

# DG DIGIT Unit.B2 (Interoperability & Digital Government Unit)

# Open Source Software Country Intelligence Report

Greece

2025

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# **Table of Contents**

EXECUTIVE SUMMARY	3
Actors	3
POLICY AND LEGAL FRAMEWORK	5
OPEN SOURCE SOFTWARE INITIATIVES	6

# Greece

## Executive summary

Since 2020 the promotion, use and development of Open Source Software (OSS) in the Greek public administration has moderately matured. This increase has been driven firstly by the country's efforts to digitalise its public sector, alongside the progress made through its primary digital strategy as outlined in the "Bible of Digital Transformation 2020-2025" (BDT), and secondly the ongoing initiatives of key strategic actors that promote OSS in the country.

The main policymaker for OSS is the Greek Ministry of Digital Governance (MDG). The Ministry of Development plays a supporting role through its General Secretariat for Research and Innovation. The Ministry of State is also responsible for monitoring and coordinating all policies and the horizontal work of the government. Elsewhere, strategic actors for the promotion and development of OSS can be found in the public sector and in academic, research, social, and grassroots communities, which are members of the Open Technologies Alliance organised by the NGO GFOSS or EELLAK. The members of GFOSS have contributed to the development and promotion of Free and Open Source Software (FOSS) in the public sector. Finally, the BDT is the key policy document that defines the role of OSS in public administration, particularly in the context of open science and, in certain instances, the modernisation of software used within public administration.

The use of OSS in the Greek public sector has yet to be legally established. Moreover, the promotion and use of proprietary software are more common in different public organisations and administrations. However, the different efforts of Greece's strategic actors that promote and develop OSS initiatives for the public sector, alongside the country's ongoing digital transformation, lay the foundation for future progress in the adoption and development of open source applications.

### **Actors**

This section presents the key governmental bodies and strategic players influencing awareness and uptake of OSS within the Greek government and the public sector.

### Policymakers

The Ministry of Digital Governance<sup>1</sup>: The MDG is the main policymaker for digital policies and thus
policies on OSS. It brings together all the IT and telecommunications structures related to the
provision of electronic services to citizens and the broader digital transformation of the country.
 The MDG aims to transform public services and improve governance by ensuring the security and

<sup>1</sup> Υπουργείο Ψηφιακής Διακυβέρνησης

protection of digital systems and data, but also to create a more connected and inclusive society. It was responsible for the drafting and publishing of the BDT<sup>2</sup>.

- The Ministry of Development<sup>3</sup>: Even though this ministry is not directly responsible for digital policies, it may play a role in creating policies for OSS through its General Secretariat for Research and Innovation (RTDI)<sup>4</sup>. The RTDI is a public service responsible for planning and coordinating the implementation of policies related to research, technological development, and innovation. It also supervises research centers and technology bodies that are developing OSS<sup>5</sup>.
- Ministry of State<sup>6</sup>: The coordination and monitoring<sup>7</sup> of all policies and thus digital policies fall under the responsibility of this ministry.

### Strategic players

- The Open Technologies Alliance (GFOSS or EELLAK)<sup>8</sup>: GFOSS is a non-profit organisation established in 2008, with 37 universities and research centres as its shareholders<sup>9</sup>. Their primary goal is to promote openness through the use and development of open standards and open technologies in education, public administration, and business across Greece. GFOSS serves as a platform for open standards, free software, open content, open data, and open hardware. The major Greek universities and research centres are active participants, while prominent members of the Greek developer community play a crucial role in implementing their policies. Throughout the years GFOSS has signed a large number of memoranda of cooperation and other types of agreements with many public sector organisations including the ministries of Digital Governance, Education and Religious Affairs, and Tourism<sup>10</sup>.
- GRNET S.A. National Infrastructures for Research and Technology<sup>11</sup>: Operating since 1998, GRNET is one of the largest public-sector technology companies in Greece. Since August 2019, it has been operating within the remit of the MDG. It provides cloud computing, data management services, and e-infrastructures to academic and research institutions, educational bodies at all levels, and public sector agencies. It also advises the MDG on the design of e-infrastructures, and services and contributes to Greece's digital transformation through technological studies, standardised solutions, and specialised expertise for public administration, education, research, health, and culture. GRNET is a member of the GFOSS Alliance.

<sup>&</sup>lt;sup>2</sup> <u>Digital Transformation Bible 2020-2025</u>

<sup>3</sup> Υπουργείο Ανάπτυξης

<sup>&</sup>lt;sup>4</sup> <u>FFEK</u>

<sup>&</sup>lt;sup>5</sup> SUPERVISED BODIES – General Secretariat for Research and Innovation (GSRI): Official website

<sup>&</sup>lt;sup>6</sup> Υπουρνείο Επικρατείας

<sup>&</sup>lt;sup>7</sup> Άρθρο 9 Αποστολή και αρμοδιότητες | Υπουργός Επικρατείας

**GFOSS** 

<sup>&</sup>lt;sup>9</sup> GFOSS ALLIANCE

<sup>&</sup>lt;sup>10</sup> Συνεργασίες

<sup>&</sup>lt;sup>11</sup> GRNET

- The Greek Linux User Group(GreekLUG)<sup>12</sup>: Established in 2008, this is an NGO that deals with OSS. Its activities involve presentations, seminars, talks, workshops and various events. It is active in the education sector, offering IT courses to teachers and students on OSS. GreekLUG also actively participates in the creation of educational material and is part of the GFOSS Alliance.
- Hellenic Linux Users Group (HEL.L.U.G.)<sup>13</sup>: HELLUG is a non-profit association, founded in 1998, to promote Linux and FOSS and the general philosophy behind it. It is part of the GFOSS Alliance, and it is active in organising the FOSS community, summer schools, and FOSS events around Greece<sup>14</sup>.

## Policy and legal framework

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

- GFOSS and University of Athens Memorandum of Cooperation, 2024<sup>15</sup>: GFOSS has signed an agreement with the centre for training and lifelong learning at the National Technical University of Athens to collaborate on education about and promotion of open technologies. Other related contracts and agreements are available on the GFOSS 'Collaborations' webpage<sup>16</sup>.
- Bible of Digital Transformation 2020-2025, 2020<sup>17</sup>: The Bible of Digital Transformation (BDT) is the main document that sets out Greece's digital transformation strategy, goals and projects until 2025. It identifies a variety of specific projects, classified into short- and medium-term, that affect the exercise of all areas of public policies including health, education, justice, economy, environment and energy. Within the remit of open science, the document mentions the promotion of open technologies for education and the use of OS licences by default for every piece of software that is developed through public funding. Moreover, it states that the public sector's e-infrastructures will prioritise the reuse of software to reduce bureaucracy and support e-government. This will be achieved through the use of OSS to ensure interoperability. However, it also promotes the usage of proprietary software licences for the needs of these e-infrastructures.
- LAW No. 4727/ Digital Governance, 2020<sup>18</sup>: This law created by the MDG is about the "Integration into the Greek legislation of Directive (EU) 2016/2102 and Directive (EU) 2019/1024) of Electronic Communications". It mentions that the MDG's General Secretariat for Digital Governance and

<sup>12</sup> GreekLUG

<sup>13</sup> HELLUG

<sup>&</sup>lt;sup>14</sup> Εκδηλώσεις

<sup>15 &</sup>lt;u>Mol</u>

<sup>16</sup> Συνεργασιες

<sup>&</sup>lt;sup>17</sup> <u>Digital Transformation Bible 2020 - 2025</u>

<sup>18 184</sup> Α΄ 2020Νόμος 4727/2020Ψηφιακή Διακυβέρνηση (Ενσωμάτωση στην Ελληνική Νομοθεσία της Οδηγίας (ΕΕ) 2016/2102 και της Οδηγίας (ΕΕ) 2019/1024) – Ηλεκτρονικές Επικοινωνίες (Ενσωμάτωση στο Ελληνικό Δίκαιο της Οδηγίας (ΕΕ) 2018/1972) και άλλες διατάξεις | Υπουργείο Ψηφιακής Διακυβέρνησης

Simplification of Procedures will monitor the accessibility of public sector websites based on the rules of OSS, open standards, and formats.

## Open source software initiatives

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

- GlossAPI, 2024<sup>19</sup>: Within the remit of digiGOV-innoHUB<sup>20</sup> (see below), GFOSS is developing a
  Greek OSS language model of glossAPI, a Greek OS Large Language Model (LLM), whose code will
  be made available under the EUPL OSS licence and its data under the Creative Commons BY-SA
  licence.
- Meltemi, 2024<sup>21</sup>: Meltemi is the first Greek LLM trained by the Institute for Language and Speech Processing of the Athena Research Centre,<sup>22</sup> which is part of the GFOSS Alliance. Meltemi is a bilingual model that has been extended to understand and generate fluent text in modern Greek. It is trained on a corpus of 28.5 billion tokens that include high-quality Greek texts. The model was trained on Amazon Web Services (AWS) infrastructure<sup>23</sup> that was made available by GRNET.
- MoodleMoot, 2024<sup>24</sup>: GFOSS, in collaboration with education and development organisations, on the 13 and 14 December 2024 organised the 8th MoodleMoot Conference, an event that began in 2017. Moodle is an OSS<sup>25</sup> and the most widely used Virtual Learning Environment (VLE) platform. The purpose of the MoodleMoot Conference is to promote a dialogue in the Greek and Cypriot educational community on the use of Moodle and other open technologies.
- OpenSlice, 2024<sup>26</sup>: The ETSI standards development organisation and the University of Patras<sup>27</sup> are developing OpenSlice. It is an open source<sup>28</sup> service-based operations support system for the provision of cloud networking technology and end-to-end network services to customers and consumers that also aims to pave the way for the implementation of 6G. This initiative follows up on the 2019<sup>29</sup> initiative of the city of Patra which was selected by the former Ministry of Digital Policy, Telecommunications and Media (now MDG) as one of the first 5G pilot cities in Greece. Under the 5G-VINNI plan<sup>30</sup>, 5G infrastructure had been deployed across the city to facilitate 5G trials and validate the effectiveness of the proposed architecture. The 5G-VINNI facility in Patras

<sup>19</sup> glossAPI

<sup>&</sup>lt;sup>20</sup> GR digiGOV-innoHUB The European European Digital Innovation Hub for Digital Governance

<sup>&</sup>lt;sup>21</sup> Meltemi

<sup>&</sup>lt;sup>22</sup> Athena Research Center

<sup>23</sup> AWS infrastructure

<sup>24</sup> Moodlemoot

<sup>&</sup>lt;sup>25</sup> Moodle - the world's open source learning platform

<sup>&</sup>lt;sup>26</sup> OpenSlice

<sup>&</sup>lt;sup>27</sup> Openslice launch

OSL · GitLab

<sup>&</sup>lt;sup>29</sup> <u>5GPATRAS</u>

<sup>30 5</sup>GVINNI

became an exemplary OS 5G-IoT facility and most of its components are offered as OSS31.

- Digital Credentials For European Union (DC4EU), 2024<sup>32</sup>: DC4EU is an EU initiative that aims to support work on the European Digital Identity Wallet<sup>33</sup> and the eIDAS trust framework<sup>34</sup> which lays the foundations for the wallet's interoperability and overall trust. GRNET and GUNET<sup>35</sup>, the latter of which comprises 25 Greek universities and both are part of the GFOSS Alliance, are leading two of the seven work packages in the initiative<sup>36</sup> that deal with open source components<sup>37</sup>.
- National Register of Procedures, 2023<sup>38</sup>: This initiative serves as a successful example of OSS adoption in the public sector, having been embraced by the public sector under its original name Diadikasies MediaWiki<sup>39</sup>. It is a repository and an observatory that outlines all the necessary steps and documentation required for various procedures in public administration. Its primary goal is to reduce bureaucracy and improve services for citizens. GFOSS and the Greek public services began the collaborative project Diadikasies ("processes") to create and manage documentation for the country's public sector procedures. The project involved 200 public administration staff and university researchers. The Wiki knowledge base can be constantly enriched with documentation of public sector services and processes. GFOSS has offered training for municipalities and judicial courts, and all educational material is available on Moodle for public servants.
- FOSSBot, 2022<sup>40</sup>: FOSSBot is an educational robot that has OS functionalities, uses open hardware and can be employed at all levels of education. It has been developed collaboratively by Harokopio University of Athens and GFOSS. The use of FOSSBot in education is supported by collaborative seminars for teachers of all subjects and levels based on educational material developed on GFOSS's open course platform<sup>41</sup>. The action aims to familiarise teachers with modern education models based on the STEAM approach (Science, Technology, Engineering, Arts, Mathematics) and establish a student-centred approach to knowledge, based on open technologies, to lay the foundations for the creation of an open environment of discovery-based learning that will creatively contribute to the transformation of students into active citizens.
- GR digiGOV-innoHUB, 2021<sup>42</sup>: The European Digital Innovation Hub for Digital Governance, GR digiGOV-innoHUB, supports the development of a new generation of public services powered by advanced digital technologies (AI, ML, IoT, Blockchain, HPC), with an emphasis on OSS, open data,

<sup>&</sup>lt;sup>31</sup> Patras 5G Wiki

<sup>&</sup>lt;sup>32</sup> Project - DC4EU

<sup>&</sup>lt;sup>33</sup> Europeran Digital Identity Wallet

<sup>&</sup>lt;sup>34</sup> eidas-regulation

<sup>35</sup> GUNET

<sup>&</sup>lt;sup>36</sup> Project - DC4EU

<sup>&</sup>lt;sup>37</sup> Open Source Architecture

<sup>&</sup>lt;sup>38</sup> Εθνική Πολιτική Διοικητικών Διαδικασιών

<sup>&</sup>lt;sup>39</sup> <u>Διαδικασίες</u>

<sup>40</sup> GitHub - eellak/fossbot

<sup>&</sup>lt;sup>41</sup> ΕΛ/ΛΑΚ Moodle

<sup>42</sup> GR digiGOV-innoHUB

and open standards. The GR digiGOV-innoHUB is coordinated by GRNET. The hub aims to foster an ecosystem of digital transformation stakeholders by promoting innovation in public administration through the National Digital Portal for Public Services<sup>43</sup>. All pilot projects under GR digiGOV-innoHUB are executed using OSS and open standards. The source code, along with all relevant documentation, are made available under the European Union Public License (EUPL)<sup>44</sup> on the European Commission's Interoperable Europe portal<sup>45</sup> for open digital governance practitioners.

- Geospatial Data Portal of the Municipality of Athens, 2021<sup>46</sup>: The Portal is a catalogue of geospatial data and thematic maps and was launched in October 2021. It is based on GeoNode, a web application and platform for the development of geographic information systems (GIS) and spatial data infrastructures (SDI) according to the OGC (Open Geospatial Consortium) standard. GeoNode is OSS<sup>47</sup> and an official project of OSGeo (Open Source Geospatial Foundation).
- Librespace Foundation PHASMA, 2021<sup>48</sup>: In 2021 LibreSpace Foundation (LSF) launched the PHASMA project backed by the EU's NextGenerationEU fund<sup>49</sup>, the Greek National Recovery and Resilience Fund<sup>50</sup>, and the MDG. LSF, a Greek NGO collaborating with the European Space Agency<sup>51</sup>, uses FOSS, open hardware, firmware, data, and other open technologies to support the Greek economy and society. The project is about the open design and development of two open hardware cube satellites<sup>52</sup> with open source functionalities<sup>53</sup> that are tasked to oversee the electromagnetic spectrum. The satellites will be launched in 2025.
- National Competition on Open Technologies in Education, 2019<sup>54</sup>: From 2019 until today representatives of the educational community of Greece promoted a national competition that focuses on the theme of "Open Design for a Direct Public Space" and invites students to develop smart and sustainable ways to improve the functionality and aesthetics of public spaces and the experience of residents in them. The main objective of the competition is to share knowledge between students, teachers, schools, and society at large.
- ZEUS, 2018<sup>55</sup>: ZEUS is an OSS eVoting platform that is developed and maintained by GRNET<sup>56</sup>. It has been forked by Helios<sup>57</sup> and has been widely adopted by Greek universities, facilitating electronic voting for student elections, faculty elections, and other institutional decision-making

<sup>43</sup> Gov.gr

<sup>44</sup> EUPL

<sup>&</sup>lt;sup>45</sup> Interoperable Europe Portal

<sup>46</sup> Πύλη Γεωχωρικών Δεδομένων Δήμου Αθηναίων

<sup>47</sup> Athens GeoNode github

<sup>48</sup> PHASMA

<sup>49</sup> NextGenerationEU

<sup>&</sup>lt;sup>50</sup> Ταμείο Ανάκαμψης

<sup>51</sup> European Space Agency

<sup>52</sup> PHASMA · GitLab

<sup>53</sup> PHASMA · GitLab

<sup>54</sup> Πανελληνιος Διαγωνισμος Ανοιχτων Τεχνολογιων

<sup>55</sup> ZEUS eVoting

<sup>56</sup> GitHub - grnet/zeus: Zeus server

<sup>57</sup> Helios

processes. Additionally, Zeus is used by scientific associations, unions, and various public and private sector organisations both in Greece and abroad.

- Identity-management solution, 2017<sup>58</sup>: In 2017, the city of Heraklion developed identity management software combining OpenLDAP for directory services and an identity server from WSO2. The city has been using OSS components for administrative websites and emailing solutions since 2016, given that OSS was an important component of the 2016 Smart City Strategy. Heraklion recommends that other municipalities reuse the software, thereby saving costs. The software is still used today.
- GIS in Western Greece, 2015<sup>59</sup>: The Decentralised Administration of Peloponnese, Western Greece and the Ionian recommended the use of OSS for geographic information systems (GIS) specifically the Qgis software<sup>60</sup>. The OSS dedicated to Greece is still active<sup>61</sup> in 2025 and its usage is now centrally regulated by the Ministry of Environment and Energy<sup>62</sup>.
- Synnefo, 2014<sup>63</sup>: Co-financed by Greece and the European Union and developed by GRNET, Synnefo is a complete OSS<sup>64</sup> cloud stack written in Python that provides compute, network, image, volume and storage services.
- FOSSCOMM, 2009<sup>65</sup>: Started in 2009 and continuing today, FOSSCOMM is an inclusive, community-driven event that celebrates FOSS. Many stakeholders sponsor the event, including GFOSS and Greek Universities. This year, the event took place at the University of Macedonia in Thessaloniki.
- GFOSS' OSS Campaign, 2008<sup>66</sup>: From 2008 until today GFOSS is promoting the usage of FOSS for academia, the public sector, the business sector, and for common use. To address this, it has developed and proposed a list<sup>67</sup> of alternative OSS to proprietary ones. Alongside that, the organisation has since 2013 been advocating for the use of open technologies by drafting policy suggestions<sup>68</sup> for key public sector organisations.
- Epoptes, 2008<sup>69</sup>: The Epoptes project, launched in 2008, is an OSS application designed to manage and monitor school PCs in computer labs. It allows teachers to share their screens with

60 QGIS

<sup>58</sup> WSO2Con EU 2018

<sup>59</sup> QGIS

<sup>61</sup> QGIS-gitHub

<sup>&</sup>lt;sup>2</sup> Υπουργείου Περιβάλλοντος και Ενέργειας

<sup>63</sup> Synnefo

<sup>64</sup> Synnefo- gitHub

<sup>65</sup> FOSSCOMM

<sup>&</sup>lt;sup>66</sup> ΜΑΘΕ ΓΙΑ ΤΟ ΕΛΛΑΚ

<sup>67 &</sup>lt;u>Πίνακας ισοδύναμων λογισμικών</u>

<sup>68</sup> Προτάσεις Πολιτικής

<sup>69</sup> https://epoptes.org/

students in a classroom environment. It is used by more than 500 schools in Greece alone and is widely used in Portugal, Italy, and the Netherlands.