Hauknes (2005) note that people in both public and private sectors may be motivated by a range of reasons beyond profit, including problem-solving, the propagation of a policy, idea or rationality, the desire for growth and reputation (both personal and organizational). Others perceive the attempt to improve performance and address gaps between needs and aspirations of different publics on the one hand and actual service provision on the other as important drivers (e.g. Albury, 2005). In some cases the drive to innovate comes from public employees with a professional training who seek to advance their professional values and aspirations, e.g. by inventing new methods for treating patients or teaching children to read and write. Nevertheless, the presence of strong professions in the public sector may also act as a barrier to innovation (Ferlie et al. 2005). The motivation for innovation in the public sector comes not only from managers and staff within the organization (Borins, 1998), but also from elected and appointed politicians, who wish to change society (Polsby, 1984; Hartley, 2005). Citizens and civic groups, as well

as users of public services cast in the role of ‘customers’ can also trigger public innovation by exiting or giving voice to their views and demands (Hirschman, 1970; Osborne et al, 2008) and/or by engaging in the co-creation and-production of public services (Alford, 2009; Pestoff, 2012).

When it comes to the crucial issue of size, the public sector has a clear advantage. Research shows that large organizations, contrary to common opinion, tend to be better at innovation, through all stages to implementation and diffusion (Hage and Aiken, 1967; Damanpour, 1992). Large organizations have more resources to invest in innovation and are capable of absorbing the costs of innovation failure. This is true across sectors and there are many more large organizations in the public sector than in the private sector. In addition, the institutional, political and normative pressures to diffuse innovations in order to try to improve services (Bate and Robert, 2003; Rashman and Hartley, 2002) and public value (Benington and Moore, 2011) is another driver that can be prominent in the public sector.

Overall, the comparison of the drivers and barriers of each sector shows that the two sectors are facing both some of the same and some sector-specific drivers and barriers (Halvorsen et al., 2005). In both sectors innovation can be driven by competition, although competition in the public sector in most cases is often based on the desire for growth and reputation rather than market pressures. If public innovation is less motivated by market-based competition, there appears to be other sector-specific drivers, some of which tend to be more prevalent in the public sector than in the private sector. As for the barriers, both sectors confront a number of innovation barriers deriving from bureaucratic organizational form. Market competition, however, may act as a sector-specific barrier in private markets, whereas other sector-specific barriers, such as the presence of risk-averse political decision-makers, tend to hamper innovation in the public sector. In sum, the myth of private sector superiority in innovation

that is based on the apparent syllogism that because the public sector is not subject to market competition it is not innovative appears to be completely unsustainable.

The contributions and limits of NPM as a viable innovation strategy

The recognition that both the public and private sectors have particular drivers and barriers in innovation helps to reveal why NPM reforms which introduce private sector governance and management practices into the public sector may not result in a noticeable growth in public innovation (Newman et al., 2001; Hartley, 2005; Hess and Adams, 2007). To assume that public innovation will flourish because of the creation of quasi-markets and the adoption of new forms of strategic leadership and performance management overlooks the fact that the private sector is also prey to innovation barriers. However, this argument does not mean that enhanced competition in quasi-markets and the adoption of new management practices have not contributed at all to public innovation. NPM has helped to spur public innovation in some areas (Parker et al., 2000; Lubienski, 2009), but there has been insufficient reflection on the innovation barriers associated with competition and managerialism. In order to develop a more nuanced view of the impact of NPM on public innovation, we first look at the positive effects of NPM and then discuss some of the barriers.

NPM reforms have contributed to enhancing public sector innovation in at least two ways. First, NPM has enhanced the competition for public service contracts between public, private and non-profit providers. While sometimes spurring a ‘race to the bottom’, this marketization strategy has forced both public and private service providers to ‘do more with less’, and even sometimes to innovate the form, content and delivery of public services, in order to win contracts and ensure contract renewal (Sørensen, 2012). Since the service providers are not only competing for contracts, but also for citizens now cast in the role as consumers (e.g. users of public services with exit options), public service organizations have become more

demand-driven in some service areas and this has spurred user-driven innovation (Jæger, 2013). Service providers aim to attract as many users of public services as possible where they are financed by direct payments from service users, by government vouchers or payment by results.

Second, NPM has enhanced public innovation by influencing the management culture in the public sector. The traditional bureaucratic emphasis on legal regulation through law-making and rule-following has been supplemented by a new emphasis on strategic management that focuses on performance and results (Bryson et al., 2010). Here, the role of senior managers is to support elected politicians in formulating the overall goals and targets and in defining the legal, economic and discursive framework for public regulation and service production.

Ideally, operational managers in devolved agencies deploy rules, resources and employees flexibly and efficiently in order to achieve predefined goals and targets and provide high quality services in an efficient manner. This system of 'regulated self-regulation' (Sørensen and Triantafillou, 2009) tends, at least in theory, to create more room for local experimentation and service development than traditional forms of bureaucratic service production. However, in practice, the room for local self-regulation is limited by the development of an elaborate, and rather bureaucratic, system of performance management based on large numbers of measures, targets, indicators and benchmarks, which creates gaming behaviors, distorting superordinate goals (e.g. Andrews et al, 2008; Hood, 2006). On the other hand, the systematic monitoring of results enables local managers to identify inefficiencies, performance gaps and new opportunities which are sometimes addressed through innovation (Walker et al, 2011), although frequently public managers are content with pursuing rationalization through Lean techniques that neither produce innovation nor user value (Radnor and Osborne, 2013). Hence, few commentators on performance

management have linked it empirically to the generation, implementation and diffusion of innovation, despite the salience of innovation in NPM discourse.

However, although NPM has spurred some public innovation, the gains have been accompanied by some clear drawbacks as NPM, unintendedly, has introduced some serious barriers to innovation. Competition, which in the public sector has taken the form of government-controlled quasi-markets, is a double-edged sword. While it may drive innovation, it can also discourage service providers from sharing knowledge and engaging in inter-organizational learning, both of which, along with trust, are central to developing innovative solutions to joint problems (Rashman et al., 2009; Teece, 1992).

Moreover, NPM has introduced a number of barriers to innovation which are similar to those found in traditional public administration. First, the unrelenting focus on performance often accelerates the production of the kind of detailed bureaucratic rules that NPM was meant to eliminate. The creation of new rules is often the standard response of elected politicians and executive administrative leaders to cases of severe under-performance of public services publicised in the mass media. The concern with risk in public service production also encourages middle managers to extend and develop rules in order to maintain standards and avoid risk (Brown and Osborne, 2013). The incessant proliferation of rules keeps public employees in a straitjacket which inhibits innovation.

Second, accountability through managerial control is a key characteristic of NPM and is increasingly obtained through a self-accelerating system of performance measurement that aims to eliminate opportunistic behaviour (Power, 1997). The measurement of particular processes and output targets tends to hamper innovation because innovative solutions may produce different kind of outputs through entirely new processes which may not initially have measurement data, and in addition new ways of working will often initially cause a

performance dip for both psychological and operational reasons (Hartley, 2011). The use of evidence-based solutions is an integral part of the new performance management system. It tends to favour the adoption of 'best practice', but creates the risk that 'best practice' trumps the development of 'next practice' (Albury, 2005). Third, the structural divisions of labour in public organizations (a significant barrier to innovation), have been strengthened by NPM's recommendations of arms-length governance that separates 'steering' from 'rowing' (Osborne and Gaebler, 1992) and creates special-purpose agencies (Koppenjan and Klijn, 2004).

Finally, the fundamental problem of NPM is its inherent tendency to give priority to the enhancement of efficiency in the production of standardized services over the enhancement of effectiveness of public policies and service systems. 'Lean' is an example of an incremental methodology to achieve efficiencies in public service delivery. Although Lean-methodology is not entirely suited to public services, in part because it does not sufficiently take account of the integrated service systems which can span several organizations along with service users (Radnor and Osborne, 2013; Osborne, Radnor and Nasi, 2013), it is widely used in the public sector. The problem, at least from an innovation perspective, is that Lean, primarily, is a tool for rationalizing work processes in relation to pre-defined service and does not attempt to produce innovative services or create entirely new service systems through a re-framing of the problems or goals.

Overall, this institutional and organizational analysis shows that NPM has a number of features that can spur public innovation, but also that the positive impact of NPM on innovation is undermined by some unintended consequences of competition, performance management, the focus on efficiency more than effectiveness, and on single services and organizations rather than service systems.

Public innovation in neo-Weberian bureaucracies

NPM has had many supporters among public choice theorists, but there has also been a growing number of critics (Ferlie et al., 1996; Christensen and Lægreid, 2007). The main critique is NPM's focus on the marketization of the public sector, which tends to overlook fundamental differences between public and private sectors. So, it is tempting to opt for a return to traditional forms of public bureaucracy (Du Gay, 2000), or perhaps to develop a modified version of public administration that unifies traditional virtues of Weberian bureaucracy with certain elements of NPM, while also adding new elements. To this end, a group of public administration scholars have started to talk about 'the neo-Weberian state' (Pollitt and Bouckaert, 2004). There is no coherent or comprehensive doctrine delineating the precise content of the neo-Weberian state (Lynn, 2008) but some central features of this institutional form have been sketched. It is a form claimed to be more capable of enhancing innovation than either traditional public administration or NPM (Drechsler and Kattell, 2008/9).

A key to understanding the innovation potential of the neo-Weberian state is the implicit emphasis on the organizational entrepreneurship of public leaders, managers and professionals. Entrepreneurship is promoted by a variety of public sector reforms, such as further strengthening transformational, post-transformational and distributive leadership. Whereas transformational leadership strengthens strategic responsibility for creating substantial organizational change (including innovation) (Bass and Riggio, 2006), post-transformational and distributive leadership strategies encourage senior leaders to share the responsibility for leading and driving change with frontline managers and employees

(Spillane, 2005; Parry and Bryman, 2006). Another set of reforms aims to strengthen the coordination between public agencies enhancing intra-organizational and inter-organizational integration, both vertically and horizontally; thus countering the problems generated by arms-length governance (Christensen and Lægreid, 2010). A third set of reforms seeks to replace the control-based systems of performance management with a more trust-based system that simplifies formal rules and performance measures and encourages trust and engagement with staff so that they apply their professional knowledge and skills to innovations that create public value (Nyhan, 2000). A fourth set of reforms aims to make the public sector more responsive to users' and citizens' demands and aspirations (Pollitt and Bouckaert, 2004). Organizational entrepreneurs can use different techniques, including digital ones, to discover the acknowledged and unacknowledged needs of citizens. The list could be continued, but the argument is clear: a neo-Weberian public sector can support and sustain organizational entrepreneurship that enhances innovation.

The strategy of innovation in a neo-Weberian state provides a promising alternative to NPM that addresses some of the weaknesses of the latter. However, while it is more outwardly focused, with its interest in citizens than NPM, both view innovation as predominantly an 'in house activity'. Whereas NPM celebrates public and private contractors operating within quasi-markets as the true innovation heroes, the neo-Weberian state praises the organizational entrepreneurship of public leaders, managers and employees operating within public organizations as the primary source of innovation. Both of these innovation strategies fail to realize and mobilize the huge innovation potential that lies in extra-organizational innovation.

Towards a viable collaborative approach to public innovation

There is growing evidence that collaboration can spur public innovation (Roberts and King, 1996; Eggers and Singh, 2009; Bommert, 2010). Theories of collaborative innovation in the

public sector derive both from theories of network governance, which emphasize the role of collaborative networks in finding innovative solutions to complex problems (Powell et al, 1996; Koppenjan and Klijn, 2004) and from theories of learning that conceptualise step-change as occurring through interorganizational interaction and collaborative processes (Lave and Wenger, 1991; Engeström, 2005). Theories of collaborative innovation also echo insights from management theories about private sector innovation where it focuses on ‘social innovation’ (Phills et al. 2008), ‘co-creation’ (Prahalad and Ramaswamy, 2004) and ‘open innovation’ (Chesbrough, 2003).

Innovation is most often a result of interaction between actors from different levels, organizations and levels. A meta-analysis of scientific studies of public and private innovation reveals that internal and external communication and collaboration has a positive effect on innovation (Damanpour, 1991). Analysis of the US public innovations submitted to a national award program showed that 60% were created through inter-organizational collaboration (Borins, 2001). Finally, national surveys and case studies from the UK demonstrate that local authorities with greater collaboration within and across organizations and in peer networks are more innovative than those without (Newman et al., 2001; Downe et al., 2004).

The empirical evidence is supported by arguments about how collaboration can strengthen all stages of innovation (Eggers and Singh, 2009; Sørensen and Torfing, 2011). The definition and framing of complex problems is often improved when actors with different experiences and perspectives and forms of knowledge are brought together. The generation of new and creative solutions is enhanced when different ideas are developed, combined, challenged and built upon. The selection, prototyping and testing of promising ideas is strengthened when diverse actors help to assess gains and risks. Implementation of new and bold solutions can

be improved when different resources are mobilized, exchanged and coordinated and joint ownership is created through participation and dialogue. Last but not least, innovative solutions are diffused when collaborators become external ambassadors for the new ideas and practices. In sum, collaboration can open up innovation processes for the active participation of a broad range of actors with different innovation assets (Bommert, 2010).

Recognizing collaboration as a potential driver of public (and private) innovation involves understanding what collaboration entails. A clear definition of collaboration is important because it is often wrongly associated with the creation of unanimous consent (Straus, 2002). This is unrealistic in terms of how collaboration functions in practice. Instead, we define collaboration as the process through which two or more actors engage in a constructive management of differences in order to define common problems and develop joint solutions based on provisional agreements that may co-exist with disagreement and dissent (Gray, 1989). This definition permits us to appreciate the productive role of difference and conflict in creative processes (Thomas, 1992), including in innovation.

Interestingly, the collaborative approach to innovation is not only used in the public sector, but also increasingly in the private sector (Tidd and Bessant, 2009). Networks and partnerships between competing clusters of firms provide an important driver of innovation in high-tech industries (Powell and Grodal, 2004). Associations and networks of civil society organizations can also produce innovative projects and events through interorganizational innovation (Sørensen and Torfing, 2003). Collaboration is not only becoming a key innovation strategy within each sector, it also occurs across sectors, bringing together public authorities, private firms, civil society organizations as well as groups and individuals (Moore and Hartley, 2008; Sørensen and Torfing, 2011).

The institutional design of collaborative innovation in the public sector may vary in accordance with the problem at hand and the range of actors involved (Eggers and Singh, 2009). A tentative typology of institutional designs, inspired by Eggers and Singh (2009), includes:

- 1) Intra-organizational skunk works allows talented and engaged public servants with different professional backgrounds to collaborate with each other, and perhaps also with lead users, in order to develop and test new ideas
- 2) Inter-organizational networks between public managers or professionals, perhaps with the participation of scientific experts, that facilitate identification, diffusion, adaptation, and exploitation of other organizations' most successful innovations
- 3) Governance networks that brings together the relevant and affected actors from different levels and sectors in order to find innovative solutions to joint problems
- 4) Public-Private Innovation Partnerships that aim to exploit resource complementarities between public authorities and private firms to generate innovative solutions and test them in an organizational environment that is not burdened by the restrictive rules and norms that are normally found in the public sector
- 5) Crowd-sourcing that uses open calls on the internet to recruit and collaborate with a large group of anonymous actors who think they can contribute relevant ideas and resources to processes of innovative problem-solving

While the collaborative approach to public innovation has a lot of potential benefits, there are also constraints and limits. Hence, there are areas and situations where collaborative innovation is neither feasible nor desirable. First, not all situations are amenable to collaborative involvement from a range of actors. One example would be where there is a

political preference for confidentiality and seclusion (Torfing et al., 2012). If public authorities fear that collaboration may compromise public security, the privacy of private firms and citizens, or harm the interests of public enterprises, collaborative innovation could be damaging.

Second, collaborative innovation might also be difficult in geographical regions or policy areas with deep-seated ideological, religious or ethnic conflicts (Gray, 1989). For example, with highly controversial social issues, it may not work to bring supporters and opponents together in collaborative efforts to find innovative solutions (although advanced tools for conflict mediation may sometimes succeed in getting adversaries to engage in respectful dialogue).

Third, collaboration may be hampered in situations where there are large imbalances in the power resources of the key stakeholders (Gray, 1989). If the stronger actors believe that they can solve the problem on their own, win an antagonistic dispute, or dictate the premises for finding a joint solution, it will tend to prevent or distort dialogue and collaboration.

Finally, collaborative innovation may be at risk where particular private actors are able to capture the collaborative arena and exploit the process of innovation and its result to their own advantage. This highlights the difference between private organizations that are primarily geared to produce private value and public organizations whose primary purpose is to produce public value (Moore, 1995; Benington and Moore, 2011).

Summing up, the analysis suggests that, although collaborative innovation carries an unrealized potential for creating new public policies and service, it is not an institutional strategy that works in all contexts.

Leading and managing collaborative innovation

Despite the exceptions mentioned above, there is wide scope for applying a collaborative innovation strategy to public problems, especially in areas such as planning, urban regeneration, environmental protection, economic development, employment policy, and service improvement in education, health care and social assistance. However, even in these areas, there might still be barriers to collaborative innovation that can be removed, or at least mitigated, through the exercise of appropriate leadership and management (Ansell and Gash, 2012; Sørensen and Torfing, 2012). In these complex processes of collaborative innovation many things can go wrong between intention and execution.

First, bringing together the relevant and affected actors in sustained interaction might fail because there is no history or tradition of interaction; because the experiences with interaction are negative, or because it is difficult to motivate the relevant actors to spend time and energy in interactive participation (Gray, 1989; Ansell and Gash, 2008).

Second, when actors choose to interact it is often because they recognize the need to exchange or pool ideas and resources in order to address urgent and/or significant problems, but interaction does not always foster collaboration as conflicts of interest might prevail. In addition, collaboration may be prevented by the prevalence of mistrust and opportunistic behaviour, the presence of procedural uncertainty and the existence of incompatible cognitive and discursive frameworks (Gray, 1989; Straus, 2002; Koppenjan and Klijn, 2004; Ansell and Gash, 2008).

Third, even when the actors engage in collaborative processes, these may not foster innovation. Repeated collaboration in closed and stable networks consisting of the 'the usual suspects' who over time have developed more or less the same world views will tend to stifle creativity and prevent the generation of new and bold ideas, their prototyping and implementation, and reduce the diffusion of innovation (Skilton and Dooley, 2010). In

addition, a heightened level of strategic uncertainty and the incomplete institutionalization of collaborative arenas may also prevent effective implementation (O'Toole, 1997). Lastly, the failure to bridge structural holes in the networks of communication may hamper diffusion of innovation (Burt, 1992).

In sum, there is a constant danger that different barriers will disrupt the links between interaction, collaboration and innovation. Certainly, good intentions to come together to collaborate and explore and exploit new bold ideas are not enough to ensure collaborative innovation in the public sphere. In order to sustain the process of collaborative innovation certain kinds of leadership and management are required.

Such leadership and management will have to orchestrate various activities to try to overcome the different barriers to interaction, collaboration and innovation (Ansell and Gash, 2012). First, in order to create well-functioning interactive arenas with active and committed actors, innovation leaders and managers must act as *convener*s (see also Newman, 2011). The convener aims to motivate, empower and bring together the actors, create and frame the interactive arena, set the agenda, clarify the interactive processes and promote a mutual adjustment of expectations (Ansell and Gash, 2008; Page, 2010).

Second, public leaders and managers can encourage and facilitate collaboration between the stakeholders by acting as *mediators*. The mediator aims to create or clarify interdependencies, to manage the process by dividing it into different phases, to build trust and resolve disputes by aligning interests, constructing common frameworks and removing barriers to collaboration (Straus, 2002; Crosby and Bryson, 2010).

Finally, the advancement of collaborative innovation can be promoted by a *catalyst* that exercises a form of entrepreneurial leadership and management. The catalyst encourages a re-

framing of problems, brings new knowledge and actors into play, explores existing and emerging constraints and opportunities, manages risks and encourages transformative learning and 'out of the box' thinking (Crosby and Bryson, 2010).

Leadership and management of processes of collaborative innovation can be provided either by trained facilitators or by organic leaders (e.g. politicians, public managers) who are connected to, or familiar with, the stakeholders in the interactive arenas (Gray, 1989).

Centrality, legitimacy, access to resources and organizational back-up are the fundamental institutional conditions for collaborative innovation orchestrators, who must also possess an array of personal competencies such as reflexivity, imagination and vision, flexibility, open-mindedness and boundary spanning and communicative skills.

Even where barriers to collaborative public innovation are properly addressed through skilful leadership and management, some key challenges remain. One is that fiscal crisis will tend to strengthen the demands for secure administration and failsafe service production. Such demands strengthen risk aversion and reduce the prospects for innovation. On the other hand, the pressure to save money and make cuts while maintaining services may force politicians and public managers to seek out innovation (Pollitt, 2010).

Another crucial barrier for collaborative innovation is that it requires a reformulation of the traditional roles of public and private actors. Elected politicians will have to relinquish ideas of being political sovereigns who have all the power and responsibility and will need to redefine their political leadership role as setting the agenda, convening relevant and affected actors and defining many aspects of these policies and services through dialogue and negotiation with a plethora of actors, even though they retain formal powers to pass laws and decide policies and budgets. Public managers will have to relinquish technocratic perceptions that only they have the professional expertise to make sound decisions, seeing themselves

instead as meta-governors who are orchestrating collaborative arenas that harvest ideas and practices from a range of innovators. Private firms and voluntary organizations will have to reframe their role perception from that of competitors, lobbyists and advocates for particular interests and groups to become responsible partners in the production of innovative solutions for public value. Finally, citizens will have to shift their identities to encompass their contributions as co-creators and co-producers rather than solely as clients, customers or regulatees. Role perceptions are notoriously difficult to change, but the lack of public resources and the growing number of policy deadlocks may be conducive to these new roles.

Discussion and conclusion

Public innovation that aims to foster disruptive step-changes is not an all-purpose instrument that can solve all the current challenges to the public sector. Continuous service improvements, integrated planning processes and strategic re-allocation of public resources are also needed to deal with changing demands of citizens and service users. However, the enhancement of public innovation is important in order to avoid responding to the fiscal crisis either by blind ‘across-the-board’ cuts which makes program specialists responsible for more or less self-interested choices about cutting expenditure, or by ‘strategic prioritization of spending cuts’ that makes politicians responsible for painful choices (Pollitt, 2010). In addition to this defensive reason for public innovation as a means of ‘doing more with less’, there are also proactive reason for boosting innovation: increasing the capacity of organizations and groups to address the growing number of wicked problems and realizing political goals for the future development of society.

This article has aimed to explain why the attempt of the public sector to learn from and imitate the private sector's approach to innovation through the adoption of NPM-reforms that emphasize market-competition and strategic management has not led to a significant increase in policy and service innovation as had been expected by exponents of NPM. The article has challenged the context-blindness of the innovation literature and created a more a nuanced understanding of the drivers and barriers to innovation in the public and private sector that emphasizes differences but also similarities.

However, NPM critics have suggested that instead of returning to traditional forms of public administration, which can create innovation but often blunts innovative intent and motivation (Hartley, 2005), we should instead aim to foster a new kind of organizational entrepreneurship, predicated on a distributive and trust-based leadership, institutional integration and more and better information about, and interest in, users. This neo-Weberian state, has some clear advantages to traditional public administration and it also remedies some of the problems in the innovation strategy recommended by NPM. However, both strategies suggest that public innovation is created and implemented inside particular organizations, be it private firms or public organizations. Both strategies are inwardly-focused and thus fail to reap the fruits of inter-organizational, multilevel and cross-sectoral collaboration, which can be important for certain types of innovation.

Collaborative innovation aims to transcend the false choice between innovation being driven either by organizational entrepreneurs or private service providers in artificially created quasi-markets. Collaborative innovation brings together a range of stakeholders, variously from the public, for-profit and non-profit sectors as well as users and citizens themselves, in interactive arenas that facilitate the cross-fertilization of ideas, mutual and transformative learning and the development of joint ownership of new solutions. However, as analysed

above, collaborative innovation is no panacea, since a number of obstacles can impede the processes of collaborative innovation at different stages.

A comparison of the three innovation strategies suggests that the collaborative approach has a major advantage vis-à-vis the two other strategies. Not only does it facilitate innovative processes that cut across institutional and organizational borders, it also has a conceptualisation of how innovations are actually produced. Increasingly, innovation studies across all sectors theorise and empirically study the role of a variety of actors in innovation processes, in a continuum from 'lead users' (von Hippell, 2005) to strategic alliances (Tidd and Bessant, 2009) to open innovation (Chesbrough, 2003). It is perhaps here that we find the real strength of the collaborative strategy, although it is still in its infancy.

Nevertheless, there is no reason to believe in 'one best way' to enhance public innovation.

All three innovations strategies have particular strengths and weaknesses and a key task for future research is to develop a contingency theory that specifies and explains when, where and why each of the three strategies, or perhaps a combination of them, is beneficial. We conclude this article by offering a few reflections that may serve as a starting point for developing such a contingency theory. The NPM-strategy for enhancing public innovation is suitable when the task is to spur service and organizational innovations in order to enhance efficiency rather than effectiveness, but it is contingent upon public services having a low asset-specificity and a high degree of standardization since otherwise quasi-markets will not work properly (Williamson, 1981). The neo-Weberian innovation strategy has particular strength in relation to policy innovation and in those forms of service innovation which aim to enhance quality and match or anticipate the changing needs and aspirations of citizens.

However, it is less relevant in areas where strong professional groups oppose change, there is a need for an external input in terms of new ideas or special resources, or the creation of joint

ownership or implementation is necessary, which is where collaborative innovation may have value. Collaborative innovation strategy can enhance both policy and service innovation, although service innovation will not tend to increase efficiency and reduce costs unless the private actors are shouldering some of the fiscal burden or engage in co-produced service provision. But, as noted, there are some situations where the collaborative strategy is not suitable, and to the existing list of exemptions we might add a more general concern.

Collaboration takes time and has high transaction costs, so where there are time and resource constraints, then other innovation strategies will be more attractive and effective.

These considerations of contingencies in relation to three innovation strategies, (and their combination), take the focus beyond solely efficiencies in innovation processes towards thinking about the viability and appropriateness of particular innovation strategies. This involves considering the purposes of innovation, the quality, dynamism and inter-connectedness of the services, the organizational forms which foster or inhibit innovation, the ownership and engagement by stakeholders in the implementation of innovation not just its initiation, the power balances and imbalances among stakeholders, and the creation of public value.

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Figure 1: The cycle of innovation

