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Open Source Software
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WAVESTONE

Authors
Federico Chiarelli (federico.chiarelli@wavestone.com)
Vivien Devenyi (vivien.devenyi@wavestone.com)
Debora Di Giacomo (deboradigiacomo@wavestone.com)
Chloé Dussutour (chloedussutour@wavestone.com)
Eleonora Zoboli (eleonora.zoboli@wavestone.com)

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PORTUGAL

Executive summary

Policy initiatives in Portugal are predominantly centralised in the national government, meaning that local regions have few policymaking competencies. However, other organisations such as universities, industry and non-profit associations are mobilised on the promotion and use of open source software (OSS). Portugal has implemented major strategies for the digitalisation of its administration and for the promotion and use of OSS solutions. Since 2009, the Portuguese government has launched several strategic documents for public sector modernisation, and more recently, the Information and Communication Technology (ICT) Strategy 2020 (Estratégia TIC 2020) was launched in 2017 to boost the country’s digitalisation. Action n°12 of the ICT Strategy 2020 is focused on OSS solutions for the implementation of a cross-sectional licensing strategy for state software (including creation, reuse and negotiation), the promotion and dissemination of OSS, and the creation of a software catalogue for public administrations.

The strong mobilisation of associations such as the Association of Portuguese Open Source Software Companies (ESOP) and the National Association for Open Software (ANSOL) played an influential role in recent policy developments in favour of OSS solutions in Portuguese public administrations. For instance, both associations filed several complaints to the Portuguese courts against public procurement calls which were deemed as unfair to OSS providers.1,2,3

Actors

This section presents the policy makers who are active in digitalisation efforts and influence the status of open source in public sector, as well as the main strategic players that work together with the government at all levels to raise awareness on OSS. In Portugal, there is no governmental body that is specifically responsible for OSS policies.

Policy makers

- The Ministry of State Modernisation and Public Administration5 is tasked with preparing, conducting, implementing, and evaluating the modernisation of the Portuguese public administration with regards to innovation, simplification, and services for citizens and

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businesses. The Minister of State Modernisation and Public Administration⁶ is seconded by a Secretary of State for Innovation and Administrative Modernisation.⁷

- The Administrative Modernisation Agency (AMA)⁸ is the public institute carrying out the duties of the Ministry of State Modernisation and Public Administration in the areas of digital government, administrative modernisation, and simplification, under the guidance of the Secretary of State for Innovation and Administrative Modernisation.

- The Public Administration Digital Competencies Centre (TicAPP)⁹ is a unit within the Administrative Modernization Agency whose aim is to support all elements of the Portuguese government on their journey towards digital transformation.

- The Council for Information and Communication Technologies in the Public Administration (CTIC)¹⁰ was created in 2016. Its mission is to ensure the development of a global planning and optimisation strategy (embodied in the ICT Strategy 2020) for the digital transformation of the Portuguese public administration.

**Strategic players**

- The Association of Portuguese Open Source Software Companies (ESOP)¹¹ is a business association that represents Portuguese companies dedicated to the development of software and the provision of services based on open source technologies.

- The National Association for Open Software (ANSOL)¹² is a non-profit association whose purpose is the dissemination, promotion, development, research, and study of OSS.

- The Association for Free Teaching (Associação Ensino Livre)¹³ aims to promote the use of free software in the Portuguese education system. To this end, the association organises trainings and other activities to keep the public informed about OSS.

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⁹ https://ticapp.gov.pt/
¹¹ https://www.esop.pt/
¹² https://ansol.org/
¹³ http://ensinolivre.pt/
Policy and legal framework

This section summarises the main open source software related policies and legal acts of the last ten years, including the first known milestone in this domain. The list is presented in a chronological order, starting from the most recent milestone.

- The Resolution of the Council of Ministers no. 108/2017 of 26 July 2017\(^{14}\) approved the ICT Strategy 2020 and its respective Action Plan (*Estratégia TIC 2020*)\(^{15}\) in order to present a common IT strategy for public administrations, coordinate sectorial initiatives, foster innovation and investment rationalisation, and promote the use of digital public services while ensuring that they are simpler, more accessible, and inclusive. Action no. 12 of the ICT Strategy 2020 is focused on OSS solutions and the implementation of a cross-sectional software licensing strategy for state software (including creation, reuse and negotiation), the promotion and dissemination of OSS, and the creation of a software catalogue for public administrations.

- Decree-Law no. 107/2012 of 18 May 2012\(^{16}\) regulates the duty of information and the issuing of a prior opinion on the acquisition of goods and the provision of services in the field of ICT. Furthermore, it calls for an assessment of failures to use both OSS solutions and OSS solutions whose total cost of ownership is lower than a proprietary software solution or subject to specific licensing.

- Resolution of the Council of Ministers nº 12/2012, of 7 February\(^{17}\) approved the general guidelines of the Global Strategic Plan for Rationalisation and Cost Reduction with ICT (PGETIC)\(^{18}\) for the period 2012-2016. Under this plan, goal no. 21 on the “adoption of open software in state information systems” specifically targets the use of OSS in public administrations. The guidelines detailed the Portuguese Government’s action plan to evaluate and assess the use of the most efficient software solutions on the market, while promoting the use of OSS within the public sector when these OSS solutions are mature enough. Additionally, the guidelines contain a list of public sector domains where the implementation of OSS should be the preferred choice.

- Law no. 36/2011 of 21 June 2011\(^{19}\) establishes the adoption of open standards in the information systems of the public administration, harmonising the document format and protocols used by the central government. Following this, the National Digital

\(^{14}\) https://dre.pt/pesquisa/-/search/107757007/details/maximized
\(^{15}\) https://www.tic.gov.pt/documents/37177/109352/CTIC_TIC2020_Estrategia_TIC_EN.pdf/3d260b59-ec1a-072f-e84c-84e6648f3cda
\(^{16}\) https://dre.pt/pesquisa/-/search/551977/details/maximized
\(^{17}\) https://dre.pt/pesquisa/-/search/543701/details/maximized
\(^{18}\) https://pgetic.tic.gov.pt/pgetic
\(^{19}\) https://dre.pt/pesquisa/-/search/670285/details/maximized
Interoperability Regulation (RNID) was published on 8 November 2012\(^{20}\), establishing the OpenDocument Format (ODF) 1.1 as a mandatory standard. The RNID was revised in January 2018.\(^{21}\)

- Many non-binding policy initiatives in Portugal in the field of OSS were implemented in the early 2000s. For instance, the Council of Ministers adopted a non-binding resolution promoting the use of OSS in 2002.\(^{22}\) In 2007, the Portuguese Parliament adopted the “Free Software in Parliament” Initiative (Software Livre no Parlamento)\(^{23}\), a non-binding initiative inviting the government to promote the use of OSS in Parliament activities.

## Open source software initiatives

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

- The Administrative Modernisation Agency (AMA) has started using OSS for various initiatives:
  - **OSS Workshops**: In partnership with ESOP, AMA is hosting a workshop cycle to discuss and share best practices for OSS when tackling major challenges concerning digital transformation in the public sector. Two thematic workshops have taken place, the first of which focused on Usability, Accessibility and UX Design, and the second of which focused on Big Data, Data Science and Open Data (February 2020). More workshops are planned for 2020.
  - **“one-stop shop” platform**: ePortugal is the online point of contact for public services built with Liferay DXP\(^{25}\), designed to replace the Citizen Portal and Business Portal. It has a responsive design that allows optimal access from any device. In terms of content management, the portal covers more than 2500 services (1200 for citizens and 1300 for companies), each with its own website. The content management system allows for the creation, organisation, elimination, and publication of content with agility and in real-time.
  - **Digital Identification**: The Portuguese digital identification ecosystem includes components developed using OSS such as the plugin\(^{26}\) of autenticacao.gov.pt

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\(^{20}\) https://dre.pt/pesquisa/-/search/191863/details/maximized
\(^{21}\) https://dre.pt/home/-/dre/114457664/details/maximized
\(^{22}\) https://dre.pt/webquest/pesquisa/-/search/276431/details/maximized
\(^{24}\) https://eportugal.gov.pt/
\(^{25}\) https://liferay.dev/open-source
\(^{26}\) https://autenticacao.gov.pt/ajuda/autenticacaogovpt.aspx
Portuguese digital authentication platform) and the Citizen Card (the national eID card) middleware.\(^{27}\)

- *Entities and Services Catalog (CES), 2018*: CES is the main source of information for ePortugal, the Citizen Map and several other applications. It was developed using the OSS solution, Liferay 6.2 CE.

- *Dados.gov, 2018*: The national Open Data platform is hosted on a well-known open data platform used by other nations – uData. This platform allows users to make open data from different sectors available and promotes the reuse of this open data by the civil society, businesses, and universities.

- *Bolsa de Documentos, 2017*: AMA launched a Document Exchange platform powered by the open source solution, Liferay. The *Bolsa de Documentos* platform allows users to receive, store, manage, and share electronic or digital documents stemming from public administrations.

- *SUGAR CRM/Citizen Spots, 2014*: The Citizen Spots – a nationwide network of multiservice physical counters where a specialised mediator assists citizens in accessing a portfolio of digital public services – uses a specific management tool called EC-MC, which is based on Sugar CRM. The aim of using this OSS solution was to reduce the dependence on proprietary software, thus reducing costs associated with licenses and maintenance.

- *Informative sites*: AMA\(^{30}\), Open Government Partnership-PT\(^{31}\), Usability\(^{32}\), Accessibility\(^{33}\) are websites that were developed using a community edition of Liferay, thus allowing for a decentralised content management.

- Ministry of Health, 2017\(^{34}\): The Portuguese National Broker platform (PNB), a pilot initiated by the Ministry of Health in 2017, is based on OSS. The national eHealth message exchange platform provides technical, semantic, and legal interoperability between all health-related entities in the country.
• Municipality of Sintra, 2015\textsuperscript{35}: In 2015, ACES Sintra, the municipality’s public healthcare organisation, decided to switch to several OSS solutions including WordPress, MySQL, Apache, Linux, and PHP. ACES Sintra uses this package of OSS solutions for its public website and for several internal Intranet project and team sites.

• University of Coimbra, 2014\textsuperscript{36}: The University of Coimbra decided to implement Odoo, an OSS solution for enterprise resource planning (ERP), thus saving approximately 70\% on costs.

• Ministry of Education, 2013\textsuperscript{37}: The Ministry uses Open ERP, an OSS enterprise resource planning system (ERP), in order to carry out the annual task of assigning teachers to schools. Initial estimates suggest that the switch from several proprietary applications to a unified and open source-based ERP system has helped the Ministry to cut its required budget in half.

• Cova da Beira Region, 2012\textsuperscript{38}: All 13 municipalities of the Cova da Beira Region adopted an OSS solution for wildfire risk-zone mapping, published on the Quantum GIS project website in October 2012.\textsuperscript{39}

• ISCTE – University Institute of Lisbon, 2009\textsuperscript{40}: The University Institute of Lisbon launched a Master in Open Source Software for students seeking to gain knowledge in the areas of Information Technology (Operating Systems, Programming, Networks, and Databases), and Economics and Management in the context of free and OSS.\textsuperscript{41}

\textsuperscript{39} https://www.qgis.org/fr/site/
\textsuperscript{41} https://www.iscte-iul.pt/course/60/master-msc-in-open-source-software