

DG DIGIT Unit.B2 (Interoperability and Digital Government)

Open Source Software Country Intelligence Report Italy

2025

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Italy

Executive Summary

Since 2020, the Italian public sector has continued to demonstrate its commitment to adopting open source software solutions. The Department for Digital Transformation, the Agency for Digital Italy (AgID) and state-owned company PagoPA S.p.A. have been the most active actors among policymakers in promoting the use of open source software. Strategic players like the Competence Centre for Reuse and Open Source (CCROS) and various open source software advocacy organisations complement government efforts by providing enhanced technical support and fostering community engagement.

The national policy framework strongly favours open source software, underpinned by the Digital Administration Code (2006), the Guidelines for Software Acquisition and Reuse (2019), and the current Three-Year Plan for Information Technology in Public Administration (2024). These instruments establish mandatory comparative assessments favouring open source software and set quantifiable targets for its adoption and reuse among public administrations.

Italy has also launched several notable open source software initiatives. These include the PagoPA payment platform (2012), IO app (2020), Web Analytics Italia (2020), Developers Italia (2017), and SPID digital identity system (2016). All of these initiatives promote transparency, efficiency, and interoperability. These efforts align with the EU Digital Decade 2030 objectives, positioning Italy as a leading EU member in digital public services innovation through open source.

Actors

This section presents the key governmental bodies and strategic players influencing awareness and uptake of open source software within Italy's government and public sector.

Policymakers

Department for Digital Transformation (Dipartimento per la trasformazione digitale): Created in 2019¹, this government department is the successor to the Digital Transformation Team. It was established by the Decree of the President of the Council of Ministers (Dpcm) of 19 June 2019. Its purpose is to assist the Prime Minister in coordinating policies that support Italy's digital transformation and modernisation. Its tasks include defining strategic guidelines on open government and enhancing public information assets. The department aims to employ the principle of reuse and to adopt proven international models, and as such it s explicitly committed to advancing open source software, which it evaluates and uses for the department's projects. The department also contributes to the government's Three-Year Plan for Information Technology in

¹ <u>https://innovazione.gov.it/</u>

Public Administration (see below), the drafting of which is entrusted to the Agency for Digital Italy. Part of the Three-Year Plan is the adoption of the open source software model in public administrations. The department coordinated the development and implementation of technological approaches to contain the COVID-19 pandemic, among them the open source Immuni app, licensed under AGPL-3.0 and available on GitHub. It contributed to the EU Digital COVID-19 Certificate framework, which was developed under open source software principles.

- PagoPA S.p.A.²: This state-owned company, created in 2018, designs and builds infrastructure and technological solutions aimed at promoting accessible digital public services to citizens and businesses. With the adoption of the Italian 'Simplifications' Law Decree no. 135 of 14 December 2018, the Italian government established PagoPA which is owned by the Ministry of Economy and Finance. It provides assistance to the Prime Minister's office on digital transformation and develops open source software solutions for the Italian public sector. Its projects are available on GitHub³.
- The Digital Team (Team Digitale)⁴: The Digital Team was established in 2016 and tasked with developing an "operating system" for the government. This system includes a series of fundamental components upon which simpler and more efficient services can be constructed. Its mandate was initially set for two years but was later extended until the end of 2019. The team delivered solutions that other public administrations could adopt and integrate into their own infrastructures to assist in their digital transformation efforts. These solutions served as functional templates for their digital transformation. Acting as a reuse agency, Team Digitale effectively served as the de facto Open Source Programme Office (OSPO) for Italy, with a strong open source software identity embedded in its manifesto. Additionally, the team provided consulting services regarding open source software and the procurement of open source software solutions within the public sector. In 2019, the Italian government chose not to renew the mandate of the Digital Team, instead integrating it into a newly appointed role of the Minister for Innovation. This role has now been transferred to the Department for Digital Transformation.
- Agency for Digital Italy (AgID)⁵: AgID is responsible for implementing EU and Italian digital priorities by promoting innovation and the use of digital technologies in public administrations. AgID provides guidelines to improve the efficiency of public administrations and monitors the quality of online services. Additionally, it aims to promote digital literacy. AgID works to foster digital innovation and collaborates with various international, national, and local institutions and bodies to disseminate digital skills.

Strategic players

² <u>https://www.pagopa.it/en/homepage/</u>

³ <u>https://github.com/pagopa</u>

⁴ <u>https://teamdigitale.governo.it/en/</u>

⁵ https://www.agid.gov.it/en

- Competence Centre for Reuse and Open Source (CCROS)⁶: AgID established the CCRSS in 2020 to provide skills and tools to support the processes of purchase, development, and reuse of IT solutions in public administrations, in line with the guidelines on the acquisition and reuse of software for public administrations.
- Italian Linux Society⁷: Founded in 1994, this club has grown to become the largest Italian association for the promotion and dissemination of the Linux open source operating system and open source software. The Italian Linux Society promotes the spread of the open source Linux operating system and the free circulation of ideas and knowledge in computing as well as the study and free use of ideas and algorithms intended for the operation of computer systems. The Italian Linux Society donates to support free software activities, and expenses related to banquets, gadgets, etc. Italian Linuz Society has delegations in all regions of Italy..
- PDP Free Software User Group⁸: This group of open source software users is based in Fabriano, in central Italy. It was created in 2003 with the intention, explicitly stated in the articles of association, to promote the dissemination of knowledge and culture related to the use of open source software. It organises a Linux Day every year.
- Linux User Group Bolzano-Bozen-Bulsan (LUGBZ)⁹: The user group was founded in 2001 as a non-profit organisation, with a mission to spread and publicise the GNU/Linux operating system and open source software in general. The association operates mainly at a local level, where it organises events such as workshops and lobbies for open source software.

Policy and legal framework

This section summarises the main digital and public services policies relating to open source software in Italy, including landmark strategy documents and implementation frameworks. The list is presented in chronological order, starting from the most recent milestone.

Three-Year Plan for Information Technology in Public Administration, 2024¹⁰: Since its first edition (2017-2019), the Three-Year Plan has been the supporting and guidance document for Italian public administrations in planning activities on the path of technological innovation. The latest Three-Year Plan is aligned with the EU Digital Decade 2030 objectives to develop digital public services, digitisation of businesses, and create secure and sustainable digital infrastructures. The plan defines the use of open source software as a main goal to reduce cases of applications being used only by a single public administration and not being shared with other public administrations. Within the Plan, objective 3.2 established three open source related targets: 1) by the end of

⁶ <u>https://www.agid.gov.it/it/design-servizi/riuso-open-source/centro-competenza-riuso-open-source</u>

⁷ https://www.ils.org

⁸ <u>https://pdp.linux.it/</u>

⁹ https://www.lugbz.org/

¹⁰ https://docs.italia.it/italia/piano-triennale-ict/pianotriennale-ict-doc/it/2024-2026/index.html

2024, at least 100 public administrations should be releasing open source software in Developers Italia and at least 2,600 public administration should reuse open source software solutions in Developers Italia; 2) by the end of 2025, at least 125 public administrations should be releasing open source software in Developers Italia and at least 2,800 public administration should reuse open source software solutions in Developers Italia; 3) by the end of 2026, at least 150 public administrations should be releasing open source software solutions in Developers Italia; 3) by the end of 2026, at least 150 public administrations should be releasing open source software solutions in Developers Italia; 3) by the end of 2026, at least 150 public administration should reuse open source software solutions in Developers Italia. The Department for Digital Transformation is also tasked with the release of a guidance document on developing and managing software in accordance with open source software principles.

- Guidelines on the acquisition and reuse of software for public administrations, 2019¹¹: This document serves as the primary reference for the Italian public sector for the creation, management, use, and distribution of software. It provides definitions of open source software, the different types of licences, and an explanation on the benefits of using open source software solutions including cost reduction, and the ability to implement open source software on web services, operating systems and productivity tools. These guidelines included recommendations and calls for the promotion of open source software in Italy's industrial policy. The Minister for Technological Innovation and Digital Transition published the first of these guidelines in 2002¹².
- Digital Administration Code, 2006¹³: The Ministry of Innovation and Technology proposed the Digital Administration Code (*Codice Amministrazione Digitale*) to lay down harmonised rules for the state, regions and local entities to ensure the availability, management, access, transmission, storage and (re)usability of their IT solutions. This legislation obliges Italian public administrations to carry out an economic and technical assessment of the IT solutions available on the market before purchasing, including open source software. The assessment shall consider (a) software developed on behalf of the public administration, (b) reuse of software or parts thereof developed on behalf of the public administration, (c) free or open source software, (d) software usable in cloud computing mode, (e) off-the-shelf proprietary software, and f) software that combines the foregoing solutions. Italian public administrations are only allowed to procure newly developed, proprietary software IT solutions in the absence of any of these solutions. Article 69 established that public administrations that are the owners of IT solutions and programmes are obliged to make available the relevant source code, complete with documentation and released in the public domain under an open source software licence, for free use by other public administrations or legal entities wishing to adapt them to their own needs. Lastly, the Italian Parliament approved the Law
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https://docs.italia.it/italia/developers-italia/gl-acquisition-and-reuse-software-for-pa-docs/en/stabile/inde x.html

¹² <u>https://www.interlex.it/testi/pdf/lineeguida.pdf</u>

¹³ https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2005-03-07;82

134/2012 that amended article 68 to include a preference to procure open source software solutions over proprietary solutions, based on a comparative assessment.

 Government guidelines for the development of the Information Society during the legislative term, 2002¹⁴: The Italian government published these guidelines that list the benefits of the use of open source software solutions including reduced costs and the ability to implement open source software in web services, operating systems and productivity tools. They say that public administrations are key players in promoting and using open source solutions, as they can support local projects and platforms by opening their codes to the general public.

Open source software initiatives

This section presents an overview of the main open source software-related initiatives in Italy. The list is presented in chronological order, starting with the most recent initiative.

- Designers Italia, 2023¹⁵: Started as an alpha version in 2015, Designer Italia is the design system of the Italian public administration. The system was developed under open source software principles, such as an open contribution model, public versioning and a changelog as well as a public project management process. All code to the design system and the website and its elements are available on GitHub under the BSD-3-Clause licence¹⁶. The design system has been shepherded by different departments over the years: initially by AgID, then from 2017 the Digital Team took over the main development, and finally the Department for Digital Transformation was in charge of the development from 2019
- OpenCity Italia, 2021¹⁷: This platform, developed by OpenContent, allows citizens to access and customise 16 types of local public services including paying taxes, changing residence and registering a child at the kindergarten. Nowadays, 300 Italian municipalities use OpenCity Italia. Its source code is accessible in GitLab¹⁸.
- IO app, 2020¹⁹: A mobile application for iOS and Android developed by PagosPA, IO provides a unified digital interface to citizens for accessing more than 350,000 public services and involves more than 15,000 public entities. IO allows citizens to add documents, manage deadlines and payments, receive communications and sign documents digitally when accessing all types of public services (education, mobility, working life, health, etc). The Department for Digital Transformation performs a supervisory function. The app's source code is available on GitHub under the EUPL-1.2 licence²⁰.

¹⁴ https://www.interlex.it/testi/pdf/lineeguida.pdf

¹⁵ https://designers.italia.it/

¹⁶ <u>https://github.com/italia/designers.italia.it</u>

¹⁷ https://opencityitalia.it/

¹⁸ <u>https://gitlab.com/opencontent</u>

¹⁹ <u>https://ioapp.it/</u>

²⁰ <u>https://github.com/pagopa/io-app</u>

- Web Analytics Italia (WAI), 2020²¹: WAI is the national open source platform for the collection and analysis of statistical data on traffic to the Italian public administration's digital sites and services. WAI allows the standardisation of data collection and access to statistics on the traffic and behaviour of users using institutional digital sites and services. It is made available under AGPL-3.0 Licence. The latest Three-Year Plan for Information Technology in Public Administration established that the Italian public administration would use WAI to monitor the use of digital public services.
- Developers Italia, 2017²²: This platform gives Italian public administration officers access to libraries, the SDKs, documentation, the code snippets, the resources and the test environments they need to integrate the enabling platforms defined by the ICT Three-Year Plan. The repositories are maintained by the community and open to contributions. Developers Italia's search engine allows users to find all the software put into reuse by other administrations together with the open source software developed by third parties for public administrations. Also, the search engine includes a filter for open source software. The platform has a dedicated page in GitHub²³, with more than 400 repositories and more than 70 members.
- Digital Identity System (Sistema Pubblico di Identità Digitale SPID), 2016²⁴: This is a login system for accessing public administration online services via once-only digital identity (user and password) generated by private identity providers. It was developed by AgID and is available in GitHub under the Creative Commons Zero v1.0 Universal licence²⁵.
- LibreDifesa, 2014²⁶: The Ministry of Defence of Italy decided to switch to LibreOffice in a project known as LibreDifesa. It migrated a total of 100,000 PCs to open source software solutions in 2020, with estimated savings of 26-29 million euros. The migration has been coordinated with LibreItalia following the LibreOffice Migration Protocol published by the Document Foundation.
- pagoPA, 2012²⁷: pagoPA is an electronic payment system created to facilitate payment to the public administration. It enables citizens and businesses to make payments to public bodies in a standardized way, both online and offline, through participating Payment Service Providers (PSPs). pagoPA allows citizens to choose from multiple payment channels and instruments according to their habits, having visibility of the cost of the service and total transparency. In addition, pagoPA should automatically update the amount due and ensure that the entity has correctly received the payment. pagoPA enables public administrations to collect money centrally, offering automatic

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²¹ <u>https://webanalytics.italia.it/</u>

²² https://developers.italia.it/en/search?type=software_open&sort_by=release_date&page=0

²³ <u>https://github.com/italia</u>

²⁴ <u>https://www.spid.gov.it/</u>

²⁵ <u>https://github.com/italia/spid/blob/master/LICENSE</u>

https://interoperable-europe.ec.europa.eu/collection/open-source-observatory-osor/news/italian-militar

²⁷ <u>https://www.pagopa.gov.it/</u>

reporting and reconciliation systems. pagoPA was created by AgID in implementation of the art. 5 of the Digital Administration Code and the Law Decree 179/2012.

• EcoGIS, 2007²⁸: This open source software tool, designed to help citizens and administrations reduce their carbon footprint, helps to map emissions data, test interventions, and monitor changes in energy consumption. It was developed with funding obtained from the European Fund for Regional Management 2007-2013.

²⁸

https://interoperable-europe.ec.europa.eu/collection/open-source-observatory-osor/news/open-source-ecogis-lets-towns

