



DIGITAL
TRANSFORMATION
TEAM

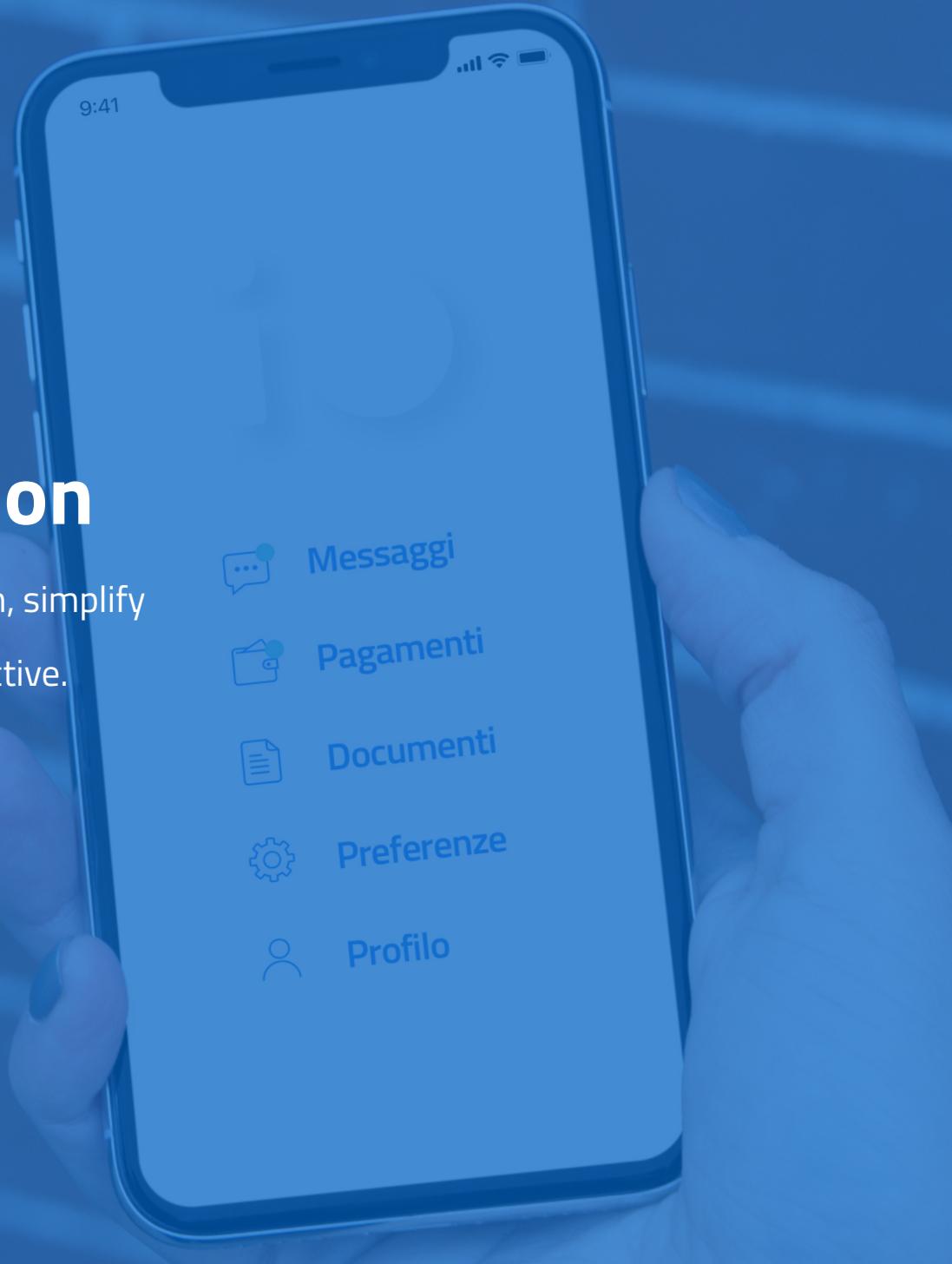
Digital Transformation of the public administration

is essential in order to create new opportunities for growth, simplify bureaucracy and make policies more transparent and effective.

It's day one!

Updated at **September 30, 2018**

This document was translated by **Artificial Intelligence**



The challenge for Digital Transformation of the public administration is not primarily technological (although technology is fundamental and necessary); it is largely a political challenge that must be guided from above and must address the problem of a general lack of skills and leadership in the PA, which are indispensable for successfully managing the transformation. **It is no coincidence that the most digitized local and central administrations are those led by determined and competent leaders who have created teams of directors, councilors, managers and officials who understand that "digital" thinking must influence the improvement of public services (and eliminate unnecessary processes and rules) and not simply automate existing processes. Digital transformation is the reinvention of the way public services are conceived, designed, implemented and managed.**

Technology is an enabler of change, but "being digital" is only partly the product of technological activities. Each day, we come across PA officials and managers who confuse implementation of a digital strategy with simple application of digital technologies to old processes. **Digital transformation of the PA is, in fact, often confused with the publication of manuals, forms and memoranda in PDF format and the production of websites, portals and apps, for which too much is often paid, despite their not being functional (sometimes even inoperative), ending up being little used and made solely because "there are funds to spend or else we lose them!".**

We have no specific data on Italy's wasted public investments in technology. However, the problem is not just Italian. One analysis¹ suggests that around \$3 trillion was spent in Western countries during the 2000-2010 period on government information systems. However, it is estimated that 60%-80% of egovernment projects failed, resulting in a huge waste of public, human and financial resources, without bringing any of the promised and expected benefits. Italy is not exempt from this problem.

Behaviors, daily actions, culture, communication and leadership of the PA must adapt to the digital world. **Citizens have the right to request greater simplicity, speed and transparency in the management of public services, and the State has a duty to provide services in a more modern and inclusive way, with increased involvement of innovative SMEs, adoption of agile methodologies and abandonment of old technological procurement schemes.**

¹ Digitizing Government: Understanding and Implementing New Digital Business Models.
Alan Brown, Jerry Fishenden, Mark Thompson. November 28, 2014

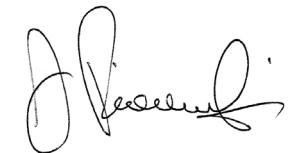
Investments in favor of process digitization, creation of digital skills, migration to more modern technological infrastructures, management of cybersecurity and creation of technological frameworks for management of the PA's big data – always with the utmost respect for the protection of privacy of the citizen – are undoubtedly as strategic as investments in physical infrastructures are in supporting the country's economic development.

Such social and economic policy actions risk being ineffective if not accompanied by digitized processes: **a more efficient and less bureaucratic State, the processes and services of which have been simplified and digitized, is one that helps the economic and productive fabric be more competitive at a global level. The country's development emanates mainly from cities; the major metropolitan areas are the nation's backbone and must be the protagonists of digital transformation. The competitiveness of Italian companies also depends on the competitiveness of our central and local administrative machinery.² Moreover, digital transformation of the public administration is able to bring enormous benefits, including direct savings in costs and increased revenues amounting to €35 billion, and to benefit businesses to the tune of €25 billion, according to the numerous published estimates,³ freeing up resources that can be utilized for new investments.**

We would finally like to emphasize that the country's digital transformation must be inclusive and see the involvement of small urban centers and more remote areas.

Such a transformation will occur also thanks to a coordinated number of interventions that include school and university education, the training of public employees and conditions favoring consolidation of an ecosystem of companies connected to the world of innovation and digital, and that reward entrepreneurial skills in young people.

– Diego Piacentini,
Italian Government Commissioner for the Digital Age



² Similar conclusions are reached in the [OECD Italy Economic Survey 2017, p. 45: public administration efficiency raises firm's performance](#).

³ [Among the many available estimates, we are referring to the egovernment report published by the Digital Agenda Observatory of the Politecnico di Milano - School of Management](#) in 2013. The analysis is based on the progress status of public projects within the Italian digital transformation in 2013 and previous years. Even though carried out in 2013, Politecnico di Milano's study on eGovernment defines a significant still-valid qualitative framework covering the potential impacts that the digital transformation can have on the public administration and businesses.

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This document contains a report of the activities carried out by the Italian Government's Digital Transformation Team from September 16, 2016 to September 30, 2018, evolution of the strategy for the PA's digital transformation drawn up in the Three-year Plan, as well as rethinking of digital public services for citizens and businesses.

The document also includes recommendations addressed to the Italian Government for the creation of a permanent digital governance model - including a review of the responsibilities and tasks assigned to the Agenzia per l'Italia Digitale (AgID - Agency for Digital Italy).

This document was translated by Artificial Intelligence.



The Digital Transformation Team of the Presidency of the Council of Ministers

The Italian Government's Digital Transformation Team (commissarial unit) is the structure of experts supporting the Extraordinary Commissioner for implementation of the Digital Agenda, appointed under Article 63 of [Legislative Decree 179/2016](#) on "Modifications and Amendments to the Digital Administration Code". The Extraordinary Commissioner was appointed on September 16, 2016 with the [Decree of the President of the Council of Ministers](#) (DPCM) to exercise powers of *stimulus and coordination, along with providing guidance to public and private entities for the realization of actions, initiatives and essential works, connected and instrumental to implementation of the Italian Digital Agenda, also in line with the objectives of the European Digital Agenda.*⁴

The structure was set up to address the lack of an operational, effective and competent central governance that could ensure the role of project coordination and fully implement the Digital Agenda.

— OBJECTIVE

We chose to focus on aspects of the Agenda related to digital transformation of the public administration as a vehicle for simplification and transparency of the administrative machinery and bureaucracy. We acted both through the development of existing programs and via the creation of new programs, also inspired by successful international models.⁵ In fact, the commissarial unit has supported and supervised the Agenzia per l'Italia Digitale (AgID - Agency for Digital Italy), accelerating and completing publication of the Three-year Plan for Digital Transformation, the drafting of which was long overdue with respect to the provisions of law.⁶

⁴ Art. 63 of Legislative Decree 179/2016 and [the Prime Ministerial Decree of September 16, 2016](#)

⁵ [US Digital Service](#) at the White House (USA) and the [UK Government Digital Service](#) at the Cabinet Office of the UK Government (UK), as well as the Estonian model represented by the [Estonian Information System Authority](#).

The themes that recur in this document can be summarized as follows:

- **AgID's current structure is not capable of carrying out the tasks and achieving the objectives identified by the [Digital Agenda](#) and by the [Digital Administration Code](#).⁷ Such tasks are too broad, heterogeneous and in many cases, abstract and unquantifiable.**

This document offers some suggestions for reducing the scope of AgID operations, both via reallocating the activities requiring skills of a technical-specialist nature and for the management of complex processes that the Agency does not have, together with eliminating those generic, abstract and non-measurable tasks that result in unnecessary conferences, round tables and inconclusive task forces at best.

- **The Team did not limit itself to drafting of the Three-year Plan but went to work immediately with operations on the [enabling platforms](#) that were at a standstill (the national registry, digital payments and digital identity), with rigorous actions to ensure the relaunch and development of projects, introducing structured mechanisms and processes, along with recruiting those with specific technological and managerial skills.**

At the end of the mandate, the programs should be relocated to the "owners" most suited to their permanent management and continuous evolution.

⁶ [Budget Law no. 208 of December 28, 2015](#) e [Art. 14-bis of the Digital Administration Code](#)

⁷ [Legislative Decree 82/2005](#)

→ In recent months, the Team has dedicated itself to rethinking, designing and launching some services which, due to their utility and frequency of use, have important repercussions on the life of citizens (flagship services). **The greatest breakthrough innovation involved the creation of [io.italia.it](#), the app with which citizens will be able to interact with the public administration in the future.** In this way, the Team has paved the way for other administrations in rethinking digital services for citizens.

→ **On the basis of the experience accumulated during the activities carried out, the Commissioner drafted a series of [recommendations for the Government](#), aimed at:**

- creation of a national strategic coordination body at the Presidency of the Council of Ministers, other than AgID, to be given charge of overall direction of executing strategic projects;
- reorganization and reinforcement of the structures handling innovation and digitization within central and local public administrations, including the numerous regional and central in-house entities.

The team has created the model by which to be inspired and which is, in our opinion, an essential step on the long road of transforming the PA.

— SKILLS AND BUDGET

The Digital Transformation Team is composed of 29 experts, employed outside the public administration, with mainly managerial and technological skills: technical program management, software development, software architecture, open source software, cybersecurity, digital payments, product and content design, user experience, big data, machine learning, data science, metrics and data analysis.

⁸ The resources allocated in 2016 have been identified within the resources already allocated to the Presidency of Council of Ministers. The resources for 2017 and 2018 have been allocated in accordance with [Section 585 of Budget Law no. 232 of December 11, 2016](#). For 2018, the budget foreseen has been subsequently reduced to €18 million, as a result of the application of the decrease of the financial budget foreseen in existing legislation under the terms of article 23, section 3 (b) of Law no. 196 of 31 December 2009.

The team also includes experts in law, communication and economics. The supporting administrative structure consists of 1 manager and 7 civil servants with specialist skills in the purchase of goods and services.

The structure was assigned €6.1 million in 2016, €11 million in 2017 and €18 million in 2018⁸. Expenses incurred so far by the team are published [here](#). As of September 28, 2018, the team has allocated around € 10 million and spent a total of around €7.6 million since the beginning of the mandate.

The screenshot shows the homepage of the 'Team Digitale' website. At the top, there is a blue header bar with the text 'Team Digitale' on the left, social media links on the right, and a navigation menu with items like 'Three Year Plan', 'Developers', 'Designers', 'Forum', 'Docs', 'GitHub', and 'EN'. Below the header, there is a logo for the 'DIGITAL TRANSFORMATION TEAM' and a sub-menu with items such as 'Data & Analytics Framework (DAF)', 'Designers Italia', 'Developers Italia', 'Digital Administration Code (CAD)', 'Digital Citizenship', 'Digital transformation plan', 'Electronic Identity Card (EIC)', 'National Resident Population Register (ANPR)', 'PagoPA digital payments', 'Public Digital Identity System (SPID)', and 'The API ecosystem'. The main content area features a large banner with the text 'Digital innovation for the dev' and 'Vision', followed by sections for 'Mission' and 'Tasks'.

⁸ The [Digital Transformation Team's website](#), which includes the experts' profiles, the projects' description and team's expenses.

VISION

Create Italy's "operating system", namely a series of fundamental components on which to build simpler and more effective services for citizens, the public administration and businesses alike.

Make an easily-accessible data asset available to support the definition and implementation of more effective policies and timely decisions.

We wish to underline that any aspect of the digital transformation projects, be they initiated or yet to commence, pertaining to the processing of personal data has the objective of being compliant with the European Regulation for the Protection of Personal Data 679/2016 (GDPR) and to be shared with the Personal Data Protection Authority.

MISSION

Make public services for citizens and businesses accessible in the simplest possible way, utilizing mobile devices (a "mobile first" approach), with secure, scalable and highly-reliable architecture based on clearly-defined application interfaces (APIs).

For informational and monitoring purposes, we created the [Digital Transformation Team website](#) containing:

- updates on the [projects](#) managed by the Team and the [expenses of the structure](#) relating to both the project and institutional activities;
- a dashboard with metrics and Key Performance Indicators (KPIs) to measure progress of the enabling platforms managed by the Team (Spid, pagoPA, ANPR).

The Strategy: The Three-year Plan

— CONTEXT

Digital transformation of the public administration requires authoritative central governance, with human capital possessing strong technological and process management skills, and a strategy that is consistent with the needs of citizens and businesses.

The current lean and agile composition of the Team is intended as a first version of the governance and operational management model. It is the beginning of a long-term journey, one that is long overdue, especially when compared with other EU countries.

— OUR ACHIEVEMENTS

Together with AgID, we drafted and implemented the [Three-year Plan for Digital Transformation of the public administration](#), the first strategic policy document approved by a Prime Minister - [Prime Ministerial Decree of May 31, 2017](#) - with the aim of leading the public administration along an organic path of digital transformation.

The Three-year Plan will require updating in September each year, establishing the cornerstones of this process of change, as outlined below:

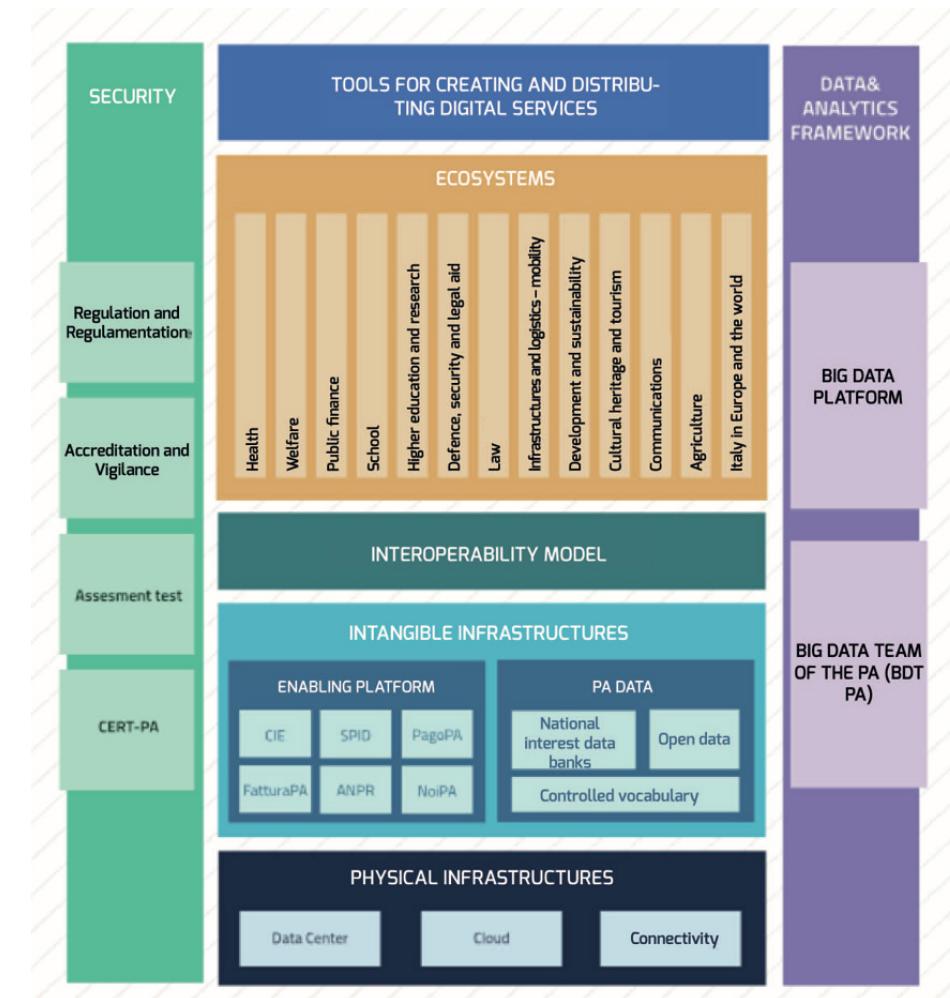
- adoption of a modern [connectivity](#) model for the public administration, no longer based on physical infrastructures dedicated to the exchange of data, but on direct internet access by every public office for the use of services - also in the cloud - in order to ensure efficiency, security and cost savings;
- [migration of the thousands of data center sites to a hybrid cloud infrastructure for the PA](#) and a limited number (<10) of data centers that fall within the scope of Poli Strategici Nazionali (PSN - Strategic National Hubs). This hybrid infrastructure offers greater security and flexibility, with reduced costs;



The [website of the Three-Year-Plan](#) for the digital transformation of the public administration, published with DPCM on the 31st May 2017.

- definition of [minimum security guidelines](#) for the PA's technological infrastructures;
- adoption of [enabling platforms](#) such as that for digital identity ([SPID](#)), [the National Registry \(ANPR\)](#), the electronic identity card ([CIE](#)) and the digital payment platform ([PagoPA](#)) to simplify citizen interaction with the public administration;
- development of [interoperability](#) rules that are clearly defined and based on API (Application Programming Interface) to permit systems to communicate with each other;
- enhancement of [open source](#) as a method of collaborative development of digital public services, being more efficient and less costly, and the creation of dedicated tools - [Developers Italia](#) and [Designers Italia](#) platforms, guidelines, examples, and open source and design development kits for easy and rapid implementation - to enable developers, designers and technology providers to contribute to the evolution of digital public services, helping administrations deliver a modern user experience that is consistent and simple for all citizens;
- enhancement of [public data](#) through the creation of a big data analysis platform equipped with modern data science and machine learning tools ([Data & Analytics Framework](#) - [National Digital Data Platform](#));
- [rationalization](#) and reclassification of ICT spending towards modern technological solutions;
- directions for a [governance model](#) in support of the process of changing and transforming the public administration.

The Three-year Plan provides Italian innovation and digital companies with a medium- and long-term vision of the public administration investment guidelines towards which to direct the construction of their skills and the development of a vigorous and lasting market. National cloud infrastructures, development of high quality application software and structural review of the processes of service delivery to citizens require strong interaction with private companies.



Map of the strategic model for the ICT system in the public administration.

[Chapter 2.1 of the Three-Year-Plan for the digital transformation of the public administration](#)

DIGITAL AGENDA FOR EUROPE

The [Ministerial Declaration on eGovernment](#) signed by Italy in Tallinn in October 2017 commits our country, together with other Member States, to the implementation of the principles and objectives of the [eGovernment Action Plan 2016-2020](#), an integral part of the European [Digital Single Market](#) strategy.

The Three-year Plan has already adopted all principles/objectives of the European plan for the digital transformation strategy of the public administration. [An analysis](#) of the [Tallinn Ministerial Declaration](#) compared with the principles and projects contained in the 2017-2019 Three-year Plan confirms its complete conformity. The Declaration commits the Member States to five areas of objectives to be achieved over the 2018-2022 period. These objectives are identified on the basis of the principles of the 2016-2020 [eGovernment Action Plan](#) as summarized below:

1. *Digital-by-default, inclusiveness and accessibility;*
2. *Once only;*
3. *Trustworthiness and security;*
4. *Openness and transparency;*
5. *Interoperability by default.*

The digital transformation projects of public services that have been relaunched or initiated during last year and this year are an important part of achieving these objectives.



The law: The Digital Administration Code

— CONTEXT

Digital transformation of the public administration requires a normative and regulatory framework that is flexible and neutral with respect to technological choices.⁹ The [Digital Administration Code¹⁰](#) (DAC) presented several critical issues: too many technical rules and regulations, very often detailed and containing technological choices, which - quickly becoming obsolete - hinder innovation and the diffusion of a digital transformation strategy.

— OUR ACHIEVEMENTS

We collaborated with the Department of public administration in the drafting of [Legislative Decree no. 217 dated December 13, 2017](#) modifying the [Digital Administration Code](#) by:

- making the DAC more neutral in regards to the technology¹¹ and transforming the technical rules into guidelines, which were adopted in a flexible manner, based upon the outcome of online public consultation and constantly renewed so as not to restrict technological decisions in respect of compliance with legal precepts;
- simplifying the choice of the digital domicile¹² for citizens so that they can receive communications from the public administration in a digital manner;
- setting up within the Agenzia per l'Italia Digitale an office of the Digital Ombudsman for citizens and businesses that is authoritative, independent and uses modern digital tools, so that the rights of digital citizenship expressed by the DAC are guaranteed in the

interaction with public administration;

- enhancing open source and accompanying the obligations to reuse software with the tools for its release and publication, rendering DAC one of the most advanced laws in Europe for open source;
- institutionalizing, with the introduction of Article 50-ter of DAC, the National Digital Data Platform, a big data platform that permits the elimination of silos through the collection, sharing (via API), visualization and analysis of public administration data using data science and machine learning tools.

However, it should not be forgotten that both the Plan and the DAC are necessary but not sufficient tools for digital transformation of the public administration. They should be accompanied by the creation of processes, adequate investments for the adoption of modern technological solutions and the recruitment of human capital possessing specific skills. For its full accomplishment, there is a need for incentives to digitization and - when necessary - disincentives to analog (with MEF sanctions).

Proof that digital transformation does not happen by law is shown by the fact that no country, even among those more digitized than Italy, has felt the need to introduce a code for digital administration, adding instead ad hoc rules in specific contexts.

⁹ Within the [Digital Administration Code](#), there are recurrent examples not only of digital principles, but also of indications of how these principles should be implemented using specific technological solutions. These choices, contained within a key regulatory document, are difficult to update and cannot keep pace with the rapid evolution of technology. The term technological neutrality indicates the specific action of simply setting out the principles in law without obliging those concerned to use specific technological solutions

¹⁰ [Legislative Decree no. 82 of March 7, 2005](#)

¹¹ Regulatory indications of specific technological implementations have been deleted. For example, the DAC no longer states that certain legal effects can only be obtained by using a digital signature; instead, it identifies a series of prerequisites of the tools that can be used for this purpose, giving the Agency for Digital Italy the task of analyzing, identifying and constantly updating the list of the tools used for this purpose with simple guidelines based in part on the new possibilities offered by the evolution of technology.

¹² Certified electronic mail (PEC or other eIDAS-certified address) that the public administrations must use for all legally valid communication with citizens and that individuals can use for the same purpose.



Projects underway

The Team is interacting positively with the main players of digitization such as Consip, Sogei, IPZS, ACI Informatica, InfoCamere, and various regional and local in-house operations. In few cases, this interaction has resulted in the launch of an internal digital transformation process and the use of agile and iterative methods of development of the in-house operations themselves.

How can we be players in the PA's digital transformation process if the main player is not even digitized (see AgID)?

The Team has also initiated a process of interaction with those virtuous public administrations that have chosen to undertake the process of digital transformation, starting with a collaborative model, the lack of which was one of the main obstacles to the innovation in the PA.

For example, the Team is collaborating with the Municipalities of Rome, Turin, Milan and numerous minor municipalities, and with central PAs such as the Corte dei Conti, the Revenue Agency, INPS (Italy's National Social Security Institute) and many others.

The screenshot shows the homepage of the Digital Transformation Team's website. At the top, there is a blue header bar with the Italian coat of arms, the 'DT' logo, and navigation links for 'Three Year Plan', 'Developers', 'Designers', 'Forum', 'Docs', 'GitHub', and 'EN'. Below the header, there is a banner with social media icons for Twitter, LinkedIn, and YouTube, and email addresses 'Innovation7@G7' and 'EU-DTT'. The main content area features a large 'Projects' section with a sub-section for 'Data & Analytics Framework (DAF)'. A sidebar lists various projects: National Resident Population Register (ANPR), PagoPA digital payments, Public Digital Identity System (SPID), and The API ecosystem. The right side of the page contains a text block about the Digital Transformation Team working on the "operating system" of the PA. At the bottom, there are logos for the Digital Transformation Team, Italian Government, Department of Public Function, and Agenzia per l'Italia Digitale, along with social media icons.



List of projects on the [Digital Transformation Team's website](#).



The Cloud and Strategic National Hubs

— CONTEXT

The physical infrastructures of the PA are very fragmented and often technologically inadequate despite the fact that the data center share expenditure in physical infrastructures (€681 Mln) by the central public administrations is estimated to be around 39%.¹³

The Three-year Plan has outlined a rationalization process with the aim of reducing management costs and spending on ICT and, simultaneously, fostering the provision of services that are more suited to the needs of citizens and businesses. This process is based on a radical migration towards the cloud paradigm and the use of a reduced number of data centers - the Poli Strategici Nazionali (PSN - Strategic National Hubs).

However, many difficulties remain regarding the implementation of this migration path: resistance to change by public administrations, which wish to maintain their local data centers; procurement processes that make cloud-based contracting difficult to achieve; the lack of widespread broadband connectivity throughout the territory (an issue that is currently being resolved thanks to the [ultra-broadband plan](#)). Budget regulations and the code for procurement are also quite rigid in respect of cases in which a PA shares its own data center to provide services to another PA.

¹³ The estimate concerns the aggregate of the multi-year costs sustained by 21 Central public administrations for the projects surveyed in the "Physical Infrastructures" category contained in [Annex 3 - Overview of ICT](#) expenditure of the Three Year Plan for Information Technology in the public administration 2017-2019.

— OUR ACHIEVEMENTS

We worked with AgID and with Consip (Italian Government central purchasing body):

- on the definition of the [Cloud for the PA](#) with the publication, following a public consultation process, of the two memoranda that qualify the [SaaS](#) services¹⁴ and the [Cloud Service Provider](#) (CSP) for the public administration;
- on the census of the PA's ICT infrastructures necessary for the identification of the PSNs, with all Italian public administrations being involved in the description of their technological assets and services;
- on the design of the [Cloud Marketplace](#), the platform integrated with Consip tools to gather the cloud services qualified by AgID and make them comparable and accessible to all administrations.

We also developed a means of enabling the cloud to facilitate the migration of PAs to the new paradigm.

¹⁴ Cloud services consist of IaaS, PaaS and SaaS services.

- IaaS (Infrastructure as a Service) services consist of providing a physical and virtual technological infrastructure capable of offering computing, networking and storage resources remotely and via APIs, without the need to purchase hardware.
- PaaS (Platform as a Service) services consist of providing platforms to develop, test and distribute applications on the internet.
- SaaS (Software as a Service) services consist of software applications accessible via the internet using different types of devices (desktop, mobile, etc).

WHAT'S NEXT?

The use of PSNs for services with specific needs (such as national security) will be crucial.

It is thus necessary that they meet clear technical, security and organizational requirements as defined in [AgID's memorandum 5/2017](#).

In this regard, the hypothetical possibility that none of the existing data centers in the PA - with the exception of that of Sogei - is able to satisfy these requirements must also be considered. All the remaining services will need to migrate to the PA's Cloud instead.

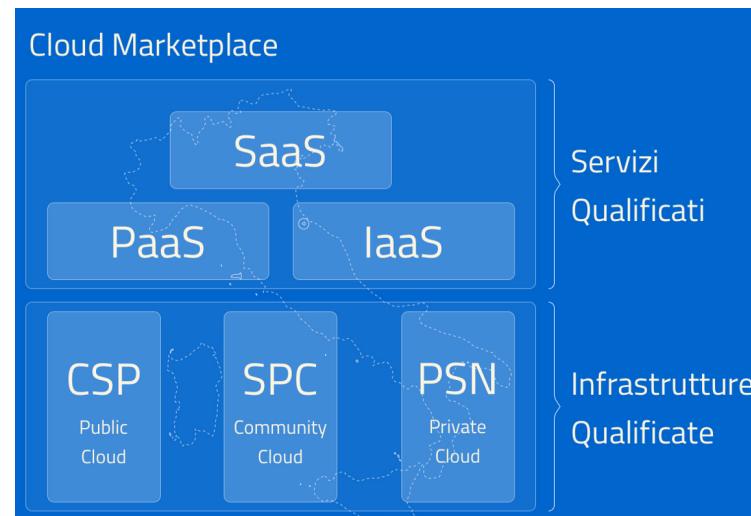
The PSNs will need central coordination in order to ensure homogeneous functions and levels of service. Physical implementation and operational management could be left to a third party that is reliable and capable of organizing, developing and maintaining infrastructures over time, as is required of central governance.

To this end, it is worth mentioning the experience of the British Government, which identified a private partner via a tender process to build the only national physical infrastructure of a dedicated data center: [Crown Hosting Data Centres](#).

Adoption of the cloud model, instead, will change the connectivity requirements by making the SPC architecture and the [SPC Connectivity Framework Agreement 2](#) obsolete, requiring the adoption of a new model that privileges access to the public network without the need for a dedicated intranet.

To manage this program, we need a dedicated team with strong technical and project management skills, which AgID currently lacks, as well as a team of people throughout the territory able to support local administrations during the migration process.

To continue with this project, we suggest the establishment of a new unit of at least 25 people, skilled in cloud architecture, technical program management, cybersecurity and privacy, within the Digital Transformation Department of the Presidency of the Council or the



↑ Representation of the Cloud-for-the-PA model.

Ministry of Economy and Finance - General State Accounting Office (see the section on [Recommendations for the Government](#)), as well as 100 people in support of local administrations throughout the territory for implementation of the program.

Experts from the Digital Transformation Team currently working on this project would be available to join this team.



ANPR National Resident Population Register (ANPR)

— CONTEXT

The Anagrafe Nazionale Popolazione Residente (ANPR - the National Resident Population Register) was established by law in 2012¹⁵ at the Ministry of the Interior with the aim of bringing together the asynchronous registers of all municipalities in a national register containing the data of residents in Italy and of Italians residing abroad. Sogei was entrusted with the project implementation.

With ANPR, having a unique and reliable source for citizens' data available, administrations will be able to communicate and exchange information efficiently with each other in order to ensure greater security and huge saving of working hours.

For example, thanks to ANPR, just managing change of residence will lead to savings of 3.5 million work hours for public employees who can turn to activities with greater added value.

ANPR is an essential step in making future innovations possible. Already today, ANPR allows citizens to obtain immediate benefits such as the request for registry certificates from all the municipalities (not only that of residence), a simpler way of changing residence and, soon, the possibility of obtaining certificates from a single portal and, in the future, through the mobile app developed by the [io.italia.it](#) project.

Under the law, the migration of personal data from all the municipalities to ANPR should have been completed by December 31, 2014, but in October 2016, only one municipality had migrated into ANPR.

— OUR ACHIEVEMENTS

We intervened in the deadlocked project, creating the Program Office, which was appointed by the Ministry of the Interior in September 2017, to steer the technical direction of the project together with Sogei. We carried out a review of the processes and the work plan, agreeing on the technological evolution of the platform, facilitating software houses in the process of migration of the municipalities for which they are suppliers. The technical documentation, development kit and test environment have been released, along with a bug tracking system.

We introduced a tool for planning the technical work and recovery of personal data (platform for planning the takeovers) and created [public dashboards](#) with information on progress and forecasts. We also collaborated with the Department of public administration on the [publication of a tender](#) for local authorities to take advantage of an economic contribution - European PON Governance funds - to help the migration progress into ANPR.

¹⁵ [Art. 2, Section 1, of Legislative Decree 179/2012](#)

The different methods of operational and technical management allowed the relaunch of ANPR. From the 13 municipalities which had migrated in August 2017, more than 5 years after the time set under the law, the number has risen to [715 municipalities](#), equal to a population of [9.8 million people](#), including the Municipalities of Milan and Turin which came under ANPR in July 2018. Furthermore, [1353 municipalities](#) – equal to a population of [10.7 million people](#) – are currently being tested for the takeover.¹⁶ We are now averaging 5 municipalities per day, with the realistic goal of having 80% of the Italian population's data in ANPR by December 31, 2019.

WHAT'S NEXT?

We suggest maintaining the ANPR Program Office even after the end of the Digital Transformation Team's mandate, in order to continue the technical management of the project, allowing it to be completed without losing the experience gained.

In light of the remarkable results achieved and the existence of clear processes, the Program Office, which should be staffed by at least 5 people - with skills predominantly in technical program management, software development and architecture, and personal data - could be located within the Department for the Digital Transformation of the Presidency of the Council (see the section on [Recommendations for the Government](#)) or in the Department of the Ministry of the Interior responsible for implementation of ANPR. Experts from the Digital Transformation Team who are part of the current Program Office would be available to continue being part of this team.

¹⁶ The data is up-to-date as of September 30, 2018

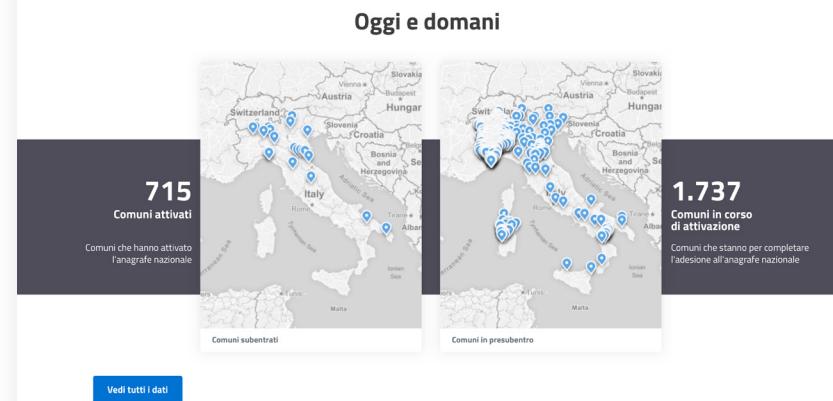
Mockup of the new ANPR website, which allows citizens to directly obtain their own a registry certificate with legal value.



Il progetto

I vantaggi

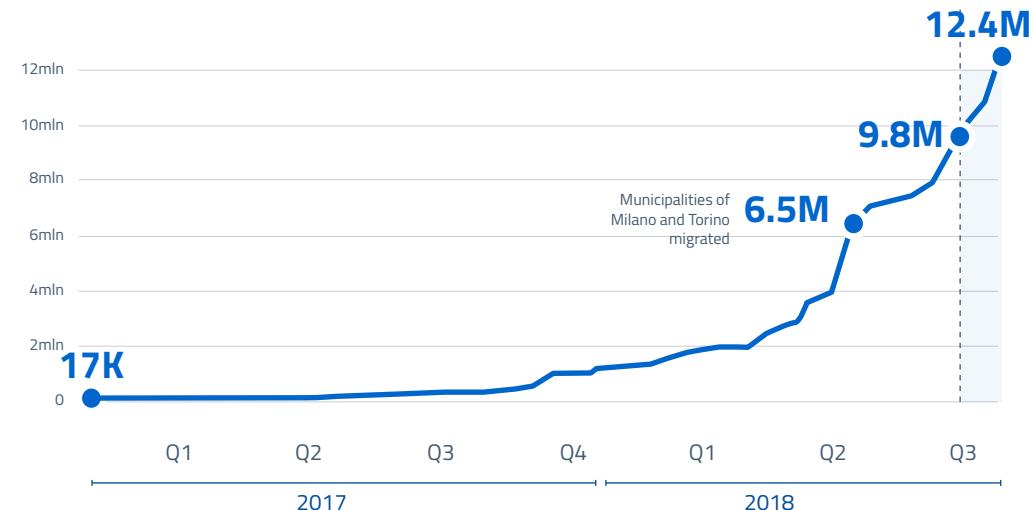
Stato di avanzamento



30/09/2018

In the meantime, Sogei will have to adapt ANPR to the new interoperability model via API for its integration into digital public services. It is also necessary to start the second phase of the project (ANPR rolled out) that will permit the digitization of additional municipal services.

In light of the creation of the operational, technological and financial mechanisms described above, there are no longer reasons for the municipalities not to be under ANPR. We thus suggest establishing MEF sanctions for those municipalities which, by December 31, 2019, had not yet done so.



↑ Population migrated in ANPR over time and relative projection up to October 31, 2018 (based on the estimates provided by municipalities on the date of migration). [Link to the dashboard](#).
Data updated at September 30, 2018.



↑ Number of the municipalities that migrated in ANPR over time with a projection up to december 2018 obtained with logistic regression. Data updated at September 30, 2018.



AgID Agenzia per
l'Italia Digitale

PagoPA The single payment platform

— CONTEXT

In 2011, pagoPA was established by law,¹⁷ as the single platform for Italian public payments to pay taxes, fees for university, school canteens, fines, garbage tax (TARI) and all public administration taxes and services.

PagoPA's objective is to bring about a simplification, both for citizens and administrations, in the management of public service payments and the complete elimination of cash.

PagoPA permits the public administration to manage payments in a centralized manner, offering automatic reporting and reconciliation services to one (or more) of the State's bank accounts, without errors and with significant savings in management costs, allowing each citizen to choose how and with which tools to pay, both online and offline, avoiding queues at counters and using modern and innovative payment methods in compliance with European regulations ([Payment Service Directives](#)).

Thanks to pagoPA, every citizen saves an average of €110 a year, while the PA will save €1.1 billion.¹⁸

¹⁷ Article 81, Section 2-bis of Legislative Decree no. 82 of March 7, 2005 introduced with [Art. 6, Section 2-bis of Legislative Decree 138/2011](#) and [Art. 5 of Legislative Decree no. 82 of March 7, 2005](#) modified by Art. 15 of [Decree Law 179/2012](#)

The platform was coordinated by AgID and technologically implemented by SIA, a company owned by Cassa Depositi e Prestiti (CDP), which proved to be the most suitable candidate thanks to the uniqueness of its expertise in the design, construction and management of infrastructure and technological services dedicated to financial institutions, including the National Interbank Network and the infrastructure of 18 European financial markets.

The platform was launched in January 2014 but, even though public administrations had the obligation to join by December 31, 2015,¹⁹ few services were using it. Since the release of pagoPA in December 2016, approximately 900,000 transactions have been completed, compared with the hundreds of millions of payments that are made each year for public services.

¹⁸ In quantifying these amounts, the hours of work saved by public employees who manage payments have not been taken into account. The data source is a study carried out by the Digital Transformation Team and Cassa Depositi e Prestiti.

¹⁹ [AgID Guidelines, Official Gazette of the Italian Republic No. 31 of February 7, 2014](#)

OUR ACHIEVEMENTS

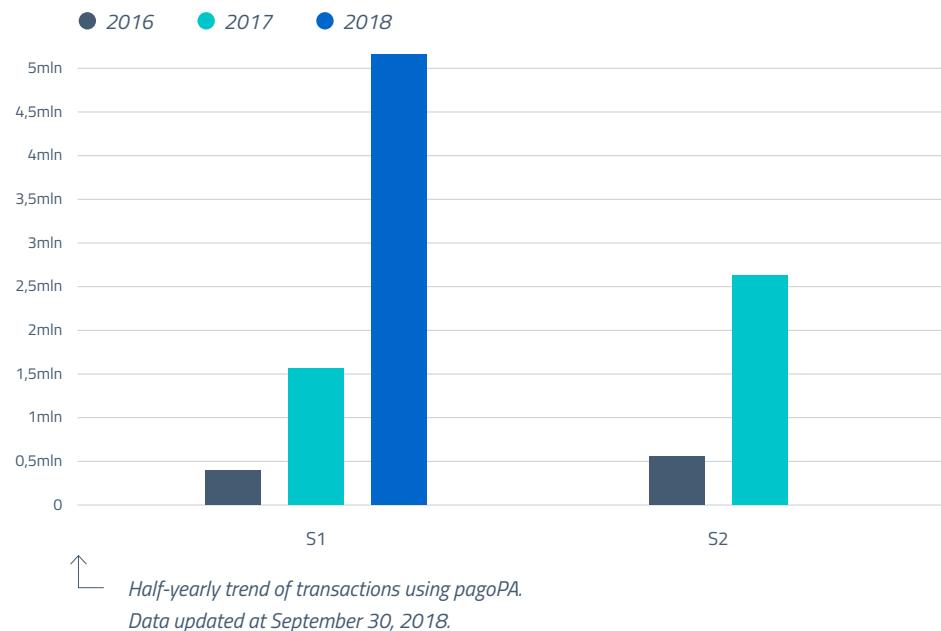
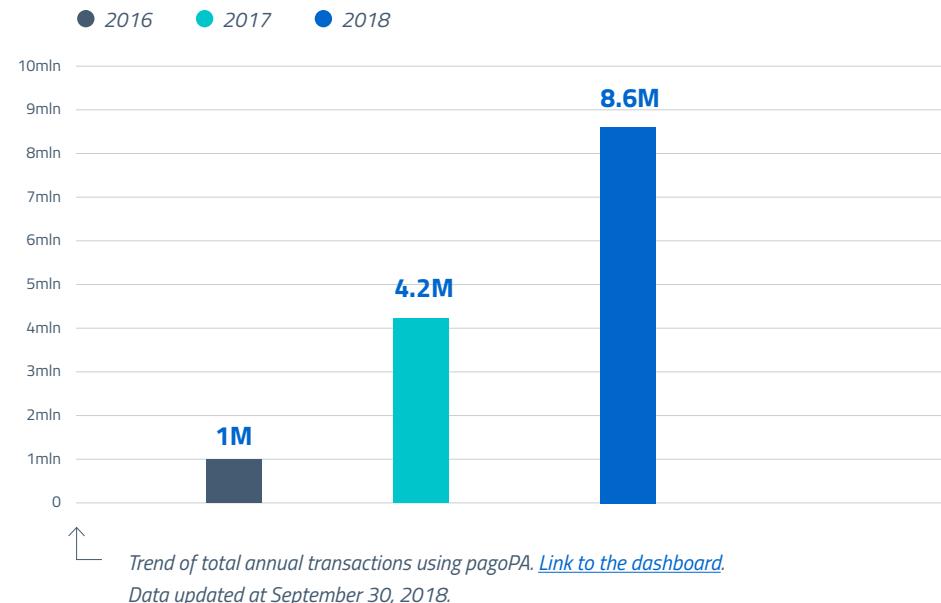
We worked on the project with a review of the online, web and mobile user interface, designing a more intuitive printed notice for payments in physical points. We released technical documentation, guidelines, development kits and test environments on [Developers Italia](#) to facilitate the integration of digital pagoPA services by technology providers, favoring the inclusion in the platform of innovative payment instruments (for example, public services can also be paid using PayPal and Satispay).

We produced a roadmap for the integration of pagoPA as the only payment platform for public services most used by citizens. For example, in September 2017, the Municipality of Milan moved the collection of the TARI garbage tax to pagoPA, with a 20% increase in collections throughout the entire collection period compared with the previous year, with a peak in payments on Sunday and in the evenings. We are also working on a structured plan to push and drive all municipalities to do the same, both for TARI and the payment of fines.

There are many other recent successful cases, among which we mention ACI, INPS, and the Revenue Agency.

As of September 30, 2018, approximately 8.6 million transactions have been recorded in 2018, totaling around **€1.28 billion**, with an increase in the first semester 2018 of 240% (number) and 358% (value) respectively compared with the same period of the previous year. In the first two quarters of 2018, 92% of the transaction value of the previous 36 months was achieved. **The platform now has an increasing average of about 890,000 transactions per month, for a value of over €175 million.**

Around 2,500 entities adhere to pagoPA or have accepted at least one payment through pagoPA in the last month, of which more than 67% are municipalities.



WHAT'S NEXT?

AgID, at least in its current structure, is not suitable for managing and making pagoPA grow. It is necessary to identify an entity with adequate technical skills that is also able to manage complex processes in order to ensure continuous technological evolution of the platform and its diffusion among digital public services.

The entity which should oversee pagoPA is the Ministry of Economy and Finance (MEF). In our opinion, it is necessary to set up a unit of 30 people that is competent, flexible in the recruitment of specific profiles, even outside the public administration (including experts in software architecture and digital payments, technical program management, cybersecurity, product and user experience), and authoritative, with the objective of working with SIA and integrating pagoPA in all central and local administrations (including consular networks that often use inadequate payment methods) by December 31, 2019. Experts from the Digital Transformation Team involved in coordinating pagoPA would be available to join the new team.

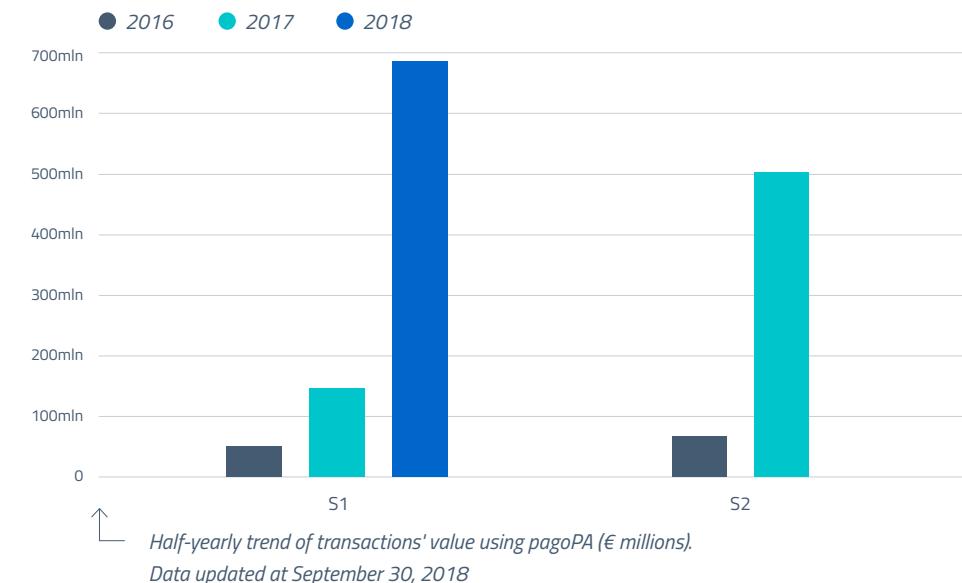
More specifically, we suggest evaluating the following approach:

- entrust oversight of pagoPA to a NewCo created by the MEF and with the participation of CDP, given the strategic nature of the payments sector and the link between CDP²⁰ and the PA; the business model of the NewCo will facilitate the transformation of a current cost center into a revenue center for the State;
- continue outsourcing the technological evolution of the platform to SIA, considering the excellent work done to date and its specific expertise in the payment sector.

²⁰ In this regard, a study was carried out together with CDP to analyse placement of the project within a NewCo created by the MEF and with the participation of CDP.



Trend of total value of annual transactions (€ millions) using pagoPA.
 Data updated at September 30, 2018.

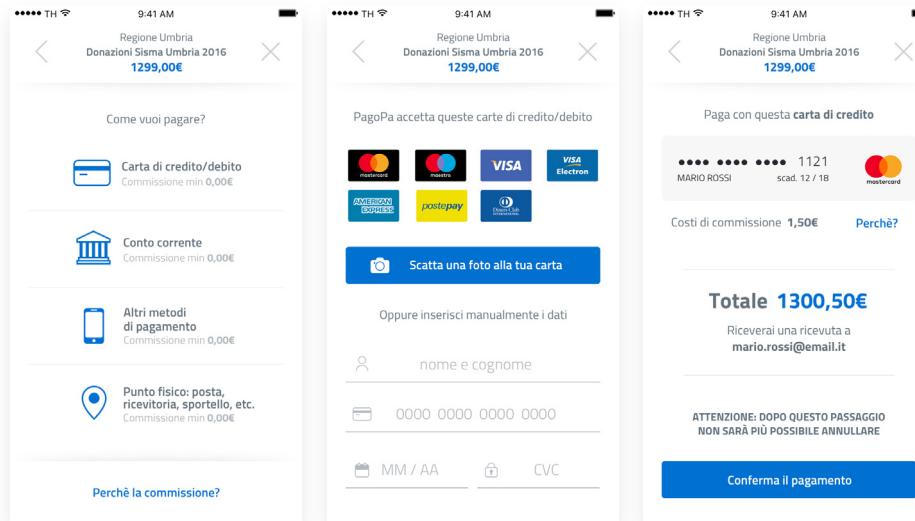


Half-yearly trend of transactions' value using pagoPA (€ millions).
 Data updated at September 30, 2018

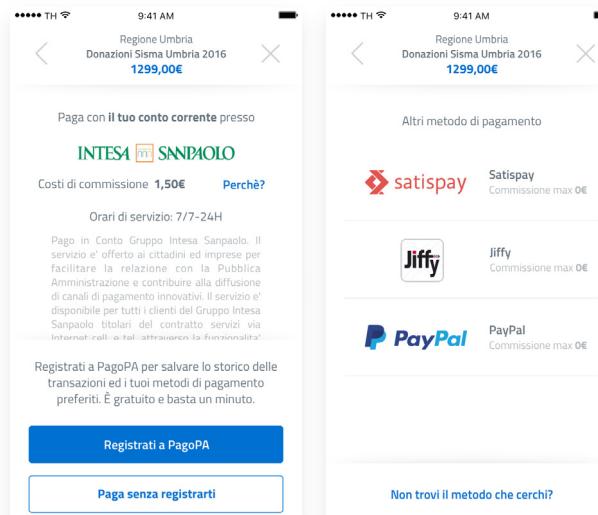
In light of the creation of the operational, technological and financial mechanisms described above, local and central public administrations have no reasons not to integrate pagoPA into their payment services.

We thus suggest that MEF introduces sanctions against those administrations that have not adopted pagoPA by December 31, 2019.²¹

Please note: adopting pagoPA means activating the payment platform within one's systems according to the established guidelines and cease accepting payment transactions using other systems; it is not just signing the agreement (as was the case for AgID).²²



↑ *New online pagoPA user interface on mobile.
 These screens represent the flow of credit/debit card payments.*



↓
 (4, 5)
PagoPA allows easy integration of both traditional (debit/credit cards and current account) and innovative (including Satispay, Jiffy and Paypal) payment methods.

²¹ Art. 65, Section 2 of [Legislative Decree no. 217 of December 13, 2017](#) made it obligatory for the PA to use only the pagoPA payment platform from January 1, 2019.

²² This led to a significant number of PAs joining pagoPA in name only, with a small number of services actually using the platform.

PagoPA The single payment platform



AVVISO DI PAGAMENTO

ENTE CREDITORE
 COMUNE DI MILANO
 AREA FINANZE E ONERI TRIBUTARI
 CF:01199250158
www.comune.milano.it
 Mail:tassarifuti@pec.comune.milano.it
 PEC:tassarifuti@pec.comune.milano.it
 CODICE INTERBANCARIO: A0EDT (codice SIA/Azienda da utilizzare presso le Banche che rendono disponibile il pagamento tramite il circuito CBILL)

INTESTATARIO
 COGNOME/ NOME PAGATORE
 CODICE FISCALE PAGATORE
 INDIRIZZO PAGATORE
 CAP – CITTA' PAGATORE

Importo : €. ####,###,##
Data Scadenza Rata unica : gg/mm/aaaa
Causale : TARI #### - "Tipo documento"

Codice Avviso **001111116000001578**

ISTRUZIONI DI PAGAMENTO

Il servizio è disponibile 7 giorni su 7 dalle 8:00 alle ore 24:00 fatto salvo diverse indicazioni da parte di ogni singolo Prestatore di Servizi di Pagamento.

Per poter effettuare il pagamento in rata unica occorre utilizzare il Codice Avviso di Pagamento sopra indicato oppure il QR Code o i Codici a Barre , riportati a fondo pagina.

Per effettuare il pagamento rateale è possibile utilizzare, entro le scadenze indicate per ciascuna rata, i dati e i codici riportati nelle pagine successive.

Attraverso il sistema PagoPA® è possibile effettuare il pagamento con le seguenti modalità:
 Presso le Banche e altri prestatori di servizio di pagamento aderenti all'iniziativa tramite i canali da questi messi a disposizione (come ad esempio: home banking, ATM, APP da smartphone, sportello, ecc.).
 L'elenco dei punti abilitati a ricevere pagamenti tramite pagoPA® è disponibile alla pagina <http://www.agid.gov.it/agenda-digitale/pubblica-amministrazione/pagamenti-elettronici/pspa-aderenti-elenco>.

PagoPA® è un sistema pubblico - fatto di regole, standard e strumenti definiti dall'Agenzia per l'Italia Digitale e accettati dallo Pubblico Amministrazione e dai PSP aderenti all'iniziativa - che garantisce a privati e aziende di effettuare pagamenti elettronici alla PA in modo sicuro e affidabile, semplice e in totale trasparenza nei costi di commissione. Si tratta di un'iniziativa promossa dalla Presidenza del Consiglio dei Ministri alla quale tutte le PA sono obbligate ad aderire.




Il Comune di Milano ha predisposto il presente avviso in collaborazione con il Partner Tecnologico Gruppo Intesa Sanpaolo



COMUNE DI MILANO

AREA FINANZE E ONERI TRIBUTARI

pagoPA

Avviso di pagamento PagoPA

Questo avviso di pagamento PagoPA®, sostituisce l'avviso di pagamento MAU/RUV e il Bollettino di conto corrente postale.

Oggetto del pagamento
TARI 2016 - SUPPLETIVO

Intestatario avviso
Mario Rossi
 CF MRORSS12A34C123F
 Viale Murillo 8, 20149 Milano

Ente creditore
Comune di Milano
 Area finanze ed oneri tributari
 Codice Fiscale 01199250158

Per informazioni www.comune.milano.it | Email tassarifuti@comune.milano.it | PEC tassarifuti@pec.comune.milano.it

Paga in una unica soluzione (vedi sotto) o in 3 rate (vedi pagine seguenti)


PAGA SUL SITO O CON L'APP
 della tua Banca o degli altri Istituti di Pagamento
Potrai pagare con carta, conto corrente bancario, CBILL.


PAGA SUL TERRITORIO
 in Banca, in Ricevitoria, dal Tabaccaio, al Bancamat, ai Supermercati
Potrai pagare con contanti, con carta o conto corrente

 Trovi la lista completa dei canali di pagamento su agid.gov.it/pagopa

UNICA SOLUZIONE

Importo'
€150,00

Scadenza
30/09/2017

Codice Avviso di Pagamento (IUV): **0011 1111 6000 0015 78**

Codice Interbancario (circuito CBILL): **A0EDT**

Scansiona il codice per pagare sul sito o con l'app




QrCode per pagare sul sito o con l'app

AgID Agenzia per l'Italia Digitale

PagoPA® è un sistema pubblico che garantisce a privati e aziende di effettuare pagamenti elettronici alla Pubblica Amministrazione in tutta Italia. È stato realizzato in collaborazione con il Partner Tecnologico Gruppo Intesa Sanpaolo.

Il Comune di Milano ha predisposto il presente avviso in collaborazione con il Partner Tecnologico Gruppo Intesa Sanpaolo.

[1] L'importo del prezzo del documento potrebbe subire variazioni rispetto a quanto sopra riportato in quanto aggiornato automaticamente dal sistema (in funzione di eventuali sgravi, nota di credito, tasse, imposte, multe, sanzioni amministrative, ecc.). Il prezzo del pagamento può quindi essere diverso rispetto all'importo indicato in questo avviso.

[2] Il Codice Interbancario (codice Ente) è il codice da utilizzare presso le Banche che rendono disponibile il pagamento tramite il circuito CBILL.

pagina 1



AVVISO DI PAGAMENTO

Milano | **Comune di Milano**

Tari 2018

| | |
|---|---|
| ENTE CREDITORE CF 1234567890 | DESTINATARIO DELL'AVVISO CF MRORSS12A34C123F |
| Comune di Milano | Mario Rossi |
| Settore finanze ed oneri tributari | Viale Murillo 8, 20149 Milano (MI) |
| Via S. Pellico 16, 20121 Milano | Per informazioni www.comune.milano.it Email tassarifuti@comune.milano.it PEC tassarifuti@pec.comune.milano.it |
| QUANTO E QUANDO PAGARE? Puoi pagare anche a rate | |
| DOVE PAGARE? Lista dei canali di pagamento su www.pagopa.gov.it | |

234,00 Euro entro il **31/01/2018**

Puoi pagare con una unica rata oppure in 3 rate (vedi pagina seguente). La ratificazione non prevede costi aggiuntivi.

L'importo è aggiornato automaticamente dal sistema e potrebbe subire variazioni per eventuali sgravi, note di credito, indennità di mora, sanzioni o interessi, ecc. Un operatore, il sito o l'app che userai ti potrebbe quindi chiedere una cifra diversa da quella qui indicata.

COME PAGARE? In una unica rata

BANCHE E ALTRI CANALI

Qui accanto trovi il Codice QR e il codice interbancario (Ente) per pagare attraverso il circuito bancario e gli altri canali di pagamento abilitati.

PAGA SUL SITO O CON LE APP
 del «tuo Ente Creditore», di Poste Italiane, della tua Banca o degli altri canali di pagamento.
 Potrai pagare con carta, conto corrente, CBILL.

PAGA SUL TERRITORIO
 in tutti gli Uffici Postali, in Banca, in Ricevitoria, dal Tabaccaio, al Bancamat, al Supermercato.
 Potrai pagare in contanti, con carta o conto corrente.

RATA UNICA - Scade il 31/01/2018

Destinatario dell'avviso Mario Rossi

Ente Creditore Comune di Milano - Settore finanze ed oneri tributari

Educa CBILL Identificativo Unico di Versamento (IUV)
A0EDT 1 1111 6000 0015 80

Codice Ente/Milano 8119 9258 158

QR code

Destinatario dell'avviso Mario Rossi

Ente Creditore Comune di Milano - Settore finanze ed oneri tributari

Educa CBILL Identificativo Unico di Versamento (IUV)
A0EDT 1 1111 6000 0015 80

Codice Ente/Milano 8119 9258 158

BOLLETTINO POSTALE PA BancoPosta

RATA UNICA - Scade il 31/01/2018

Poste italiane

€ sul C/C n. **123456789012** Euro **234,00**

Intestato a **Comune di Milano - Settore Finanze ed oneri tributari**

Destinatario dell'avviso **Mario Rossi**

Ente Creditore **Comune di Milano - Settore finanze ed oneri tributari**

Codice Aviso **0011 1111 6000 0015 80** **Tipo** **0119 9258 158**

 Paper payment notice for the payment of the Tari (waste tax) of the City of Milano, before the review of the user experience made by the Team.

 First user experience review of the paper payment notice made by the Team for the payment of the Tari (waste tax) of the city of Milano in September 2017.

 First user experience review of the paper payment notice made by the Team for the payment of the Tari (waste tax) of the city of Milano

The new payment notice includes all payment channels, including the postal bulletin.

22



SPID and CIE The identities of citizens

— CONTEXT

[SPID](#), Sistema Pubblico di Identità Digitale - the Public Digital Identity System - for access to digital public services, was launched in 2013.²³ [CIE](#), Carta d'Identità Elettronica (Electronic Identity Card) was launched in 2015.²⁴

Both tools are essential for allowing the secure identification of citizens, both online and in the physical world. They overcome the inconveniences of common passwords that are subject to increasingly frequent cyber-attacks, such as phishing and identity theft, and of a physical identity card, the most forged document in Europe.

Thanks to SPID, citizens and businesses can identify themselves with the public administration, and soon with private services, using a single set of multi-factor security credentials. Administrations, on the other hand, can avoid having to maintain their own identification systems, gaining in terms of security and efficiency, plus saving on costs.

At the outset of our activity, the SPID project, which was managed by AgID, presented critical issues of governance, inadequate technological choices, lack of both clear and documented processes and a deployment plan for digital public services; AgID signed the agreement but it was not fit for the operational management. The CIE project was in a more advanced state, benefiting from the experience and the operational and technological capabilities of Istituto Poligrafico e Zecca dello Stato (IPZS - the State Mint and Polygraphic Institute).

The critical issues of SPID were also determined by the decision at the outset to create a program for digital identity with no impact on State resources,²⁵ entrusting the creation and management of SPID to an unlimited number of private Identity Providers.

This decision has caused uneven strategic, technological and user experience choices, making governance and central coordination difficult.

In particular, Identity Providers are looking for a sustainable business model, the feasibility of which puts free identity for citizens at risk, making any technological evolution complex since it needs to be laboriously negotiated. In our opinion, SPID should remain free of charge for citizens as this is the most fundamental factor for its adoption.

²³ [Art. 64, Section 2-sexies of Legislative Decree no. 82 of March 7, 2005](#) as modified by [Art. 17-ter of Legislative Decree 69/2013](#)

²⁴ [Art. 10, Section 3 of Decree Law 78/2015](#) converted with Law no. 125 of August 6, 2015.

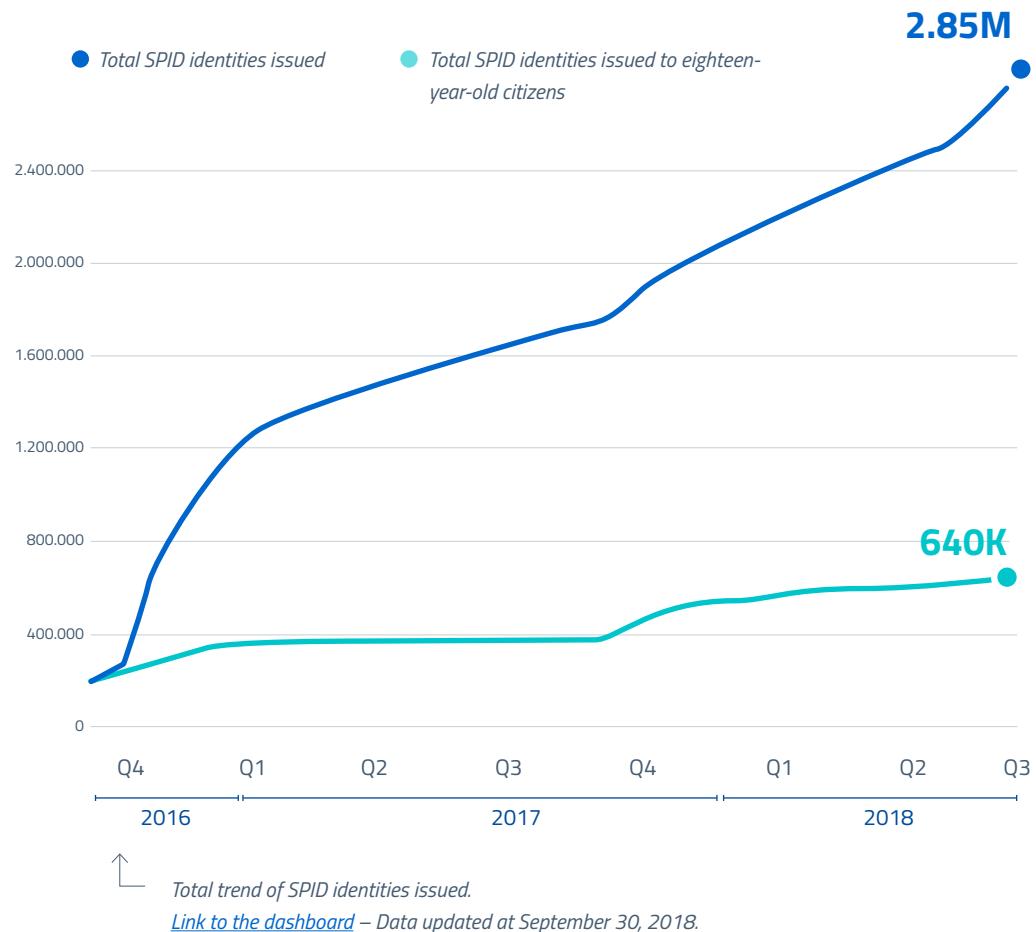
²⁵ The Public Digital Identity System (SPID) was implemented with no additional costs for the State.

— OUR ACHIEVEMENTS

SPID

We worked on SPID to establish a clearer – even if not yet optimal – governance, involving Identity Providers and AgID in the constant review and definition of strategic and operational choices. In particular:

- we worked on a new user and customer experience (both for the release process and for use) and for the design of an alternative production protocol suitable for mobile utilization (based on [OpenID Connect](#)) to make SPID simpler, more intuitive and built around the citizen's experience;
- we released technical documentation, guidelines, development and design kits, and a test environment on [Developers Italia](#) and [Designers Italia](#) in order to provide tools for easier SPID integration for developers within digital public services;
- we focused the integration of SPID on the most popular public services, in particular on social security services (INPS), tax (Inland Revenue) and motorization (ACI); in April 2018, SPID became the preferential identification channel for the precompiled 730 Form used for tax declaration;
- we promoted and are overseeing directly with the Bank of Italy and ABI a project for the use of SPID as an identification system for banking service. In our opinion, the adoption of SPID by the banking system will be a sensational move, given its dissemination among citizens;
- we started designing the conversion processes for previous identity equivalents such as Fisconline and Entratel for the Revenue Agency, PIN for INPS and the identification system offered by NoiPA - the personnel management system that provides salary services to the PA – into a SPID identity;
- we are working on the possibility of using SPID to sign a document with the same effectiveness as a digital signature, implementing the innovations introduced under [Article 20 of the DAC by Legislative Decree no. 217 dated 13/12/2017](#);
- in December 2017, eIDAS prenotification was forwarded to the European Commission to permit the use of SPID in European digital public services.



As of September 30, 2018, 2.85 million digital identities have been issued and there has been an organic acceleration of citizens' requests for SPID. Thanks to the growing number of administrations that are starting to adopt and make visible SPID as the primary means of identification (such as for tax services of the Inland Revenue Agency and social security of INPS), in the second quarter an average of 27,000 digital identities were released per week, compared with the average of 18,200 in the first three months of 2018.

CIE

Thanks to the experience of IPZS in the creation, management and dissemination of identification systems such as identity cards and passports, around 7,500 municipalities have been enabled to issue the CIE, covering approximately 94% of the Italian population, with the issuing of 5.5 million CIEs in total, with 122,000 CIEs issued per week.

While we have not entered into the operational management, our role has been to support IPZS in the implementation of middleware for further and innovative developments and uses of the CIE as a recognition means for accessing physical gateways (turnstiles, means of transport, etc.), and in the preparatory activities for the prenotification of eIDAS to the European Commission of CIE as an identification tool for Italian and European digital public services.

We are also improving the citizen experience in booking an appointment for the release of the CIE (Agenda CIE) which is currently the weak link in the chain - waiting times vary from a few days to several weeks and depend on critical internal reorganization of the municipalities to meet demand (the media often report long waiting periods for an appointment in many municipalities).



Total trend of CIE-enabled municipalities and municipalities that have started to issue CIEs. The difference between the two values corresponds to municipalities which, although authorised to issue CIEs, do not yet issue due to internal technical and organizational problems. Data updated at September 30, 2018.



Electronic Identity Card and new prototype for the user experience on mobile.

— WHAT'S NEXT?

We suggest re-examining the decision to maintain resources for the government's digital identity program SPID unchanged.

A model that foresees a constant investment in the program by the State would make it possible to simplify governance, speed up the dissemination of the service and eliminate the risk that the service could come at a cost for the citizen.

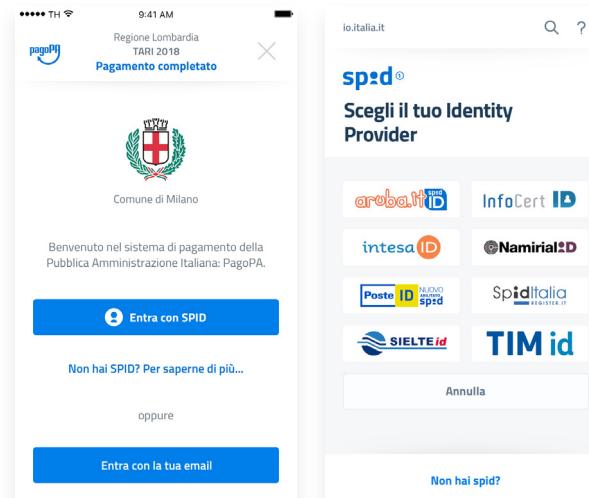
We are also pushing for greater coordination between SPID and CIE which, while remaining separate instruments, may offer equivalent digital recognition services.

With regards to CIE, we suggest that IPZS continues managing the project, strengthening the current team by hiring an additional 15 people with backgrounds in technical program management, software development, security and user experience. In the case of SPID, we recommend that the Department for Digital Transformation of the Presidency of the Council of Ministers (see the section on [Recommendations for the Government](#)), continues managing the project, with a dedicated team of 15 people with experience in technical program management, software architecture, security and user experience.

For example, this team could carry out the task of digitizing licenses (driving license, fishing license, firearms license, etc.) and the Healthcare Card and National Service Card, making them digital attributes of the CIE that could be consulted with a smartphone.

We also recommend a financial intervention from the MEF to drastically reduce the cost of the CIE for the citizen, which today is about €22.

| | |
|----------------------------------|---------------------|
| Production | €9,06 |
| Shipping | €4,70 |
| Municipal administrative charges | €5,42 (max) |
| VAT | €3,03 |
| GRAND TOTAL | €22,21 (max) |



↑ New SPID user experience on mobile. Kits and guidelines released on [Designers Italia](#) and [Developers Italia](#)

In light of the new operational and technological mechanisms described above, local and central public administrations have no longer reasons not to integrate SPID and CIE into their identification services. We thus suggest setting up MEF sanctions for those administrations that had not yet adopted SPID and CIE by December 31, 2019.

Please note: adopting SPID means activating it within the specific systems according to established guidelines and not simply "signing the agreement".

Table with CIE costs. The municipal administrative charges vary from municipality to municipality.



Open Government e Open Source

Collaboration, transparency and open software tools

— CONTEXT

Digital transformation requires a radical change in the way in which the public administration communicates, collaborates, operates and interfaces with technological solutions.

Administrations are structured and organized in silos, where personalism prevails over collaborative approaches. This results often into a lack of information sharing not only among public employees of different administrations but also among different offices of the same body.

While we are certainly not able to solve the subjective aspect of the problem (personalism), we have begun to gradually introduce communication and sharing tools that foster an active involvement not only of public officials but also of technology providers and citizen, for the improvement of the contents of the [Three-year Plan](#) and in the execution of the digital transformation agenda.

An effective implementation of the Open Government approach entails the introduction of effective mechanisms and processes. Indeed, Open Government does not come out from conferences or from open data websites which are often useless and soon outdated.

Innovative technological solutions for the development of digital public services require an open approach, the adoption of standards, the development of open software and the release of publicly-documented APIs around which a community of innovators: developers and technology

providers can be actively involved. Thanks to this approach based on open source, it is possible to create a public patrimony of software that could be reused among multiple administrations, and implement the provisions of Article [68](#) and [69](#) of the [Digital Administration Code](#), which make the reuse of software solutions mandatory; however, this requirement has been thus far disregarded by public administrations, since they did not have the necessary tools; as a result, there have been a great waste of resources, on the one hand, and a lack of real innovation, on the other. Despite an ICT expenditure of 5.6 billion per year, the real impact on changing the status quo has been quite unsubstantial.

Just at a central level, spending on new software projects - not taking into account open source software or the reuse of previously developed software - amounts to about €621 million.²⁶ To help the public administration not pay for the same software several times over, we are creating tools to facilitate reuse. Please note: we are not contrary to proprietary software that works and is reused. Far from it.

²⁶ The data concerns the consolidated multi-year costs incurred for the projects surveyed in the "Intangible Infrastructure" and "Ecosystems" typologies, which refer to projects relating to the "software" sphere contained within [Appendix 3 - Synoptic ICT Spending Framework](#) of the Three-Year Plan for Information Technology in the public administration 2017-2019.

OUR ACHIEVEMENTS

We created two tools for communication, dialogue, discussion and transparency for citizens, public officials and technology providers:

- **Docs Italia**, which, with the help of a dedicated team of tech writers, collects and makes available the digital public services' technical documentation in a single location and makes it possible to share documents in public consultation,²⁷ collect contributions and suggestions, update the documentation and keep track of subsequent developments;
- **Forum Italia**, the platform where citizens, civil servants and technology providers can discuss a range of topics regarding digital transformation, share information, ask and provide suggestions and contribute new ideas.

On Docs Italia, we released [14 Guidelines](#) for public consultation, which generated more than 300 comments and suggestions for changes to the text by citizens, public officials and technology providers. About 2500 users registered with Forum Italia, starting discussions on more than 1200 topics, with an average of 11 messages per topic.²⁸

We also built [Developers Italia](#) and [Designers Italia](#), the community platforms for the development and design of digital public services.

The platforms provide open source code, technical documentation, guidelines, development and design kits, work methodologies, test environments, APIs and an issue tracking system that allow developers, designers and technology providers (SPID, pagoPA, ANPR, and the like) to offer an active contribution to the development of the enabling technologies for the country's operating system and digital public services.

We also published 10 projects on [Developers Italia](#) (IO, SPID, pagoPA, ANPR, and so on). This facilitated the involvement of more than 800 developers ([HackDevelopers](#)) to contribute to the evolution of the relative source code - 212 repositories have been opened and more than 2765

²⁷ [Art. 18 of the Digital Administration Code](#)

²⁸ Data up-to-date as of June 30, 2018

The screenshot shows the 'Docs Italia' beta interface. At the top, there is a blue header bar with the 'Docs Italia' logo and the word 'beta'. Below the header, there is a large blue banner. Underneath the banner, there is a grid of cards. The first card in the top row is titled '1Bapp' and contains the text 'Guida per gli esercenti'. The second card is titled 'ANPR' and contains the text 'Documentazione tecnica'. The third card is titled 'Data & Analytics Framework' and contains the text 'Piano di sviluppo'. The fourth card is titled 'Data & Analytics Framework' and contains the text 'Developer Documentation'. In the bottom row, there are three more cards, each also titled 'Data & Analytics Framework'. The first one contains the text 'Linee Guida Nazionali per la Valorizzazione del...'.

The screenshot shows the 'Forum Italia' website. At the top, there is a blue header bar with the 'Forum Italia' logo and the text 'Lo spazio di discussione sui servizi pubblici digitali'. Below the header, there is a navigation bar with links for 'Iscriviti', 'Connetti', 'Q', and '≡'. The main content area shows a list of forum topics. The first topic is 'SPID' with 11 messages. The second topic is 'ANPR - Anagrafe Nazionale' with 1 message. The third topic is 'CIE' with 2 messages. The fourth topic is 'PagoPA' with 6 messages. To the right of the topics, there is a sidebar with a list of recent posts under the heading 'Ultimi'.

contributions have been made, including bug fixing, enhancements and new features for the code of published projects.

Most recently, we launched and concluded the consultation for the [open source guidelines](#) that the PA will have to adopt in order to fulfill the provisions of the Digital Administration Code. The guidelines contain clear examples, decision-making strategies and technical annexes that are ready for use, with the aim of creating a valuable shared-software asset. For the same reason, the creation of an open source software catalog was undertaken within [Developers Italia](#) to be released by the end of 2018.

— WHAT'S NEXT?

In order to open up administrations we need to support a profound cultural change, which is, however, already underway, in the development, collaboration, communication and sharing.

For this reason, it is necessary to disseminate and adopt such tools and consider the possibility that MEF may introduce a system of incentives in favor of the most virtuous public administrations.

We suggest making arrangements for transferring management for these tools to the Department of Digital Transformation of the Presidency of the Council of Ministers (see the section on [Recommendations for the Government](#)), with a dedicated team of at least 30 people skilled in project management, software development and open source, technical writing, service design and user experience (see the section on [A New Generation of Digital Public Services: io.italia.it](#)). Experts from the Digital Transformation Team, who are working on Open Government and Open Source, would be available to join the team. We also suggest the inclusion of an additional 80 people in support of local administrations throughout the territory for the design of services and reviewing processes.

The screenshot shows the homepage of the /developers beta website. At the top, there is a header with the logo 'it' and the text '/developers beta La comunità italiana degli sviluppatori di servizi pubblici'. Below the header is a navigation menu with links: Progetti, Strumenti, Cosa fare, Notizie, Chi siamo, FAQ, and API. A search bar is located on the right side of the header. The main content area features a large blue banner with the text 'La comunità degli sviluppatori che progettano e realizzano i servizi pubblici digitali in Italia'. Below the banner is a section for signing up to the newsletter, with fields for 'indirizzo email' and a green 'ISCRIVITI' button. A note below the field says 'Rimani in contatto per essere informato via via che aggiungeremo nuovi progetti. Non ti assisteremo con troppe email, parola di sviluppatore.'

The screenshot shows a section titled 'Progetti in evidenza' on the Developers Italia website. It features three cards: 'SPID' (Sistema Pubblico di Identità Digitale), 'PagoPA' (Nodo di pagamento verso la Pubblica Amministrazione), and 'DAF' (Data & Analytics Framework). Each card has a small image and a brief description.

The screenshot shows a section on the Designers Italia website with the heading 'Disegniamo servizi digitali semplici per risolvere i problemi dei cittadini e restituire il buonumore ;-)' (We design simple digital services to solve citizens' problems and restore good mood ;-)). Below the heading is a large graphic of a paper airplane. At the bottom of the section is a newsletter sign-up form with fields for 'indirizzo email' and a green 'ISCRIVITI' button, along with a note: 'Designers Italia è il punto di riferimento per il design della Pubblica Amministrazione: guida, strumenti e un forum per favorire la collaborazione e promuovere il ruolo dello human'. There are also social media icons for following the page.



Interoperability and API

How to make data, software and services of administrations communicate with each other

— CONTEXT

Interoperability is the ability of software applications to interact with each other by implementing coordinated and shared procedures among the various platforms; this is a necessary condition for the implementation of the "once-only", one of the principles of the eGovernment Action Plan 2016-2020. The Ue estimates annual savings of €5 billion at a European level that could come only from the implementation of this principle.²⁹ This is all necessary in order to achieve the vision also known as [Government as a Platform](#).

The [Digital Administration Code](#), already provides for the possibility of interconnecting the technological platforms of the public administration, whereas the [Three-year Plan](#) addresses the topic in the specific chapter on [Interoperability](#), indicating the need for a new cooperative or connected model, API-based, that outdates the current model.³⁰

This model, named [SPCoop](#), was defined by the CNIPA (today's AgID) between 2005 and 2008; it requires complex and expensive processes of integration that do not consider interactions with

individuals and suffers from an obsolete conceptual approach. The consequence of this rigid approach has led to a very limited development of interoperability in the public administration and to an almost nonexistent integration with the private sector. Over time, various local authorities have decided to use alternative models. One of the most significant experiences is that of [EO15](#), which was implemented in the Lombardy Region to interconnect Expo 2015 entities and suppliers.

— OUR ACHIEVEMENTS

We worked with AgID to draft the new interoperability regulations. The first two chapters of the new model have already been published for [public consultation](#); we are concentrating on the completion of the model as well as on the definition of the requirements for the construction of a national API catalog that can be used by public administrations and private individuals to easily obtain access to the available functionalities.

In the meantime, we have worked with some PAs to prepare a selection of APIs already aligned with the new model which, in anticipation of the creation of the API Catalog, [have been published](#) on the [Developers Italia](#) website.

²⁹ [Study on eGovernment and the reduction of administrative burden: final report / EY, Danish Technology Institute, European Commission, 2014, p. VI](#)

³⁰ [Interoperability Chapter. Three-Year Plan for IT in public administration 2017-2019](#)

WHAT'S NEXT?

The experiences of E015 and other European countries demonstrate that the **adoption of the API model and above all, its continuous evolution, require a strong governance structure that permits the accompaniment of the administrations and the continuous renewal of technical regulations.**

For example, version 6 of the [X-Road interoperability standard utilized in Estonia](#), which became operational in 2001, is now in production and undergoes continuous updates, almost monthly. Estonia, a country with only 1.3 million inhabitants and a simple institutional architecture, has an [Authority for the Estonian Information System](#) consisting of 130 people, in which there is a team of 14 dedicated to the X-Road interoperability model.

Taking into account the experience of E015, we estimate that interoperability should be the responsibility of a team composed of at least 10 people exclusively with technical skills, including project management and development of micro-services, within the Department of Digital Transformation of the Presidency of the Council of Ministers (see the section on [Recommendations for the Government](#)), as well as 20 people in support of local administrations.

Experts from the Digital Transformation Team, who are working on interoperability, would be available to join the team.

The screenshot shows the 'Developers Italia' website, specifically the 'API' section. The top navigation bar includes links for 'Progetti', 'Strumenti', 'Cosa fare', 'Notizie', 'Chi siamo', 'FAQ', and 'API Now'. Below this, a heading 'API' is followed by a subtext: 'Presentiamo qui una selezione di API della Pubblica Amministrazione su cui Developers Italia è al lavoro, in vista della creazione del catalogo delle API previsto dal Piano Triennale.' The main content area displays six API projects in a grid:

- AgID** Repertorio Nazionale dei Dati Territoriali - [geodati.gov.it](#)
- TEAM PER LA TRASFORMAZIONE DIGITALE** Data & Analytics Framework CKAN API
- BANCA D'ITALIA** SIOPE+
- E015** Muoversi in Lombardia
- Ministero delle Infrastrutture e dei Trasporti** Opendata Trasporti
- Regione Lombardia** Aree Protette Lombardia

At the bottom, logos for 'Agenzia per l'Italia Digitale' and 'Presidenza del Consiglio dei Ministri' are shown, along with the 'TEAM PER LA TRASFORMAZIONE DIGITALE' logo. Social media links for Twitter and LinkedIn are also present.



New API-related section on [Developers Italia](#)



National Digital Data Platform

Tools for the use of PA data (Data & Analytics Framework)

— CONTEXT

The immense wealth of public data is underutilized, while its management is heterogeneous and fragmented. The lack of exploitation of public data is a problem for all governments, not only in Italy, and its resolution would bring enormous benefits.

Data are stored and used within each administration according to a silos model, thus, preventing easy sharing, exchange and use among administrations and hindering the provision of more effective public services for citizens and businesses.

In order to overcome this fragmentation, we are creating a new way to store, share and process, view and display data (in open format where possible), based on APIs and modern data science tools, in complete compliance with privacy regulations and in collaboration with the Data Protection Authority, as well as in full technological security.

Effective use of big data would permit the public administration to measure the impact of policy making and public spending in the most varied of areas, including mobility, energy consumption, education, labor market, health and the fight against tax evasion.

— OUR ACHIEVEMENTS

We created a team of data science and machine learning experts and developed the *Data & Analytics Framework* (DAF), which includes a big data platform for collection, processing, sharing via APIs, visualization and analysis of data - open data whenever possible - of the public administration with data science and machine learning tools. The [first prototype](#) is currently in the experimental phase and it implements the provision of [Legislative Decree no. 217, December 13, 2017](#),³¹ which has institutionalized the DAF under the name of *National Digital Data Platform*.

— WHAT'S NEXT?

It is necessary to entrust the management of the National Digital Data Platform to a stable, competent and authoritative governance that defines and develops the national strategy for enhancing public data.

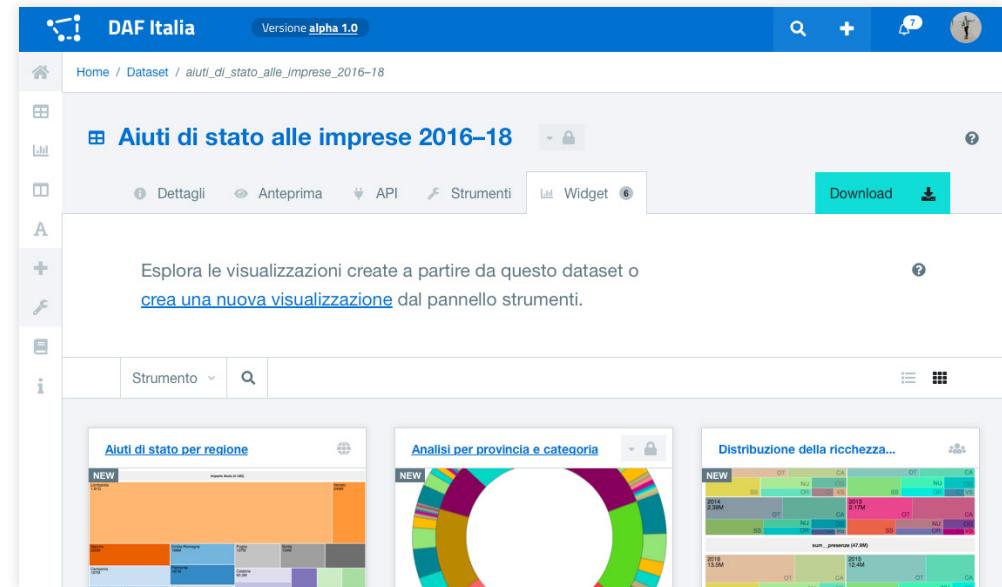
³¹ [Art. 50-ter of Legislative Decree 2005/82](#) introduced with [Art. 45 of Legislative Decree no. 217 of December 13, 2017](#)

We recommend multi-stakeholder governance, coordinated by the Presidency of the Council of Ministers, which sees the Ministry of Economy and Finance - State General Accounting Office (MEF-RGS) in charge of technological development and management of the platform, and ISTAT in charge of modeling and data analysis, whereby a dynamic and competent Data Office is established within the MEF-RGS. The Chief Data Officer would report directly to the MEF-RGS and should be able to recruit a team from the private sector of around 45 people initially, then growing over time, including experts in data science, machine learning, big data architecture, cybersecurity, metrics and analytics; 5 people should provide support to the Personal Data Protection Authority.

Experts from the Digital Transformation Team who are developing the DAF would be available to join this team.

The public administrations, which are data set controllers will have to share such data within the National Digital Data Platform in order to permit analysis for specific policy actions and for the provision of efficient public services.

The mandatory nature of data sharing, for which individual administrations will continue to be controllers, is a necessary condition for the success of the initiative, which must be undertaken in compliance with security and privacy protection - as envisaged by the [European Regulations for the Protection of Personal Data](#) - and actively collaborating with the Personal Data Protection Authority.



Alpha version of the [National Digital Data Platform's dataportal](#)



Lex Datafication

Transparency in the creation and use of laws

— CONTEXT

The management of the immense patrimony of normative texts, be they primary laws or rules or secondary regulations, is fragmented and involves all phases: production, collection and management, publication for research and application.

Within these phases, modern digital tools and processes are rarely used. The digitization of this information patrimony is often intended as a conversion of documents produced in an analogical manner into PDF format or in formats that are frequently not automatically readable by a machine; this limits the search and use of specific regulatory content by citizens, companies and other administrations.

In order to allow machine-to-machine sharing of legal texts, it is necessary to standardize the regulatory patrimony (international XML standard), along with introducing the use of machine learning and data science tools for the creation of modern search engines for information and content.

For example, this may lead to the production of services in the short term, such as the automatic generation of requests based on current European, national and even local regulations.

Digital transformation of regulatory information assets should also involve the entire process of drafting a law - the introduction and adoption of collaborative digital tools and processes (including those typical of the open source world) **to allow the drafting process not only to be digital by default but to take place openly and transparently, involving citizens and businesses.**

Such tools would facilitate the sharing of legislative proposals in public consultation and the structured collection of contributions and proposals for amendments by citizens and businesses to propose any changes.

Among others, these tools could be utilized in the phase of tracking the various operations carried out within the regulatory production process. For example, lawmakers proposing a law could be notified whenever their bill is changed and be aware of the author.

— OUR ACHIEVEMENTS

We started [Lex Datafication](#), a project to enhance the textual information heritage of the public administration and improve access to information by the citizen, collaborating with the [Normattiva Steering Committee](#) and [Istituto Poligrafico e Zecca dello Stato \(IPZS - the State Mint and Polygraphic Institute\)](#).

The project envisages evolving the [Normattiva](#) towards a qualified point of access to regulatory data, improving the usability and functionality of the platform, adopting international standards for the management of the regulatory content in order to improve research capabilities and including databases that are not currently comprised (e.g. draft laws).

In particular, the project is aimed at:

- improving citizen access to and means for searching information on regulations and laws;
- facilitating machine-to-machine access to regulations through internationally-recognized XML standards;
- making available normative texts as open data integrated within the DAF;
- creating a Citizen Assistant prototype which, through algorithms of Machine Learning (ML) and Natural Language Processing (NLP), answers the questions of citizens and professionals on matters of legislation.

As part of the digital transformation of the entire law drafting process, we have begun to introduce the tools for collaboration and sharing - [Docs Italia](#) and [Forum Italia](#) - described in the section on [Open Government and Open Source](#). These tools have been used for the drafting of the guidelines, through public consultation, foreseen under the [Three-year Plan](#), including [Guidelines for the qualification of SaaS services](#), [PA's Cloud Service Provider](#), [Guidelines for the PA's acquisition and reuse of software](#) and [Guidelines for the new interoperability model](#).

On [Docs Italia](#), we also created [an interactive map of the DAC](#) that includes the evolution of the various versions of the legal text.

— WHAT'S NEXT?

It is necessary to continue with the work undertaken on the Lex Datafication project, digitizing the legislative process, namely all Parliament acts, using the collaborative editing and publication tools created by the Team. The use of this patrimony of data for performing analyses with Natural Language Processing (NLP) and Artificial Intelligence (AI) techniques will enable evolution of the legislative process both in the creation of new laws and in their application, and automatically analyze, for example, frequency of use and degree of utility.

At the same time, we must continue with development of the Citizen Assistant which, through Machine Learning (ML) and Natural Language Processing (NLP) algorithms, answers citizen and professional questions on the subject of legislation.



Cybersecurity

Support for the National Cyber Plan

— CONTEXT

The public administration has only recently started to acquire the necessary technical skills, tools, processes, best practices and minimum measures to render its technological infrastructures and digital public services secure.

The lack of such elements leads administrations to be exposed, almost always unwittingly, to periodic (and potentially dangerous) cyber attacks, data breaches, information leakage, data loss and DDoS.

The recent approval of the National Cyber Plan,³² which envisages the consolidation of the cybersecurity governance led by the Department of Information and Security of the Presidency of the Council of Ministers, represents an important element for the definition and continuous evolution of the security strategy of the PA's ICT infrastructures.

— OUR ACHIEVEMENTS

We included the [minimum security measures](#) for the public administration's ICT infrastructure within the Three-year Plan for Digital Transformation. Despite cybersecurity not being part of the formal tasks of the Team, our cybersecurity expert has become a point of reference for numerous organizations and administrations, including CERT-PA and CERT-Nazionale, in response to cyber attacks and support of the security of its infrastructures through Incident Response and Root Cause Analysis activities, creation of preventive security processes and measures, architectural revision of its exposed networks, IT infrastructures and applications online, and the creation of penetration test and vulnerability assessments.

We are also pushing for the introduction of [Responsible Disclosure](#),³³ even with the addition of a *bug bounty*³⁴ as it has been done in the Netherlands, France, Lithuania and in the United States with the adoption of specific regulatory frameworks.

³² [Prime Ministerial Decree of February 17, 2017](#)

³³ *Responsible Disclosure* refers to the operating methods according to which security researchers indicate the presence of computer vulnerabilities within the systems and services of private companies or public bodies. As part of such a policy, ethical hackers are invited to search for and identify IT vulnerabilities and to report them promptly so they can be resolved quickly.

³⁴ The term *bug bounty* is used when an institution or company that promotes a Responsible Disclosure program provides cash rewards for ethical hackers who report IT vulnerabilities.

Within the *Centre for European Policy Studies'* task force dedicated to *Software Vulnerability Disclosure* in Europe, we contributed to identifying the necessary policy tools to be adopted at a European level and at the level of each individual Member State in order to allow the adoption of processes of the *Coordinated Vulnerability Disclosure* within the public administration; these processes are essential to ensure that the PA's infrastructures are secure.

— WHAT'S NEXT?

We agree with the consolidation and strengthening of the new governance outlined by the [*National Cyber Plan*](#) and led by the Department of Information and Security of the Presidency of the Council of Ministers, as well as the rationalization of the CERT-Nazionale and CERT-PA in a single entity in support of the administrations in managing the security of their systems.

It would also be advantageous to undertake the creation of a national policy of *Coordinated Vulnerability Disclosure* (CVD).



A new generation of digital public services: io.italia.it

— CONTEXT

A central structure cannot redesign all the digital public services that the public administrations offer to citizens and businesses.

However, we decided not to focus exclusively on enabling platforms and guidelines, but to commit ourselves directly to the (re)design of a limited number of digital public services which, due to their utility and frequency of use, have important repercussions on the lives of citizens and businesses (flagship services).

This activity may be a point of reference and guide for administrations in the autonomous design of services through the implementation of the instructions laid out in the [Three-year Plan](#) (particularly in the chapters dedicated to the development of [services](#) and [digital projects](#)), and the integration of the fundamental components of the country's operating system described above.

— WHAT WE'RE WORKING ON

The main innovation introduced by the Digital Team lies not only in the content of the projects, but also in the methodological approach. Over the last few months, the team has introduced the methodologies of *human centered design* and *design thinking*, focusing on the need to analyze the real-world requirements of users, defining clear

indicators to measure the effectiveness of the product/service in question, adopting an iterative design process and measuring the actual impact on the lives of those who use them.

The methods introduced and contained in the [Design Guidelines](#) for the PA's services and sites also ensure that the interfaces, services and content designed are usable and [fully accessible](#), in order to improve the experience of citizens.

With this approach in mind, we focused on designing the following services:

- new version of the platform for booking appointments with the Municipality for the issuance and renewal of the Electronic Identity Card (CIE);
- new ANPR (National Resident Population Register) site, which allows citizens to obtain digital civil status certificates from the platform;
- new website model for all Italian schools.

The most radical and innovative initiative is the creation of [io.italia.it](#), the app that citizens will use to interact with the public administration going forward.

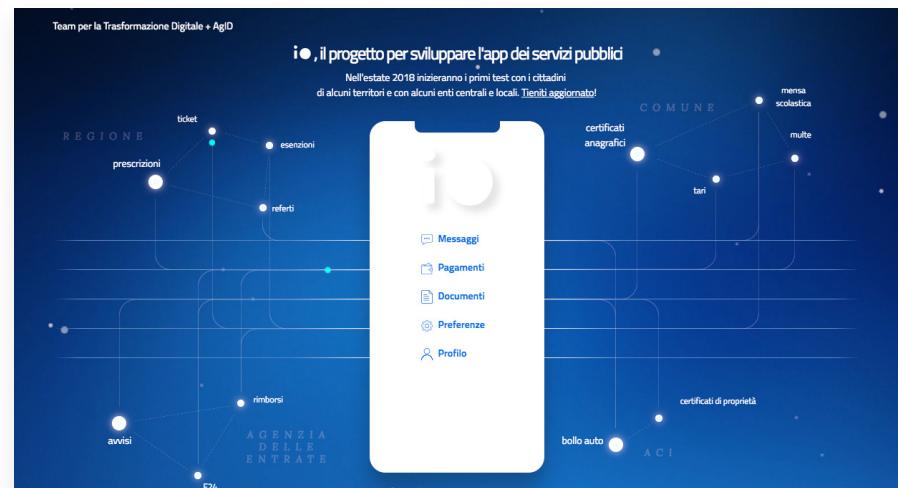
io.italia.it

We are developing io.italia.it, a highly innovative application that will allow citizens to receive messages, documents and deadline notifications, request information and certificates, set their preferences and pay the public administration in a simple and intuitive way.³⁵

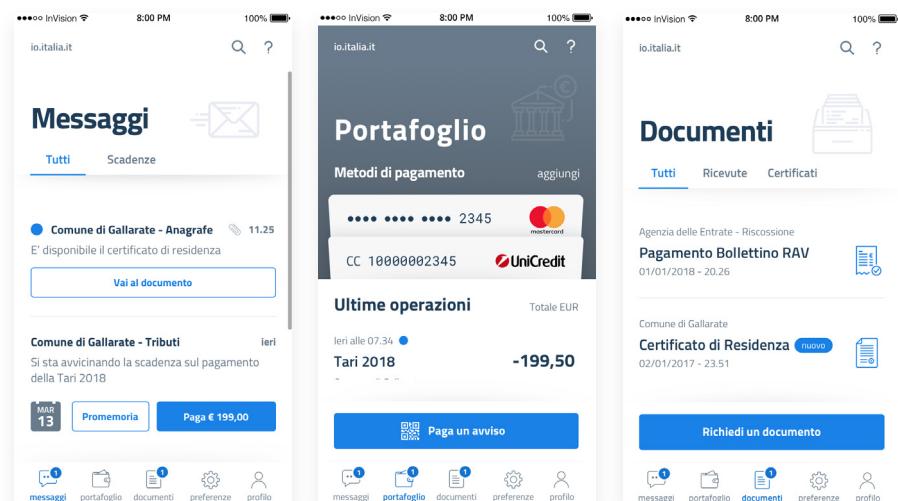
The application will be the main product of the integration of components set out by the Three-Year Plan, including the underlying SPID and pagoPA platforms, the system of notifications and documents based on the API and interoperability model set out by the Three-Year Plan, the design guidelines for public services. We will launch the service trial with a limited number of users and public administrations in October 2018. A further development of the app is the addition of a digital wallet that allows users to receive and manage state credits (e.g. grants or tax rebates). All grants paid by the state to citizens can be managed in this way. For example, when integrated with INPS (National Institute for Social Security), the application would allow vouchers for temporary workers to be replaced with a digital version.

This project will require unprecedented collaboration among public administrations, and a successful outcome will allow Italy to take a giant leap forward in the process of the public administration digital transformation. This project requires the establishment of a dedicated team of around 30 people skilled in the development, infrastructure, design and management of operational processes within the Department for Digital Transformation of the Presidency of the Council of Ministers (see section [Recommendations for the Government](#)), as well as 90 people in support of local administrations throughout the territory for implementation of the program.

³⁵ The project responds to a specific indication given in [Art. 64 of the Digital Administration Code](#)



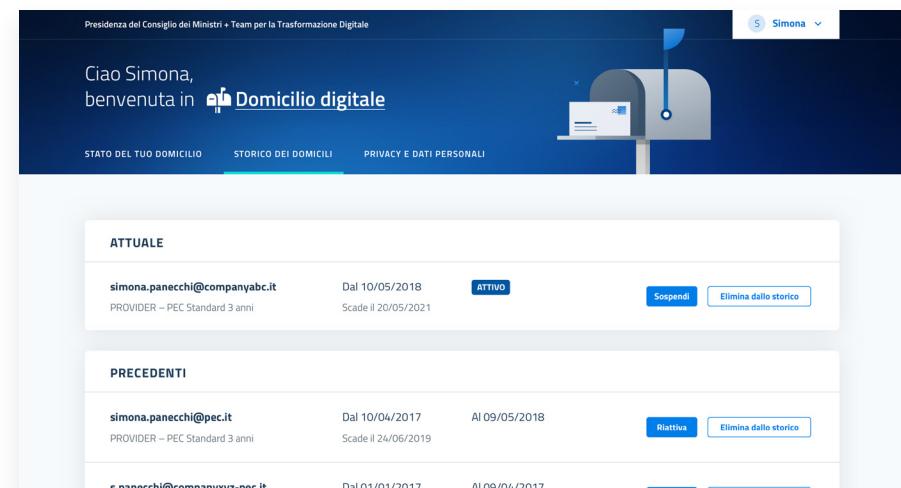
↑ [io.italia.it website to explain to the citizen the application and its next release in beta.](#)



↑ [Mockup of the messages', payments' and documents archive's functionalities of the app \[io.italia.it\]\(#\).](#)

Digital Address³⁶

We worked with InfoCamere to create the service that will allow all citizens to elect a digital address, defining the user experience and designing the interface of the web application linked to the service. The digital address will be integrated into [io.italia.it](#).

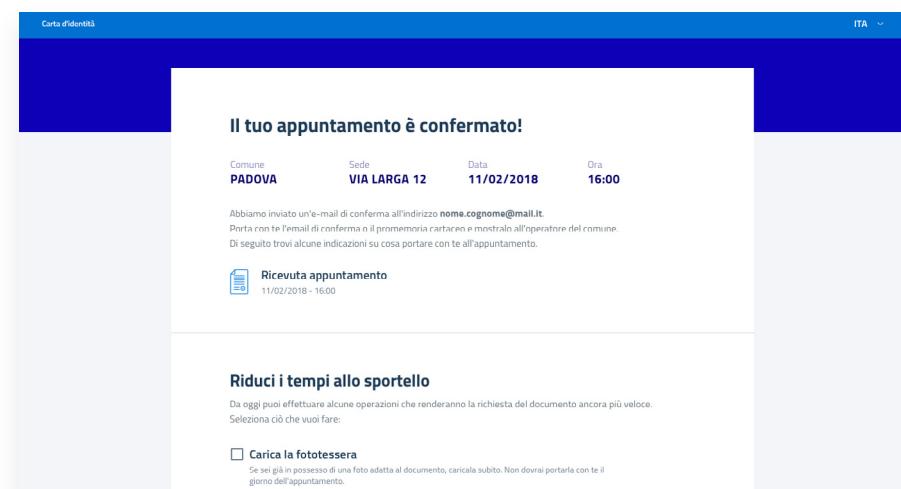


Mockup of the consultation section 'History of the Digital Address' of the Digital Address

Appointment calendar for the Electronic Identity Card (CIE)

In collaboration with the State Mint and Polygraphic Institute, we are redesigning the booking system for municipal appointments related to issuing of the CIE. The new system will be fully digital and will simplify the experience of citizens who need to request issue or renewal of the new identity document. This could also be extended to passports and the issuing of similar documents.

The platform will be simpler and more intuitive; citizens will be able to modify or cancel their bookings as well as upload their photograph and pay online.



Mockup of the new online booking flow for the issue or renewal of the CIE, within the Appointment calendar service for the Electronic Identity Card

³⁶ Art. 6 of the Digital Administration Code

School websites

In collaboration with the Ministry of Education, University and Research, we are working on the release of a new website model for schools which include a working prototype, template graphics, and the launch of a process of continuous improvement to make school websites intuitive and simple.

— WHAT'S NEXT?

Creating a scalable organizational model that allows all public services to be reappraised and redesigned over time (see [Recommendations for the Government](#)).



“

Ho molta fiducia nelle capacità di mia figlia. Cerco comunque di essere presente e di aiutarla nelle sue scelte.

• designers Italia

Marina

54, Genitore di scuola secondaria
La mamma fiduciosa

Area rurale

ATTIVITÀ

Marina consulta il registro elettronico giornalmente per essere aggiornata su andamento e attività della figlia diciottenne. Aiuta la figlia nella ricerca del percorso universitario più adatto a lei.

OBIETTIVI E ASPIRAZIONI

Il suo obiettivo è quello di supportare la figlia nelle decisioni più importanti. Vorrebbe essere più coinvolta rispetto alle attività svolte per capire quali sono i suoi interessi e aspirazioni. Marina vorrebbe essere aggiornata circa le attività della figlia nel progetto di Alternanza Scuola-Lavoro

LIVELLO DI DIGITALIZZAZIONE E STRUMENTI

LIVELLO AUTONOMO



NECESSITÀ

- Conoscere l'andamento scolastico della figlia;
- Pianificare i colloqui con i docenti;
- Ricordare eventi o appuntamenti scolastici importanti;
- Supportare la figlia nella scelta dell'università.
- Ricevere regolarmente dalla scuola delle comunicazioni di interesse per i genitori

DIFFICOLTÀ E FRUSTRAZIONI

- Non riesce a consultare le info pubblicate sul registro elettronico dallo smartphone;
- Spesso dimentica la password del registro e deve rivolgersi alla figlia o impostarne una nuova;
- Non sa dove reperire informazioni relative all'orientamento in uscita.
- Non può effettuare il pagamento della tuta



Personas related to the user research activity led by the Team, within the project of redesigning [school websites](#).



Support for administrations

Funding and training resources for administrations

— CONTEXT

Local authorities need budget and financial support to implement the digital transformation investments set out in the Three-Year Plan. More resources need to be invested in the short term to allow savings in the long run.

Every municipality which has migrated or will migrate in the period between December 6, 2017 and December 31, 2018 will be eligible for a grant of between €1,000 and €7,000, depending on the number of residents. This will be issued automatically in the form of a bonus.

— OUR ACHIEVEMENTS

Funding resources

→ [Financial spaces](#): local authorities can request, as set out by Sections 485 et seq. of [Art. 1 of Law 232 of December 11, 2016](#), financial spaces, notwithstanding budget balance, for some types of investments of a social nature, e.g. school buildings and hydrogeological instability. However, investments related to implementation of the Three-Year Plan for Digital Transformation are not included among those that can be financed under this regulation. We worked with the State General Accounting Office and the Department of public administration to permit this type of expenditure through Article [66 of Legislative Decree no. 217 of December 13, 2017](#).

→ [European PON Governance funds for the ANPR](#): we collaborated with the Department for Public Administration and the Agency for Territorial Cohesion for the use of PON Governance funds in the form of a contribution towards achieving results. This financial support, which amounts to over **€14 million**, is intended for municipalities as part of ANPR migration.

→ [Financial kit for Digital Transformation](#): we collaborated with CDP to create a [financial kit worth a minimum of €5,000 and with an average duration of 10 years designed specifically for local authorities to cover investments made in line with the Three-Year Plan](#).

Education

→ [National School of Administration \(SNA\)](#): we created a curriculum dedicated to Digital Transformation, with 96 hours of lessons in the period from April to July 2018.

— WHAT'S NEXT?

See the section [Recommendations for the Government](#).



International institutional activities

— CONTEXT

The Commissioner and members of the Team represent Italy in numerous international forums related to innovation and eGovernment, not only in the context of the EU but also as part of international organizations such as [OECD](#) and [OSCE](#), in political forums such as the G7, and through the construction of bilateral relationships with individual countries.

— OUR ACHIEVEMENTS

EU

- Steering Board for the [eGovernment Action Plan 2016-2020](#). The Commissioner and the team's International Relations expert are members of a work group set out by the eGovernment Action Plan (COM(2016) 179) and established by DG CNECT with the task of coordinating and monitoring the effective implementation of the measures contained in the Plan itself. As part of the Steering Board, they contributed to the drafting of the [Tallinn Declaration on eGovernment](#), signed on October 6, 2017 during the Ministerial Conference of the Estonian Presidency attended by the Commissioner, who signed on behalf of the Minister of public administration. Our country's planning strategy is consistent with all the principles, actions and objectives of the [eGovernment Action Plan 2016-2020](#) and the Tallinn Declaration. The Special Commissioner and the International Relations expert are also members of the
- eGovernment Benchmarking Sub-Group set up to monitor the implementation of the plan itself; in this context, they contributed to the improvement of the methodology and the indicators used in the annual report [eGovernemnt Action Plan Benchmark](#) and in the [Digital Economy and Society Index](#) (DESI);

- The Commissioner took part, alongside the Prime Minister, in the [Digital Summit](#) hosted by the Estonian Presidency (Tallinn, September 29, 2017).
- As [Digital Champion](#), the Commissioner and the International Relations expert have contributed to the Work Plan on the promotion of digital skills as indicated by Mariya Gabriel, European Commissioner for [Digital Economy and Society](#). The Commissioner has been recommended as a rapporteur for WG 4 - Attracting more women to technology careers, one of the four work groups into which the plan is divided.
- As Chief Information Officer - CIO, the Commissioner took part in the CIO Network meetings organized by [DG CNECT](#) to share best practices and foster informal collaboration between national CIOs on eGovernment issues (Malta, Tallinn, Sofia).
- The team's cybersecurity expert is a member of the [Centre for European Policy Studies](#)' task force dedicated to Software Vulnerability Disclosure in Europe and to identifying the necessary policy tools to be adopted at a European level and at the level of each individual Member State in order to allow for the adoption of processes of Coordinated Vulnerability Disclosure within the public administration; these processes are fundamental to ensure the PA's infrastructures are secure.

OECD

- The International Relations expert is a member of the committee dedicated to digital economy matters ([Committee on Digital Economy Policies](#) - CDEP). The CDEP has launched a cross-cutting project named [Going Digital 2017-2020](#) to analyze and explain the ongoing digital transformation and suggest policy tools that can help governments to tackle the current economic and social changes.

- The Commissioner is a member of the Expert Advisory Group (EAG), i.e. representatives outside the traditional OECD community who contribute to the [Going Digital](#) project with a different vision less conditioned by a strictly institutional role.
- The International Relations expert is a member of the [Going Digital 2017-2020 Steering Group](#).
- The team's cybersecurity expert is a member of the [Working Party on Security and Privacy in the Digital Economy \(WP SPDE\)](#).

G7

- The Commissioner represented the Minister of Economic Development at the *Innovation and Employment Ministerial Meeting* of the [G7 summit in Canada](#) (Montreal, March 27-28, 2018).
- Italy's G7 Presidency promoted the establishment of [I-7](#), a group of experts brought together to provide an independent and specialist contribution to innovation ([G7 Taormina Leaders' Communiqué para. 37](#)). The Commissioner was nominated as the promoter and organizer of this initiative, with the roles of Focal Point and Event Chair. The meeting was held during the Turin Ministerial Meeting on Innovation (September 25-27, 2017); the topics of Big Data and Artificial Intelligence were tackled, as was their impact on the transformation of public services and policy development. Possible measures to mitigate the effects of the digital transformation on the labor market were also discussed. The results of the discussion were collected in a Chairs' Summary which the G7 Industry Ministers took note of in their final declaration.
- The Commissioner contributed to the work of the International Forum for Dialogue "Starting from Girls. Women's Forum on Inequality and Sustainable Growth", an initiative belonging to Italy's G7 Presidency (April 7-8, 2017).
- The Commissioner was part of the Italian delegation that attended the G20 summit in China, held in Hangzhou on September 4, 2016.

OSCE

The Italian Presidency of the [OSCE](#) added the theme of digital and innovation to [its priorities](#) for the first time. The Presidency and the Italian Ministry of Foreign Affairs and International Cooperation formally requested the Commissioner and the International Relations expert the cooperation and contribution in the preparation and drafting of a Ministerial Declaration on Digital to be submitted for the approval of the 57 Foreign Ministers of the OSCE States at the OSCE Ministerial Council (December 2018).

BILATERAL COLLABORATION

Finally, we have pursued **constant bilateral collaboration** with several countries:

- The British Embassy in Rome asked us to contribute to the "UK-Italy Bilateral Dialogue on Digital" covering matters relating to digitization in the public sector; we had bilateral meetings with *Secretary of State Karen Bradley*, *Secretary of State Matthew Hancock* and *Liam Maxwell, National Technology Advisor for HM Government*.
- We launched a collaboration with the Estonian Embassy to exchange ideas and experiences regarding digital payments, *cybersecurity*, and the public digital identity system (SPID).
- We kicked off a discussion with the *Direction interministérielle du numérique et du système d'information de l'État Français* regarding digital identity and *open source*.
- Following requests from the Australian and German Embassies, we have implemented exchanges and experiences.



Recommendations for the Italian Government

The Digital Transformation of the public administration in Italy started years later than in most European countries. All the more reason why this process of long-term transformation must involve strong political governance and technology skills, citizen-focused service design and process management. Now that we have a clear strategy set out by the Three-Year Plan, the Presidency of the Council of Ministers must lead the Digital Transformation, which, first and foremost, is a political, cultural and process-based transformation.

It's day one!

Based on the experience gained over the 24 months of operating, we suggest the following initiatives.

— UPDATING THE THREE-YEAR PLAN STRATEGY AND PROCEEDING WITH THE EXECUTION PHASES

- Continue on the path traced out in 2017 by the [Three-Year Plan for Digital Transformation](#), ramping up and completing the implementation of the "operating system" components through:
 - **the large-scale deployment of previously-launched programs - ANPR, pagoPA, SPID, CIE;**
 - **the migration of data centers to the PA Cloud and a limited number of national data centers - Strategic National Hubs - that are to be identified and brought into service;**
 - **the development of an API-based interoperability model to allow systems to communicate with each other;**
 - **the creation of a national data enhancement strategy and the ongoing development of the National Digital Data Platform to conclude the trial phase;**
- **implement the large-scale adoption of the tools and methodologies needed for the development, design, collaboration and sharing of [Developers Italia](#) and [Designers Italia](#), [Docs Italia](#), [Forum Italia](#) and the [National Digital Data Platform](#), in order to guarantee open government, open software and open data;**

- continue and accelerate the digital transformation of specific public services by:
 - **completing the development and deployment of the platform [io.italia.it](#)** in order to allow the citizen to communicate digitally with the entire public administration, receive certificates and deadline notifications, and make and receive payments. Large-scale adoption will require investing resources in traditional and digital promotional campaigns, including innovative ones (e.g. pre-installation agreements with telephone operators). Installing the platform on citizens' smartphones and tablets will act as a driving force and will encourage the straightforward use of all services from a single access point (which can be further facilitated in the long term by AI-based "navigation agents").
 - **introducing user research laboratories, metrics and KPIs to measure the efficiency and effectiveness of digital public services**, including indicators such as the frequency and ease of use (frequency of use of the ESF, etc.), the percentage of people who successfully complete a specific process (paying a fine, enrolling their child at a school, etc.), users' satisfaction with the service, costs incurred by the state for each transaction, and percentage of citizens who choose the digital service compared to the analog equivalent.
 - **establishing a design structure dedicated** to the prioritization and continuous improvement of public administration services and processes and to the implementation of digitization programs organized along the lines of *flagship* services which have already been launched.
- **in consultation with the Italian Data Protection Authority, launch the use of the National Digital Data Platform to support the policy makers'** and public administrations' decision process through the selection of high-impact areas of application, e.g. mobility, energy consumption, education, health, labor market, combating tax evasion.

GOVERNANCE

- as set out by [Art. 63 of Legislative Decree no. 179/2016](#),³⁷ extend the duration of the **Commissioner and Digital Transformation Team by an additional year** (not necessarily with the same Commissioner) in order to continue the ongoing activities and implement the suggestions below, including the transition to a new permanent structure;
- **create a permanent body that sits within a Department of the Presidency of the Council of Ministers, headed by a Minister or an Undersecretary for the Digital Transformation and with a strong mandate³⁸ and a significant spending budget, in order to guide and supervise AgID.** This Department must be digitized from the outset; it must be seen as the "digital jewel in the crown" of the public administration. It is also essential that it operates in modern and open spaces that facilitate collaboration and do not represent the typical "palaces" of Italian bureaucracy and politics. We also suggest assessing the option of a location far from Rome where the necessary human talent can be recruited. The Department should be able to train a team dedicated to the implementation of the digital transformation of the public administration and its nationwide execution, and to support central and local administrations as well as technology suppliers. An initial estimate calls for 510 experts in technology, change management and operational processes (of whom roughly 115 in the central team, 105 assigned to the central PAs involved in managing the projects launched by the Team, and 290 nationwide alongside central and local administrations, and technology suppliers). This type of qualification is rarely found among PA employees. Just as the Commissioner was able to hire [30 experts \(link to the published job descriptions here\)](#) whose main objective is to help the country, the Minister or Undersecretary should be able to recruit experts from the private sector with contracts lasting from 1-3 years. The model can also be replicated for higher numbers provided that the resources are included within an organization with structured, repeatable and controllable processes and

frequent audits. Such a team will work on critical programs supporting local and central PAs through structured mechanisms and processes. The programs will eventually be relocated to the "owners" most suited to their management and continuous evolution.

International examples are the [US Digital Service](#) under the White House and the [UK Government Digital Service](#) under the Cabinet Office of the British Government, which took on 200 and 500 experts respectively from the private sector in a flexible manner.

We suggest that the resources for this new body might come both from the reduction of AgID size and through the identification, in collaboration with the State General Accounting Office, of the PA's least useful technological projects (such as underused websites, portals and apps). The latter suggestion is inspired by the model which was adopted to create the UK GDS: the Cabinet Office identified and shut down 3 totally useless websites, allocating their development and maintenance costs to the creation of the new body.³⁹

- **radically restructuring AgID**, by downscaling its goals - see table in Appendix -, introducing change management experts, introducing digital processes and tools and proportionally reducing the workforce in view of the creation of the Department of Digital Transformation. AgID has become an ineffective hotbed of circulars and an organizer of round tables that do not add any value to the public administration's transformation process. We have also noted that AgID acts contrary to normal business rules regarding the spending of European funds. Available funds are spent without using any tool to assess the projects usefulness; the spending is based purely on the need to demonstrate the ability to spend the funds available, regardless of whether they actually need to be spent;

³⁷ [Art. 63 of Legislative Decree no. 179](#), 2016 sets out a term of up to 3 years for the commissarial body.

³⁸ The Undersecretary for the Digital Transformation needs to be endowed with the same powers of initiative and coordination set out for the Special Commissioner by [Art. 63 of Legislative Decree 179/2016 and the Prima Ministerial Decree of September 16, 2016](#)

³⁹ Among these sites there are [Directgov](#) and [Businesslink](#).

- **create the role of *Chief Technology Officer* within each Ministry and main body of the central PA (or groups of administrations); the CTOs will be in charge** of the digital transformation and the implementation of the Three-Year Plan and will report directly to the Department for Digital Transformation. The ***Chief Technology Officers*** will be supported by a team of talented experts in technology and change management capable of operating complex systems. Our approach has so far worked with a limited number of collaborative administrations; however scaling up this approach to the whole public administration remains the challenge for the coming years.
- **invest in central in-house (Sogei, InfoCamere, Aci Informatica, IPZS, etc.) and regional ones, and in public bodies (Agenzia delle Entrate, INPS, etc.) that have a critical role to play in the development of enabling technologies and in the provision of major public services (tax, labor, welfare),** including through the mass recruitment of talents and technology experts, starting from high-level employees of these companies. These in-house and public bodies must significantly modernize their technological and operational skills; currently, most of them are subcontracting centers with little added value. Some in-house, like Sogei, have just started this process of change, but they must step up their efforts. It will probably also be necessary to close in-house that did not show any added value as they currently appear to be nothing more than ineffective subcontracting stations.

— NEW AGID MODEL

In our opinion, it is necessary to restructure the Agency for Digital Italy, drastically reducing the tasks entrusted to it by the Digital Administration Code.⁴⁰ The restructuring must involve divesting the Agency, which lacks technological and complex process management skills, of its strategic and planning responsibilities, and limiting its scope to accrediting qualified service providers, monitoring these services, and managing the office of the Digital Ombudsman.

The Agency should therefore focus on regulation and standardization, monitoring, advice and support for citizens and businesses in the implementation of digital citizenship rights. Strategic and planning activities could be entrusted to the Digital Transformation Team and then to the Department for Digital Transformation and/or to Ministries and bodies that, due to their specific skills, are most suited to taking charge of them.

A list of activities currently managed by AgID and/or the Team, with notes concerning the reallocation of these activities to different bodies, is [attached](#).

— SKILLS AND TRAINING

- **create programs to attract talented young graduates with modern technological skills to the PA,** such as a "digital civil service" that attracts talents for a period of 12 months, working closely with high-level administration and public agency executives on digital transformation projects. An example at an international level is provided by the American program [Coding it Forward](#);
- **implement a large-scale initiative for the "digital" training of PA executives and officials,** introducing specific courses focusing on practical cases of public service redesign according to the guidelines and the *design system* set out in the Three-Year Plan. These courses should be mandatory for public employees in order to be promoted to executive level;
- to involve students through work experience programs, with the dual objective of bringing them closer to the world of public administration and using them to explain digital services to citizens who, for example, are in line at a counter and are not familiar with the new tools.

⁴⁰ [Legislative Decree 82/2005](#)

BUDGETS, INCENTIVES AND SANCTIONS: NEW PRINCIPLES

- **make significant investments at both central and local level and step up the funding instruments made available to the public administration, reversing the principle by which the digital transformation must be implemented with no additional resources. Digitizing the public administration at no expense is a contradiction.** We need to spend more in the short term to spend much less in the long run, always bearing in mind that there must be processes in place capable of effectively using these funds, otherwise they will be wasted;
- streamline the use of European funds dedicated to the digital transformation, and step up the use of these funds to help central and local authorities to achieve the specific results envisaged by the Three-Year Plan (as in the case of the ANPR). We should concentrate on the purposes and results for which the money is spent instead of focusing on spending the available money, regardless of whether there is an actual need;
- **introduce a system of economic benefits and incentives for administrations that adopt digital processes and citizens who use digital services instead of analog ones.⁴¹**
- **penalise and/or reduce funding for administrations that do not implement the digital transformation,** in particular the use of enabling platforms. "Use" in this case does not equate to "signing an agreement" but extends to activating the service within their own systems according to the established guidelines.

DIGITIZATION OF THE LAW CREATION AND USAGE PROCESS

We suggest continuing with the Lex Datafication project which will transform the process of drafting, approving and publishing a law, taking it from analog to digital by default and thus guaranteeing the speed, transparency, and efficiency of the legislative process.

⁴¹ For example, some municipalities are encouraging the payment of TARI (waste tax) through pagoPA with a €5-€10 discount and reallocating the work force dedicated to manual TARI collection to other activities offering higher added value.

At the same time, it will be possible to work on the creation of the Citizen Assistant, which answers questions from citizens and professionals on the subject of legislation through *Machine Learning* (ML) and *Natural Language Processing* (NLP) algorithms.

PROCUREMENT OF TECHNOLOGICAL SERVICES

The process of procurement is one of the PA's most burdensome activities. Procurement procedures require a significant amount of time and resources; consequently, the procurement of digital products and services struggles to keep pace with the evolution of technological solutions. Attempts to facilitate the process of procuring digital products and services at a central level through central purchasing bodies have often led to the establishment of high-cost and long-term single-client contracts (very often won by large companies or temporary groupings of companies,⁴² sometimes without specific market experience) to which all administrations are legally bound,⁴³ even the contracts entail higher costs in order for the administration to obtain the same service.

The most frequent causes of these problems may be summarized as the following:

1. *a lack of technological skills within the public administration*, with the consequence that it is often the supplier that suggests to the PA what it must buy, effectively replacing the PA in the planning phase. Proprietary solutions are therefore often chosen; these choices lead to vendor lock-in, do not guarantee interoperability with other PAs and are not designed to evolve over time;
2. *the inadequacy of the digital marketplace (MePA)*, which is still too complicated to use and lacks basic features such as a search engine that produces relevant results, easy registration for companies

⁴² Temporary grouping of companies.

⁴³ Section 512 of [Art. 1 of the 2016 Stability Law](#) establishes that "in order to guarantee the optimization and streamlining of purchases of IT and connectivity goods and services, the PAs will undertake procurement exclusively through Consip SpA or aggregators".
Section 4, letter "c" of [Agid Circular no. 2 of June 24, 2016](#) states that "to proceed with acquisitions of IT and connectivity goods and services, the public administrations must first check whether centralized acquisitions are required for the purchase in question; in particular, they must verify if they are obliged to use Consip conventions (as per [Article 1, Section 449 of Law 296/2006](#))".

and detailed descriptions of the services and products;

3. *a lack of reference models and specific templates* to guide the public administration in carrying out tenders;
4. *a tendency to award the tender on the basis of lowest bid criteria*, even when the score relating to the economic proposal would theoretically be lower, a poor evaluation of the quality parameters leads to the award of unnaturally high scores;
5. *the complexity of the purchasing process and the lack of automation in the process of compliance with the law requirements*; such a complexity has the negative consequence of excessively long tender processes that must be planned very far in advance and are thus inevitably inaccurate;
6. *the absence of a system* that the PA can use to evaluate suppliers and services; this system would constitute a knowledge base of useful cases and help administration to make decisions in an informed manner on the basis of past choices;
7. *the use of misleading unit costs* linked to software measurement metrics (e.g. "function points") that measure aspects that are not representative of the actual quality of the service and the software, in particular with regard to non-functional requirements (such as user-friendliness), further leading to an unbalanced assessment in favor of lower bids. We must move from assessing the output to assessing the outcome;⁴⁴
8. *the difficulty of intervening* on contracts that have had unexpected and unsatisfactory results, such as supply price and quality which are no longer in line with market levels and standards. Technology prices often fall over time and the standard quality level increases; instead, public administrations have to pay higher prices and tolerate lower quality levels awarded based on the standards of years gone by.

To allow administrations to purchase digital products and services simply and quickly, in line with the rapid evolution of technology and with real savings, we must:

- **reinforce Consip with technological skills; currently, Consip's resources are too unbalanced in favor of legal skills as opposed to technological/operational know-how;**

- **promote a dynamic procurement system that allows for multi-client supply, introduces mechanisms that can include SMEs and startups with high technological value, and favors renewable contracts for lower amounts so that we can continue to invest only where there is value;**
- **drastically change the processes of technology procurement**: support Consip in moving from individual, long-term single-supplier tenders worth hundreds of millions to short-term multi-supplier framework agreements that are worth less and can be renewed over time, providing easy access to small and medium-sized enterprises;
- **help MePA evolve into a dynamic digital marketplace** that would offer easy access for highly-innovative startups and SMEs and provide a simple and intuitive user experience;
- continue the work started by the team with Consip to **implement the Code of Conduct for Technology Procurement**; the Code contains the principles to be adopted and included in each new contract or tender for technological services and products;
- **automate processes, in particular those related to the exclusion clauses set out by Art. 80 of the Procurement Code** and add the monitoring and analysis of average procurement procedure execution times to Consip's remit (with a particular focus on direct awards and below threshold tenders), with a clear objective to reduce these times;
- **establish** a certification program that allows Consip to speed up the procurement procedures for digital products and services purchased by central and local administrations. This program will include a list of clear and verifiable requirements and will allow the most organized bodies to manage their own procurement processes in a transparent manner and in compliance with these requirements, which can be checked through an audit process;
- **rethink the governance mechanisms** with regard to procurement procedures for digital services and products to ensure greater consistency with the digital transformation strategy set out in the Three-Year Plan. The system of AgID's "opinions" is inadequate,⁴⁵ since AgID is not equipped with the resources and skills needed to properly verify that what is being bought is what is needed.

⁴⁴ [Fundamentals Unpacked: outcomes and outputs in the public sector](#)

⁴⁵ [Article 14-bis of the Digital Administration Code](#)



APPENDIX I

Resources needed to continue Digital Transformation initiatives

In this appendix, we will present two tables containing our proposals concerning the resources needed to continue these initiatives (the estimates of the personnel needed for each individual initiative are to be considered as purely indicative; they require more in-depth evaluation).

- For each individual planning activity, the first table indicates the resources to be initially assigned to the Digital Transformation Team and then to the Department for Digital Transformation of the Presidency of the Council of Ministers (as described in the section [Recommendations for the Government](#)), the resources to be assigned to the central administration involved in the management of a specific project, and the resources to be assigned to local administrations to support the execution of projects nationwide;
- The second table indicates the activities and tasks envisaged by the DAC (Digital Administration Code), detailing whether they should remain with AgID or be reassigned to another administration.

We suggest that the resources for this new body might come both from the reduction of AgID size and through the identification (in collaboration with the State General Accounting Office) of the PA's least useful technological projects (such as underused websites, portals and apps). The latter suggestion is inspired by the model which was adopted to create the UK GDS: the Cabinet Office identified and shut down 3 totally useless websites, allocating their development and maintenance costs to the creation of the new body.⁴⁶

Finally, we highlight that an organization of this size must be managed by leaders with strong complex process management skills, otherwise it risks transforming into the typical bureaucratic institution that becomes an ineffective and potentially harmful bottleneck over time.

| PROJECT | DESCRIPTION | SUGGESTED OWNER | DEPARTMENT FOR DIGITAL TRANSFORMATION staff to be assigned | CENTRAL PAs staff to be assigned | LOCAL PAs staff to be assigned |
|---|---|---|---|-------------------------------------|-----------------------------------|
| The Cloud and Strategic National Hubs | Data center consolidation and migration to cloud or limited number of Strategic National Hubs | Department for Digital Transformation - Presidency of the Council of Ministers or Ministry of Economy and Finance - State General Accounting Office | 25 staff to be assigned | / | 100 |

⁴⁶ Among these sites there are [Directgov](#) and [Businesslink](#).

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| PROJECT | DESCRIPTION | SUGGESTED OWNER | DEPARTMENT FOR DIGITAL TRANSFORMATION staff to be assigned | CENTRAL PAS staff to be assigned | LOCAL PAS staff to be assigned |
|---|---|--|---|-------------------------------------|---|
| ANPR | Program Office | Department for Digital Transformation - Presidency of the Council of Ministers or Ministry of the Interior | 5 | / | / |
| PagoPA | Management and evolution of the pagoPA platform | Ministry of Economy and Finance / Cassa Depositi e Prestiti (NewCo) | / | 30 (MEF/CDP) | / |
| Spid | Development and evolution of the SPID digital identity program | Department for Digital Transformation - Presidency of the Council of Ministers | 15 | / | / |
| CIE | CIE development management | State Mint and Polygraphic Institute (IPZS) | / | 15 (IPZS) | / |
| Open Government e Open Source | Management and evolution of the Developers Italia , Designers Italia , Docs Italia and Forum Italia platforms | Department for Digital Transformation - Presidency of the Council of Ministers | 30 | / | 80 (service and process review designers) |

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| PROJECT | DESCRIPTION | SUGGESTED OWNER | DEPARTMENT FOR DIGITAL TRANSFORMATION staff to be assigned | CENTRAL PAS staff to be assigned | LOCAL PAS staff to be assigned |
|--|---|--|---|--|-----------------------------------|
| <u>Interoperability and API</u> | Evolution and implementation of the interoperability model | Department for Digital Transformation - Presidency of the Council of Ministers | 10 | / | 20 |
| <u>National Digital Data Platform</u> | Management and evolution of the National Digital Data Platform and the Data & Analytics Framework | Creation of the Data Office within the Ministry of Economy and Finance - State General Accounting Office | / | 40 (Data Office) + 5 (Italian Data Protection Authority) | |
| <u>io.italia.it</u> | Management and evolution of <u>io.italia.it</u> | Department for Digital Transformation - Presidency of the Council of Ministers | 30 | / | 90 |
| <u>Electronic Health Record (FSE)⁴⁷</u> | Management of interoperability and improvement of the FSE user experience | Ministry of Economy and Finance - State General Accounting Office | / | 15 (MEF/RGS) | / |
| | | TOTAL | 115 | 105 | 290 |
| | | GRAND TOTAL | | 510 | |

⁴⁷ For the sake of completeness, an indicative estimate was also provided for the Electronic Health Record project, on which the Digital Transformation Team did not work directly.

Redistribution of AgID responsibilities

| FIELD | SPECIFIC ACTIVITY MANAGED BY AGID | SUGGESTED OWNER |
|--|---|--|
| Digital payments | Managing and providing the digital platform pagoPA and defining the related technical specifications and guidelines for managing payments (art. 5 of the DAC) | Ministry of Economy and Finance / Cassa Depositi e Prestiti |
| Communication between companies and public administrations | Verifying that requests, declarations, data and information are exchanged between companies and PAs using only information and communication technology according to the procedures set out by the relevant Prime Ministerial Decree (Art. 5-bis of the DAC) | AgID |
| Digital Address | Supporting the Ministry of Economic Development in the creation and management of the INI-PEC (certified email) register (Art. 6-bis of the DAC) Guidelines and means of extracting digital addresses from the lists, as per Articles 6-bis, 6-ter and 6-quater of the DAC (Art. 6-quinquies of the DAC) | AgID |
| Digital Address | Creating and managing the Index of digital addresses of the public administration, of the entities that manage public services and of natural persons (Art. 6-ter, 6-quater of the DAC) | AgID |
| The right to simple and integrated online services | Periodically defining standards and quality levels (taking into account the evolution of technology) that the PA must comply with when reorganizing and updating the services provided, based on a prior analysis of the actual needs of users, and making these available online (art. 7 of the DAC) | Department for Digital Transformation / Presidency of the Council of Ministers |

| FIELD | SPECIFIC ACTIVITY MANAGED BY AGID | SUGGESTED OWNER |
|--|--|---|
| Internet connection in offices and public places | Defining security standards and guidelines for the provision of the portion of bandwidth not used in offices and public places (art. 8-bis of the DAC) | Ministry of Economic Development |
| Relations between the State and Local Authorities and Bodies | Coordinating the IT facilities of national, regional and local administration with the aim of planning and monitoring the strategic evolution of the public administration's information system (art. 14 of the DAC) | Department for Digital Transformation / Presidency of the Council of Ministers |
| AgID | <p>(art. 14-bis of the DAC)</p> <ul style="list-style-type: none"> ▪ Achieving the objectives of the Italian Digital Agenda ▪ Promoting digital innovation in Italy and the use of digital technologies in the organization of public administration and in the relationship between the PA, citizens and businesses ▪ Carrying out the required tasks in order to fulfill international obligations ▪ Issuing the guidelines containing the rules, standards and technical guides of the digital agenda ▪ Planning and coordinating administration initiatives for the use of information technology and for drafting the Three-Year Plan ▪ Organizing, implementing and managing innovation initiatives and projects (either implementing and managing them directly or using third parties), specific innovation projects assigned to the agency as well as planning and coordinating strategic initiatives of major national interest, including cross-sector projects ▪ Promoting digital culture and research, including through regional digital communities | <p>Department for Digital Transformation / Presidency of the Council of Ministers</p> <p>(we suggest reviewing some of these duties, as they are generic and, in some cases, not measurable)</p> |
| AgID | <p>(art. 14-bis of the DAC)</p> <p>Verifying the results achieved by individual administrations with a particular focus on the costs and benefits of IT systems</p> | Ministry of Economy and Finance / State General Accounting Office |

| FIELD | SPECIFIC ACTIVITY MANAGED BY AGID | SUGGESTED OWNER |
|-----------------------------------|---|---|
| AgID | <p>(art. 14-bis of the DAC)</p> <ul style="list-style-type: none"> ▪ Defining criteria and methods to monitor the execution of contracts by a specific administration ▪ Overseeing trust service providers, certified email management entities, accredited digital document storage providers, and public and private bodies that are part of SPID in the exercise of these roles ▪ Any other role attributed to the agency by specific legal provisions and by its Charter ▪ AgID performs all other roles required by laws and regulations and already attributed to DigitPA, the Agency for the Diffusion of Innovation Technology, and the Department for Technological Innovation of the Presidency of the Council of Ministers | <p>AgID</p> <p>(we suggest reviewing some of these duties, as they are generic and, in some cases, not measurable)</p> |
| AgID (Procurement) | <p>(art. 14-bis of the DAC)</p> <ul style="list-style-type: none"> ▪ Monitoring the activities carried out by administrations, including investments made in relation to their alignment with the Three-Year Plan ▪ Issuing technical advice on the contract outlines and framework agreements of central public administrations and on the essential elements of the strategic tender procedures for the Three-Year Plan launched by Consip and aggregating bodies | <p>Department for Digital Transformation / Presidency of the Council of Ministers</p> |
| Digitalization and reorganization | <p>Identifying criteria and procedures so that each public administration can report annually on the streamlining of administrative procedure management and on the savings made thanks to technology (Art. 15 of the DAC)</p> | <p>Ministry of Economy and Finance / State General Accounting Office</p> |
| Digital Ombudsman | <p>Establishing the Digital Ombudsman (Art. 17 of the DAC)</p> | <p>AgID</p> |

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| FIELD | SPECIFIC ACTIVITY MANAGED BY AGID | SUGGESTED OWNER |
|--|---|--|
| National Platform for Governance of the Digital Transformation | Implementing and managing the National Platform for Governance of the Digital Transformation (Art. 18 of the DAC) | Department for Digital Transformation / Presidency of the Council of Ministers |
| Validity and evidential effectiveness of electronic documents | Technical training rules for the transmission, storage, copying, duplication, reproduction and validation of electronic documents (Art. 20 of the DAC) | AgID |
| Trust services and digital identity | Certification and accreditation of bodies wishing to provide certified trust services, electronic document storage and digital identity management, as well as the related duties and sanctions (Art. 29, 32, 32-bis, 35 e 37 of the DAC) | AgID |
| Proceedings and electronic dossiers | Guidelines for the establishment, identification, accessibility through the aforementioned services and use of dossiers (art. 41 of the DAC) | AgID |
| Data | Defining guidelines for public administrations to analyze their data, including in combination with data held by other bodies (Art. 50 of the DAC) | Creation of the Data Office within the Ministry of Economy and Finance / State General Accounting Office |
| Data | Managing the National Digital Data Platform (Art. 50-ter of the DAC) | Creation of the Data Office within the Ministry of Economy and Finance / State General Accounting Office |

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| FIELD | SPECIFIC ACTIVITY MANAGED BY AGID | SUGGESTED OWNER |
|--------------------------------|--|--|
| Security | <ul style="list-style-type: none">Implementing, insofar as it falls within the agency's competence and in conjunction with the other competent authorities, the National Strategic Framework for Cybersecurity and the National Cybersecurity and Information Security Plan, and promoting agreements with similar international bodies as well as issuing guidelines promoting cybersecurityCoordinating, through the Computer Emergency Response Team of the Public Administration (CERT-PA), IT security incident prevention and management initiatives (Art. 51 of the DAC) | Information and Security Department |
| Territorial data | Creating the National Directory of Territorial Data (Art. 59 of the DAC) | Creation of the Data Office within the Ministry of Economy and Finance / State General Accounting Office |
| Databases of national interest | Identifying and publishing the list of databases of national interest (Art. 60 of the DAC) | Creation of the Data Office within the Ministry of Economy and Finance - State General Accounting Office |
| ANPR | <ul style="list-style-type: none">Coordinating with the Presidency, the ministries and the bodies in charge with regard to the time frames and means of implementing the provisions concerning the ANPR: security guarantees and measures, the interoperability of the ANPR with other databases and the provision of other services made available by the ANPR (Art. 62 of the DAC) | Department for Digital Transformation / Ministry of the Interior |

Resources needed to continue Digital Transformation initiatives

Italian Government - Digital Transformation Team's report
This document was translated by Artificial Intelligence

| FIELD | SPECIFIC ACTIVITY MANAGED BY AGID | SUGGESTED OWNER |
|--|---|--|
| SPID | Creating and managing the public system for the digital identity management of citizens and businesses (SPID) and (Art. 64 of the DAC) | Department for Digital Transformation / Presidency of the Council of Ministers |
| Online access to public administration services | Defining guidelines for the analysis tools to be used to verify the standards and quality levels of services supplied by digital identity providers and trust service providers Art. 64-bis of the DAC | Department for Digital Transformation / Presidency of the Council of Ministers |
| Open source and reuse | <ul style="list-style-type: none">▪ Defining criteria and methods for the comparative technical and economic assessment of solutions already available within the public administration or from free software or open source code, suited to the needed requirements (Art. 68 of the DAC)▪ identifying one or more platforms for the publication of source code, documentation and the related technical/functional descriptions of all the IT solutions developed by the public administration (Art. 69 of the DAC) | Department for Digital Transformation / Presidency of the Council of Ministers |
| Public Connectivity System (SPC) and interoperability | Publishing, free of charge, the specifications of the technological interfaces, the guidelines, the cooperation rules and any other information needed to guarantee the interoperability of the SPC with any other IT solution developed independently by private individuals or other administrations (Art. 75 of the DAC) | Department for Digital Transformation / Presidency of the Council of Ministers |
| Technical regulations | Adopting guidelines and technical regulations for the implementation of strategic and planning principles related to the Digital Agenda (Art. 71 of the DAC) | Department for Digital Transformation / Presidency of the Council of Ministers |



APPENDIX II

Some key numbers

The benefits brought about by a well-executed digital transformation are reflected in the improvement of services for citizens and in the increased efficiency of the public administration. Although the benefits are indisputable, quantifying the financial savings and calculating the

increase in productivity is complex and often relies on uncertain estimates. This table attempts to summarize some key numbers that give a sense of the impact resulting from the digital transformation.

| | KEY NUMBERS | DESCRIPTION |
|--|---------------------------|--|
| POTENTIAL SAVINGS ON EXPENDITURE AND IMPACT ON EFFICIENCY | €35 Bln / year, of which: | Benefits for the PA in terms of higher revenue or savings on expenditure thanks to the PA's digital transformation ⁴⁸ |
| | €15 Bln / year | Savings thanks to the digitalization of PA processes ⁴⁸ |
| | €10 Bln / year | Money recovered in taxes in the event that all companies adopt the electronic storage of fiscal documents ⁴⁸ |
| | €5 Bln / year | Money recovered in taxes in the event that the percentage of payments made electronically by consumers rises from 20% to 30% ⁴⁸ |
| | €5 Bln / year | Savings on negotiations in the event that the use of eProcurement in the PA rises from the current 5% to 30% ⁴⁸ |

⁴⁸ [The published estimates include the September 2013 report on egovernment produced by the Digital Agenda Observatory of Politecnico di Milano's School of Management](#) in 2013.

The analysis is based on the progress status of public projects within the Italian digital transformation in 2013 and previous years. Even though carried out in 2013, Politecnico di Milano's study on eGovernment defines a significant still-valid qualitative framework covering the potential impacts that the digital transformation can have on the public administration and businesses.

| KEY NUMBERS | DESCRIPTION |
|------------------------------|--|
| €25 Bln / year, of which: | Benefits for companies in terms of higher revenue or savings on expenditure thanks to the PA's digital transformation ⁴⁸ |
| €23 Bln / year | Increased productivity thanks to the digitalization of the interface processes between the PA and companies ⁴⁸ |
| €2 Bln / year | Savings on financial charges thanks to the PA's electronic payments, which allow suppliers to be paid within the time frame set out by Directive 2011/7/EU ⁴⁸ |
| €5 Bln / year | Estimated savings at European level thanks to the adoption of the once-only , principle, which is based on the implementation of the interoperability model ⁴⁹ |
| €681 Mln | Estimated total expenditure for the launch of physical infrastructure projects by central administrations in 2013-2015, which can be drastically reduced if the guidelines of the Three-Year Plan are followed ⁵⁰ |
| €621 Mln | Estimated total expenditure for the launch of software development projects by central administrations in 2013-2015, which can be drastically reduced if the guidelines of the Three-Year Plan are followed ⁵¹ |

⁴⁹ [Study on eGovernment and the reduction of administrative burden: final report / EY, Danish Technology Institute, European Commission, 2014, p. VI](#)

⁵⁰ The estimate concerns the aggregate of the multi-year costs sustained by 21 Central public administrations for the projects surveyed in the "Physical Infrastructures" category contained in [Annex 3 - Overview of ICT](#) expenditure of the Three Year Plan for Information Technology in the public administration 2017-2019.

⁵¹ The estimate concerns the consolidated multi-year costs incurred for the projects surveyed in the "Intangible Infrastructure" and "Ecosystems" typologies, which refer to projects relating to the "software" sphere contained within [Appendix 3 - Synoptic ICT Spending Framework](#). Three-Year Plan for IT in public administration 2017-2019.

| KEY NUMBERS | DESCRIPTION |
|---|---|
| 3.5 Mln hours/year | Annual saving in working hours by municipalities due to the automatic management of changes of address thanks to ANPR ⁵² |
| €1.1 Bln / year | Estimated annual saving on expenditure for the PA with the adoption of pagoPA thanks to the automation of accounting processes, the reconciliation of payments, and the replacement of payment alert letters with electronic messages ⁵³ |
| €110 / year for each citizen | Estimated annual saving for each citizen with the adoption of pagoPA, resulting from lower fees on payments made and the time saved by paying for public services electronically rather than in person ⁵⁴ |
| ANPR (Data updated at September 30, 2018) | |
| 715 municipalities | Municipalities migrated |
| 9.8 Mln people | Population migrated |
| 1737 municipalities | Municipalities in the pre-migration phase |
| 10.7 Mln people | Population in the pre-migration phase |

⁵² Estimated by the Digital Transformation Team in collaboration with the Ministry of the Interior.

⁵³ Data processed as part of a study carried out with CDP.

⁵⁴ See note 53.

| | KEY NUMBERS | DESCRIPTION |
|---|-----------------------------|---|
| PAGOPA (Data updated at September 30, 2018) | 5.3 Mln (+240%) | Transactions made using pagoPA in the first half of 2018 and the respective increase compared to the same period in 2017 ⁵⁵ . |
| | €685 Mln (+358%) | Value of transactions made using pagoPA in the first half of 2018 and respective increase compared to the same period in 2017 ⁵⁶ . |
| | €197 ⁵⁷ | Average payment in the third quarter of 2018 |
| | €175 Mln (890K) / per month | Value (number) of transactions made using the platform per month in the third quarter of 2018 |
| | 2500 | Operational member bodies (with at least one payment received via pagoPA in the last month), of which 67% are municipalities |
| SPID (Data updated at September 30, 2018) | 2.85 Mln | Digital identities released since the launch of the program (March 2016) |
| | 27.000 / week (+50%) | Digital identities released on average per week in the second quarter of 2018, with the respective increase compared to the first quarter of 2018 (18.200 / week) |

⁵⁵ 8.6M total transactions made on pagoPA in 2018, updated at September 30, 2018

⁵⁶ 1.28 billion total value of payments made on pagoPA in 2018, updated at September 30, 2018

⁵⁷ Average value calculated taking into account the percentage of successful transactions, which was 81% of the transactions carried out for the third quarter of 2018. Unsuccessful transactions correspond mainly to the user having insufficient funds or not completing the payment phase.

| | KEY NUMBERS | DESCRIPTION |
|--|----------------|--|
| CIE (Data updated at September 30, 2018) | 7.500 (94%) | Municipalities authorized to issue the CIE, with the relative percentage of the population covered |
| | 5.5 Mln | CIEs issued in total since the launch of the program |
| | 122.000 / week | CIEs issued |



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