DEMOCRATIC INNOVATION: THE CASE OF MILAN’S AREA C

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ABSTRACT

Can an innovation in public sector be also respectful of the will of the citizens? While public managers are asked by NPM-led reforms to become more entrepreneurial and risk-takers, several scholars are concerned with the discretionary power awarded to managers being detrimental to democracy.

This paper investigates the case of Area C in the city of Milan, an innovation in transport policy, through both a document analysis and interviews conducted with top managers involved in the innovation design and implementation and politicians adopting the «Harvard Kennedy School’s Innovations in Government Award Programs Semi-finalists’ Questionnaire» as a frame of reference.

Results show that the innovation is achieving relevant results in reducing both pollution and traffic congestion, while increasing the average speed of public transport. Such achievements have been reached through a long process of consensus building, started including such policies in the electoral program, and persuading citizens about the necessity and usefulness of the initiative. Difficulties regard the necessity of a continuous involvement of citizens and the oppositions of some economic associations worried that Area C could damage their own businesses.

Keywords – democracy, innovation, local government, policy, pollution.

INTRODUCTION

The reform season widely known as new public management (NPM) brought about a strong rhetoric of innovation and entrepreneurialism in the public sector (Osborne and Brown 2011; Osborne and Gaebler 1993). This rhetoric promises that a more risk-taking and innovative public organization can achieve better performance with less resources (Bartlett and Dibben 2002) and create public value (Moore 2005). Despite the differentiated capacity to honor such promises in different geographical and temporal contexts, promoting and institutionalizing innovation within the public sector (Albury 2005) is receiving unprecedent attention. This includes the academic debate regarding the characteristics of innovations that could be applied to the public sector (De Vries,
Bekkers, and Tummers 2016) and how to disseminate these innovations throughout the public sector environment (Collm and Schedler 2014). Several national and international institutions have created awards to stimulate public sector organizations to take the path of innovation and over the years, many such prizes have been awarded to innovators worldwide (e.g., the Innovations in American Government Awards, established by Harvard University in 1985). Such awards are considered to be one of the best ways to study innovation (Borins 2001).

In recent years, some critics have expressed concern regarding the outcome of all the operational freedom provided to public managers. Some scholars, especially in the political science and ethics fields, state that NPM hinders adherence to rules and is possibly weakening democratic values (Maesschalck 2004). The increasing pressure for higher performance provides a moral basis for rule-breaking public managers who believe that achieving results serves as a perfect justification for not following established rules (Borins 2000). However, innovation should ideally be respectful of rules and the citizens’ will while providing efficient services and public value.

This study investigated a case of innovation in a local government, which enabled the coexistence of both democratic values and performance improvement, by analyzing and explaining the specific features of the innovation. The case of Area C in Milan, which represents a significant innovation in public transport, was investigated through both, a document analysis and interviews conducted with the main actors (top managers involved in the design and implementation of the innovation– politicians). This study aimed to understand how the local government achieved its results from both performance and democratic perspectives.

For this purpose, the remainder of the paper is organized as follows. Section 2 offers a brief review of the literature regarding public sector innovation and the risks associated with NPM-based reforms. Sections 3 and 4 describe the methods and the case, respectively. Sections 5 presents the main results while Section 6 provides the conclusions.

**INNOVATION IN THE PUBLIC SECTOR AND THE EFFECT OF NPM**

The concept of innovation has been widely discussed in literature (De Vries, Bekkers, and Tummers 2016), and in recent years, increasingly in reference to public sector organizations and the services they provide (Borins 2000). Innovation is regarded as the only way to increase efficiency and improve effectiveness, even during periods of crisis (Albury 2005). Several papers have focused on innovation and many offer classifications of the concept, for instance, incremental and radical innovation (Hartley 2005). However, a recent systematic literature review regarding innovation in the public sector published by De Vries, Bekkers, and Tummers (2016) shows that several studies either do not provide a proper definition of innovation or provide a very broad definition. Moreover, these definitions tend to be subjective rather than objective since they prescribe that innovation is something that “has to be perceived as new by an actor” (Newman, Raine, and Skelcher 2001: 61). The concept of innovation can be classified in several ways, e.g., process innovation or product/service innovation (De Vries, Bekkers, and Tummers 2016). Hartley (2005) proposes seven different types of innovations, namely product, service, process, position, strategic, governance, and rhetorical innovation, clarifying that,
in practice, more than one type may coexist at the same time (Hartley 2005). Osborne (1998) suggested several different and articulated classifications, which consider either the original impetus for the innovation (research push vs. market pull), its origins (distress vs. slack innovation), or its outcomes (product/service vs. process innovation) (S. P. Osborne 1998).

Since innovation is regarded as a positive and useful concept, scholars have sought, on one hand, to investigate the contingencies that help to implement more innovations in public sector organizations and, on the other, to understand the features of these innovations so as to be able to replicate them. Empirical studies have stated that the emergence of innovation is influenced by several internal and external antecedents (Walker 2014). This means that innovation is more likely to occur under certain conditions and there are factors that might hinder it. Damanpour and Schneider (2009) found that the probability of implementing an innovation in the public sector is influenced more by the innovation’s characteristics, such as its cost, impact, and complexity, rather than other environmental and organizational factors such as managerial characteristics (Damanpour and Schneider 2009). Expectations from stakeholders, namely the citizens, may also trigger the flow of innovation (Bernier, Hafsé, and Deschamps 2015) since public sector organizations aim to fulfill their needs (Walker 2014) and there is wide support for the argument that strong internal leadership that encourages innovation (Munro 2015) along with appropriate organizational size (Walker 2014) is necessary. This is especially crucial for local governments (LGs) since these organizations are the closest to the citizens in terms of providing services and fulfilling their needs (Martin 2000). One possible obstacle to innovation that is particularly relevant for the purpose of this study is the widespread risk-aversion of public managers, seen as a legacy of traditional public administration (Borins 2000). The cultural foundation of NPM is that instead of reversing this aversion, public sector organizations must become more innovative (Damanpour and Schneider 2009). Therefore, public managers must take more risks because innovations are designed to benefit its recipients, whether as individuals or groups (Walker, Jeanes, and Rowlands 2002). Innovation can have different goals: the systematic literature review by De Vries, Bekkers and Tummers (2016) shows that while increasing organizational effectiveness and efficiency are the most common goals of innovation, the possibility of increasing customer satisfaction and citizen involvement is also relevant (De Vries, Bekkers, and Tummers 2016: 154).

Public sector innovation can be limited by the specificities of its context; public sector organizations indeed have to comply with the regulations and the requirements of democracy and equity, while creating value and balancing its distribution among different stakeholders. The features of LGs have been widely investigated to understand the organizational antecedents of NPM-based innovations (Hansen 2011). During the NPM reform season, the conflict between rule compliance and entrepreneurial behavior among public managers was resolved by emphasizing performance and results over bureaucracy (Behn 1998). Since the upsurge of NPM, several scholars have raised concerns regarding the risks associated with this managerial approach in terms of rules, accountability, and democracy (Goodsell 1993; Frederickson 1996). The NPM approach conflicts with public administration ethics because the emphasis on cost containment, efficiency, etc., may be detrimental to traditional public administration values such as fairness and honesty (Hood 1991; Frederickson 1999). Interestingly, some empirical studies depict a less frightening situation: innovative public managers appear to be, on average, less rule-breakers than pessimistic. Therefore, innovations are often not only beneficial in terms of solving the
problems that public managers have to address, but can be implemented with respect for democratic values (Borins 2000). To achieve these results, the design and the implementation of an innovation must have special features and, as expected by Behn, public managers will have to act as enterprising leaders (Behn 1998). The selected case is an example of innovation that met its performance goals while respecting democratic accountability. Therefore, it might be interesting to investigate how such a coexistence was achieved in this specific case to potentially offer suggestions for replicating it in other contexts.

Method

This study investigates the case of Area C in Milan, identifying the main features of its innovation in public transport by utilizing a qualitative research design comprising both document analysis and interviews conducted with the main relevant actors (top managers involved in the innovation design and implementation – politicians). This research design was chosen because the case study methodology was able to answer the “how” and “why” research questions and allowed the understanding of this phenomenon and its context, even if expressed through personal motivations and perceptions (Yin 2003).

The case was selected for being a critical example of innovation in LGs. It was awarded twice in 2014; first, by COTEC, a national foundation that awards an important national prize for innovation, and second, by the International Transport Forum, an international organization integrated with the Organization for Economic Co-operation and Development, with 59 international members and that acts as a think tank for transport policy. Interestingly, these two awards have both been conferred not only for the technical results achieved but also for the way in which local consensus was obtained, in stark contrast with other cases around Europe.

The document analysis included official documents drafted by the municipality of Milan to explain the functioning of Area C, collected from the Area C web portal along with several presentations that the Municipal Agency for Mobility, Environment, and Territory (AMAT) drafted during the first years of the project’s life, to present the technical solutions offered at several international mobility and health conferences (i.e., the 14th European Forum on Eco-innovation held in Prague in 2013; the 2013 Conference of the International Society of Environmental Epidemiology, the International Society of Exposure Science, and the International Society of Indoor Air Quality and Climate (ISIAQ), August 19-23, 2013, Basel, Switzerland. 2013).

Interviews were conducted using the Harvard Kennedy School’s Innovations in Government Award Programs Semi-finalists’ Questionnaire as a frame of reference. The questionnaire comprised ten broad questions aimed at describing the features of the innovation and the context in which the idea was created and implemented. These questions were aimed at identifying the innovativeness of the idea as well as details regarding the innovators, targets of the idea, and contributors to its implementation. In particular, the implementation of the idea was investigated along with the main obstacles and achievements of the innovation. Finally, the respondents were asked to provide the three main measures used to evaluate the success of the innovation. The questionnaire was used as a frame of reference but allowed the respondent to freely talk about relevant issues (Diefenbach 2009). These interviews were held between 2015 and 2016. The duration of each interview ranged from 25 to 50 minutes, depending on the openness and
willingness of the interviewees. Four interviews were attempted, out of which three interviewees accepted, named (a), (b), and (c) in this study to preserve their anonymity. Interestingly the only person to refuse was the politician who was, at the time, the town councilor in charge of the program. Currently, he is still a town councilor in another department of the municipality. He refused to be interviewed claiming not to have the information necessary to answer the questionnaire. The three successful interviews involve the top manager in charge of Area C (a) and two of his staff members, (b) and (c). This was the team responsible for the project when it was established. It was not possible to increase the number of the interviews by including people not directly involved in the project because the adopted interview protocol implies a good technical knowledge of the innovation and therefore, was designed for respondents who actively participated in the innovation. The adoption of the same questionnaire for all interviews allowed for the comparison of results; extensive notes were taken during the interviews since the participants did not provide authorization to record their interview. To reduce the risk of overly-enthusiastic answers, all the information gathered from the interviews were checked against official documents and then grouped in the results section according to the main themes of the questionnaire.

The case of Milan’s Area C

In recent years, the case of Milan’s Area C has been studied from various theoretical perspectives. Scholars in engineering and environmental fields are interested in understanding the impact of the previous Ecopass scheme and the adoption of Area C on pollution (Percoco 2013; Rotaris et al. 2010). Economists are interested in the economic results and the possible policy indications arising from this case (Croci 2016) while sociologists and business scholars seek to investigate how stakeholder interactions and power games led to the achievement of these results (Lapsley and Giordano 2010; Mattioli, Boffi, and Colleoni 2012).

It is widely recognized that Milan is one of the most car-dependent cities in Europe (Mattioli, Boffi, and Colleoni 2012). Consequently, traffic is a critical issue along with air pollution. In 2008, the municipality of Milan introduced the Ecopass, a pollution fee that required old and more-polluting vehicles accessing a designated area in Milan’s center during certain hours to pay a toll based on the amount of pollution they produced (Rotaris et al. 2010). Therefore, the primary aim of the policy was reducing pollution rather than reducing traffic congestion (Lapsley and Giordano 2010). The 2008 Ecopass worked by charging an increasing fee depending on the level of pollution expressed in terms of the PM$_{10}$ produced by each vehicle. Obviously, emergency vehicles, public transport vehicles (public buses and taxis), and vehicles used for the disabled were always admitted while less-polluting cars could enter the city center without paying any toll. More-polluting cars had to pay up to 10€ to access the designated area in the city center. This area, known as “Cerchia dei Bastioni,” is a limited traffic zone with 43 access points, each of which is controlled by a special camera able to read vehicle plate numbers. This area is located in the inner-city center of Milan, comprising 4.2 square kilometers, with a population of close to 80 thousand inhabitants. It also comprises nearly 25% of all the businesses in Milan and during the day, it has a density of approximately 140,000 persons per square kilometer (Maran 2013). At first, this system seemed to work, forcing people to use public transport, thereby reducing PM$_{10}$ emissions (Lapsley and Giordano 2010). However, after a few years, the effectiveness of this regulatory scheme was challenged.
because the decrease in PM$_{10}$ emissions reversed. The vehicle fleet had been renewed and consequently, more vehicles could enter the city center without paying a toll. Moreover, even in financial terms, the Ecopass was not able to cover its costs due to the high initial setting-up costs (Lapsley and Giordano 2010). Therefore, on November 4, 2011, this scheme was upgraded to Area C (Iclei 2013), which was tested from January 16, 2012 to April 1, 2013, and was then made permanent. Area C operates in the same area as the Ecopass scheme, utilizing the same 43 access points and cameras. The pollution charge was paired with a congestion charge. This development, as mentioned earlier, was the outcome of a local referendum held in June 2011, wherein a majority of citizens voted (79.1% in favor) for implementing Area C and extending it. Area C includes a ban against polluting vehicles (Euro 0 for gasoline and Euro 0, 1, 2, 3, and 4, without DPF; stricter rules are scheduled for the future) and a toll of 5€ for all the other vehicles, excluding those with zero emissions, electric or hybrid cars, and emergency vehicles. Payment of the toll allows vehicles to circulate all day within the area with 2 hours of free parking in the designated blue line parking slots. Alternatively, the fee can be reduced to 3€ and includes daily access only. Cameras at access points can recognize vehicle plate numbers and there are several options for toll payments (buying tickets, paying with credit cards, etc.) to prevent evasion. Penalties apply for non-authorized entrances. Residents are allocated 40 free entrances annually, beyond which they must pay 2€ per additional entrance.

The aim of Area C was not only to reduce pollution and traffic congestion, thereby benefiting the health of citizens and improving public transport speed, but also to raise money for investment in sustainable mobility programs. This emphasized the need to make the initiative financially sound. In terms of results, Area C significantly reduced the number of vehicles entering the area daily (~40,430) compared to the Ecopass scheme, reducing traffic by more than 30% and increasing the availability of parking slots by 10%. Public transport speed increased by 7.4% for buses and 4.3% for trams. In terms of pollution, PM$_{10}$ and nitrogen oxide emissions decreased by 18% and carbon dioxide emissions by 35% (Maran, 2013). Finally, the revenues earned from Area C were and still are adequate for covering all associated costs and allowed for investment in sustainable mobility programs (Iclei 2013).

**Results**

The case of Area C is interesting due its innovativeness along several perspectives, which explains the number of awards it received. First, both a pollution and a congestion charge are in place, while in most cases, only one of the two were applied, as observed by the jury of the COTEC award. Second, and mostly interestingly for the purpose of this study, a consensus for Area C was achieved through a referendum wherein the citizens clearly approved the idea. This is quite uncommon since in other cities, such as London or Manchester, negative votes largely overcome the positive, as observed by the International Transport Forum in its motivation for awarding the Milan’s Area C. Third, as a by-product of Area C, an innovative measure to reduce pollution, the Black Carbon Project, was created, moving further than the measurement of PM$_{10}$ and PM$_{2.5}$, to provide a more reliable picture of the effects of Area C on air quality. Janssen et al. (2011), in their literature review, observed that measuring black carbon particles provided a clearer picture of the effect of pollution on air quality and on health (Janssen et al. 2011).
The interviews allowed the understanding of how the relevant results were achieved in terms of pollution reduction and how democracy and innovation were reconciled. First, the goals of Area C were wider than simply dealing with pollution and traffic congestion. There was a clear educational purpose for the citizenry at large in terms of learning more environmentally sustainable behaviors (a). To pursue this educational goal, Area C was designed to affect a larger number of citizens than before, including those driving less-polluting cars. Area C is clearly an evolution of the previous Ecopass scheme. It is not a revolutionary innovation but an incremental one (Hartley 2005) that was designed and managed by the same team responsible for Ecopass (b). Consequently, the weaknesses of the previous scheme were considered when designing the new framework, i.e., the respondents claim that one of the aims of Ecopass, namely the renovation of the vehicle fleet was achieved, leading to a strong decrease in Ecopass revenues. Upgrading the toll price to include a congestion charge would mean excluding payments from only a very limited share of drivers. Exclusions from payments tend to evolve over time; therefore, the system can adapt to changes in international and national regulations, while keeping the internal rules stable for a reasonable amount of time (see, for instance, the section in the web portal containing all the municipal orders in place over the years).

The idea of Area C was one of the topics in the electoral program of the winning Mayor for the period 2011-2016 and so the initiative was defined as strongly political by all the respondents. However, it is interesting to note that, on one hand, since the 1990s, citizens have always had a special sensitivity toward environmental issues due to the specific geographical and climatic conditions in Milan (a). In the early 2000s, the municipality of Milan began investigating possible pollution and congestion fees that, according to respondent (a), developed a certain sensitivity among politicians and administrators over time. On the other hand, the councilor in charge when Area C was introduced refused to be interviewed claiming not to have the necessary knowledge regarding the initiative; this would suggest that the technicians played and still play a major role in the initiative after its political start. Undoubtedly, Area C includes strong innovative technical content. For designing Area C, the major European experiences were studied along with the previous Ecopass experience (a). Interestingly, all three respondents emphasize that the technical infrastructure of Ecopass was retained so Area C did not have to bear the full cost of installment. Moreover, strong efforts were made to communicate with citizens and for stakeholder involvement. (B) estimated that the amount of people involved were ten times greater than those involved in Ecopass and claims that, thanks to Ecopass, the main effort in implementing Area C was communicating with the citizens and managing the initiative. Communication with the citizens was conducted along two different paths. First, citizens were informed regarding the status of the initiative’s development through public meetings and by constant provision of information. This included developing associations and strong connections with environmental activists (a). Second, efforts were made to implement the initiative as smoothly as possible (b). This meant making payments at the entrance of Area C as easy as possible. Therefore, technical methods for paying the entrance fees were broadened, allowing drivers to choose among several options (buying a paper pass, paying with credit cards, mobile payment systems, etc. Next, wrong entrances into Area C were tolerated without applying fines during the initial days of the initiative. Thus, the Area C managed to successfully reduce the burden of the initiative on the citizens (a, b, and c). Therefore, while the respondents listed the several obstacles to implementing the innovation, they agreed that resistance was limited and problems were solved rapidly. Resistance mainly came from entrepreneurial associations,
particularly those strongly affected by the initiative. For instance, respondent (b) mentioned that car repair shops located just within Area C were hindered by the fact that customers were not willing to pay an extra 5 € to enter Area C to get their car fixed. Similarly, owners of private car parks inside Area C faced losses due to traffic reduction. Moreover, transport carriers were concerned both by entrance costs as well as the ban on polluting vans. In all these cases, a compromise was reached by reducing the toll and making parking in private car parks more convenient. Opposition from residents was also addressed by allowing them 40 free entrances per year (b). Additionally, every time a request for a special allowance is addressed to the office, a reply is provided within 24 hours (e.g., a request to allow very old cars to enter Area C for marriages or special cars for cinematographic events) (c). According to the respondents, the remaining criticisms of Area C are two-fold: first, from a technical perspective, it is necessary to eliminate payment methods that are expensive and troublesome (e.g., paper tickets) to increase the financial performance of the initiative (a and c). Second, from a regulatory perspective, the respondents complained about the paucity of national guidelines and regulations, implying that, to implement Area C, they had to create rules in an unexplored field, which exposed them to various legal oppositions and controversies (a).

Next, the respondents were asked about the most important achievement of Area C and the three main measures they used to evaluate its success. While (a) was not able to choose one main achievement of Area C and responded by listing Area C’s many technical results, (b) and (c) selected the reduction in traffic as the main achievement, claiming that all other results are a direct consequence of having less congestion. The results are mostly technical and are measured through the indicators of pollution reduction (carbon, nitrous oxide, carbon oxide, PM10, etc.), the increase in the commercial speed of public transport, and the reduced number of accidents. AMAT is in charge of measuring these results and the respondents made references to its measurements. Interestingly, the involvement of citizens, the capacity to achieve a favorable vote, and the stable consensus regarding Area C were not regarded as the main results (or as results at all) by the respondents. Thus, Area C’s achievements are largely more technical than political. This could be a consequence of only interviewing technical staff members; however, upon further questioning, the respondents provided interesting insights. (B) and (c) noted that the text of the referendum was quite broad and, in some sense, vague: for instance, it asked: “Would you like to extend the charged zone to the whole city and to all vehicle categories to fund policies for sustainable mobility?” This allowed and still allows proponents, from 2012 onwards, to modify Area C’s rules without having to ask the citizens for further permission. Moreover, (b) suggested that the provisions of the referendum was not fully implemented. In other words, the congestion charge has not yet been applied to the entire municipal territory as promised, but has been limited to the “Cerchia dei Bastioni.” The main reason for this is convenience. According to (b), the existing Ecopass infrastructure in place was a strong argument. Similarly, the specificity of the designated area, which not only has a strong density of residents and economic activities but also a well-functioning public transport network as an alternative for mobility, constituted another reason. Moreover, in the official planning documents of the local government, the extension of Area C has been scheduled along with the introduction of a limited traffic zone at the level of the surrounding roads but as a long-medium term objective since it requires more resources and the provisional technical solutions now under discussion.
describes several technical drawbacks (a and b). Finally, to maximize citizen participation, the referendum on Area C has been scheduled on the same day as the local elections, along with other referendum.

**CONCLUSIONS**

The case of Area C offers various interesting considerations regarding the debate about innovation in LGs and, in particular, the possibility of reconciling democracy and innovation. The success of Area C has features that could be replicated in other cases, despite the fact that generalizability is not encouraged by the chosen research design.

From the document analysis and the interviews, it has emerged that a strong citizen involvement, since the early stages of the initiative, was critical to achieving consensus. Citizen involvement is time-consuming but all the respondents agreed that creating a network of actors and associations to debate with was essential to limiting and controlling resistance to the innovation. As De Vries, Bekkers, and Tummers (2016) suggest, increasing citizen participation can be objective of innovation in itself; this case shows that reconciling innovation with democracy is possible (De Vries, Bekkers, and Tummers 2016). However, some resistance was unavoidable because several interests were inevitably affected by the decision to set up Area C and by its functioning. Therefore, explicit attention has been paid to make the new Area C user friendly, limiting bureaucracy for citizens, and reaching mutually convenient compromises with those negatively affected by the innovation. Similarly, the capacity to reply to specific requests in a very short amount of time makes users feel that the administration responds to them and that every problem can be solved. This requires sufficient resources to be allocated to the initiative within local government and a strong managerial and political leadership, as suggested by previous literature (Walker 2014).

Another relevant feature emerging this study is the fact that the innovation was an evolution of the previous scheme. This means that there is the possibility to fix previous mistakes and learn from them, while retaining good things from the past and exploiting them (i.e., using the same expensive infrastructure without having to bear the cost again). Moreover, an innovation can easily achieve consensus whenever it attempts to address a sensitive issue or to satisfy a relevant need (Walker 2014): in this case, the population was aware of the problems associated with traffic congestion and related pollution and thus the problem that the innovation sought to fix was already evident and deeply felt. As literature suggests, citizen expectations are a strong lever for pushing public sector organizations to innovate (Bernier, Hafsi, and Deschamps 2015). The evolutionary nature of Area C limited its costs, allowing staff to concentrate on communication and increasing the possibility of its successful implementation (Damanpour and Schneider 2009). Additionally, the success of the described innovation seems to depend more on contingent factors that proponents have been good at exploiting (i.e., deploying the referendum on election day to maximize citizen participation); however, without any doubt, the context was made favorable.
Moreover, political consensus is also necessary (Munro 2015). The idea of Area C was included in the electoral program of a candidate for Mayor; however, along with Ecopass, it had also been an object of continuous and strong political debate during and after the electoral period (Lapsley and Giordano 2010). Once the Mayor was elected and Area C implemented, future developments for the initiative have also been introduced in the other documents of the municipality (known as the Municipal Plan for Mobility) to embed it in the general planning of the municipality.

Interestingly, this case does not reveal any resistance from the main actors nor any damage to accountability and democracy. On the contrary, accountability was always clearly established when implementing Area C and public managers seemed to have operated as enterprising leaders (Behn 1998).

**ANNEX 1**

The Harvard Kennedy School’s Innovations in Government Award programs semifinalists’ questionnaire

1. Describe your innovation. What problem does it address? When and how was the program or policy initiative originally conceived in your jurisdiction? How exactly is your program and policy innovative? How has your innovation changed previous practice? Name the program or policy that is closest to yours.
2. If your innovation is an adaptation or replication of another innovation, please identify the program or policy initiative and jurisdiction originating the innovation. In what ways has your program or policy initiative adapted or improved on the original innovation?
3. How was the program embodying your innovative idea designed and launched? What individuals or groups are considered the primary initiators of your program? Please substantiate the claim that one or more government institutions played a formative role in the program’s development.
4. How has the implementation strategy of your program or policy initiative evolved over time? Please outline the chronology of your innovation and identify the key milestones in program or policy and implementation and when they occurred.
5. Please describe the most significant obstacle(s) encountered thus far by your program. How have they been dealt with? Which ones remain?
6. What is the single most important achievement of your program or policy initiative to date?
7. What are the three most important measures you use to evaluate your programs success? In qualitative or quantitative terms for each measure, please provide the outcomes of the last full year of program operation and, if possible, at least one prior year.
8. Please describe the target population served by your program or policy initiative. How does the program or policy initiative identify and select its clients or consumers? How many clients does your program or policy initiative currently serve? What percentage of the potential clientele does this represent?
9. What would you characterize as the programs most significant remaining shortcoming?
10. What other individuals or organizations have been the most significant in (a) program development and (b) on-going implementation and operation? What roles have they played? What individuals or organizations are the strongest supporters of the program or policy initiative and why? What individuals or organizations are the strongest critics of the program or policy initiative and why? What is the nature of their criticism?

NOTES

4 The questionnaire is in the Annex 1.
5 An air pollutant comprising small particles with an aerodynamic diameter less than or equal to a nominal 10 micrometer. https://www.eea.europa.eu/themes/air/air-quality/resources/glossary/pm10
6 PM2.5 means the mass per cubic meter of air of particles with a size (diameter) generally less than 2.5 micrometers (µm). https://laqm.defra.gov.uk/public-health/pm25.html
7 Black carbon is the sooty black material emitted from gas and diesel engines, coal-fired power plants, and other sources that burn fossil fuel. It comprises a significant portion of particulate matter or PM, which is an air pollutant. https://www.epa.gov/air-research/black-carbon-research

REFERENCES


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