

# How “institutionalization” can work. Structuring governance for digital transformation in Italy

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## Abstract

Public policy scholars have recently focused on the mechanisms accounting for the sustainability of major policy changes. Among the strategies by which policy entrepreneurs may try to avoid future backlash institutionalization is certainly one of the most used. Yet, it can foster ossification and eventually jeopardize policy effectiveness. Such a potential trade-off between institutionalization and long-term effectiveness is particularly intense in policies concerning technological innovation because the necessity to create winning coalitions can undermine the required absorption capacity needed by government to engage the innovation ecosystems. This paper explores such a trade-off with a case study on the Italian policy for public sector's digital transformation. The case is theoretically promising because over three decades institutionalization has always represented the main overall strategy adopted by policymaker, but only the 2016 initiative emerged as a “success.” In this sense, the case study can focus on the mechanisms activated by policy entrepreneurs to trigger and entrench change.

## KEYWORDS

e-governance, governance, ICTs, innovation, national  
governance

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## INTRODUCTION

The adoption of digital technologies can be considered an imperative for public administrations and governments all over the world (Bolgherini, 2007; Dunleavy et al., 2006; Heeks, 2006). While better services and cost reduction are the main rationales underpinning such an agenda, public sector digitalization also has important organizational implications, as new technologies need a proper governance framework to effectively work and cope with coordination and cooperation problems (Cordella & Tempini, 2015; Di Giulio & Vecchi, 2021). Accordingly, the literature shows the emergence of ad hoc organizations to coordinate national digitalization agendas (Mergel, 2016, 2019). While the creation of task forces is driven by the need to countervail the bureaucratic culture of the public sector, the conditions, and mechanisms that may account for their success are still to be fully explored. In more general terms, the research question of this paper is: How is an innovation strategy based on institutionalization (Peters, 2020) likely to be successful? More specifically, this work aims at uncovering the mechanisms that can sustain a successful institutionalization as a strategy to support an innovation program.

We establish a dialog between separate academic debates to address this question. Namely, we contend that public sector digitalization represents a particular case of policies aimed at developing and/or deploying technological innovation, and, thus, based on the literature addressing this subject, we discuss the mechanisms by which a program of innovation based on the creation of a dedicated agency may bring about policy “success.” These mechanisms, mostly based on the characteristics of the actors and the policy context, will be complemented with behavioral features. More specifically, drawing from the recent literature on policy feedback, we argue that the positive outcome of public sector innovation also relies on an anticipatory policy design, understood as the capacity of policymakers to envisage future challenges and incorporate adequate solutions accordingly.

Hence, this paper relies on this framework to analyze the adoption and use of new technologies in the public sector and to evaluate their effectiveness. We accomplish this by analyzing and discussing the Italian policy for public sector digital transformation. Promoted in 2016, the strategy represents, to date, a success story, where “success” is narrowly defined as a non-incremental alteration in the *status quo*. Indeed, whereas the past several attempts to modernize governmental structures and activities through Information and Communication Technologies (ICTs) produced scarce results, the 2016 strategy effectively had momentum. Most importantly, it is a challenging case. In fact, the Italian government had always tried to promote the digital transformation of the public sector by means of new dedicated agencies; however, only since 2016 has the digital transformation of the Italian public sector began to show significant successes after decades of failed and weak attempts. Moreover, this took place at a time of high political instability (five governments have been formed in 5 years) and, thus, a favorable context for a backlash. In this sense, innovation policies proved to be possible in the context of the Italian public sector, which represents a hard case for this kind of outcome, and thus constitutes a promising ground for a theory-building case study of the role of anticipatory feedback in policy design.

The paper is structured as follows. Sections “Institutionalization as a strategy to make policy changes last” and “Dilemmas of institutionalization in the design of technological innovation” are theoretical and review the literature on institutionalization as a policy strategy and its application to the field of innovation policy. Section “Research design” illustrates the research design and how mechanisms have been operationalized and coded to conduct a theory-building process tracing. The following sections describe and analyze the national policies for the digital transformation of the public sector in Italy. Namely, Section “The digitalization of the public sector

in Italy: From stagnation to (partial) successes” presents the “dependent variable,” as it reveals the policy legacy and its significant transformation over the last 5 years. Sections “Implementing the digital innovation strategy in the Italian public sector” and seven provide empirical evidence aimed at reporting whether the mechanisms discussed earlier have been detected and operate in the direction hypothesized.

## INSTITUTIONALIZATION AS A STRATEGY TO MAKE POLICY CHANGES LAST

Institutionalization is a policy strategy used to cope with a relevant and stable policy problem (see Peters, 2020). In fact, creating a new organization—typically an agency—is certainly a strategy that can be classified as an intentional attempt at manipulating a given policy network (Dente, 2011, p. 179; Peters, 2020). Hence, institution-building is a potent driver of change for emerging problems, with the case of environmental issues probably being the most visible example, as, during the 1970s, dedicated governmental branches were created in all Western democracies (Weidner & Jänicke, 2002). Theoretically, a new actor is supposed to have a clear interest in effectively implementing new regulations, and this can be a catalyst for societal interest groups whose voices eventually have a venue through which they are heard. Yet, it is also worth noting that, in the history of the social sciences, this concept has also been associated with the idea of unintended consequences. The classic works of Michels (1915) and Selznick (1949) argued that any organization, in order to survive and expand its domain, is likely to change its goals over time, even if this jeopardizes its capacity to attain the goals for which it has been created.

However, the concept of institutionalization, understood as either a rational strategy or an entropic tendency affecting policy and governance structures, runs the risk of being a black box and providing catch-all explanations of social and political phenomena. This paper argues that the dilemmas of institutionalization can be reframed in light of the literature on policy feedback. Hence, scholars working on this line of research have recently focused on policy sustainability—the capacity of a given reform to last and produce durable impacts (Patashnik, 2008, 2019)—as a major issue for policy design theory and practice (Béland et al., 2020; Béland & Schlager, 2019; Patashnik & Weaver, 2020; Sewerin et al., 2020).

This debate reflects the rising attention scholars have dedicated to the self-undermining mechanisms that may erode institutions and policies (Jacobs & Weaver, 2015; see also Jordan et al., 2013). The basic argument underpinning such a discussion is that a policy design would be incomplete if only the fairness of the decision-making process or the abstract capacity of a given policy instrument to attain specific goals are considered. Hence, as argued by McConnell (2010), policy effectiveness is multidimensional, and, beyond its procedural and programmatic dimensions, the political and temporal aspects must also be taken into consideration. In fact, without political support and a proper institutionalization, a policy may not last. This problem is particularly relevant for policies addressing, at least to some extent, the general interest (Patashnik, 2008), such as environmental or welfare issues. Hence, in these areas of intervention, collective action problems are so severe that, even if major policy changes do occur, the probability that they will be subverted by special interest advocates in the post-enactment phase is considerably high, especially in an era of extreme political polarization (Patashnik, 2019) and economic crisis (Afonso & Bulfone, 2019).

From this perspective, the accumulated knowledge of both self-reinforcing and self-undermining mechanisms affecting policy dynamics (Daugbjerg & Kay, 2020) has been used

to craft tools and strategies that can be used by policy designers to manipulate the impact of expected feedback, anticipate positive feedback, and delay the impact of negative feedback on policy endurance (Patashnik & Weaver, 2020; see also Bali et al., 2019). Hence, while, on the one hand, creating a new agency may be a sound strategy to entrench change by anticipating increasing returns of a would-be supporting coalition, on the other hand, its consolidation could promote the crystallization of special interests, which, over time, might only be compatible with a sub-optimal performance. The emerging literature on “instrument constituencies” has vividly depicted such a dynamic. Policy instruments are often the “glue” allowing policy innovation to spread and produce impacts; at the same time, this assemblage of actors sharing an interest in sustaining a given policy solution can hinder the introduction of Pareto-superior solutions later on (Pischke & Wellstead, 2020; Skogstad, 2020; Voß & Simons, 2014).

In other words, the literature on policy feedback provides an angle from which to view institutionalization processes in a more analytical way. At the same time, institutionalization needs to be broken down into the strategies of specific actors geared toward entrenching a policy regime. Hence, policy analysts should examine these strategies as policy designs based on social mechanisms (assumed more or less consciously by the policymakers), which can be assumed to be the building blocks of a causal chain to assess the overall success or failure of a given policy intervention aimed at stably altering the *status quo*.

The next section discusses policies aimed at fostering technological innovation, as they perfectly fit the case of a public-interest domain in which effectiveness and sustainability both constitute a major problem for policymakers. The section reviews the literature on innovation policies, with a focus on institutionalization strategies and their related trade-offs. In fact, while considerable literature has been developed on this subject, innovation policy has not yet been framed in the context of the policy feedback debate.

## DILEMMAS OF INSTITUTIONALIZATION IN THE DESIGN OF TECHNOLOGICAL INNOVATION

Since the Industrial Revolution, technological innovation has been an imperative for all nations. Although their strategies might often have been unsound or untimely, governments have always been seduced by the idea of crafting the economic development of their countries. Hence, as far as innovation constitutes a public good—as it relates to the long-term wealth of a nation—the processes upon which it relies are characterized by collective action problems, and, thus, government intervention has always been present (in some forms) (Mazzucato, 2013; Weiss, 2014). In this sense, creating dedicated agencies to promote technological innovation represents a recurrent strategy, albeit its outcomes depend on specific factors. Namely, the literature on innovation policies has stressed how successful experiences of catching-up economies are characterized by what Peter Evans called an “embedded autonomy” (Evans, 1995). In fact, in the central part of the XX century, policymakers of several emerging countries enjoyed relative autonomy to pursue quasi-entrepreneurial activities while being within the boundaries of the public sector. Impressively, scholars focusing on policy strategies concerning more recent technological frontiers still found that “absorption capacity” (Breznitz, 2007; for public sector transformation, see Mergel, 2016) and “organizational capacity” (Borrás, 2011; Dunlop, 2015) constitute crucial factors for policy success.

Yet, what is radically changed in the design of innovation policy is the political context in which such interventions are supposed to produce intended and durable effects. Hence, it has

been argued that, at times in which “innovation” was not an attractive issue for political parties and major special interests, the governance of innovation could have been modeled by s.c. *Schumpeterian development agencies* (SDAs), understood as actors engaged in radical technological change and also entitled to promote its large-scale implementation (Block, 2008; Breznitz & Ornston, 2013). Yet, such a condition is nowadays considered difficult (if not impossible) to replicate (Breznitz & Ornston, 2018). Hence, innovation has become a myth capable of legitimizing all sorts of policies, and, thus, actors are extremely likely to be captured by vested interests, with scarce commitment to innovation.

Therefore, the question becomes whether, given such unfavorable conditions posed by the saliency of the issue, policy designers should simply give up dealing with innovation, or whether viable approaches are possible. The literature seems to suggest that the answer depends on the goals and the contexts of policy-making. In fact, contrary to past successful cases of policies aimed at radically advancing technological change, it has been argued that contemporary policy designers should choose between exploitation and exploration rather than pretending to radically innovate and deploy cutting-edge technologies at the same time. Hence, Breznitz and Ornston (2018) argued that a “politics of partial success” could constitute the cornerstone of a policy strategy. In this sense, two types of agencies can be imagined as alternatives to the SDA. On one side, the *effective upgraders* are actors that, by design, do not pursue radical change, but focus on the effective diffusion of existing technologies. Conversely, *irrelevant innovators* can be imagined as actors designed to explore new frontiers without an obligation to immediately deploy innovations. As they differ in their mission, their structure and governance are also supposed to differ. In fact, *effective upgraders* are likely to be positioned at the core of the governmental sector to deploy specific and mature innovations targeted from the top down, while *irrelevant innovators* are not. The latter are more likely to operate at the periphery of the governmental structure based on priorities that are defined by the industry. Thus, unlike SDAs, they are “less likely to fall into the white elephant trap” (for a more detailed discussion, see Breznitz et al., 2018). Both choices, though theoretically sub-optimal, take into account the problem of policy feasibility, as they embody the goal of avoiding “total failures.”

The digital transformation of the public sector is one of the most relevant areas in which public policy engages with the domain of technology. Moreover, the increased accessibility and usability of digital devices and applications make it an optimal context to study innovation agencies as cases of *effective upgraders*. However, improvements in the technological domain do not necessarily mean that policy change is trivial. Conversely, it is widely acknowledged that technological change, when it has consequences for organizational structures and governance arrangements, is quite often associated with failures and backlash (Contini & Lanzara, 2008; Dafoe, 2015; Di Giulio & Vecchi, 2021; Dunleavy et al., 2006; Heeks, 2006; Kallinikos et al., 2013; Mergel, 2019; Rogge et al., 2017). Empirically, the literature on the topic has stressed how the socio-technical systems emerging to design and implement such programs do not have an easy task to accomplish. For example, there is often a tension between the needed adaptation of the new structures in the administrative system and the stakeholders and the organizational agility required to manage the regularly emerging IT (disruptive) transformations and a connected dynamic environment (Dietel & Heine, 2020; Mergel, 2016; Janssen and van de Voort, 2016, 2020). Yet, while the need for agile processes entitles policy entrepreneurs to ask for more autonomous structures, it also produces the risk of losing control over the policy goals, as argued in the previous section. Hence, it is no surprise that, while some cases stand out as benchmarks of success, such as the Estonian experience, other ambitious initiatives have shown mixed results—even if designed by governments with notable policy capacity, such as the UK case (Margetts & Naumann, 2017).

From this perspective, the following sections present the case of the digital transformation agenda launched in 2016 by the Italian government, which, in contrast to other similar initiatives promoted in past decades, has had effective follow-through. The next section outlines the research design, Sections “The digitalisation of the public sector in Italy: From stagnation to (partial) successes”, “Implementing the digital innovation strategy in the Italian public sector”, and “Institutionalisation as a side effect of entrenchment strategies” of which are empirical. Namely, Section “The digitalisation of the public sector in Italy: From stagnation to (partial) successes” is descriptive and introduces the actors and institutions of this policy area and their evolution over time. Additionally, it shows how (despite a legacy of failed attempts to modernize the Italian public sector) policymakers have effectively carried out a policy of “partial success” in the last 5 years, bringing about relevant results in a relatively short period of time. Sections “Implementing the digital innovation strategy in the Italian public sector” and “Institutionalisation as a side effect of entrenchment strategies” are analytical and report the evidence about the mechanisms discussed in the research design.

## RESEARCH DESIGN

This section outlines the research design of this work. Namely, it makes the case for a theory-building process tracing, which starts from a puzzling outcome but at the same advances aims to uncover mechanisms applying to similar cases (Beach & Pedersen, 2013, pp. 16–18). Also, a coding of the expected evidence is provided as well (Mele et al., 2020).

### Case selection and hypotheses

Italy represents a difficult case for successful digital transformation in the public sector for three reasons. First, according to European reports (European Commission, 2015, 2021), the country can be considered a laggard in the digital innovation process. Secondly, Italy has always faced a high level of government instability at the national level and decades of incoherent devolution processes geared toward regions and local governments, which the literature associates with a poor policy capacity in several sectors (Capano, 2018). Third, since the 1990s, national governments have constantly created agencies to design and implement digitalization in the public sector (see Di Giulio & Vecchi, 2019; Mele, 2008). However, all these attempts have brought about few results. However, the initiatives designed and implemented by a new task force created by the national government in 2016 has thus far produced a relevant impact, which consists of the implementation of some of the digital platforms imagined in the past years. Thus, this outcome represents the notion of “partial success” discussed in the previous section.

This transformative change occurring since 2016 constitutes an outcome that, though still ongoing, is somewhat counterintuitive and raises the following empirical puzzle: *Are the “partial successes” obtained in public sector digitalisation causally connected to the policy strategy and governance structures that have emerged since 2016?*

Initially, a baseline hypothesis accounting for this change concerns the evolution of digital technologies. In fact, these are becoming more accessible, interoperable, and easy to use each year for an increasing number of workers and citizens, even those with no particular skills or training. However, while countries are equally affected by technological improvements, great differences in terms of their performances still exists. Hence, a great deal of the literature has

highlighted how successful digital transformations are not spontaneous; several come after failed attempts, with any change taking place usually the outcome of a trial-and-error process in which agency played a crucial role (Di Giulio & Vecchi, 2021; Heeks, 2006). A second hypothesis could be related to the 2012 emergence of a digital agenda at the European level (European Commission, 2012). In this sense, a new EU framework could have triggered a change that any domestic attempts up until then had missed. However, this second hypothesis runs the risk of advancing a functional explanation of the outcome and needs to be complemented with micro-level observations.

In line with the literature discussed previously, this work contends that policy strategies based on the creation of dedicated actors do matter in accounting for policy success in the field of public sector innovation. Moreover, the case of Italy, with its history of failed attempts, allows for opening the “black box” of institutionalization (Radaelli et al., 2012), focusing on the mechanism that makes a policy strategy based on the creation of a new agency’s success in the field of public sector innovation. Thus, accounting for the partial success reached by the Italian national strategy since 2016 helps uncover the mechanism connecting the rise of a digital task force (understood as a key element of a broader strategy) with the implementation of a significant alteration of the *status quo*.

In this vein, Figure 1 singles out the main building blocks of a mechanism by which a strategy is supposed to bring about a non-incremental change in the field of public sector digital transformation. In particular, we claim that creating favorable conditions for success, such as resources, managerial discretion, and skills—notably the notions of “absorption” (Breznitz, 2007) and “organizational” (Borrás, 2011; Dunlop, 2015) capacity and that of “agility” (Mergel, 2016, 2019)—are essential for policy success but do not necessarily account for the outcome. Rather, and according to the debate on anticipatory feedback (Patashnik & Weaver, 2020; see also Buseti & Dente, 2018), we hypothesize that the new agency also had to cope with the political feasibility of the policy. More specifically, we argue that an innovation agency, as a way to make its mission viable and somewhat in contradiction with its fixed-term mandate (see Mergel, 2019), is likely adopt strategies granting its institutionalization. As discussed, these strategies are necessary to incentivize the involved actors—notably bureaucracies and interest groups—to adhere to the program, with the aim of making the policy politically feasible.

However, such a theory is incomplete. Indeed, it does not take into account that entrenchment strategies have not only intended effects on programmatic elements of the policy, but also side effects—either fully intended, partially intended, or even unintended

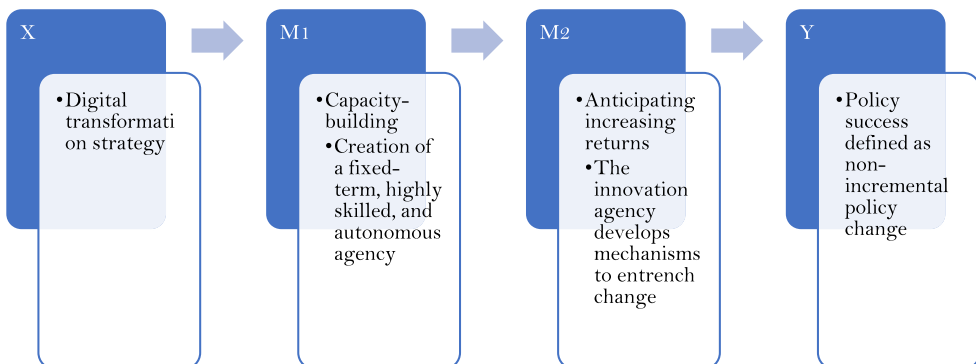


FIGURE 1 A causal theory of non-incremental change in digital transformation policies

(Margetts & Hood, 2010, pp. 44–60)—related to the effectiveness of the institution-building process.

Hence, Figure 2 schematizes the trade-offs of institutionalization discussed in Section “Dilemmas of institutionalisation in the design of technological innovation”, namely hypothesizing that actions aimed at anticipating increasing returns (M2) may not only lead to the achievement of the programmatic goals—and, notably, those connected with the general-interest goals of the overall strategy—but also triggers further mechanisms leading to the opposite results. Hence, as discussed by a large strand of literature on public policy and institutions (see Patashnik & Weaver, 2020; Pierson, 2000), quite often, increasing returns are anticipated only at the cost of concentrating the benefits among a given policy community. This, in turn, can emerge as the outcome of two distinct but often interdependent mechanisms—technological lock-in (M3) and the vested interests (M4) created by the adoption of a given policy instrument—which may contribute to policy stability, but putting programmatic goals in jeopardy. In this sense, Figure 2 presents a logical model that avoids a functional explanation based on technological determinism (Dafoe, 2015).

## Coding

Relying on the literature on process tracing (Beach & Pedersen, 2013, pp. 112–113), Table 1 operationalizes different parts of the hypothesized mechanism by which entrenchment strategies are supposed to bring about transformative change and provides predictable evidence of their occurrence. On the basis of the previous discussion (see Figure 1), this paper argues that hypothesized non-incremental change in digital transformation policies is the product of a mechanism composed of two parts capacity-building and entrenchment strategies aimed at anticipating increasing returns.

Traces of a capacity-building strategy can be detected by looking at the recruitment policies at different levels of the public sector: Inflows of high-profile personnel in the public sectors

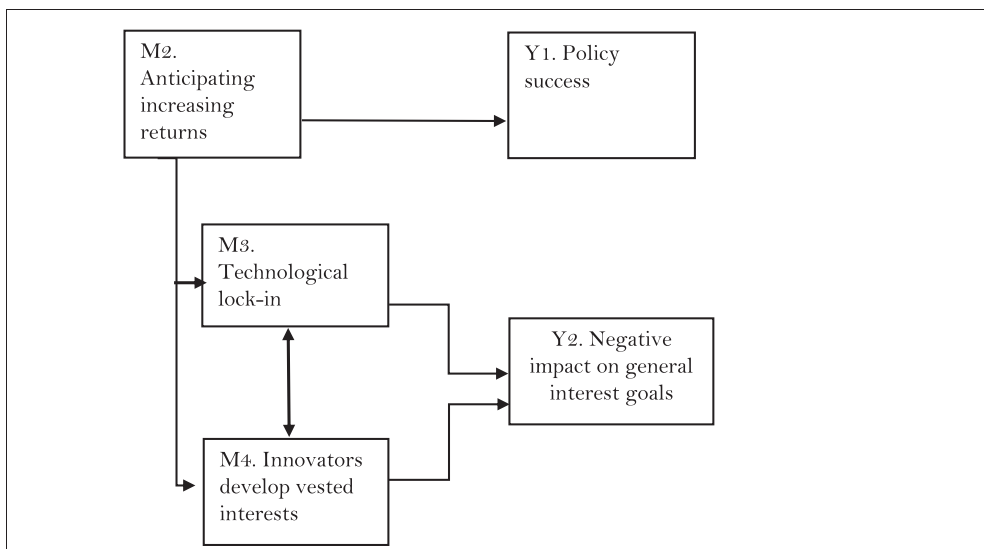


FIGURE 2 Institutionalization as a side effect of entrenchment strategies. *Source:* Authors' compilation



TABLE 1 Mechanism leading to non-incremental policy change

Part of the causal mechanism	Predicted evidence	Type of evidence identified in the empirical analysis
M1. Capacity-building (Brenzitz, 2007; Dunlop, 2015; Mergel, 2019)	Creation of a fixed-term, highly skilled agency	<i>Documents:</i> A new organization has been established and staffed <i>Interviews:</i> Technologically skilled persons are absorbed by the new agency
	Creation of a fixed-term, autonomous agency	<i>Document:</i> Formal power is assigned to the new agency <i>Interview:</i> Autonomy is attributed to the agency by other actors (reputational)
M2. Anticipating increasing returns (Patashnik & Weaver, 2020; Pierson, 2000)	Implemented program provided with a large investment	<i>Documents:</i> Budget allocation <i>Interviews:</i> Perception among stakeholders of the lock-in effect produced by the investment made
	Creation of a supporting coalition (Kelman, 2005)	<i>Documents:</i> Existence of institutionalized arrangements among policymakers and stakeholders <i>Interviews:</i> Actors of the coalition, separately interviewed, agreed that the engagement strategy followed a strategy aimed at maximizing commitment to the project
	“Small wins” are coherent with the overall strategy fostering coordination effects and adaptive expectations (Reay et al., 2006; Termeer & Dewulf, 2019; Weick, 1984)	<i>Documents:</i> Agreement on operational standards of technologies <i>Interviews:</i> Stakeholders affirm that the new coordination strategy has been crucial in escaping deadlock <i>Documents:</i> Citizens and firms keep using the digital services <i>Documents and interviews</i> showing the existence of a communication strategy aimed at increasing the perception of success

Source: Authors' compilation.

represent plausible evidence of the first component of the mechanism (M1). Furthermore, the literature suggests that such skills should be organized in agile task forces. Therefore, an empirical enquiry would search for the autonomy granted to the new actors to pursue their mission. Here, values can be empirically attributed by searching for formal power that has been granted while also assessing its influence on decision-making by surveying policymakers in the field.

Moreover, policy sustainability can be the outcome of mechanisms that increase the returns for policymakers, interest groups, and citizens. From this perspective, the former would anticipate such an effect by assuring relevant investments are immediately allocated. Evidence can be found in documents reporting budget allocation choices. Policymakers are also expected to entrench policy-concentrating benefits (and/or diffusing costs). In this respect, the literature has focused on coalition building as a strategy aimed at engaging the most committed stakeholders available in order to increase political feasibility. Empirically, evidence can be found by triangulating information from documents with their interpretations by policymakers and stakeholders. Moreover, policymakers can anticipate positive feedback by pursuing small wins, which can be empirically detected by measuring the achievement of specific tasks connected with the overall strategy.

As discussed before, assessing the implementation of digital innovation policy should not exclude possible side effects. In this sense, [Figure 2](#) introduced a second claim about a possible emerging incoherence between the implementation strategies of the program owners and the general-interest goals. In fact, as expressed by Patashnik and Weaver (2020, p. 5), political sustainability should be considered in combination with content-related evaluative criteria focusing on coherence with the problems to be addressed and the effective realization of the public-interest goals of a given policy. Hence, as argued in Sections “Institutionalisation as a strategy to make policy changes last” and “Dilemmas of institutionalisation in the design of technological innovation”, pursuing political feasibility through institutionalization may subvert the overall policy direction. Accordingly, [Table 2](#) provides an introductory checklist of the possible evidence that, on the basis of the mechanisms assumed by the literature on policy feedback, can signal actual trade-offs between strategies aimed at enhancing political viability and those that would be consistent with the pursuit of public interest goals.

As Pierson (2000) discussed in several studies, lock-in effects constitute a major problem for long-term policy efficacy, as both institutions and technologies tend to create increasing returns that, in the long run, make them last even if they become increasingly obsolete. In policies aimed at digitalising the public sector, correctly addressing such a problem constitutes a crucial evaluative criterion. Here, evidence of possible disconnects between feasibility and content goals can be collected by surveying experts about the foreseeable impact of a given technological choice.

**TABLE 2** Mechanisms undermining the coherence between political viability and long-term goals

Part of the causal mechanism	Predicted evidence	Type of evidence identified in the empirical analysis
M3. Technological lock-in	Outdated technologies persist even if strongly sub-optimal	<i>Interview:</i> Experts' evaluation of technological flexibility and scalability
M4. Vested interest	Resources allocated are not justifiable on a cost/benefit basis	<i>Documents:</i> Analysis and evaluations made by institutions, academics, or stakeholders
	Distribution of benefits and costs is not justifiable on an equity basis	<i>Documents:</i> Recipients mostly belong to privileged categories <i>Interview:</i> Vested interests contribute to maintaining a policy that loses its public-interest mission

Source: Authors' compilation.

For example, designing an information system based on proprietary software can produce a lock-in that precludes its scalability and integration with other systems. Further sources of conflict between political viability and effectiveness can relate to the institutionalization of a given instruments' community. Evidence of this mechanism can be empirically detected in cases of a program in which the stakeholders' utility is pursued against the public interest—understood in terms of efficiency or equity.

## THE DIGITALIZATION OF THE PUBLIC SECTOR IN ITALY: FROM STAGNATION TO (PARTIAL) SUCCESSES

The digitalization of the Italian public sector is an ongoing process that began three decades ago. Over this period of time, there was a constant creation and reshuffling of governmental agencies. Yet, the last major reform, which occurred in 2016, is apparently linked to a significant and rapid policy impact. This section describes the evolution of the policy field over time and presents some indicators concerning the implementation of three core programs, presented to show that a non-incremental change occurred since their introduction. The following sections will assess whether the performance of these programs is causally linked to the new governance introduced in 2016.

### The legacy (1993–2016)

Specific programs aimed at innovation in the Italian public sector (e.g., the Presidency of the Council of Ministers, the Ministries, and the national agencies) started in the aftermath of the 1991–1992 political and financial crisis, when a comprehensive public sector reform agenda had been formulated. In 1993, the IT Authority for Public Administration (AIPA) was founded, followed in 1995 by the launch of the project for the construction of the RUPA, the Unitary Network of the Central Administrations. Meanwhile, municipalities and regional governments had adopted and implemented ICTs, mostly without national coordination.

In 2001, a new impulse was introduced by the center-right government led by Silvio Berlusconi. In 2003, a new Ministry for Innovation and Technologies was created and assigned to a former CEO of the Italian branch of IBM, Lucio Stanca. At the same time, the AIPA was substituted with the National Center of ICT for Public Administration (CNIPA). The Ministry formulated a comprehensive legal framework for the digitalization of the public sector, setting common standards for all administrations, known as the Code of Digital Administration, which is thus far the main institutional architecture of this domain.

In the following years, due to a period of intense instability in the national government, digitalization agencies underwent several reshuffles. Another structure, the Agency for the Diffusion of Innovation Technologies, was introduced in 2006, and, in 2009, the CNIPA was transformed into an agency called DigitPA. In the summer of 2011, a strong financial crisis triggered the collapse of the government led by Silvio Berlusconi and gave the European Commission and European Central Bank a motive to steer the Italian national agenda. Significantly, their recommendations mentioned the country's delay in complying with the goals of the European Digital Agenda. The new government, led by former EU Commissioner Mario Monti, appointed in November 2011, promoted the birth of the *Agenzia Italia Digitale*

(AGID), a new agency that unified the competencies of the previous structures. However, the political direction of programs concerning the digital agenda was distributed among three ministers—Technological Innovation, Public Administration, and Education and University—with a role even played by the new Agency for Territorial Cohesion (responsible for the European Structural Funds). Moreover, a new coordination committee, composed of many ministers and representatives of regional governments and municipalities, was formed in 2012 to foster the implementation of the *Digital Agenda for Europe*. This plethora of “owners” caused many difficulties for the new agency in coordinating the various new plans and projects that were in progress.

## Altering the status quo (2016–2021)

Here, three programs composing the Digital Agenda are presented. Below, short descriptions of their rationales are provided, and data on their implementation momentum after 2016 is shown. These programs were chosen on the basis of their relevance and impact on the restructuring of the Italian public administration. For all, successful implementation relies on the compliance of the public administration, ICT industry, and users (citizens and business). They are thus good illustrations of the case of (partial) “success” that Sections “Implementing the digital innovation strategy in the Italian public sector” and “Institutionalisation as a side effect of entrenchment strategies” will try to explain in light of the feedback framework.

### Sistema Pubblico di Identità Digitale

SPID, which is the acronym for *Sistema Pubblico di Identità Digitale* (translation: Public System of Digital Identity), is the information system granting citizens and businesses certified digital access to public administrations and their services. The implementation of this program requires the compliance of public administrations and private sector companies acting as “identity providers.” Among the latter, Poste Italiane—a publicly owned postal service company—created the opportunity for citizens to activate their SPID at no cost. However, most of the implementation problems were related to the actual compliance of users due to the overall scarce digital education of the population. While the program was launched in 2013, it was only in 2016 that implementation effectively started. As far as users’ compliance is concerned, by the end of 2020, diffusion had spread rapidly, as the total number of SPIDs provided approached 20 million (one-third of the entire population; see [Figure 3](#)).

### Anagrafe della popolazione residente

ANPR is the acronym for *Anagrafe della popolazione residente* (literally: National Registry of the Resident Population). The program aims to create a unique national database containing all the civil registries of each of the 7904 Italian municipalities. The main implementation task requires standard harmonization with local governments’ technological providers and support for local governments’ employees. ANPR was established by law in 2005 (D.lgs 82/2005, art. 62), but, up

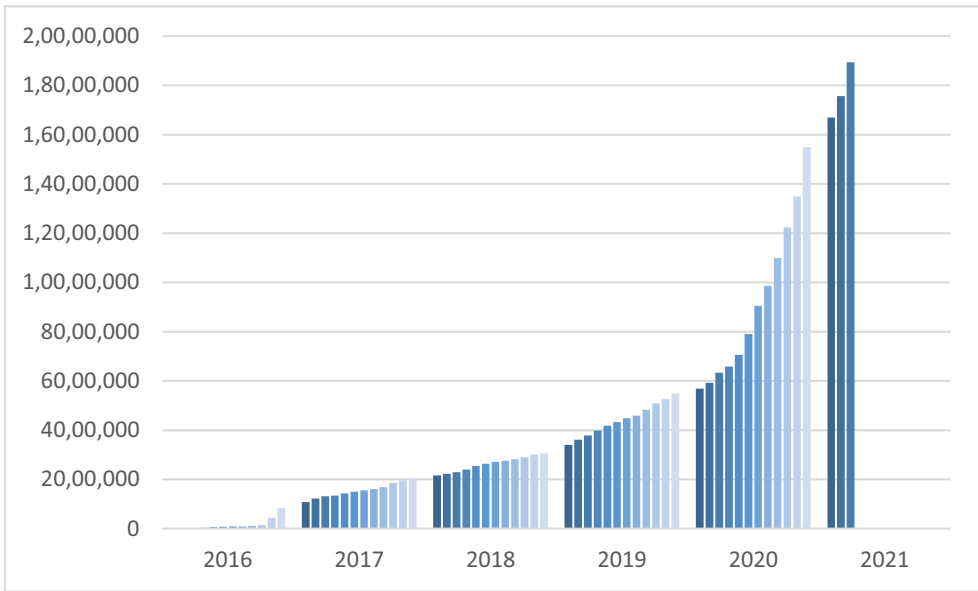


FIGURE 3 SPID identities provided (counts). Source: <https://avanzamentodigitale.italia.it/it/progetto/spid>

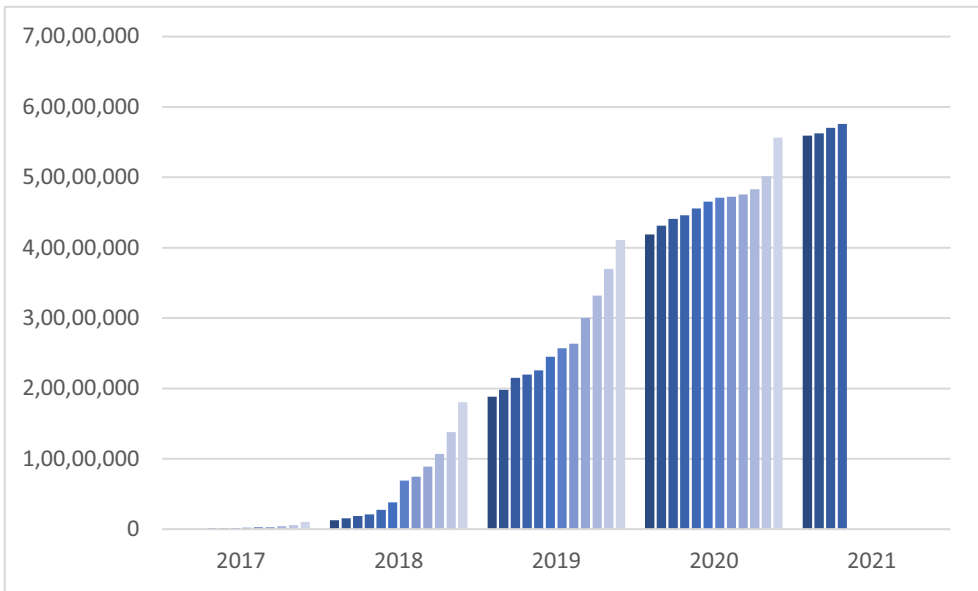


FIGURE 4 Italian resident population included in the ANPR. Source: <https://avanzamentodigitale.italia.it/it/progetto/anpr>

until 2016, only one small municipality effectively complied. Figure 2 shows that adoptions have soared since 2016, and (so far) only 366 municipalities have not already fully complied. As far as inhabitants are concerned, in April 2021, 57.6 million out of a total of 60.3 million were already included in the national register (Figure 4).

## pagopa

pagopa is a digital infrastructure for payments connecting citizens and firms to any administration (local or national, territorial, or functional) collecting taxes and duties. It is one of the many e-government projects designed within the national government bureaucracies in the 2000s, which were discontinued due to a lack of collaboration among administrative bodies. In 2016, the project was championed and redesigned, and, 2 years later, a state-owned company was created to further develop the project (Di Giulio & Vecchi, 2021; Vecchi, 2019). Operationally, pagopa standardizes the way electronic payments are delivered, and, thus, its implementation strongly depends on its adoption by both public administrations and payment service providers (such as banks and debit and credit card issuers).

Figures 5–7 show how all these aspects of compliance have been met over the last 5 years while also illustrating that the project had achieved significant momentum.

## IMPLEMENTING THE DIGITAL INNOVATION STRATEGY IN THE ITALIAN PUBLIC SECTOR

This section analyses the process of change that occurred over the last 5 years in the national strategy for digital transformation in order to assess whether it is causally linked with the outcomes traced in Section “Research design”. Analytically, it is structured in four parts, which single out the mechanism outlined in the previous section. First, we describe the process leading to the new governance structure; then, the second part describes the development of the agency’s organizational capacity; the third part underlines the small-win and coordination strategies implemented by the new agency; and the final part focuses on the strategy used to entrench the community of stakeholders.

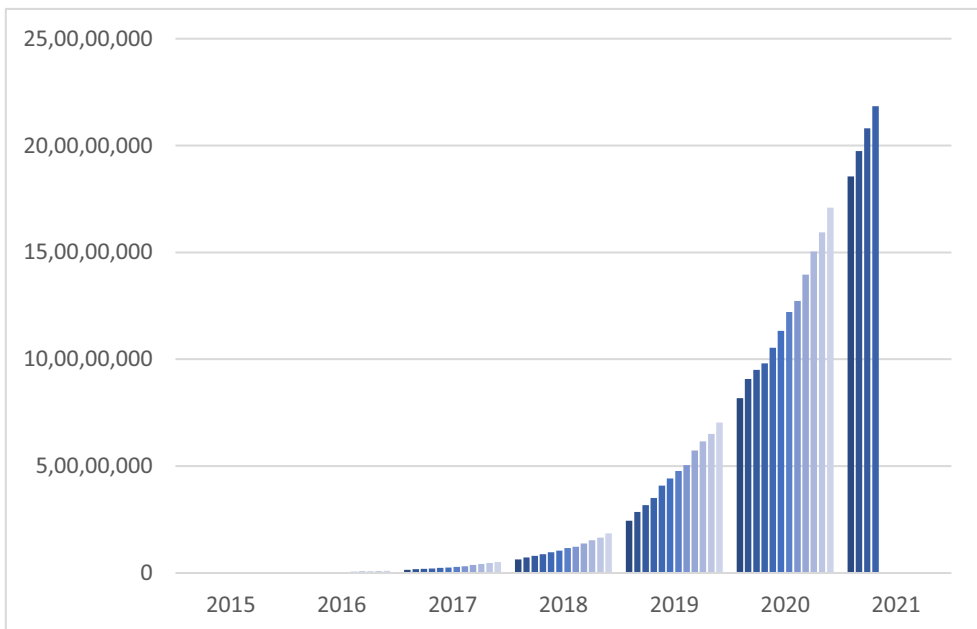


FIGURE 5 Transactions processed by pagopa (counts). Source: pagopa: <https://www.pagopa.gov.it/it/pagopa/dashboard/>

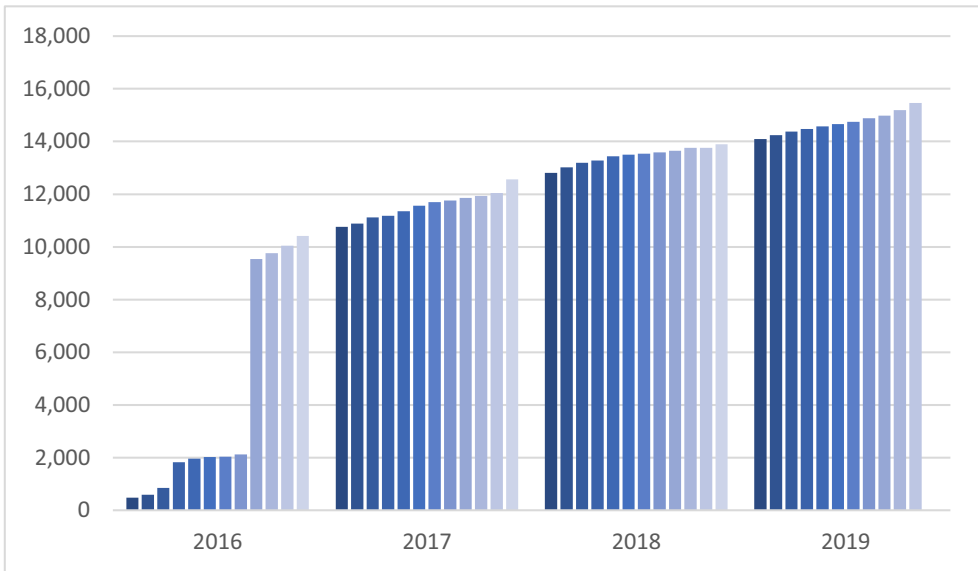


FIGURE 6 Public administrations adopting pagoPA (counts). *Source:* Data was downloaded from the AGID website November 2019. This indicator is no longer available

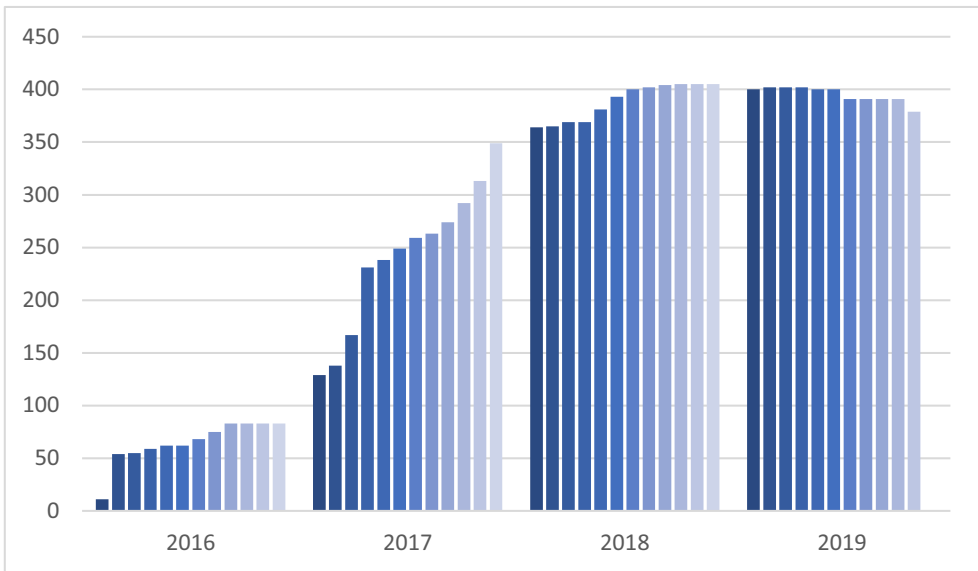


FIGURE 7 Payment service providers adopting pagoPA (counts). *Source:* Data was downloaded from the AGID website in November 2019. This indicator is no longer available

### The emerging governance structure (2016–2021)

Section “The digitalisation of the public sector in Italy: From stagnation to (partial) successes” described how policies aimed at digitalization formulated in the 1990s had been characterized by a lack of coordination among central and local administrations. These arrangements have been

significantly transformed since August 2016. A crucial role in this process was played by the *Presidency of the Council*, which, since 2015, has assumed a coordinating role within the government on several projects concerning the implementation of digital infrastructures (Di Giulio & Vecchi, 2019, 2021).

In 2016, Prime Minister Matteo Renzi relaunched the idea of a national Digital Agenda—introduced in Europe 4 years prior (see: Mergel, 2019)—and appointed a former Apple and Amazon top executive, Diego Piacentini, as “Special Commissioner”<sup>1</sup> for its implementation. Piacentini was supported by the *Team per la trasformazione digitale* (translation: *Team for the digital transformation*), a temporary adhocacy composed of developers, big data analysts, and project managers from the digital industry along with some experienced public administration executives; among the latter, it is worth mentioning Luca Attias, a former information services executive at the *Corte dei conti* (the highest financial jurisdiction of the country), who succeeded Piacentini in 2018.

When the national government launched the strategy, the creation of the Team followed a layering strategy. While this actor and the Commissioner reported to the president of the council, the AGID continued to be an agency controlled by the Ministry of Public Service (Figure 8a). This (as noted by a former Team executive member) created the impression that “our mission was to supervise the AGID” (Interview 2), and, of course, relations were not simple. However, in time, complementarities between the two actors did emerge. As a former member of the Team put it: “In the end, the two actors do different tasks, the AGID is a regulatory agency; we [the Team] were an operative actor” (Interview 6); here, “operative” means that most of the tasks undertaken by the Team involved managing specific projects as well as improving coordination among bureaucracies and stakeholders in the ecosystem.

Eventually, as Figure 8b shows, governance was streamlined. In the summer of 2018, and in the midst of a government crisis, the Team became structurally part of the Presidency of the Council as the *Department for the Digital transformation* (referred to hereafter as the *Department*). At the same time, one of the projects, pagoPA, was spun-off and established as a state-owned company of the Ministry of Finance under the supervision of the Department. pagoPA has the mission of providing digital infrastructures to support e-government policies (Virgone & Attias, 2019). In this sense, its most ambitious achievement was the development of “IO,” an application upon which several digital services can be activated (see: De Santi, 2020).

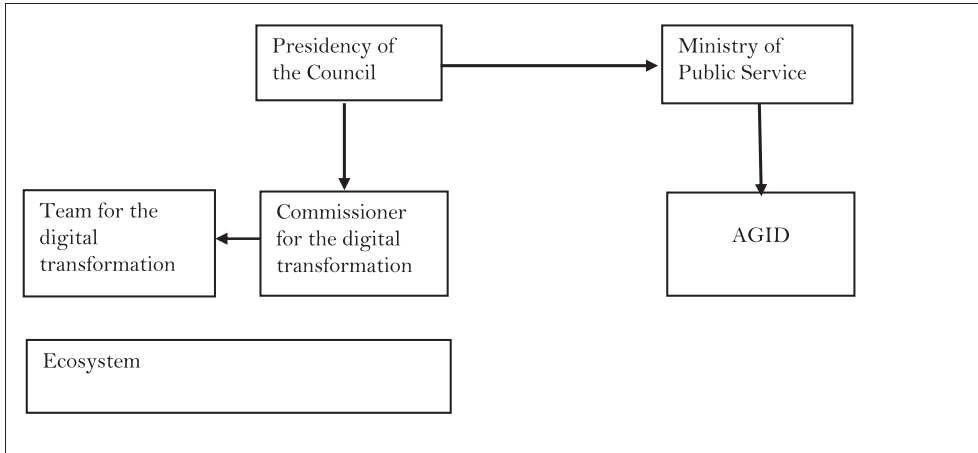
Moreover, the new government reintroduced a *Minister for the Digital Transformation*, appointing an economist close to the *Movimento 5 Stelle*, a political party with a strong ideological commitment to issues of transparency and digital democracy. This contributed to a more streamlined and coherent governance (Interview 2), with both the Department and the AGID reporting to the new minister. Such an arrangement survived another government reshuffle, which occurred in March 2021, whereby Mario Draghi was appointed the new Prime Minister, while Vittorio Colao, a former Vodafone executive, was appointed the new Minister for Innovation, a role that has been confirmed and is gaining centrality in the emerging governance of the National Recovery Fund.

## Creating absorption and organizational capacity

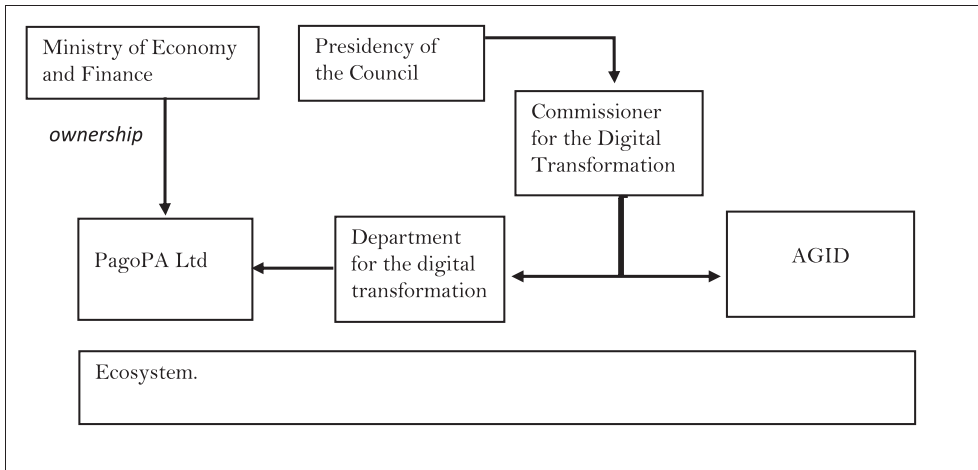
In line with the literature (see Breznitz, 2007; Dunlop, 2015; Mergel, 2016, 2019), the first building block accounting for the partial success of the Italian digital agenda concerns the engagement of talented professionals. This mechanism is further broken down into two specific dimensions:



(a) *The emerging governance of digital transformation in Italy (2016–2018).*



(b) *The governance of digital transformation in Italy (2018–2021).*



**FIGURE 8** (a) The emerging governance of digital transformation in Italy (2016–2018). (b) the governance of digital transformation in Italy (2018–2021). *Source:* Authors' compilation

first, the creation of absorption capacity through sense-making and communication strategies aimed at recruiting experts and cementing a community of practices; second, the introduction of a project-management approach within the public sector, which gives policymakers sufficient autonomy to deploy their strategy.

In a parliamentary hearing on the state of the digital transformation, the newly appointed Commissioner Diego Piacentini identified digital skills as the main issue for the Italian public sector: “Problem number one to cope with is the acquisition of talented people in the field of technology within the public sector” (Camera dei Deputati, 2017, p. 3; *authors’ translation*; see also Piacentini, 2016). Accordingly, the first task the Commissioner addressed was high-profile scouting. Interviewed policymakers agreed on attributing a crucial role to the appointment of Piacentini for the success of the recruitment call. His successor at the head of the Team, Luca Attias, confirmed that “there has been a Piacentini effect,” as several people, often occupying prestigious positions in multinationals, returned to work for the Italian public sector while

“accepting a loss in salary” (Interview 2). One of these managers confirmed that “it was pretty much about Piacentini’s communication,” as he asked Italians working worldwide in the digital sector to make themselves available to contribute to changing their country, “and it’s no rhetoric, it’s how it worked; it was a real call to arms” (Interview 6). In particular, the interviewee explained, Piacentini created the metaphor that this emerging task force was the “operating system of the country” and was “really attractive.” Inspired by this idea, aside from the Team, a community called “Developers Italia” has emerged in an attempt to activate the Italian ecosystem of innovation to support the governmental projects. A member described the rationale of this community:

A developer who wants to adopt a technology expects a familiar environment, similar to many others he or she has already worked in with technical documentation, an SDK (software development kit) written in the most popular programming languages, test environments allowing developers to operate with complete autonomy, forums, and mailing lists where a developer can ask for help and get direct technical support, simple, and automated digital processes for requesting authorisation or obtaining credentials. (Bajo, 2017)

Although communication and sense-making were key to creating absorption capacity, the Team addressed a distinct stream to make governmental policies more effective: the organizational design underpinning the programs. Piacentini and the team recognized that, once technological skills had been acquired, the other issue was the lack of coordination among the actors whose compliance was needed: “The very concept of ‘project manager’ was absent,” affirmed Piacentini in a Parliamentary hearing (Camera dei Deputati, 2017, p. 5). Therefore, there have been significant efforts to make the Team the Project Manager of various initiatives: “When we started to work with the ANPR, we realised that the project owner—the Ministry of Interior—had no technological capacity, while the developers had no organisational motives to manage the whole program. So, an actor with an interest in coordinating was needed, and we asked to be that actor” (Interview 6).

### **“Dashboards” as instruments to create small wins and coordination effects**

The strategic use of time has been one of the main managerial strategies adopted to trigger non-incremental change. In this sense, the Team used its fixed-term nature as leverage. “Piacentini gave us two years to trigger the change”; this, in part, was because of the limited duration of his mandate, but it was also a strategic asset because “if you do not have a deadline, you’ll do nothing” (Interview 6). Relatedly, the emphasis on timing is also coherent with the dynamic nature of the involved ecosystems. In this sense, while it has been possible to attract highly skilled professionals from the private sector, it is highly probable that they will return at some point. Therefore, the Team acted to trigger a change big and radical enough to provoke spill-over effects in a short period.

At a more operational level, the Team’s approach is captured by the idea of a “dashboard”: “we introduced dashboards for every program” (Interview 6). This is visible in the “Piano Triennale per l’Informatica nella Pubblica Amministrazione,” a planning document produced jointly by the Team (now the Department) and the AGID. There, targets and achievements are constantly (and transparently) updated, and the “ownership” of specific tasks is attributed to actors.

With reference to the programs mentioned in Section “Research design”, timing has represented a key policy design feature for success. The implementation of both the ANPR and pagoPA has been intentionally designed to produce quick and relevant results. Such a radical change was intentionally created by the mobilization of would-be early adopters, selected on the basis of potential commitment (Interviews 1 and 2). In turn, achievements have been systematically communicated to highlight the momentum created, producing bandwagon effects among implementers. As one interviewee responsible for the development and implementation of the ANPR put it: “we engaged the best practices [literally: ‘I virtuosi’; translation: ‘the virtuous ones’] and worked with them to give them visibility.” Figures 2, 4, and 5 are related to the ANPR and pagoPA and clearly show how implementers were engaged soon after the Team was created in September 2016.

Regarding this point, the analysis also traced potential pitfalls in the implementation. Hence, while members of the Team emphasized how a strict scheduling had been used by policy designers as a tactic to create small wins and, through this, anticipate increasing returns among stakeholders, such a policy has a downside that concerns technological choices and their impact on administrative change. Hence, a policymaker observed that the structural lack of time induced the Team to “strongly focus on front-end activities, while back-end processes have been scarcely touched; how different public sector organisations gather, store, and process data is one of the problems in this sense” (Interview 7). This perspective challenges the idea that administrative change could be a self-sustaining process triggered by the rising expectations of the citizens. On the contrary, the organizational change of the public administration toward effectively sustaining its digital transformation was to be designed to avoid future backlash.

## Building a policy community as an entrenchment strategy

Another building block of the process of transformative change relies on the creation of solid bonds among actors within the public sector. A key feature here is the intentional attempt to build winning coalitions within the public sector to change the *status quo*. As mentioned before, the Team mostly took up pre-existing projects, some of which had begun a decade prior. Once in office in 2016, the Commissioner and the Team started hearings with institutional stakeholders to assess the advancement of ICTs in the Italian public sector and identify ideas and practices with potential; incidentally, this has also been a venue to build coalitions.

The pagoPA project, for instance, was initially designed in the policy field of justice in order to create an intermediary between the Ministry and the plethora of possible payment systems by which citizens could settle their duties. However, “the project was operationally working, but implementation did not follow” (Interview 1). After the hearings, the very idea was re-designed around different types of services. In particular, the pagoPA project was strongly endorsed by the *Agenzia delle Entrate*, *Automobile Club Italia* (ACI), and the *Municipality of Milan*. The choice of these partners was not random. In fact, as they process huge volumes of transactions from citizens to the public sector, engaging them granted a radical shift in the implementation and, thus, a visible momentum.

However, interest alignment is not the only factor for a successful implementation. Trust between the directors of the various organizations was reported as key to a successful implementation. The engagement of Milan is, to a certain degree, eased by the convergence between the digital agenda at the national level and a strong digitalization plan launched in 2016 by the newly appointed mayor Beppe Sala (Interview 4). However, direct and prompt coordination between

the Director for Information Systems of the Milan administration and pagoPA's CEO was essential in the adoption phase (Interview 4; Di Giulio & Vecchi, 2021). The engagement of ACI is even more telling. Interviews revealed that ACI's Chief Information Officer played a major role in reshaping pagoPA's business model. In fact, for ACI, the introduction of a digital platform by which car owners could settle their duties had been seen as an opportunity to solve a conflict with the antitrust authority, which had alleged that ACI posed unfair competition with other payment institutions (Interview 3; Di Giulio & Vecchi, 2021). Additionally in this case, pre-existing bonds between ACI's CIO and pagoPA have been reported as important. Tellingly, in March 2021, after the government reshuffled, ACI's CIO became the new director of the Department for Digital Transformation, which can be assumed as evidence of the emergence of the institutionalization of the policy community in 2016.

Another tactic used by the Department to bring about change and secure its entrenchment was an agreement between itself and the *Corte dei Conti* (the highest financial jurisdiction). In this agreement, the *Corte dei Conti* committed to promoting and monitoring public sector digitalisation, which was key for the implementation of ANPR “because municipalities fear this institution” (Interview 2). Also, in this case, this alliance was facilitated by personal bonds, as Luca Attias was previously a director at the *Corte dei Conti*.

The search for allies went beyond the bureaucracy. Furthermore, the securing of political and bipartisan support was pursued. “The awareness of the Parliament about these issues is rising—the former Department chief affirmed this—and we speak with all political parties, both [that] of the government and the opposition” (Interview 2). Another person interviewed showed confidence in the fact that backlash was no longer an issue “because, while future governments might not prioritise digitalisation, it is hard to think that they could be against it” (Interview 6). Relatedly, policymakers also believe that positive feedback at the mass public level already plays a role in explaining policy change. One of the main strategic missions undertaken by the Department was redesigning e-government platforms based on a “mobile first” principle (Camera dei Deputati, 2017). In this sense, the “IO” app developed by pagoPA is geared toward “reshaping citizens’ user experience with the State” (Interview 6), and such a change is assumed to create a tipping point for the adoption of the programs, as a considerable number of users are engaged. Another example of strong positive anticipatory feedback for politicians is represented by the possibility of citizens signing in support of a referendum using their digital identities. Introduced in July 2021 by the Parliament, such a possibility was immediately deployed in September during the campaign for cannabis legalization and euthanasia, when, in only 3 days, approximately 300 thousand subscriptions were collected. The last example represents the big switch, which began in September after a July 2021 decree by the Italian government, to access many relevant public administration services in practice only through SPID.

It is worth noting that this strategy was supported by actions aimed at institutionalizing the policy field. As mentioned in Section “The emerging governance structure (2016–2021)”, in this period, a dedicated Minister, a Department of the Presidency of the Council, and a state-owned company were established. More importantly, for the sake of this study, such a process was intentionally designed to make the policy last. For instance, the establishment of pagoPA as a company was pursued as a way to “industrialize” (Interview 1) the digital agenda, but, according to policymakers’ assessment, it can also be interpreted as a strategy to be “independent from politics as much as possible” (Interview 6). The company began with 25 people, which turned to 90 in 2021. In the meantime, it received a €30 million loan from the *European Bank of Investments* to further deploy its digital infrastructure.

## INSTITUTIONALIZATION AS A SIDE EFFECT OF ENTRENCHMENT STRATEGIES

Section “Institutionalisation as a strategy to make policy changes last” argued that institutionalization can be understood as both a rational strategy to attain content-related policy goals and a process of goals substitution, where often the survival of an organization becomes a priority in itself. The previous section showed how these two perspectives are not necessarily mutually exclusive. Indeed, the creation of the Department out of the Team and the establishment of a state-owned company in the payment sector highlight both the processes as selective incentives used to activate the policy community, which has been, to some extent, consistent with the pursuit of a general-interest goal. However, in line with the literature, in Section “Research design”, we singled out two mechanisms—technological lock-in and vested interests—by which digitalization policies aimed at modernizing the public sector may diverge from desired outcomes. Hence, this section reports and interpret traces of this mechanism as it appears in the case study.

Evidence of how the policy could diverge from general interest goals is represented by a specific initiative to promote digital payments and aimed at improving tax-compliance: *Cashback*. At the beginning of 2021, the IO platform developed by pagoPA provided technological backing for a program promoted by the government led by Giuseppe Conte, which was aimed at improving tax compliance (Ministero dell’Economia e delle Finanze, 2020, pp. 24–25). The measure assures a 10% discount on purchases made by electronic payment services in physical shops of different sorts, with up to the maximum amount of €150 per person in a six-month period. A minimum of 50 transactions per period is required to obtain the discount. A further incentive is constituted in the *Super-Cashback*, a €1500 prize assigned every 6 months to 100 thousand users who have completed the highest volume of digital transactions. Policy termination is expected in 2022.

In Parliament, the most committed party has been the *Movimento 5 Stelle*, as the party found it coherent with the issues of transparency and the fight against tax evasion. However, in February 2021, the support for the program diminished, since the government led by Conte was reshuffled, and Mario Draghi became Prime Minister. The new cabinet has the support of a large coalition, which includes the right-wing parties *Lega-Nord* and *Forza Italia* along with the *Democratic Party* and *Movimento 5 Stelle*, the two major forces backing the former cabinet. In this new political context, critical voices have arisen against the *Cashback* policy. In April 2021, *Fratelli d’Italia*, a nationalist party representing the opposition, scheduled a vote in Parliament for the early termination of the program. Eventually, political support for the program collapsed, and the new Minister for the digital transition, Vittorio Colao, speaking about the possibility of an early termination of the initiative, declared: “It has already been a great success to date, we have a very high number of payment instruments that have been registered and many Italians, thanks to *Cashback*, have learned things that they did not do before; the pull effect did work” (Sole 24 ore, 2021; authors’ translation). Finally, Prime Minister Draghi declared the measure “regressive” as the main rationale behind its reversal.

In regard to this study, the arguments against the measure, mostly based on “equity” issues, show how the vested interest of institutionalizing a policy community may conflict with the general interest. Hence the measure is supposed to neglect the categories of citizens mostly affected by the pandemic and probably be regressive, since marginal categories are hardly those that benefit the most. Moreover, and probably more importantly in terms of saliency, the measure was revealed to have implementation issues. In particular, the incentives for the *Super-Cashback* initiative paved the way for opportunistic (albeit legal) conduct by several users, who

processed many micro-transactions for single-payment operations (typically a gas station supply) in order to be among the 100 thousand prize-winners. Another critical aspect—but marginal in the debate—was related to the calibration of the instrument. In fact, as the main policy target is a reduction in the VAT gap, the program is expected to succeed as much as electronic payments will rise in markets in which evasion is most likely to occur. In this regard, the inclusion of the main supermarket chains in the program was controversial, since the probability of payments “under the table” in these shops can be considered very low. Instead, coordination between supermarket chains and pagoPA was strengthened in the implementation phase as soon as the former realized that the *Cashback* initiative was somewhat in conflict with its own debit cards. As a result, these payment devices were promptly included in the program despite the risk such an arrangement could have had on its overall efficacy.

However, despite the backlash, the *Cashback* initiative did generate some positive feedback and even some impacts. The *Cashless Society*, an advocacy group advocating for the measure since 2015, showed survey data emphasizing a high level of appreciation of the measure by Italians and provided estimates of its positive impact on public finances (Cashless Society, 2021, pp. 28–29). Furthermore, spill-over effects have been strongly emphasized, as the measure, if maintained until 2022, would help in the diffusion of digital practices (De Molli, 2021; Interview 5). This argument is also particularly strong among the pagoPA executives and directors for two reasons. First, since *Cashback* has been strongly endorsed by the former Prime Minister and publicly promoted in his television speeches during the COVID-19 emergency, which induced a massive volume of subscriptions. This created some operational setbacks, but their resolution in a reasonable amount of time gave pagoPA strong positive feedback regarding their capabilities and confidence about future success (Virgone & Calvaresi, 2020; Interview 6). Secondly, since one of the conditions to join the *Cashback* initiative was the creation of a SPID, the success of the program can also be measured in terms of the boosting effect it had on the implementation of the digital identity (Interview 6).<sup>2</sup>

## DISCUSSION AND CONCLUSION

This work aimed to uncover the mechanisms through which institutionalization can be a successful policy strategy. In doing so, it established a dialog between two specific strands of the public policy literature: The debate on technology policy and that on anticipatory policy design. Accordingly, we discussed a mechanism meant to be found in a case of successful implementation of a policy strategy based on the creation of actors committed to public sector modernization through digital technologies. More specifically, we integrated the literature on technological innovation arguing that the organizational capacity of the new actors should be complemented by features capturing the initiatives effectively deployed to produce and entrench a relevant policy change. In this sense, we expected that a successful reform not only needs capable policymakers, but these actors should also be able to anticipate positive feedback in order to gain support from other actors in the arena.

Empirically, the paper presented a case study on a strategy for the digitalization of the public sector designed and implemented by several Italian governments. Coherent with the main causal claim advanced by the paper, these successes could not be directly related to institutionalization: Several initiatives based on the creation of an ICT “champion” within the public sectors had been promoted over the decades with poor results. In the same vein,

the EU Digital Agenda policy also cannot be assumed as causally linked to the Italian policy change, as it was triggered 4 years later as it became salient for domestic politics. Such a negative record makes the successes obtained by the new governance structure, emerging since 2016, puzzling.

The collected evidence shows the mechanism by which the creation of new agencies in a policy field can eventually bring about the desired outcomes. Notably, it has been highlighted that creating capacity and the deployment of strategies aimed at entrenching a policy field have thus far been causally linked with the outcomes, as former institutionalization attempts had never produced significant results. As expected, policymakers systematically relied on anticipatory positive feedback. These involved the selection of committed early adopters as well as communication strategies aimed at creating a bandwagon effect among implementers. At the same time—and, in this case, coherent with the literature on policy design—we also traced how the mechanism used to achieve the general-interest goal can be deployed by the same policy coalition to enlarge its domain in the field, also putting content-related outcomes in jeopardy.

Hence, as far as the Italian case can be considered a hard case for successful change, due to its chronic government instability and the presence of many veto players often able to block the modernization processes of the public sector (Ongaro, 2009), the mechanism posited for its explanation is robust if applied to the public sector's digital innovation, which constitutes the main scope within the literature on innovation policy. Yet, our study could not take into account the contextual factors related to the nature of the polity, which, in the presence of the mechanism discussed, could have produced different outcomes. A research strategy based on a systematic comparison of different case studies is needed to test the combination of mechanisms and contexts in this policy area.

## LIST OF INTERVIEWS

1. Interview 1: PagoPA spa, Chief Executive Officer, December 22, 2020.
2. Interview 2: Director of the Department for Digital Transformation (2018–2021), a branch of the Presidency of the Council (formerly: Team for the Digital Transformation), February 21, 2020.
3. Interview 3: ACI—Automobile Club Italia, Chief Information Officer, March 3, 2020.
4. Interview 4: City of Milan, Information services Area, Director, February 14, 2020.
5. Interview 5: Community Cashless Society (branch of The European House Ambrosetti), Partner and executive, March 23, 2021.
6. Interview 6: pagoPA spa, director (formerly: Team for the Digital Transformation), April 30, 2021.
7. Interview 7: Former Parliament Member (2013–2018), President of the Parliamentary Hearing Commission on Digitalization, May 13, 2021.

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## CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## ENDNOTES

- <sup>1</sup> In Italian: “Commissario straordinario”; a fixed-time executive position within the national government typically used to manage industrial crises and coordinate the implementation of infrastructure plans.
- <sup>2</sup> It is worth noting that Cashless Society and pagoPA seem to work synergically in their communication supporting the maintenance of the program, which constitutes plausible evidence of their coordination. For example, the director of the Cashless Society mentioned the good job done by pagoPA in its letter published by the *Corriere della Sera* (De Molli, 2021); in turn, pagoPA's CEO largely quoted the Cashless Society Report (cf. Virgone & Calvaresi, 2020).

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