



DG DIGIT

Unit B2 (Interoperability and Digital Government)

Open Source Software Country Intelligence Report

Spain

2025

This research by OpenForum Europe, was carried out for the Interoperable Europe initiative of the Digital Europe Programme under the Specific Contract 300097569 FWC DI 07929-00 BEACON Lot 2 with the consortium DELOITTE CONSULTING & ADVISORY, WAVESTONE. The report provides an overview of open source software (OSS) in Spain as of April 2025 and is based on publicly available information that was gathered through desk research. This report was enriched with the kind contribution of Carlos Trevino Castillo from the National Agency for Digital Administration, KDE Espana and Spain Representative in the Interoperable Europe Board, , David Bollero, Consul, Decidim, and Oficina de Software Libre da Xunta de Galicia.



WAVESTONE

Authors

2025 version

Alvaro Vilas (alvaro@openforumeurope.org)

Sivan Pättsch (sivan@openforumeurope.org)

2020 version

Giorgio Cacciaguerra Ranghieri

Federico Chiarelli

Vivien Devenyi

Debora Di Giacomo

Eleonora Zoboli

Contact OSOR



EU-OSOR@ec.europa.eu



<https://interoperable-europe.ec.europa.eu/collection/open-source-observatory-osor>



@OSOReu

Disclaimer

The information and views set out in this study are those of the author(s) and do not necessarily reflect the official opinion of the European Commission. This study has been carried out for information and consultation purposes only. It has not been adopted and should not be regarded as representative of the views of Commission staff. Neither the European Commission nor any person acting on the European Commission's behalf may be held responsible for the use which may be made of the information contained therein.

© European Union, 2025



The reuse policy of the European Commission is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed, provided appropriate credit is given and any changes are indicated. For any use or reproduction of photos or other material that is not owned by the EU, permission must be sought directly from the copyright holders.

Updated in May 2025

Table of Contents

Executive Summary	3
Actors	3
Policy and legal framework	5
Open Source Software initiatives	8

Spain

Executive Summary

Since 2020, the use and development of open source software in Spain has increased. Although the Spanish government has not adopted a comprehensive national open source software policy, policymakers and public bodies have updated the two key legal frameworks, the Law 40/2015 and Royal Decree 4/2010. They have also created guidelines for public administrations on using open source software and managing open source software projects. The National Agency for Digital Administration (formerly the General Secretariat of Digital Administration) has played a key role in drafting these guidelines and in maintaining the Technology Transfer Centre (CTT). In the absence of a national association to promote the use of open source software, KDE España has been active in education, while ESLE and the Galician Free Software Office have advanced the use of open source software in the Basque Country and Galicia, respectively.

Regional governments have adopted legislation establishing technological neutrality for their public administrations, including the use of open source software for the creation of participatory platforms. Regional and local governments have thereby developed a rich ecosystem of open source software-based participatory platforms. The CTT remains as the main directory of reusable applications for Spanish public administrations. Lliurex, which is open source software for education, is one of the most actively maintained systems, with frequent new features and versions.

Actors

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

Policymakers

- Ministry for Digital Transformation and Civil Service:¹ This ministry oversees telecommunications, digital society, digital transformation and AI development policies. In parallel, it implements government policy regarding public administrations, the civil service and public governance.
 - Red.es:² This is a public business entity attached to the Ministry of Digital Transformation and Civil Service. It is in charge of implementing projects from the Secretary of State for Digital Progress and collaborates closely with regional communities, regional councils, local entities and the private sector in the area of information and communication technologies (ICT).

¹ <https://digital.gob.es/index.html>

² <https://www.red.es/en>

- The National Agency for Digital Administration:³ This agency replaced the former General Secretariat of Digital Administration (SGAD) under Royal Decree 1118/2024⁴. Its responsibilities include the digital transformation of the public sector, the digital provision of public services under the National Schemes for Security and Interoperability framework, and the coordination of the national public administration ICT units.
- Government of Galicia (Xunta de Galicia): This regional government has had a dedicated Free Software Office (Oficina de Software Libre da Xunta de Galicia) since 2007, which is part of the Agency for the Technological Modernisation of Galicia (AMTEGA)⁵. Since 2010, this office has been designing and implementing annual Free Software Action Plans aimed at promoting the use of open source software among citizens, businesses and public administrations. In 2022, the Office published best practices for open source software that contain detailed information and explanations regarding the licensing framework and copyright. The Office publishes all its initiatives, including previous action plans, and relevant documents in its publicly available repository: mancomun.gal.⁶

Strategic players

- KDE España:⁷ This is the Spanish chapter of the international KDE open source community⁸. It has a working group dedicated to promoting open source software and running training courses for public administrations. Examples of its work include collaborating with the Free Software Foundation Europe (FSFE) for Free Software Day⁹, or organising the Barcelona Free Software meetup¹⁰ which has involved the Barcelona city hall. In the educational field, KDE España actively participates in the promotion of the Lliurex project in the Valencia region and supports the esLibre event¹¹, where it engages with public administrations.
- The ESLE Association¹² (Association of Software Companies of the Basque Country): Established in October 2005, this is a non-profit association based in Vitoria-Gasteiz, the capital of the Basque Country. It is driven by 17 Basque companies that base their business model on open source software. ESLE signed collaboration agreements with the Basque Government and with Lantik, which provides IT services to the province around Bilbao, to promote the use of open source software in their activities and the provision of services to citizens. In 2021¹³, ESLE signed another

³ https://administracionelectronica.gob.es/pae_Home/pae_Organizacion/AEAD.html

⁴ <https://www.boe.es/buscar/doc.php?id=BOE-A-2024-22929>

⁵ <https://amtega.xunta.gal/gl>

⁶ <https://mancomun.gal/es/>

⁷ <https://www.kde-espana.org/>

⁸ <https://kde.org/>

⁹ <https://www.fsf.org/blogs/community/i-love-free-software-2025>

¹⁰ <https://www.meetup.com/barcelona-free-software/>

¹¹ <https://eslib.re/2024/>

¹² <https://www.esle.eu/es/quienes-somos>

¹³

<https://www.esle.eu/es/noticias/esle-y-la-fundacion-hazi-firman-un-acuerdo-para-fomentar-el-uso-del-software-libre-y>

collaboration agreement with the HAZI Foundation, a public institution that coordinates projects to foster competitiveness and sustainability of the food and forestry value chain in the Basque Country.

Policy and legal framework

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

- Reuse of IT Solutions: Guide on the Publication and Licensing of IT Solutions, 2nd edition, October 2022¹⁴: The General Secretariat of Digital Administration (SGAD) created these guidelines to support public administrations in implementing Law 40/2015 and Royal Decree 4/2010 (see below). The document provides explanations on the different types of software licences ranging from 'strong' (GPL, Affero) and 'mixed' copyleft (EUPL, MPL) to 'permissive' licences (Apache, MIT). They also offer instructions to publish and reuse IT solutions in the Technology Transfer Centre (CTT) catalogue. There is also a dedicated section on managing open source software projects, focusing on the legal aspects and obligations of public administrations for this type of project.
- Law 40/2015 of 1 October 2015¹⁵ on the Legal Regime of the Public Sector: This horizontal law sets out the general framework for Spanish public administrations, including an obligation to reuse applications and provide for technology transfer between them. Public administrations are required to provide reusable applications to those who request them, unless they are subject to special protection. They are also obliged to reuse available IT solutions that can provide the service they aim for, and they are entitled to declare those solutions to be open source if that improves the transparency of the process and fosters citizens' participation. To ensure technology transfers among public administrations, the law mandates all public administrations to keep interoperable repositories updated and open so they can be integrated into the repository handled by the General State Administration. The Technological Transfer Centre (CTT) is one of the main outcomes of this law.
- Basque Government Decree 159/2012, of 24 July 2012, which regulates the opening and reuse of the IT applications of the public administration of the Autonomous Community of the Basque Country¹⁶: This regional legislation creates the Directory of Open Source Computer Applications of the public administration of the Basque Country, which is linked to the Technology Transfer Centre. The decree obliges the Basque Country public administration to consult this directory when searching for available software that could be reused to fulfil their needs. If no such solution is found, the reason must be explained.. Lastly, when making software applications open source or

¹⁴https://administracionelectronica.gob.es/pae_Home/ca/dam/jcr:d277818a-3f2d-408f-87e3-85a925863088/2022-ENI_ReutilizacionActivos.pdf

¹⁵<https://www.boe.es/buscar/pdf/2015/BOE-A-2015-10566-consolidado.pdf>

¹⁶<https://www.euskadi.eus/bopv2/datos/2012/08/1203841a.pdf>

publicly available, licences shall be used to ensure that software applications published in the directory can be considered open source software, by allowing them to be executed for any purpose, for their source code to be made available, and to be modified or improved and be redistributed to third parties.

- Royal Decree 4/2010, of 8 January 2010, which regulates the National Interoperability Framework (ENI) within the e-Government¹⁷: This legislation obliges administrations to consult their own repositories and existing reusable solutions before procuring new technology. The decree also establishes four conditions for Spanish public administrations to follow when licensing software: They should guarantee access to source code, its execution for any purpose, its modification and update, and free redistribution. A later royal decree in 2021¹⁸ modified the licensing conditions (Article 16) to set the default conditions to be without compensation and without the need to arrange an agreement. It also specifies the content to be displayed in the directories of reusable applications (Article 17): source code, related documentation, licensing conditions, and the costs associated with their reuse, if any.
 - National Interoperability Scheme Compliance Audit Guide, 2016¹⁹: The Ministry of Finance and Public Administration created this audit guide to facilitate the evaluation of the ENI compliance. It includes three types of controls: organisational, operational and technical. In terms of technical controls, the audit guide includes a questionnaire that assesses the use of open source software and EU public licences, with guidance explaining these features.
- Recommendations to the General State Administration on the Use of Free and Open Source Software (FOSS), 2005²⁰: The Ministry of Public Administrations wrote these recommendations that explain the different types of licences, provide a definition of free open software for public administrations, and describe the applicable legal framework. Since these recommendations came out in 2005, they did not include the Law 40/2015 or Royal Decree 4/2010. Nevertheless, the General Secretariat for Digital Administration (nowadays known as the National Agency for Digital Administration) indicated its commitment to updating them.
- Certain regional governments have adopted laws that regulate transparency in the public sector and citizens' participation, and access to public documents. These laws establish the principle of technological neutrality that imposes the use and promotion of open source software:

¹⁷

https://administracionelectronica.gob.es/dam/jcr:48e2472a-d453-4023-a4e2-b2586ae06b60/RD_4-2010_of-8-January-consolidated-acc1.pdf

¹⁸ <https://www.boe.es/eli/es/rd/2010/01/08/4/con/20111108>

¹⁹

https://administracionelectronica.gob.es/pae_Home/dam/jcr:a859d9ac-9519-4cf9-b525-cc7238b5271b/Guia_auditoria_ENI_PDF_1ed_2016.pdf

²⁰

https://administracionelectronica.gob.es/pae_Home/dam/jcr:6f90beb0-4b87-4085-b5a0-dbd42d4bfe44/2005-Recomendaciones-software-libre-NIPO-326-05-044-3.pdf

- Law 3/2022, of 12 May 2022, on the Basque Public sector.²¹
- Law 10/2019, of 10 April 2019, on Transparency and Participation of the Madrid Region²².
- Law 1/2018, of 21 March 2018, on Transparency of Public Activity of the Cantabria Region.²³
- Regional Law of Navarra 5/2018, of 17 May 2018, on Transparency, access to public information and good governance.²⁴
- Law 4/2016, of 15 December 2016, on Transparency and Good Government in Castilla-La Mancha²⁵: This regional law obliges the Castilla-La Mancha government to include in its Transparency Portal a catalogue of the open source applications developed and used by its regional public sector, and sets the principle of public reuse of IT solutions developed by its public administration.
- Law 8/2015, of 25 March 2015, on Public Activity's Transparency and Citizens' Participation in Aragon.²⁶
- Law 12/2014, of 16 December 2014, on Transparency and Citizens' Participation of the Murcia Region.²⁷
- Law 4/2013, of 21 May 2013, on Open Government of Extremadura.²⁸
- Two regional governments have adopted laws on citizens' participation that mandate or encourage the use of open source software tools for the creation of participatory platforms: Law 8/2019, of 13 December 2019, on Participation in Castile-La Mancha²⁹; and Law 7/2017, of 27 December 2017, on Citizen Participation in Andalusia.³⁰
- Order of the Counsellor's Office of Innovation, Science and Enterprise, of 21 February 2005, on Public availability of the computer programs of the Administration of the Regional Government of Andalusia and its autonomous bodies³¹: This order mandates the Andalusian regional government to make available to the public the source code of the IT solutions and applications, and the

²¹ <https://www.boe.es/buscar/act.php?id=BOE-A-2022-8833>

²² <https://www.boe.es/buscar/act.php?id=BOE-A-2019-10102>

²³ <https://www.boe.es/buscar/act.php?id=BOE-A-2018-5393>

²⁴ <https://www.boe.es/buscar/act.php?id=BOE-A-2018-7642>

²⁵ <https://www.boe.es/buscar/act.php?id=BOE-A-2017-1373>

²⁶ <https://www.boe.es/buscar/act.php?id=BOE-A-2015-5332>

²⁷ <https://www.boe.es/buscar/act.php?id=BOE-A-2015-184>

²⁸ <https://www.boe.es/buscar/doc.php?id=BOE-A-2013-6050>

²⁹ https://www.boe.es/diario_boe/txt.php?id=BOE-A-2020-1654

³⁰ <https://www.boe.es/buscar/act.php?id=BOE-A-2018-1548>

³¹

https://ws040.juntadeandalucia.es/sedeboja/web/textos-consolidados/resumen-ficha?p_p_id=resumen_recursolegal_WAR_sedebojatextoconsolidadoportlet&p_p_lifecycle=0&resumenrecursolegal_WAR_sedebojatextoconsolidadoportlet_recursoLegalAbstractId=17659

associated documentation owned by the Andalusian public sector, which shall be open source as well as to establish the conditions for its free use and distribution.

Open source software initiatives

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

- ALIA³², 2019: This AI public infrastructure provides access to a wide range of linguistic tools and datasets in Spanish and other official languages. It includes language models, multimodal models (covering text, voice, and image), as well as methodologies, documentation, and training and evaluation datasets. The resources available through the ALIA Kit have been developed as part of the National Language Technologies Plan under the National Artificial Intelligence Strategy, and the project is funded by the Ministry for Digital Transformation and Public Function with support from the European Union's NextGenerationEU program. As indicated by the data published on HuggingFace, ALIA-40b is composed of pre-trained multilingual AI models, and is released under an Open Source Apache 2.0 licence. All its training scripts, configuration files and weights are available in the GitHub repository.³³
- Decidim, 2016³⁴: This is a digital infrastructure for participatory democracy led by the Decidim association and the Metadecidim platform. The municipality of Barcelona and the Decidim community started it in 2016 using the Consul model, but it soon developed its tools with a more modular approach and its library. The community created the Decidim association to ensure the continuity of the projects. Nowadays, Decidim includes several features to foster participatory democracy such as participatory budgeting, assemblies, civic initiative portals, creation of citizens' proposals and surveys. In Spain, Decidim has active projects with local entities in Catalunya, and they signed a collaboration agreement with the Catalan Government (*Generalitat*) in 2021. Decidim is available on GitHub³⁵. The most notable projects are the following:
 - Participa.gencat³⁶: Citizens' Participation Portal of the Catalunya Government which includes participatory processes in budget, local councils and regulation.
 - Participatory budgeting in Barcelona City 2024–2027.³⁷
 - Participatory platform for the Federation of Neighbourhood Associations of Barcelona.³⁸

³² <https://alia.gob.es/>

³³ <https://github.com/langtech-bsc/alia>

³⁴ <https://decidim.org/>

³⁵ <https://github.com/decidim>

³⁶ <https://participa.gencat.cat/>

³⁷ <https://www.decidim.barcelona/processes/pressupostos2024>

³⁸ <https://participa.favb.cat/>

- Consul Democracy, 2015³⁹: The municipality of Madrid developed the Consul Democracy open source software as a digital platform for the participatory budgeting project (Decide.Madrid), which is still in use today. The Madrid municipality supported the project until 2018. To keep the project active, the Consul Democracy Foundation was created in 2019 and took over the role of the Madrid municipality. The Consul Democracy software has five main features: debates, citizens' proposals, voting polls, participatory budgeting and collaborative legislation. The software is available on GitHub⁴⁰. Consul Democracy manages 33 active projects with Spanish public administrations at the local and regional levels. Below there are some examples of the initiatives that Consul Democracy manages in Spain:
 - Participacyl⁴¹: The digital platform of the Castilla and Leon region that provides collaborative legislation tools.
 - Participa.GranCanaria⁴²: The public debate platform that addresses the discussion regarding the tourism model and energy transition in Gran Canaria.
 - DecidimVLC⁴³: The Valencia municipality has been implementing participatory budgets since 2015 with Decidim.
 - Decide.Madrid⁴⁴: the first Consul project, which includes participatory budgeting, public consultations and public debates. It has been active since 2015.
- Technology Transfer Centre (CTT), 2015⁴⁵: This is the directory of reusable applications for Spanish public administrations. The Spanish government created the CTT as a response to the requirements created by the Public Sector Law 40/2015 and goals set in the Royal Decree 4/2010 that regulates the National Interoperability Scheme. It has a dedicated space on GitHub that includes 42 repositories⁴⁶. The National Agency for Digital Administration manages it and continuously releases and upgrades open source solutions. Currently, the CTT comprises 364 IT solutions, including open source and proprietary ones, as well as those developed by national, regional or local administrations. The following are examples of open source solutions developed by national public administrations:
 - Lucia, 2015⁴⁷: A tool for managing cyber-incidents within the entities covered by the National Security Scheme (ENS). The tool aims to improve coordination between the national government and the different bodies and organisations with which it collaborates.

³⁹ <https://consuldemocracy.org/about-us/>

⁴⁰ <https://github.com/consuldemocracy/consuldemocracy?tab=AGPL-3.0-1-ov-file#readme>

⁴¹ <https://participacyl.es/>

⁴² <https://participa.grancanaria.com/>

⁴³ <https://decidimvlc.valencia.es/>

⁴⁴ <https://decide.madrid.es/>

⁴⁵

https://administracionelectronica.gob.es/pae_Home/pae_SolucionesCTT/pae_CTT_-_Que_es_.html

⁴⁶ <https://github.com/ctt-gob-es>

⁴⁷ <https://administracionelectronica.gob.es/ctt/lucia>

It offers a common language for incident danger and classification and maintains the traceability and monitoring of incidents. The system also allows tasks to be automated and integrated with other systems already in place. Lucia is published under the GNU General Public Licence.

- AL LocalGIS, 2015⁴⁸: This is a geographic information system (GIS) featuring all the necessary functions to enable information management by georeferencing for local governments. This is achieved through the automation of the processes involved in the management of local governments. The system aims to facilitate the implementation of Territorial Information Systems in the field of public administrations, allowing local entities to geographically reference their information, their administrative procedures and their daily activities. It is available on GitHub⁴⁹.
- ARCHIVE, 2015⁵⁰: Archive is a web application for the final archiving of electronic files and documents, which complies with the provisions of Royal Decree 4/2010 regulating the National Interoperability Scheme in the field of e-Government. Archive provides the necessary tools for a public administration to create a system for the administration and management of multi-departmental Archive Centres, as well as the integration of the Archive with the corresponding consumer applications and the management of the electronic documents and files sent by them.
- Inside, 2012⁵¹: This is a system for the management of electronic documents and records that meets the requirements for both to be stored and/or retrieved according to the ENI. It involves the fully electronic document management, as a preliminary step to the final archiving of the documentation in an interoperable and durable format.
- ACCEDA, Citizen Access to Administration Files, 2009⁵²: This modular platform integrates three main components: an e-Headquarters; a complete manager for the electronic processing of the files that are initiated in the headquarters; and a tool for its administration and configuration, which includes a content manager of the headquarters and its own forms editor. This service is available in the cloud for the General State Administration; for other organisations, it can be installed on-site.
- Cliente de firma, 2007⁵³: This e-signature and authentication tool was developed by the Ministry of Economic Affairs and Digital Transformation. Cliente de firma included the following applications: Miniapplet@firma for internet browsers; Autofirma and Standalone for desktop; and Cliente@Firma Móvil for smartphones. As indicated in its dedicated

⁴⁸ <https://administracionelectronica.gob.es/ctt/avanzalocalgis>

⁴⁹ <https://github.com/ctt-gob-es/allocalgis>

⁵⁰ <https://administracionelectronica.gob.es/ctt/archive>

⁵¹ <https://administracionelectronica.gob.es/ctt/inside>

⁵² <https://administracionelectronica.gob.es/ctt/acceda/infoadicional>

⁵³ <https://administracionelectronica.gob.es/ctt/clientefirma>

Github repository⁵⁴ Cliente de firma is licensed under the General Public Licence 2+ and European Public Licence 1.1.

- SCSP, 2005⁵⁵: This is a set of specifications governing the exchange of data between public administrations with the aim of eliminating paper administrative certificates, avoiding requirements on citizens to submit documents already held by public administrations by creating a standardised system of exchange between administrations.
- Datos.gob.es, 2011⁵⁶: The source code of the Spanish national open data portal, datos.gob.es was released under an open source licence. This platform integrates a Drupal content management system with the CKAN Open Data repository software and seven CKAN extensions developed by the Spanish government. Datos.gob.es is available on GitHub⁵⁷.
- Lliurex, 2003⁵⁸: This is an open source operating system that facilitates access to ICT in education. It is bilingual (Valencian and Spanish), with educational applications by levels and tools to create digital resources. Its latest version, Lliurex 23, includes the LIX Edition Studio for video recording and streaming, educational applications such as Cmaptools for the creation of conceptual maps, or Asamblea for running the diary activities at schools, and its cloud platform. Some 1,688 educational centres use Lliurex covering almost 800,000 users. The Lliurex community has been very active since it began in 2003, as reflected in the celebration of its twentieth anniversary in 2025. The Lliurex software store is available on GitHub⁵⁹.

⁵⁴ <https://github.com/ctt-gob-es/clienteafirma>

⁵⁵ <https://administracionelectronica.gob.es/ctt/scsp>

⁵⁶ <https://datos.gob.es/es/>

⁵⁷ <https://github.com/ctt-gob-es/datos.gob.es?tab=readme-ov-file>

⁵⁸ <https://portal.edu.qva.es/lliurex/es/>

⁵⁹ <https://github.com/lliurex/lliurex-store>

