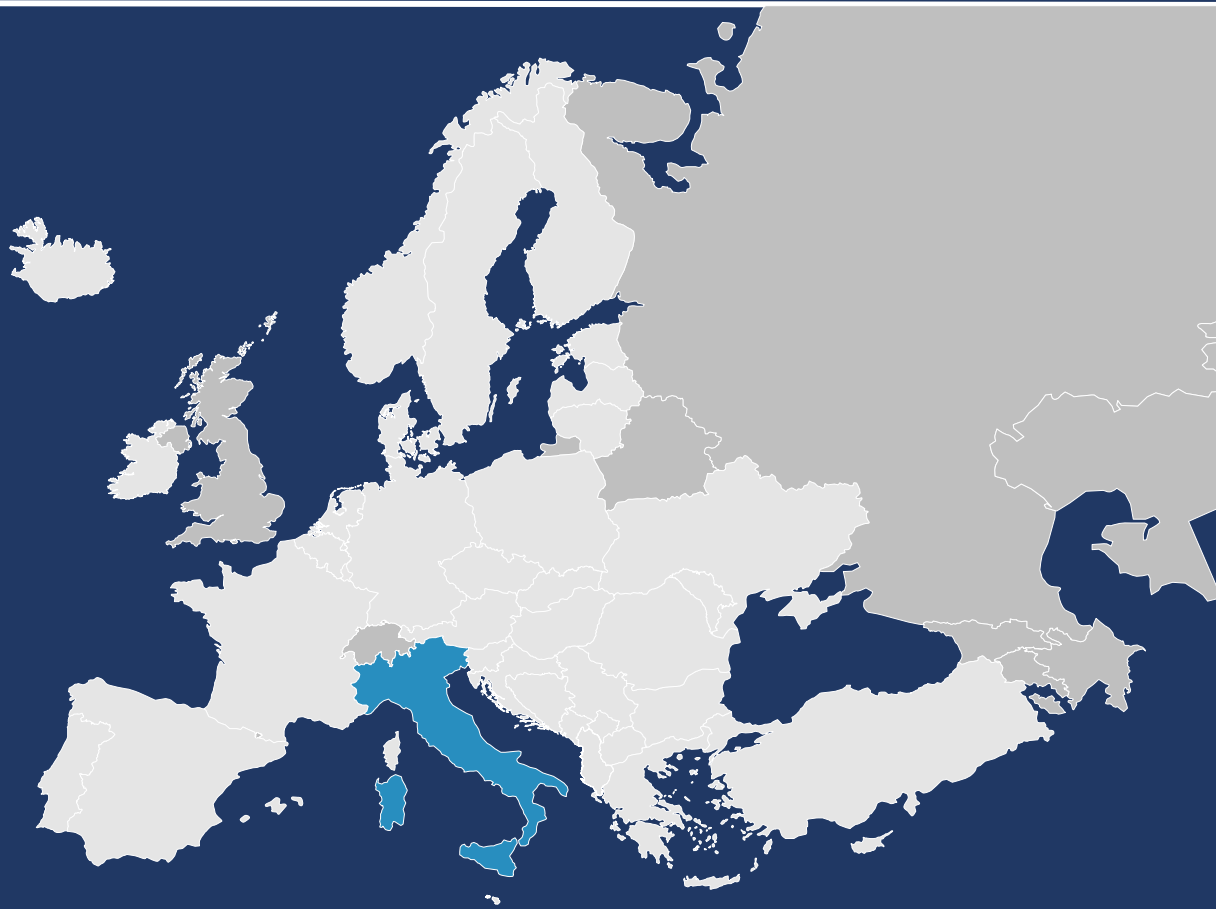


ITALY

2024 Digital Public Administration Factsheet

Supporting document






Main developments in digital
public administrations and
interoperability

JULY 2024

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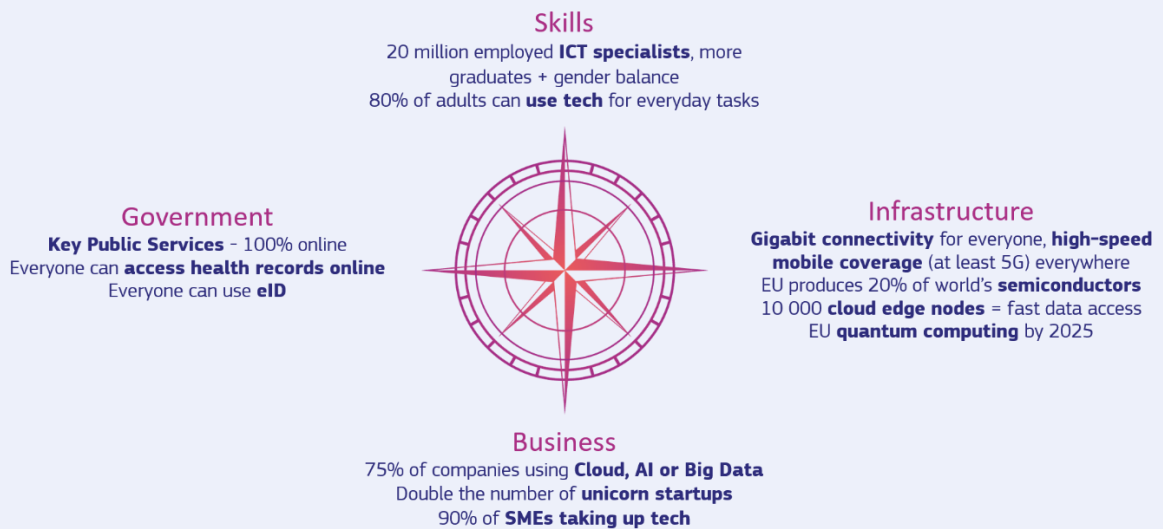
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2030 DIGITAL DECADE

The **Digital Decade policy programme 2030** sets out digital ambitions for the next decade in the form of clear, concrete targets. The main goals can be summarised in 4 points:

- 1) a digitally skilled population and highly skilled digital professionals;
- 2) secure and sustainable digital infrastructures;
- 3) digital transformation of businesses;
- 4) digitalisation of public services.



The production of the **Digital Public Administration factsheets and their supportive documents** support the objectives and targets of the Digital Decade programme. By referencing national initiatives on the digital transformation of public administrations and public services, as well as interoperability, they complement existing data and indicators included in the Digital Decade reports and related resources. They also highlight and promote key initiatives put in place or planned by EU countries to reach the Digital Decade’s targets.



1. Interoperability State-of-Play

In 2017, the European Commission published the **European Interoperability Framework (EIF)** to give specific guidance on how to set up interoperable digital public services through a set of 47 recommendations divided in three pillars. The EIF Monitoring Mechanism (MM) was built on these pillars to evaluate the level of implementation of the framework within the Member States. Whereas during the previous, the MM relied upon three scoreboards, starting from the 2022 edition it includes an additional scoreboard on cross-border interoperability, assessing the level of implementation of 35 Recommendations. The mechanism is based on a set of 91 Key Performance Indicators (KPIs) clustered within the four scoreboards (Principles, Layers, Conceptual model and Cross-border interoperability), outlined below.

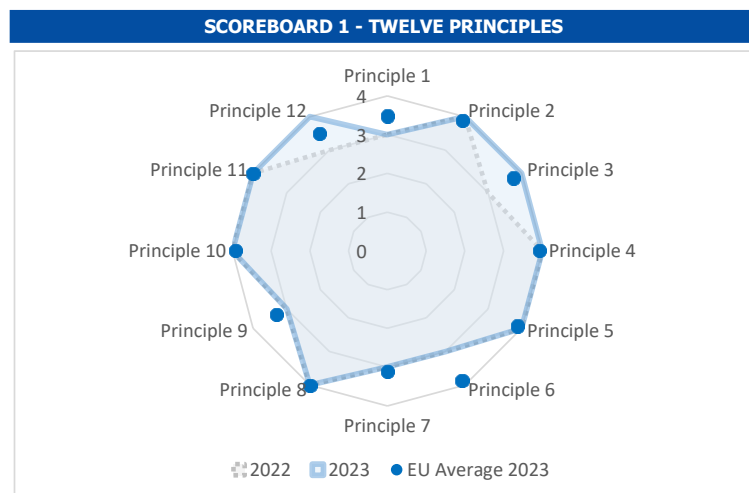
Starting from the 2022 edition, an additional scoreboard, **Scoreboard 4**, focusing on cross-border interoperability, has been incorporated. This scoreboard assesses the adherence to 35 Recommendations outlined in the EIF framework. Specifically, it encompasses Interoperability Principles 2, and 4 through 11 from Scoreboard 1, all recommendations pertaining to Interoperability Layers from Scoreboard 2, as well as Conceptual Model recommendations 36 to 43 and 46 to 47 from Scoreboard 3.

Scoreboard 1 Interoperability Principles		Scoreboard 2 Interoperability Layers		Scoreboard 3 Conceptual Model	
	Recommendation(s) n°		Recommendation(s) n°		Recommendation(s) n°
Principle 1 - Subsidiarity and Proportionality	1	Interoperability Governance	20-24	Conceptual Model	34-35
Principle 2 - Openness	2-4	Integrated Public Service Governance	25-26	Internal information sources and services	36
Principle 3 - Transparency	5	Legal Interoperability	27	Basic Registries	37-40
Principle 4 - Reusability	6-7	Organisational Interoperability	28-29	Open Data	41-43
Principle 5 - Technological neutrality and data portability	8-9	Semantic Interoperability	30-32	Catalogues	44
Principle 6 - User-centricity	10-13	Technical Interoperability	33	External information sources and services	45
Principle 7 - Inclusion and accessibility	14			Security and Privacy	46-47
Principle 8 - Security and privacy	15				
Principle 9 - Multilingualism	16				
Principle 10 - Administrative simplification	17				
Principle 11 - Preservation of information	18				
Principle 12 - Assessment of Effectiveness and Efficiency	19				

Scoreboard 4 Cross-border Interoperability

Source: European Interoperability Framework Monitoring Mechanism 2023

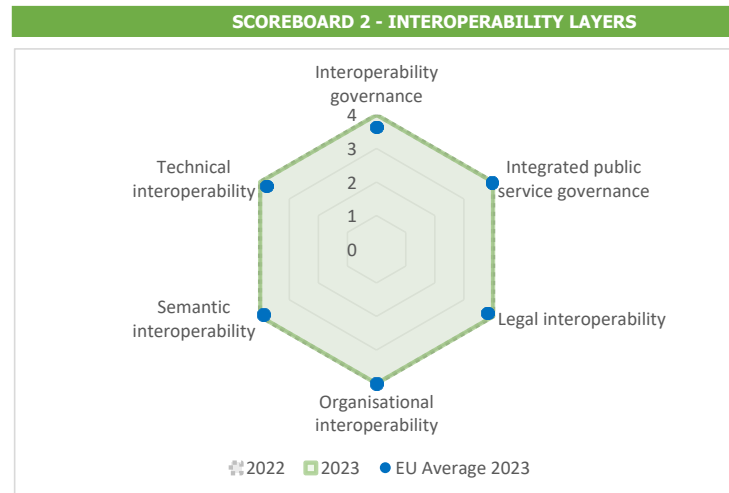
Each scoreboard breaks down the results into thematic areas (i.e. principles). The thematic areas are evaluated on a scale from one to four, where one means a lower level of implementation and four means a higher level of implementation. The graphs below show the result of the EIF MM data collection exercise for Italy in 2023, comparing it with the EU average as well as the performance of the country in 2022.



Source: European Interoperability Framework Monitoring Mechanism 2023

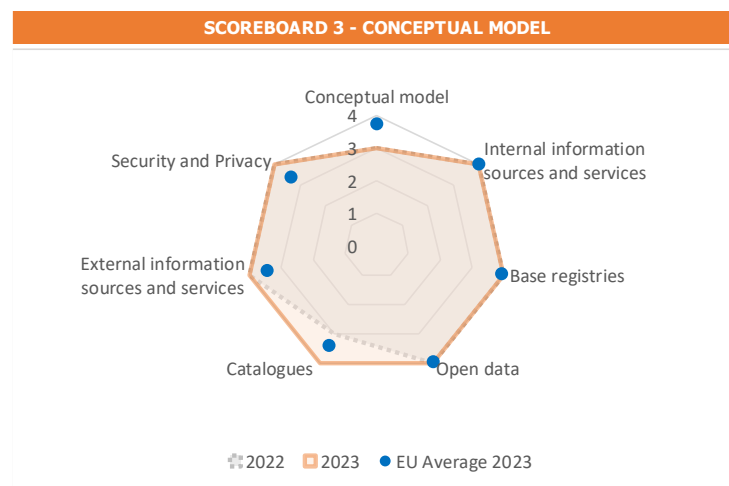


The Italian results in Scoreboard 1 stand for an overall good implementation of the EIF Principles. Italy even performed above the European average for Principle 12 (Assessment of Effectiveness and Efficiency). Potential areas for improvement relate to the implementation of Principles 1 (Subsidiarity and Proportionality) and 6 (User-centricity), for which the score of 3 could be further enhanced to reach the European average. In addition, Italy could increase its score on Principle 9 (Multilingualism) to reach the maximum score of 4 by focusing on its use of information systems and technical architectures that cater for multilingualism when establishing a European public service (Recommendation 16) and more specifically, the total number of language resources proposed to users.



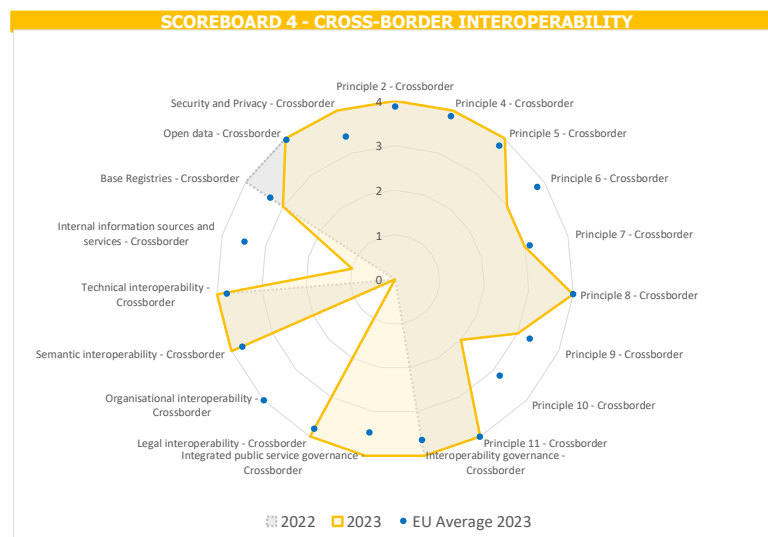
Source: European Interoperability Framework Monitoring Mechanism 2023

Italy's scores in Scoreboard 2 illustrate an excellent performance in the country for all interoperability layers. Thus, Italy continued to obtain the maximum score of 4 in all the layers. Margin for improvement is linked to some KPIs related to Interoperability governance and Organisational interoperability for which the country may consider focusing on consulting relevant catalogues of standards, specifications and guidelines at national and EU levels (Recommendation 23), as well as further clarifying and formalising organisational relationships for establishing and operating European public services (Recommendation 29).



Source: European Interoperability Framework Monitoring Mechanism 2023

The Italian results in relation to the Conceptual Model in Scoreboard 3 show a very good performance of the country. Italy has obtained the maximum score of 4 in the same areas as 2022, but also in Catalogues, for which the score has been increased from 3 to 4. The only area that remains below the European average is the Conceptual Model itself. To increase this score to maximum levels, the country may focus on Recommendation 35, advising to decide on a common scheme for interconnecting loosely coupled service components and put in place and maintain the necessary infrastructure for establishing and maintaining European public services.



Source: European Interoperability Framework Monitoring Mechanism 2023

The results of Italy on Cross-Border Interoperability in Scoreboard 4 show a positive performance of the country, especially in comparison to 2022. Particularly, the country performed better than the European average in Principles 4 and 5, and in Integrated public service governance, Legal, Semantic, and Technical interoperability, as well as Security and Privacy. Margin for improvement is particularly relevant for Principle 10 (Administrative Simplification) and Internal information sources and services. To improve its performance levels in the former, Italy should consider focusing on Recommendation 17, advising to simplify processes and use digital channels for the delivery of European public services. Regarding the latter, the country could enhance its score by developing a shared infrastructure of reusable services and information sources that can be used by all public administrations, as suggested by Recommendation 36.

Additional information on Italy's results on the EIF Monitoring Mechanism is available online through interactive dashboards.

Curious about the state-of-play on digital public administrations in this country?

Please find here some relevant indicators and resources on this topic:

- [Eurostat Information Society Indicators](#)
- [Digital Economy and Society Index \(DESI\)](#)
- [eGovernment Benchmark](#)
- [Repository of good practices on the EIF implementation](#)



2. Digital Transformation of Public Administrations

Main Digital Strategies, Action Plans and Legislations

Digital Italy 2026

In 2021 a new plan called 'Digital Italy 2026' (*Italia Digitale 2026*) was issued. The Digital Italy 2026 hinges on two intervention areas included in the National Recovery and Resilience Plan (NRRP) under 'Mission 1: Digitalisation, Innovation, Competitiveness, Culture and Tourism':

- Ultra-fast Networks; and
- Digitalisation of the Public Administration.

The two measures are made up of eight investments and a total budget for Digital Italy 2026 amounting to EUR 13.45 billion.

In order to implement this ambitious plan, Digital Italy 2026 focuses on five main objectives that are consistent with the EU strategy 2030 Digital Compass targets:

- Objective 1: Digital Identity and Citizenship, seeking to improve citizen's lives through better public services;
- Objective 2: Digital Skills, promoting the development of citizens' digital skills and ensuring a strong and widespread digital literacy;
- Objective 3: Cloud and Infrastructure, following a cloud-first approach that is oriented towards the migration of single administrations' data and software in a cloud environment;
- Objective 4: Digital Online Services, pushing for the interconnection of administrations' databases and the full interoperability thereof; and
- Objective 5: Ultrafast Network, fostering high-quality fixed and mobile connectivity infrastructures.

Three-Year Plan for IT in the Public Administration

The [Three-Year Plan for IT in the Public Administration](#) was defined in accordance with the [Digital Growth Strategy](#), with the aim to set public sector ICT investment targets in line with government guidelines and European goals and programmes. The plan proposes a systematic, distributed and shared management and use model applicable to the most innovative digital technologies. This approach involves an agile and evolving management approach, emphasising transparent governance across all levels of public administration. The harmonious integration of the three pillars (innovative technologies, agile management practices, and a clear, and efficient governance model) enhances the country's ability to leverage new technologies effectively. This, in turn, enables citizens to enjoy improved digital services with easy access. The [Agency for Digital Italy \(Agenzia per l'Italia Digitale - AgID\)](#) supervises and coordinates the plan, providing guidance and support to central and local public administration bodies during its implementation.

The Three-Year Plan has been updated three times since 2000.. The 2024-2026 edition was published in January 2024 by AgID. The document was drawn up in close collaboration with the Department for Digital Transformation and with a significant input from central administrations, as well as local administrations, the business community, universities and research institutions. The new Three-Year Plan presents numerous innovations, starting with the close coordination with the objectives of the National Recovery and Resilience Plan and the Digital Decade 2030. Public administrations will have access to operational tools that will be updated as necessary to support them in significant challenges: (i) procuring ICT goods and services; (ii) manage associated ICT services by local PAs; (iii) provide priority digital services for citizens and businesses according to the eGovernment benchmark; (iv) manage advanced services at local level using hybrid cloud and edge computing infrastructures; and (v) provide public administrations with initial guidelines on how to use artificial intelligence technologies.

Berlin Declaration on Digital Society and the Value-based Digital Government

In December 2020, the Italian government signed the [Berlin Declaration on Digital Society and the Value-based Digital Government](#), thus reaffirming its commitment – together with other EU



Member States – to foster digital transformation in order to allow citizens and businesses to harness the benefits and opportunities offered by modern digital technologies. The declaration aims to contribute to a value-based digital transformation by addressing and strengthening digital participation and digital inclusion in European societies.



Law No. 108/2021

The Governance and Simplification Decree ([Decree No. 77/2021](#)) converted into Law No. 108/2021 in July 2021 was issued in the context of the NRRP. It establishes the Delegation Management System (*Sistema di Gestione delle Deleghe* - SGD) to appoint proxies by subjects holding a digital identity. Its aim is to bridge the digital divide among citizens. It also enhances the national databases system and improves information exchange between them through interoperability. In addition, it includes simplification measures for public data and authorisation procedures for installing electronic communication infrastructures and digital building infrastructure.



Decree No. 217/2017

The most recent reform of the CAD laid down the legal foundations for many of the services established in the Three-Year Plan for IT in the Public Administration.

Many online services are already being implemented, such as the [Digital Citizenship or the Data and Analytics Framework](#) (DAF), and even the service for the selection of citizens' digital domicile. The latest version of the code set forth important modifications, such as:

- Definition of open format, open data, digital domicile, and digital citizenship;
- Electronic signature and other means foreseen by the eIDAS Regulation 2014/910, in order to be compliant with EU law;
- Simplified process in order to issue technical guidelines under the responsibility of the AgID;
- Provision of a new public repository for the retrieval of documents subject to transparency obligations and new rules about eDocument management;
- Provision of a new National Digital Data Platform (*Piattaforma Digitale Nazionale Dati*), in order to simplify the knowledge of public informative assets;
- Extended use of the ePayment platform; and
- Reuse of software among public administration bodies.



Design Guidelines for Public Administration Websites and Digital Services

In July 2022, the Department of Digital Transformation (DTD) published the [Design Guidelines and Operation Manual](#) (*Linee guida e manuale operativo di design*). The guidelines describe all the features to be included when creating websites and digital services for the public sector, the optional requirements, as well as those requiring careful evaluation. In addition, the guidelines contain references to information transparency and security, the integration of enabling platforms, licences and good service monitoring practices. The guidelines focus on promoting digital adoption in society by underlining the importance of developing helpful and user-friendly websites and digital services through a user-centred design approach.

In addition, to support public administrations in the design and development of their webpages, an [evaluation app](#), called 'pa-website-validator' has been created. Some templates, such as the ones for [schools](#) or [municipalities](#), are available. The app is an automated tool to help schools and municipality check if their webpages comply with the required design models. It helps evaluate the quality of the website and the compliance with the criteria of measure 1.4.1 of the NRRP ('Citizen experience in digital public services'), both during and after development. The design models enable the creation of institutional websites and digital services that have been validated by research and designed according to the needs of citizens. The templates provided include guides and resources that are ready to use, helping developers complete their work efficiently and cost-effectively.

Digitalisation of Internal Processes



Law No. 79/2022

The Governance and Simplification Decree ([Decree No. 36/2022](#)), converted into [Law No. 79/2022](#) on 9 June 2022, contributed to the completion of the civil service reform, providing important changes in the recruitment process.



On 30 June 2022, with a decree of the Minister for Simplification and Public Administration, guidelines were issued for the definition of new professional profiles, listing skills necessary to support the digital and green transition of the PA. Additionally, since 1 July 2022, the [portal inPA](#) (a single gateway for the recruitment of PA personnel aimed at citizens and public administration bodies) can be used by central public administrations and independent authorities for recruitment purposes. Starting in November 2022, individuals must register with inPA in order to be eligible for both temporary and permanent job openings. Additionally, the portal is used to select members of examination boards for public competitions. The portal will soon be extended to regional and local authorities. From 2023 onwards, notices will only be published on the portal and the official website of the administration announcing the competition.

[Law No. 76/2020](#)

According to the Simplification and Digital Innovation Decree ([Decree No.76/2020](#)), converted into Law No. 120/2020 in February 2021, all administrations are required to migrate from the various online authentication methods to the Public Digital Identity System (SPID) and the Electronic Identity Card (CIE). Therefore, administrations will no longer be able to issue or renew the old credentials. The credentials previously issued could be used until their natural expiration date and no later than 30 September 2021. Digital identification is like presenting an identity document and is used to access the services of public concessionaires and State-owned companies.

[Circular No. 3/2018](#)

The Minister for Simplification and Public Administration issued [Circular No. 3 of 1 October 2018](#) urging all public administrations to appoint in their hierarchy a Director or Head of Unit in charge of the digital transition.

[Once-Only Principle](#)

In Italy, the Once-Only principle became part of the legislation through Decree No. 82 of 7 March 2005, i.e. the Digital Administration Code (*Codice per l'Amministrazione Digitale – CAD*), Articles 50 and 58.

Both articles state that public administration bodies need to cooperate with each other to obtain the required information, rather than acquiring it from citizens who are not obliged to provide the same information to public administration entities more than once.

The decree of 2005 was updated with Legislative Decree No. 179 of 26 August 2016, and Legislative Decree No. 217 of 13 December 2017. both documents aim to simplify administrative processes, making it easier for citizens to interact with public administrations.

A national interoperability framework has been set up by issuing mandatory guidelines on how services should be implemented through APIs and documented. The National Digital Data Platform (PDND) serves as Italy's central API catalogue, authentication and authorization platform. The National Data Catalogue for Semantic Interoperability is used to collect semantic assets for enabling semantic interoperability.

In particular, the aforementioned Legislative Decrees acted specifically in the following ways. It:

- Introduced important definitions, such as 'digital identity' and 'digital domicile';
- Aligned the national regulation on electronic documents and electronic signatures with the European regulation, and in particular with Regulation (EU) no. 910/2014 (Eidas);
- Expanded the subjective and objective scope of the application of the CAD;
- Broadened the recognition of digital citizenship rights;
- Simplified the regulations on digital identity and the public connectivity system;
- Established the electronic single point of access to public services;
- Introduced the Index of public administrations and public services operators physical addresses;
- Reduced the burden of some norms, through the provision of guidelines adopted directly by AgID;
- Strengthened the idea of a digital citizenship card, as stated in the first part of the CAD, subject to certain exceptions;
- Promoted the integration and interoperability of public services provided by various public administration bodies, so that citizens and businesses can use them in a seamless way;
- Provided greater legal certainty on the creation, management and storage of digital documents. This includes not only documents signed digitally or with another qualified electronic signature, but also those signed with different electronic signatures. These

documents, under the specific conditions identified by AgiD, can have the same legal effects and evidentiary value;

- Strengthened the applicability of digital citizenship rights and increased the quality level of digital public and fiduciary services thanks to the creation of an ombudsman office within the AgiD; and
- Enhanced the public information assets and their use in compliance with data protection laws.



SPC Network

Italian central administration bodies are connected through an IP national network (**SPC Network**) implemented via multi-provider services. All involved network operators share the same price list for all the network services defined by AgID and all the operators involved in the scope of this network share a dedicated peering point.

Despite being mandatory only for central administration bodies, the SPC is currently used by several local administration bodies that voluntarily decided to connect to the network.



Technical Infrastructure for the Cooperation Among Regional Authorities

The development of online administrative services at regional and provincial levels in Italy means that digital information is stored and formatted in various ways. The **ICAR project** set up and tested a technical infrastructure to streamline cooperation among Italian regional authorities, using national standards defined for the development of the Public Connectivity and Cooperation System (SPC).

Digitalisation Supporting the EU Green Deal

No particular initiatives in this field have been reported to date.





3. Interoperability and Data

Interoperability Framework



IT National Interoperability Framework

In 2021, Italy published the [IT National Interoperability Framework](#). The new framework aims to promote the creation of new user-centric, mobile first, digital public services based on secure and interoperable REST APIs. The goal is achieved by addressing both technological and organisational issues, especially those related to data-sharing hurdles between agencies. Accordingly, with [Decision No. 547/2021](#), AgID adopted and published the 'Guidelines on Technical Interoperability of the Public Administration' as well as the 'Technologies and Standards Guidelines for Security Interoperability through the APIs of IT Systems', pursuant to Article 71 of the Digital Administration Code (CAD) and to Directive (EU) 2015/1535. The [guidelines](#) contribute to the definition of the 'Interoperability Model for the Public Administration' (*Modello di Interoperabilità della Pubblica Amministrazione - ModI*), defined by AgID pursuant to Article 73 (3a), letter b of the CAD, in line with the [European Interoperability Framework \(2017\)](#). The first document discusses how technologies are used to ensure secure digital transactions between and towards public administration bodies using application programming interfaces over an IT network. The second document outlines the technologies and standards that the public administration shall consider when developing their IT systems to enable data and IT coordination among central, regional and local administrations, as well as between national and Union systems, and with public service and private entity managers. Italy collaborated closely with global standard-defining organisations like the Internet Engineering Task Force, as well as with other European Member States and the European Commission, to identify and establish standards that promote the development of innovative digital services and facilitate cross-border digital services.



New Interoperability Guidelines for Public Administration Bodies

[Circular No. 1 of 9 September 2020](#) defines the new interoperability guidelines for public administration bodies in line with the European Interoperability Framework (EIF) model. The guidelines set the technical interoperability standards that all public administration bodies must comply with to ensure that their systems are interoperable with third parties ones. They also foster the implementation of the national IT system of the public administration. Particularly, public administrations at all levels shall comply with these technical standards and use patterns and profiles foreseen by this new interoperability model.



Act No. 627/2021

[Act No. 627/2021](#) sets out the 'Guidelines on the technological infrastructure for the National Digital Data Platform for the interoperability of information systems and databases' (CAD, Article 50-ter). This act provides the technical and organisational framework to support a streamlined mechanism for sharing and using information between agencies providing new digital public services.

Data Access, Management and Reuse

Open Data



Fifth National Action Plan for Open Government

In February 2022, Italy published an updated [Action Plan for Open Government](#), which outlines nine commitments that were identified by the public administration and civil society as priorities during the co-creation process. These commitments focus on: (i) developing an open government strategy and governance structure; (ii) promoting integrity and preventing corruption; (iii) strengthening civil society participation; (iv) promoting engagement with women and young people; and (v) enabling digital innovation.

While the thematic areas developed in the previous action plans remain relevant (e.g., networks for integrity and transparency, support for whistle-blowers, and open standards), the new areas do not directly stem from the commitments of the fourth action plan.



Data Portals

[Dati.gov.it](https://dati.gov.it) (Italian Open Data Portal) is the national open data catalogue of Italian public administrations. It was created in 2011 with the aim to collect in a single portal most of the open data published by various local and national administrations. The eGovernment Open Data Portal is the benchmark for open data in the Italian public administration. It contains links and descriptions for about 70 000 public datasets made available by public administration bodies. The data are available to any citizen intending to use them to develop applications for any purposes, in a complete, quick and accessible format.

The spatial data, whether open or not, and the related services owned by Public Administrations, are documented in the [National Catalogue for Spatial Data](#) (RNDT – *Repertorio Nazionale dei Dati Territoriali*). The RNDT is based on a national metadata profile aligned with the INSPIRE Regulations.

The two portals, RNDT and dati.gov.it, work together seamlessly. Spatial open data are documented only in RNDT following the INSPIRE/RNDT metadata profile. However, these data become accessible on dati.gov.it through the use of GeoDCAT-AP specifications. This integration enables public administrations to avoid the need to document open spatial data in both catalogues, reducing the risk of inconsistencies or misalignments between the metadata published in the two catalogues.



National Digital Data Platform (PDND)

The [National Digital Data Platform](#) (*Piattaforma Digitale Nazionale Dati* - PDND) is a central catalogue of application programming interfaces (APIs) shared across central and local administrations to ensure interoperability between base registries.

Through this platform, public and private entities can use the published APIs (e-services) in an authorised and certified way and in compliance with EU privacy laws. Semantic and syntactic interoperability of the e-services are supported by the National Data Catalogue for Semantic Interoperability (NDC). The PDND has been available online since June 2022. After a trial period where the platform was initially limited to a select few public entities, the PDND became accessible to all public administrations in October 2022. In addition, specific private entities, such as insurance companies and procurement software producers, were authorised to access national registries. By 21 February 2024, a total of 5 637 organisations have joined the PDND. This includes 58 central administrations, 5 110 local administrations, 21 public service managing authorities and 69 insurance companies.

The project has a budget of EUR 30.7 million to develop the platforms (20 million for PDND and 10.7 million for NDC), and EUR 525.3 million to enhance interoperability services among major public administration bodies. This involves providing central level assistance through specific bilateral agreements and local level support through dedicated calls for interest. Bilateral agreements have been signed with some public administrations: the Italian National Institute for Social Security (INPS), the National Department of Motor Vehicles (DG-MOT), the National anti-corruption Authority (ANAC), the Ministry of University and Research (MUR), and the Italian Union of Chambers of Commerce (*Unioncamere*). Other agreements will be signed in 2024 with the following bodies: the Ministry of Education (MIM), the Revenue Agency (AdE), the Ministry of Economic development (MIMIT), and AgID.



National Guidelines on Open Data and the Reuse of Public Sector Information

The Open Data Directive was transposed into national law through Legislative Decree 200/2021, amending Legislative Decree no. 36/2006. A specific article in the decree assigns AgID the responsibility of establishing guidelines for a better implementation of the provisions outlined in both the Decree and the Directive. This article is a unique provision in the national law, as the Directive itself does not include such a requirement.

The binding [Guidelines](#), released in August 2023, are designed to assist public administrations and other entities in the open data process and the reuse of public sector information. They provide detailed requirements and recommendations regarding formats, publication, metadata profiles, licenses, pricing, reuse requests, and search tools, all of which are governed by the





Directive and the Decree. Additionally, the document offers guidance on organizational aspects and data quality.



Guidance Document on High-value Datasets

The [guidance document on high-value datasets](#) (HVDs) provides detailed requirements and recommendations for HVD providers to effectively implement the provisions outlined in implementing Regulation (EU) 2023/138. It supports them in opening up this specific data type, following the publication and reuse guidelines in the reference standards. These regulations focus on national coordination and initiatives to monitor the reuse of HVDs.

The document suggests specific actions to implement the Regulation’s provisions. It also gives an initial overview of the current status of publishing and reusing data. This is to recommend suitable technical or legal measures and insights to continually enhance the process and make the data more acceptable.

The adoption of the guidance document was planned according to the Open Data Guidelines mentioned earlier. It was specifically included as an action in the 2022-2024 update of the Three-Year Plan for ICT in Public Administration.



Guidelines on the Acquisition and Reuse of Software for Public Administration Bodies

Articles 68 and 69 of the [CAD](#) outline how the public administration can acquire software and require that any software developed or commissioned must be released under an open licence.

The [Guidelines on the acquisition and reuse of software for public administrations](#) implement the provisions of Articles 68 and 69 of the CAD, specifically focusing on comparing solutions and promoting the reuse of solutions and open standards, as stated also in Article 71 on Technical Rules.

This document aims to help public administration bodies acquire and reuse software using the open-source approach.

In accordance with memorandum No. 63/2013, and the [Three-Year Plan for IT in the Public Administration](#), AgID offers a [catalogue of source code repositories](#) (archives). These repositories gather open-source applications that are available for use by all public administration bodies and the developers working with them. This catalogue is openly accessible to benefit all citizens, businesses and administrations, and can be found as a sub-section of [developers.italia.it](#).

The guidelines are also based on the three-year plan, which includes the following strategic objectives:

- Sharing guidelines and software components that help reduce the costs of implementing new digital products, while also promoting reuse and interoperability; and
- Spreading the open-source approach, helping to create a community of developers for applications and software components beneficial to public administration.

Base Registries

The following table lists the Italian base registries:

National	
Business and Tax	<ul style="list-style-type: none"> ▪ Company Registry (<i>Registro delle imprese</i>). Owner: Chamber of Commerce. The Registry has been fully operational since 19 February 1996, under Article 8 of Law No. 580 of 29 December 1993 on the Reorganisation of the Chambers of Commerce along with DPR 581/95, containing the special regulations for the implementation of the Registry’s activities. ▪ National Tax Registry (<i>Anagrafe tributaria</i>). Owner: National Fiscal Agency
Transportation / vehicles	<ul style="list-style-type: none"> ▪ National Vehicle Registry (<i>Pubblico registro automobilistico - PRA</i>). Owner: Ministry of Transport. ▪ National Vehicle Archive and National Registry of Qualified Drivers (<i>Archivio nazionale dei veicoli e l’anagrafe nazionale degli abilitati alla guida</i>). Owner: Ministry of Transport.
Land	<ul style="list-style-type: none"> ▪ National Land Registry Database (<i>Base dati catastale</i>). It collects geographic data from public authorities at the national, regional, and local levels. In particular, Article 59 specifies the technical rules for collecting spatial information that public authorities must follow. These rules cover



	<p>the creation of spatial databases, documentation, usability, and sharing data between central and local public administration bodies as outlined in the CAD. Owner: National Land Agency.</p> <ul style="list-style-type: none"> National Catalogue for Spatial Data (<i>Repertorio nazionale dei dati territoriali – RNDT</i>) Owner: AgID.
Population	<ul style="list-style-type: none"> National Addresses Registry (<i>Archivio nazionale dei numeri civici delle strade urbane – ANNCSU</i>). Owner: National Fiscal Agency. National Registry of the Resident Population (<i>Anagrafe nazionale della popolazione residente - ANPR</i>). Owner: Ministry of the Interior. It was set up by the CAD, Chapter V - Data of Public Administration and Network Services, Article 62. It defined the ANPR as a merger of the Index of National Registries (INA) and the Register of Italian Citizens Residing Abroad (AIRE). According to the CAD, personal data must be stored locally and consistently updated with the ANPR. Additionally, the ANPR allowed other public administration bodies and organisations to access its data for service provision purposes.
Other	<ul style="list-style-type: none"> National Registry for Public Contracts (<i>Banca dati nazionale dei contratti pubblici - BDNCP</i>). Owner: National Anti-corruption Authority. Criminal Record Registry (<i>Casellario giudiziale</i>). Owner: Ministry of Justice. National Catalogue of Services to Citizens and Businesses (<i>Catalogo dei servizi a cittadini e imprese</i>). Owner: AgID. National Infrastructures Central Information System (<i>Sistema informativo nazionale federato delle infrastrutture - SINFI</i>). Owner: Ministry of Industry and Made in Italy. National Registry for Higher Education (<i>Anagrafe Nazionale Istruzione Superiore - ANIS</i>), containing information on enrollments and academic qualifications. Owner: Ministry of University and Research.
Sub-national	
Base Registries	/

Data Platforms and Portals

The following table lists the Italian data platforms and portals infrastructures:

Dati.gov.it	The website dati.gov.it is the official national portal for open data from Italian Public Administrations. It was created to centralise and make accessible a wide range of open data published by different administrations at both local and national levels.
Geodati.gov.it	The website geodati.gov.it is the national catalogue for spatial data, where Italian public administration entities document their spatial data and related services. The catalogue is based on a national metadata profile that conforms to and align with the INSPIRE Regulations on metadata.
Docs Italia	Docs Italia is a tool for publishing technical and administrative documents, allowing citizens to easily read and comment on them.
InPA	InPA is a free database where users can find contact details of public administration contact points and managers of public services.
Design Models Evaluation App	The evaluation app is an automated tool released by the DTD that helps schools and municipalities comply with mandatory design models. It evaluates the quality and compliance of websites with criteria 1.4.1 of the NRRP 'Citizen experience in digital public services'. The design models enable the creation of institutional websites and digital services that have been validated by research and designed according to the needs of citizens. The templates provided include guides and resources that are



	<p>ready to use, helping developers complete their work efficiently and cost-effectively.</p> <p>The app is an open-source software based on Lighthouse technology and is available for Windows, MacOS and Linux. The website can be assessed both locally, when in development environment, and online, when open to the public.</p>
Istat.it	<p>The Italian National Institute of Statistics is a public research organisation that produces the primary official statistics in Italy, serving both citizens and policymakers. It operates independently and maintains continuous interaction with academic and scientific communities. Most of the data it produces is structured around five themes: population and households; institutions and society; education and labour; economy; and environment and territory.</p>
Schema.gov.it	<p>Schema is the National Data Catalogue for semantic interoperability, containing semantic assets (ontologies, controlled vocabularies, schemas).</p>
PDND	<p>The National Data Platform is the national platform that enables the interoperability between public and private entities. The catalogue of services is available at this website.</p>

Cross-border Infrastructures

The following table lists the European cross-border infrastructures of which Italy is part of:

European Business Registry	<p>Italy is providing vehicle and driving licence information based on the EUCARIS Treaty.</p>
EUCARIS	<p>Italy is a member of the European Car and Driving Licence Information System (EUCARIS), using it to provide vehicular information. The authority in charge of it is the Italian Ministry of Infrastructure and Transport.</p>
TESTA	<p>Italy uses the Trans European Services for Telematics between Administrations (TESTA) network as the main cross-border infrastructure to communicate digitally among EU agencies, institutions and Member States.</p>
Once-Only Technical System (OOTS)	<p>The Once-Only Technical System (OOTS) is the technical system for the cross-border, automated exchange of documentation and information among public entities involved in the performance of a service provided by public administration bodies.</p> <p>Italy ensures the implementation of the OOTS through the National Infrastructure of the Single Digital Gateway. The adoption of EU Regulation 1724/2018 - Single Digital Gateway (SDG) concerned:</p> <ul style="list-style-type: none"> ▪ The implementation of the eIDAS login, which allows European citizens to authenticate themselves on national administration web portals using their national digital identity; and ▪ The full implementation of 19 procedures (specified in Annex II of the EU regulation), which can now be completed by European citizens entirely online. These procedures are integrated with an SDG infrastructure that facilitates the exchange of citizens' information between national administrations during the process.
EU Digital Wallet	<p>Italy is part of the EUDI Wallet Consortium.</p>
European Blockchain Services Infrastructure (EBSI)	<p>The 'Blockchain4Italy' project is an initiative of the Agency for Innovation and Networks (INEA) of the European Commission and Infratel Italia, a company under the Italian Ministry of Economic Development that focuses on infrastructure projects to bridge the digital divide and promote the spread of advanced services. It aims to actively support the development and spread of the European Blockchain Partnership (EBP) in Italy, also helping Italian stakeholders participate in EBSI.</p>

4. Digital Transformation of Public Services



Digital Public Services for Citizens



PagoPA

Decree No. 135 of 14 December 2018 established PagoPA, a State-owned NewCo, to manage the PagoPA system, the IO project and the Data Analytics Framework project.

PagoPA is the electronic payment system that enables citizens and businesses to select their preferred Payment Service Provider (PSP) for paying taxes, duties and public services in a standardised manner, whether online or offline.

As of 31 December 2023, nearly 43 million citizens and over 6 million businesses have used PagoPA to make payments to 19 616 public administrations that are part of the platform. Additionally, around 450 PSPs were connected to the platform by the same date. Over the past five years, PagoPA has consistently grown in terms of both transaction volume and payment amounts. Between the second quarter of 2022 and the last quarter of 2023, PagoPA processed more than 641 million successful transactions, totalling over EUR 130 billion.

eInvoicing



eInvoicing for Public Administration Bodies

Since March 2015, the use of eInvoicing in Italy has been mandatory for all public entities. Public administration bodies have all shifted to the use of eInvoicing in public procurement. To send, check and receive eInvoices between public administration bodies the Exchange system (*Sistema di Interscambio - SDI*) is used. As of February 2024, more than 260 million eInvoices were managed by this system. The number of electronic invoices issued to the public administration is published monthly at this link.

Legislative Decree No. 148 of 27 December 2018, implementing Directive (EU) 2014/55, introduced the obligation for central public bodies to receive and process electronic invoices, in compliance with the European standard EN 16931-1 on electronic invoicing in public procurement. With the support of European funds (CEF Programme), the SDI has been upgraded to work with the European electronic invoicing format.

The national technical requirements outlined by the National Revenue Agency (*Agenzia delle Entrate*) for European e-Invoicing are consistent with the Peppol BIS 3 technical specifications.



eInvoicing between Private Parties

As of 1 January 2019, the requirement for electronic invoicing in business-to-business (B2B) and business-to-consumer (B2C) transactions was implemented for all sales of goods and services made by companies' based or established in Italy. The electronic invoicing process between private parties is based on the same SDI used for invoicing between companies and public administration entities. Each year, around 2 billion electronic invoices are exchanged between private parties..



eOrdering for the National Health System

As of 1 February 2020, it is mandatory for all entities of the National Health Service to send purchase orders for goods in electronic format through the Node for Order Exchange (*Nodo Scambio Ordini - NSO*) managed by the State General Accounting Office. As of 1 January 2022, the requirement has also been extended to services. The NSO is similar to the SDI used for electronic invoicing, with the difference that digital orders issued by healthcare entities to their suppliers pass through the NSO. The electronic order system uses the Peppol specification for electronic orders.

eHealth and Social Security



Health Card System Legislation

During the fiscal year 2019, individuals were required to send data to the Health Card system for the purpose of processing the pre-filled tax return, pursuant to Article 3, Paragraphs 3 and 4 of [Decree No. 175 of 21 November 2014](#). Fiscal data transmitted to the Health Card System could only be used by public administration bodies for the application of tax and customs provisions or for the monitoring of public and private health expenditure. The terms and scope of use of the data and the relative limits were defined, including time limits.

[Decree-Law No. 135 of 14 December 2018](#), amended by [Law No. 12 of 11 February 2019](#), provided that the provisions of Article 10(a) of [Decree-Law No. 119 of 23 October 2018](#), also applies to persons who are not required to send data to the Health Card System, with reference to invoices for health services provided to natural persons. In February 2024, there were 58.6 million active cards.

The Ministry of Health and the Ministry of Innovation and Digital Transition identified a detailed roadmap and developed an action plan to design the new EHR (Electronic Health Record), implement new IT infrastructure at local and central level, support and drive change management, and device communication strategy for citizens, general practitioners and specialists.

The development of the central repository will allow interoperability among the 21 Italian regions and autonomous provinces, so that at least 85% of GPs can use the EHR, and all Italian regions will provide their citizens with clinical referrals by 2026. The development plan involves the following steps:

- EHR Digital Transformation Strategy: Q3-2021 / Q3-2022;
- Central Repository implementation: Q3-2022 / Q2-2024;
- Central Repository roll out in all regions: Q4-2024 (TBC); and
- Transition to the new system for all regions and increase in the number of clinical documents available on the EHR: (Q2- 2026)

The NRRP allocated resources to enhance the [electronic health record](#) (*fascicolo sanitario elettronico*), ensure its widespread use across the country and strengthen the New Health Information System. This includes improving the infrastructure and tools needed for monitoring of the Essential Levels of Assistance and planning of health services.

Other Key Initiatives



eJustice - Legislative Decree No. 90/2014

[Decree No. 90 of 14 June 2014](#) on Simplification and Administrative Transparency and Efficiency of the Courts introduced some important features regarding online civil proceedings and services via certified e-mail carried out by lawyers. By means of this decree, the electronic filing of documents during civil proceedings became mandatory. The decree also expanded and clarified the cases in which lawyers can serve judicial documents via certified e-mail.



IO

IO is a single channel through which all local and national authorities (municipalities, regions, central agencies) offer services to citizens on their smartphones. The IO app relies on integration with the so-called 'enabling platforms' (most notably the ones providing the Italian eID, called SPID). Since its debut in stores in April 2020, the number of downloads has grown to more than 37.8 million, and about 298 000 services are available in app.



Designers Italia

[Designers Italia](#) is a national innovation project launched in June 2017 by the Digital Transformation Team and AgID. Designers Italia develops and shares tools to help create user-centred digital public services. They also oversee a community of public entities, in-house companies and ICT suppliers to promote a culture of user-centred design in the public sector. Designers Italia contributes to disseminating, supporting, and updating the legal framework that requires enforcing user-centric approaches. Designers Italia hosts the documentation of the Italian design system. This system includes instructions and resources for creating effective and inclusive interfaces for all digital public services. It also provides digital service templates, design toolkits and educational resources.



Digital Public Services for Businesses



eGovernment Portal for Businesses

The eGovernment Portal for Businesses was launched in March 2005. It provides a single-entry point to information and online services for businesses and entrepreneurs. Users can gain access to all information and services provided online by the central government, regions, provinces, and municipalities exceeding 25 000 inhabitants, as well as by several other entities including mountain authorities, local health authorities and Chambers of Commerce. Access to forms and services online is provided for three thematic areas: businesses and public administration; business development; and innovation and training.

A specific section of the portal enables personalised access to a virtual desk of integrated services. These services are provided by different authorities but are all related to a single goal for the user. Access to the integrated services section requires the use of the National Services Card (CNS), or a smart card that meets the CNS specifications. This enables streamlined processes and facilitates the unified transmission of shared data, along with coordinated communication of the procedure results.

Public Procurement



National eProcurement System

The new national eProcurement system aims to draw a roadmap that takes into account the high degree of complexity of the public eProcurement system. It relies on a legal framework composed of:

- **Regulation (EU) 2019/1780** establishing standard forms (eForms) in the field of public procurement;
- Milestones and targets set by the NRPP (M1C1.1.10 - Public Procurement Reform Area. Milestones M1C1-70, M1C1-74, M1C1-75.) aimed to completely digitise e-procurement processes in line with the EU legislative framework on public procurement; and
- **Legislative Decree 36/2023**, also known as the Public Procurement Code, mandates the use of certified digital platforms for public procurement. It also requires the collection of all information related to the procurement process in ANAC's national public contracts database (*Banca Dati Nazionale dei Contratti Pubblici* - BDNCP).

In particular, the reform of the Procurement Code aims to fully digitise the public contract cycle. This involves establishing new digital processes and a range of digital infrastructure platforms and services that all eProcurement platforms will need to adhere to.

During 2023, a working group coordinated by AgID, in close collaboration with the Department for Digital Transformation and ANAC, designed and defined the technical rules for the digital infrastructure and the certification scheme for public procurement platforms.

One of the tasks of the working group was to assess the requests of the Central Purchasing Bodies and to support their gradual migration to the new technical infrastructure. The obligation to use the new infrastructure came into effect on 1 January 2024. The digital infrastructure was developed in line with the Digital Decade principles, the Three-Year Plan for IT in public administration and in close coordination with European guidelines and standards on public procurement and electronic invoicing.

The technology infrastructure follows Peppol technical specifications for post-award processes. In particular, the use of Peppol BIS for both electronic invoicing and electronic ordering in the healthcare sector has reached a considerable degree of maturity. AgID serves as the Italian Peppol Authority and is in charge of certifying Peppol Service Providers that offer access service to the Peppol network via access points.



Legislative Decree No. 36/2023

The new **Public Procurement Code** states that all purchasing procedures of public administrations must be carried out digitally. Contracting authorities must provide digital services for economic operators to participate in purchasing procedures, and economic operators must to use these services.





The digital execution of procurement procedures is facilitated by a nationwide technological infrastructure that ensures all systems involved can work together, either through e-procurement platforms or national registers.

At the heart of this digital transformation of public procurement are digital procurement platforms. The technical rules and the operational scheme for certification modalities, both established by AgID, form the regulatory framework for the operation of these platforms.

On 1 June 2023, AgID, in agreement with the National Anti-Corruption Authority (ANAC) and the Department for Digital Transformation, published [the technical requirements and certification modalities for e-procurement platforms](#) (AgID Determination no. 137/2023). In September 2023, AgID published the Scheme to support the certification process of e-procurement platforms (AgID Determination no. 218/2023).



Innovative Procurement Portal

The **Innovative Procurement Portal** was established in accordance with the actions outlined in the [2019-2021 Three-Year Plan for Information Technology in the Public Administration](#). Its purpose is to encourage the adoption of innovative contracts, assist Italian public administration entities in conducting procurement procedures, and facilitate the alignment of innovative solutions with market needs. It does this by promoting efficient collaboration among public administration bodies, businesses and research institutions, in accordance with the provisions of the Italian Digital Agenda. The portal provides a variety of procedures established by the Italian public administration, including those under national programmes. It is designed to support the entire innovation process, from identifying needs to making purchases. In addition, the portal aims to bring together regional Open Innovation Platforms, cluster portals, and business associations to build a network that lays the ground for innovation in a practical and systematic way.



Acquistinretepa Portal

The **Acquistinretepa Portal** was developed and is managed by Consip (a joint stock company of the Ministry of Economy and Finance), which in the year 2000 was tasked by the Ministry of Economy to develop an eProcurement system and tools on behalf of all public administration bodies. Consip's mission is to develop and manage innovative ICT projects for the Ministry of Economy and Finance and to support the Italian public administration in the development and use of electronic procurement tools. The portal is a fully functional eProcurement platform designed to enhance the efficiency of public procurement. It enables the use of key tools for public eProcurement, such as framework agreements, online auctions, dynamic purchasing systems, and an electronic marketplace (MEPA). Additionally, the platform offers comprehensive information on eProcurement activities, as well as demo and training sessions for both buyers and sellers. It also includes an eCatalogue for placing direct orders or requesting quotations from all or selected registered and qualified suppliers.

Digital Inclusion and Digital Skills



Connected Schools

The 'Connected Schools' project aims to build on the initiative launched in 2020, which aimed to offer free internet access for five years (using fibre optic technology with a minimum speed of 1 Gbit/s in both directions) to around 35 000 schools out of a total of 40 000, along with maintenance and support services. The total planned investment is over EUR 400 million. In line with the the NRRP, the 'Connected Schools' project seeks to extend the previous initiative by providing the remaining 10 000 schools across the country with free 1 Gbit/s symmetric connectivity, along with technical support, management, and maintenance services for six years. As of February 2024, 21 411 schools were connected through the initiative that began in 2020 and 3 511 were connected through the NRRP initiative. Regular progress updates for both initiatives are accessible on dedicated platforms. These platforms allow citizens to find the targeted schools and monitor their connection status. The information is updated on a monthly basis.



Connected Health

The plan known as 'Connected Health' aims to provide high-speed internet access to around 12 300 healthcare facilities nationwide, with ultra-broadband symmetric connectivity of at least 1 Gbit/s and up to 10 Gbit/s. The total budget for the initiative is EUR 501 million. The new network will include both active and passive components, such as dark fibre and active equipment. Once connected, healthcare facilities will enjoy high-speed internet, technical support, and maintenance services. They will also receive the necessary terminal equipment (e.g. modems/routers) to connect to the network. This project will be carried out through direct investment. The State will fully fund and own the new network, which will be operated by one or more operators selected through a competitive, transparent, and non-discriminatory process. As of February 2024, 959 healthcare facilities were connected. Regular updates on the plan's progress are accessible on a [platform](#) where citizens can find the targeted healthcare facilities and monitor their connection status. The information is updated on a monthly basis.



Syllabus on Digital Skills for the Public Administration

The [Syllabus on Digital skills for the Public Administration](#) is a self-assessment tool available to public employees to assess their level of digital knowledge and skills such as data and information management, cybersecurity, online services, and emerging technologies.



The Community Network Emilia-Romagna

The [Community Network Emilia-Romagna](#) (CN-ER) is the organisational and governance structure for all local authorities in Emilia-Romagna to reach the different goals included in the Regional Digital Agenda. It is also the common reference point for all local PAs to reach common digital transformation goals. It aims to improve the effectiveness of local administrations via an updated use of IT, while also making sure citizens and businesses in the Emilia-Romagna region have the necessary skills to use digital services and infrastructures.





5. Trust and Cybersecurity

eID and Trust Services



eIDAS Beta Version

The eIDAS Regulation is the legal basis for electronic interactions between businesses, citizens and public authorities, improving the security and efficiency of online services and eBusiness transactions in the European Union. With the Login with eIDAS button, the **Italian node** enables the cross-border interoperability of digital identities (eID). Its implementation fosters the circularity of Italian eIDs among EU Member States.



Initiatives under the National Recovery and Resilience Plan (NRRP)

The NRRP aims, among other objectives, to foster the adoption of the digital identity, ensuring that it will be used by 70% of the population by 2026. SPID and the CIE are the digital identity solutions within the national key infrastructures. SPID is managed by the DTD, while the Ministry of the Interior has assigned the management of CIE to the State Mint and Polygraphic Institute.

The DTD has released guidelines to help administrations implement SPID and the CIE for accessing public services. They have also initiated an awareness campaign for local administrations, providing communication tools and resources. The DTD has released [guidelines](#) to help administrations implement SPID and the CIE for accessing public services. The DTD has also launched an [awareness-raising campaign](#) for local administrations, providing communications tools and resources.



SPID – Public Digital Identity System

The Public Digital Identity System 'SPID' enables users to access all online public administration services using a single digital identity (username and password) that can work on computers, tablets and smartphones.

The use of SPID was expanded to include natural persons acting on behalf of legal entities, allowing them to replicate the effects of an authenticated signature.

SPID is evolving rapidly, and AgID is currently developing new regulations to enhance private sector participation. This includes the creation of special entities called 'aggregators' and 'attribute authorities' to provide qualified attributes to citizens and professionals authenticated with SPID. Soon, minors will also be able to get SPID identities, leading to a significant rise in the number of issued identities. The addition of OpenID Connect technology alongside the current use of SAML (Security Assertion Markup Language) will lessen the authentication workload for individuals requesting SPID. Moreover, the distribution of electronic identity cards made it possible to launch the eID notification process, pursuant to Article 9 of the eIDAS Regulation, which was fully implemented in the first half of 2019.

As reported by the [platform](#), in December 2023 there were 36.4 million SPID identities, 12 active digital identity providers, 14 064 active administrations and 155 private entities.

In 2023, the number of SPID digital identities issued to citizens increased from around 34 million to about 37 million. The active digital identity managers rose from 9 to 12, and the public administrations using SPID to grant citizens access to their services increased from 12 624 to 16 910. The count of private entities using SPID also grew from 151 to 177. Accesses with SPID to both public and private services in 2023 reached 1 073 422 405, continuing the trend from 2022.



CIE - Electronic ID Card

The Electronic ID Card (*Carta Identità Elettronica* - CIE) is an identification card managed by the Ministry of Interior. In April 2023 nearly 35 million identity cards had been issued nationwide, with all 7 982 public administration (both central and local) offering online services through the CIE. To overcome challenges related to digital access and generational divide, the Italian government is developing a Delegation Platform. This platform will enable individuals to act on behalf of others whether they are natural or legal persons. Currently, INPS is the only entity that has put a delegation system into practice.



National Services Card

In order to enable citizens to securely access eGovernment services even before the widespread dissemination of electronic ID cards, the Italian government developed the National Services Card (CNS). It is a smart card that allows citizens to be securely identified online. The only difference between this card and the eID card is that the former lacks additional security elements, such as the laser band, holograms, etc. Therefore, it does not constitute a proof of identity or a travel document. The card is used to sign electronic documents due to its flexibility in administration to-citizen (A2C) services, both at national and local level.



ePass - Electronic Passport

Since 2009, Italy has been gradually entering phase II of the implementation of [European Union's Council Regulation \(EC\) No. 2252/2004 of 13 December 2004](#), on standards for security features and biometrics in passports and travel documents issued by Member States. Besides containing the holder's facial image, the [current version of the passport](#) also contains fingerprints.

Cybersecurity



Decree No. 82/2021

[Decree No. 82 of 14 June 2021](#) on urgent measures on cybersecurity, definition of the national cybersecurity architecture and establishment of the National Cybersecurity Agency assigns the President of the Council of Ministers the responsibility for the national cybersecurity policy and the development of the National Cybersecurity Strategy in consultation with the [Inter-ministerial Committee on Cybersecurity](#) (*Comitato interministeriale per la cybersicurezza*). Additionally, the decree establishes three entities: the Inter-ministerial Committee on Cybersecurity, the Agency for National Cybersecurity and the Cybersecurity Centre.



Data Protection Code

In 2004, the [Data Protection Code](#) entered into force, replacing the previous Data Protection Law (law No. 675/1996), as well as several other legislative and regulatory provisions. The code was further amended on 4 November 2010, and again in 2018. [Decree No. 101/2018](#) harmonised the national regulation with the provisions of Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data. The [Data Protection Commissioner](#) (*Garante della Privacy*) oversees supervising and enforcing the application of the Data Protection Code. To simplify the complaint process, the Commissioner published a complaint form on its website.



Cybersecurity in the NRRP

Digitalisation increases the vulnerability of society that may face the risk of multiple cyber threats, such as frauds, blackmailing and terroristic attacks.

[Decree No. 131 of 30 July 2020](#) concerning the provisions on the [National Cybersecurity Perimeter \(PNSC\)](#) was published in the Official Gazette No. 261 of 21 October 2020 and entered into force on 5 November 2020. It includes four national measures to reinforce the implementation of the PNSC:

- Reinforcing front-line controls for better alert management and to counter previously identified risky events against PA or enterprises of public interest;
- Building and empowering audit and evaluation technical skills to guarantee the highest safety of electronic applications and devices that derogate essential services;
- Increasing human resources within public safety and judiciary police responsible for detecting and investigating cybersecurity threats directed at single citizens or the country; and
- Strengthening assets and units responsible for protecting national security and for responding to cyberthreats.



6. Innovative Technologies

Artificial Intelligence (AI)



Strategic Programme on Artificial Intelligence

The Strategic Programme on Artificial Intelligence 2022-2024 aims to substantially upgrade the Italian strategy on AI, leveraging on key strengths of the national ecosystem while addressing the main areas for improvement. Priority areas and intervention policies of the strategy are:

- Increasing the number of PhDs and attracting the best researchers to Italy, both in fundamental and applied research. The programme also includes policies to promote courses and careers in STEM subjects and strengthen digital and AI-related skill;
- Strengthening the structure of the Italian AI research ecosystem and fostering collaborations between academia and research, industry, public bodies and society. Among the goals in this area are the creation of new AI research positions, the promotion of projects to encourage the return to Italy of AI professionals, and the funding of platforms for data and software sharing at national level; and
- Expanding the application of AI to industries and the public administration. In this regard, policy measures for businesses aim to support the transition to Industry 4.0, foster the creation and growth of innovative AI companies, and support them in testing and certifying AI products.

Distributed Ledger Technologies



National Strategy on Blockchain and Distributed Ledger

The National Strategy on Blockchain and Distributed Ledger is under development. It aims to:

- Provide Italy with a regulatory framework that is competitive with that of other countries;
- Increase public and private investments in blockchain/DLT and related technologies (IoT, 5G);
- Identify technology application fields so as to channel potential investments correctly, in line with the key sectors of the Italian economy;
- Promote efficient and effective interaction with the public administration through the adoption of the Once-Only principle and decentralisation;
- Foster European and international cooperation through the adoption of the common European infrastructure defined by EBSI (European Blockchain Services Infrastructure);
- Use technology to facilitate the transition towards circular economy models, in line with the 2030 Agenda for sustainable development; and
- Promote information and awareness of blockchain/DLT among citizens.

The Ministry for Industries and Made in Italy (MIMIT), which coordinates the strategy, launched the initiative 'House of the Emerging Technologies' (*Casa delle Tecnologie Emergenti*) to implement blockchain-based projects. The initiative recently funded a project for the Italian Society of Authors and Publishers (SIAE) to use blockchain for improving musical content and safeguarding copyright. The project envisaged the creation of a decentralised register of rights holders using blockchain technology, thus enabling unique global identification of copyright owners.

Following an agreement with the International Audiovisual Market (MIA), MIMIT organised several workshops to help the audio-visual industry understand and become more aware of blockchain technology, specifically Non-fungible Tokens (NFT). The goal is to highlight the potential risks and benefits associated with using NFTs, as well as to delve into the future of intellectual property and its regulatory implications. Additionally, MIMIT is preparing tenders to fund Italian businesses in creating applications within the Metaverse, leveraging blockchain infrastructures.



Blockchain Legislation

Law No. 135 of 14 December 2018, amended by Law No. 12 of 11 February 2019, introduced into the Italian legislation the concepts of distributed ledger technology and smart



contract. These definitions represent the first attempt made by the government to define and include blockchain within the Italian legislative framework. Additionally, the law could constitute the starting point for more extensive national regulation on blockchain technologies.

Italian Blockchain Service Infrastructure

In 2022, the blockchain market in Italy grew by approximately 50% compared to 2021, attracting nearly EUR 42 million investments. Italy is a member of the European Blockchain Partnership and actively engages in advancing new applications through the Blockchain4Italy project across sectors like fashion, textile industry, creative industries, education, audio-visual, and gaming. This effort is focussed on facilitating the growth and adoption of the European Blockchain Partnership (EBP) within Italy and encouraging Italian stakeholders to participate in the European Blockchain Service Infrastructure (EBSI).

Blockchain4Italy

The initiative **Blockchain4Italy** aims to promote the European Blockchain Partnership (EBP) in Italy and encourage Italian stakeholders to participate in the European Blockchain Service Infrastructure (EBSI). It focuses on a specific use case involving diploma recognition. In collaboration with the University *Politecnico di Milano*, Infratel Italia is responsible for organising and conducting an information course for officials in the Italian public administration. The course will cover topics such as blockchain and distributed ledger technologies, activities supported by the European Commission on EBSI, and Italy's contributions in this field.

The team from Infratel Italia managed the tasks for setting up and ensuring the new EBSI node was fully operational. It is now functional and up-to-date based on the guidelines provided by the Directorate General for Information Technology (DIGIT) of the European Commission.

Big Data

No particular initiatives in this field have been reported to date.

Cloud & Edge Computing

Italian Cloud Strategy

In September 2021, the DTD and the **Agency for National Cybersecurity** released the **Italian Cloud Strategy**. This document outlines the strategic plan for implementing and overseeing cloud technologies within the public administration. The strategy builds upon three key areas, namely: (i) establishing a national infrastructure for cloud services, called *Polo Strategico Nazionale* (**National Strategic Hub, PSN**) that operates independently from non-EU entities; (ii) a qualification process for public cloud providers and services to ensure they meet security, reliability and national/EU regulatory requirements; and (iii) the development of a methodology to categorise data and services managed by public administrations for efficient migration to the most suitable cloud solution (PSN or qualified public Cloud).

The PSN is a national data processing infrastructure that hosts cloud services for 'strategic' and 'critical' public administrations' data. It consists of interconnected data centres spread across the country. The main goal of the PSN is to guarantee the utmost reliability, resilience and independence for the storage of critical public administrations' data. Starting from January 2023, the National Cybersecurity Agency has taken over the task of qualifying cloud services for the public sector.

National Strategic Hub

In compliance with Article 35 of **Decree No. 76 of 16 July 2020**, Italy is developing a highly reliable infrastructure called PSN. This infrastructure aims to centralise the Data Processing Centres (DPCs) and the related IT systems for use by all public administrations. The main goal of the PSN is to securely host critical and strategic data and services for approximately 200 central administrations, local health authorities, as well as key local administrations such as regions, metropolitan cities, and municipalities with more than 250 000 residents.

The PSN is focussed on speeding up the digital transformation of public administrations. Its goal is to have 75% of Italian administrations using cloud services by 2026. The NRRP allocates funds for central administrations and healthcare agencies to migrate their data and services to the PSN. The PSN is one of the three pillars of the Cloud Italia Strategy, along with the classification of



public data and services by the Agency for National Cybersecurity (ACN) and the migration of public administration data and services to the cloud.

On 21 December 2022, the DTD signed a breakthrough agreement with several relevant Italian players. This agreement marked a significant milestone in creating a highly-reliable cloud infrastructure to host critical and strategic data and services for Italian public administrations. The project involves the construction of four state-of-the-art data centres in two fully redundant regions. The project timeline includes two key deadlines related to the migration of administrations to the PSN infrastructure: a minimum of 100 administrations (with at least one service each) by September 2024, and a minimum of 280 by June 2026. The migration to PSN can be carried out in various ways depending on the existing IT architecture of the on-premises software owned by each migrating public administration. These approaches range from simple hosting and lift-and-shift migrations for software not ready for the cloud, to migration to IaaS, PaaS and SaaS for cloud-ready software. The PSN will provide each migrating public administration with all eligible migration strategies to facilitate a successful transition to the PSN.

Internet-of-Things (IoT)

No particular initiatives in this field have been reported to date.

Quantum Computing

No particular initiatives in this field have been reported to date.

Gigabit and Wireless High-speed Networks



1G Italy Plan

The 1G Italy Plan aims to offer around seven million street addresses with a minimum of one Gbps download and 200 Mbps upload speed during typical peak hours, following the principle of technological neutrality. This initiative, with a budget of approximately EUR 3.7 billion, targets the properties that, based on the mapping exercise, currently lack access to networks providing at least 300 Mbps download speed during regular peak hours.

In line with EU regulations on State aid, the government must limit public intervention to areas where market failure occurs, known as NGA areas. These are regions lacking infrastructures capable of delivering a minimum of 300 Mbps download speed during peak times, meeting user needs as outlined in the strategy. It is crucial for the government to prevent public investments from overlapping with existing or future private operator investment plans. The initial phase of the 1G Italy plan involved updating the mapping exercise of ultrabroadband fixed networks in grey and black areas, as along with the 2016 white areas. The outcome of this mapping was shared during a public consultation, detailing the target areas and the specifics of the intervention model.

In January 2022, the request for State aid was approved, and the tenders for building the networks were launched. The deadline for awarding the tender was 30 June 2022.

The tender was awarded on 28 June 2022. By February 2024, 554 624 buildings had been connected. An online [platform](#) allows citizens to monitor the plan's progress, locate specific buildings by their full address, and track their connection status. The information is updated on a monthly basis.



Small Islands Plan

The **Small Islands Plan** (*Piano Isole Minori*) aims to implement optical backhaul in the small islands by laying submarine optical cables in the regions of Lazio, Apulia, Sicily, Tuscany, and Sardinia. A total of 21 islands, which currently do not have any optic fibre connection, will be reached. Optical backhaul will support the expansion of ultrawideband networks, enhance mobile radio coverage, and facilitate the transition to 5G services. The upcoming network will be publicly owned, providing fair and equal access to the 21 islands currently lacking fibre connection. Initially planned for completion in December 2023, the project's timeline was adjusted to December 2024 after mid-term evaluations, and work is currently ongoing.



5G Italy Plan

The 5G Italy plan was created to enhance public initiatives for building networks that can offer advanced and high-quality mobile services. This plan works alongside the national 5G network development plan and the coverage requirements for mobile radio operators, in compliance with the regulations on State aid. It aims to promote the growth of 5G mobile networks to meet the demands for mobile connectivity that support various scenarios outlined by the ITU, including three categories: (i) enhanced Mobile BroadBand (eMBB); (ii) massive Machine Type Communication (m-MTC); and (iii) Ultra-Reliable Low Latency Communication (URLLC).

The plan includes two main actions: (i) offsetting up fibre optic backhauling for mobile base stations that are not expected to have them by 2026, as indicated by the operators during the initial mapping stage; and (ii) establishing new network infrastructures to ensure mobile radio services meet user needs in areas where the expected downlink speeds by 2026 are below 30 Mbps during peak times, based on the mapping result.

GovTech

No particular initiatives in this field have been reported to date.



7. Digital Public Administration Governance



For more details on Italy's responsible bodies for digital policy and interoperability, its main actors, as well as relevant digital initiatives, please visit the [NIFO collection](#) on Joinup.

National

Undersecretary for Technological Innovation

The Undersecretary for Technological Innovation, within the Prime Minister's Office, oversees the coordination of eGovernment tasks at all levels of the Italian administration. It ensures consistency among digital innovation policies, while coordinating projects involving several administrations. The Undersecretary also acts as an observatory on the information society and the digital divide, monitoring the projects implemented by central and local administrations.

The Undersecretary together with the DTD is responsible for defining a whole-of-government strategy to modernise Italy, in line with the other EU Member States.

Department for Digital Transformation

Along with the Undersecretary, the [Digital Transformation Department](#) (DTD) is in charge of implementing the Italian digital strategy and has the same competences of the previous Innovation Technology Department. The DTD was created to support the Prime Minister in the promotion and coordination of government activities aimed at defining a uniform strategy for the digital transformation and modernisation of the country through digital technologies. The department has been in operation since September 2019.

The DTD supports the modernisation of the Italian public administration. The department promotes reform initiatives to enhance the efficiency and effectiveness of the public administration. Among the tasks of the DTD, there is also the coordination of different government and public administration stakeholders to manage existing and future digital programmes in an integrated manner, with an agile methodology and an open data approach. The DTD is structured in three offices: (i) the 'Office for Technological Guidance', which deals with the coordination and execution of digital transformation programs; (ii) the 'Transformation Office', which is the link between the central and local administration and is in charge of supporting the digital strategy implementation at local level, with a view to overcoming territorial disparity and monitoring the progress of the NRRP projects; and (iii) the 'Office for Administrative Management', which guarantees the orderly management of administrative obligations. The three offices are supported by the NRRP Mission Unit for the management, monitoring, control and reporting of milestones and targets.

Inter-ministerial Committee for the Digital Transition

Decree No. 22 of 1 March 2021 established the [Inter-ministerial Committee for the Digital Transition](#) (CiTD) within the Presidency of the Council of Ministers. The CiTD ensures the coordination and monitoring of the implementation of technological innovation and digital transition initiatives of the public administrations. The CiTD is chaired by the President of the Council of Ministers or by the Minister/Undersecretary for technological innovation and digital transition and is composed of the several permanent Ministers (e.g. public administration, economy and finance, justice, economic development, health) as well as other Ministers with competence in the matters covered by the provisions and the topics on the agenda. Furthermore, regional and local representatives can participate in the meetings of the CiTD, when dealing with matters affecting the regions and provinces.

The initiatives of the public administrations supervised by the CiTD cover many areas such as: technological innovation, implementation of the Italian and European digital agenda, Italian strategy for ultra-wide bandwidth, digitization of public administrations and businesses, digital transformation, growth and transition in the public and private sectors, access to online services, connectivity, tangible and intangible digital infrastructures, and national public data strategy.

The technical-administrative secretariat of the CiTD is set up within the DTD, which supports and coordinates the implementation of the resolutions of the Committee. The technical-administrative



Secretariat is made up of experts highly competent in the study, support, development and management of technological and digital transformation processes.

Article 2 (4) of [Decree No. 77 of 31 May 2021](#), converted with amendments into [Law No. 108 of 29 July 2021](#), assigned the CiTD responsibilities on the implementation of NRRP-related interventions.

Agency for Digital Italy

The Agency for Digital Italy (*Agenzia per l'Italia Digitale - AgID*) coordinates actions in the field of information and communication technologies to promote innovation in support of public administration, ensuring the achievement of the [Italian Digital Agenda](#) objectives in line with the Digital Agenda for Europe.

The Agency was established by [Decree No. 83, converted into Law No. 134/2012](#). Since 2019, it is under the supervision of the Minister for Technological Innovation and Digital Transition. AgID is the main body in charge of interoperability activities in Italy. It defines the technical rules and guidelines for seamless interoperability and application cooperation between the national information systems and those of the European Union.

Moreover, it ensures the technical uniformity of public information systems designed to deliver services to citizens and businesses, while providing consistent levels of quality and usability throughout the country, as well as their full integration at European level. It has published online guidelines for digital professionals and eLeadership skills.

PagoPA

PagoPA is a State-owned enterprise created for the purpose of disseminating digital services in Italy. The company is responsible for the development of the PagoPA National Payment System and the App IO.

SOGEI

Sogei is an information technology company fully owned by the Italian Ministry of Economy and Finance and is the in-house provider of the organisational model.

Italian Data Protection Authority

The [Italian Data Protection Authority](#) (*Garante per la protezione dei dati personali*) is an independent authority in charge of supervising and enforcing the application of the Data Protection Code. In an effort to simplify the complaints process, the Authority has published a complaint form on its website.

National Agency for Cybersecurity

The [National Agency for Cybersecurity](#) (*Agenzia per la cybersicurezza nazionale*) safeguards national interests in the field of cybersecurity, including cyberdefence. The agency was set up by [Decree No. 82 of 14 June 2021](#) and has legal personality under public law. Moreover, the agency is endowed with regulatory, administrative, patrimonial, organisational, accounting and financial autonomy, within the limits set out by the decree.

The objective of the agency is to contribute to the implementation of common actions aimed to guarantee levels of cybersecurity and cyberresilience which can foster the country's digital development. It also offers specific training courses for the development of the workforce in the cybersecurity sector and supports awareness-raising campaigns.

Within the agency, the Cybersecurity Centre supports the President of the Council of Ministers in the field of cybersecurity, more specifically in crisis prevention and preparedness and for the activation of alert procedures.

Inter-ministerial Committee on Cybersecurity

The [Inter-ministerial Committee on Cybersecurity](#) (*Comitato interministeriale per la cybersicurezza*) was set up by the [Decree No. 82 of 14 June 2021](#). It advises, proposes and deliberates on cybersecurity policies, also for the purposes of protecting national security in cyberspace.



Subnational (Federal, Regional and Local)

Department for Digital Transformation

The DTD oversees the coordination of eGovernment tasks at the regional and local levels of the Italian administration, by ensuring consistency in digital innovation policies while coordinating projects involving several administrations.

Regional Governments

Besides the common policies agreed at national level with the central government, Ministries and other regional governments, each Italian regional government has adopted a regional information society strategy, which almost invariably comprises a regional eGovernment action plan. Regional and local authorities are responsible for the implementation of regional and local eGovernment projects falling within their respective areas of competence.

National Association of Italian Municipalities

The National Association of Italian Municipalities (ANCI) represents Italian municipalities and provides them with technical and political support. In 1987, ANCI created the company Ancitel, focused on bringing innovation and modernisation to Italian municipalities and local authorities. Ancitel has become ANCI's main service provider, supporting and promoting the introduction of new information and communication technologies in municipalities.

Established by Regional Law No. 11 of 2004, the Community Network Emilia-Romagna (CN-ER) is a central governance structure made of different entities, which is based on an agreement between municipalities and unions of municipalities. This central structure foresees a strong collaboration between the region, municipalities, and technical partners, as the in-house company Lepida, both in defining regional initiatives and programs and sharing ideas, competences, and experience.

It has established a central governance structure called '*Tavolo permanente della CN-ER*', which gathers all the municipalities and the Trade Unions in a collaborative effort to identify the administrative procedures that present the most critical issues and formulate proposals.

Inside the CN-ER, different thematic communities are organised, in which the participating entities share knowledge, experience and skills in a collaborative process about both horizontal and vertical aspects of implementing the digital transition.

8. Cross border Digital Public Administration Services for Citizens and Businesses



Further to the information on national digital public services provided in the previous chapters, this final chapter presents an overview of the basic cross-border public services provided to citizens and businesses in other European countries. [Your Europe](#) is taken as reference, as it is the EU one-stop shop which aims to simplify the life of both citizens and businesses by avoiding unnecessary inconvenience and red tape in regard to 'life and travel', as well as 'doing business' abroad. In order to do so, Your Europe offers information on basic rights under EU law, but also on how these rights are implemented in each individual country (where information has been provided by the national authorities). Free email or telephone contact with EU assistance services, to get more personalised or detailed help and advice is also available.

Please note that, in most cases, the EU rights described in Your Europe apply to all EU member countries plus Iceland, Liechtenstein and Norway, and sometimes to Switzerland. Information on Your Europe is provided by the relevant departments of the European Commission and complemented by content provided by the authorities of every country it covers. As the website consists of two sections - one for citizens and one for businesses, both managed by DG Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) - below the main groups of services for each section are listed.

Life and Travel

For citizens, the following groups of services can be found on the website:

- [Travel](#) (e.g. Documents needed for travelling in Europe);
- [Work and retirement](#) (e.g. Unemployment and Benefits);
- [Vehicles](#) (e.g. Registration);
- [Residence formalities](#) (e.g. Elections abroad);
- [Education and youth](#) (e.g. Researchers);
- [Health](#) (e.g. Medical Treatment abroad);
- [Family](#) (e.g. Couples);
- [Consumers](#) (e.g. Shopping).

Doing Business

Regarding businesses, the groups of services on the website concern:

- [Running a business](#) (e.g. Developing a business);
- [Taxation](#) (e.g. Business tax);
- [Selling in the EU](#) (e.g. Public contracts);
- [Human Resources](#) (e.g. Employment contracts);
- [Product requirements](#) (e.g. Standards);
- [Financing and Funding](#) (e.g. Accounting);
- [Dealing with Customers](#) (e.g. Data protection).

The Digital Public Administration Factsheets

The factsheets present an overview of the state and progress of Digital Public Administration and Interoperability within European countries.

The factsheets are published on the Joinup platform, which is a joint initiative by the Directorate General for Digital Services (DG DIGIT) and the Directorate General for Communications Networks, Content & Technology (DG CONNECT). This factsheet received valuable contribution from Department for Digital Transformation and from the Agency for Digital Italy.



The Digital Public Administration Factsheets are prepared for the European Commission by Wavestone.

An action supported by Interoperable Europe

The ISA² Programme has evolved into **Interoperable Europe** - the initiative of the European Commission for a reinforced interoperability policy.

The work of the European Commission and its partners in public administrations across Europe to enhance interoperability continues at full speed despite the end of the ISA² programme. Indeed, enhanced interoperability will be necessary to unlock the potential of data use and reuse for improved public services, to enable cross-border collaboration, and to support the sector-specific policy goals set by the Commission for the future.

Interoperable Europe will lead the process of achieving these goals and creating a reinforced interoperability policy that will work for everyone. The initiative is supported by the *Digital Europe Programme*.

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