DG DIGIT

Unit.B2 (Interoperability and Digital Government Unit)

Open Source Software Country Intelligence Report

Cyprus

2024

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 Cyprus as of October 2024. This report is based on publicly available information that was gathered through desk research. This report has been enriched with the kind contribution of the Cypriot academic community, alongside representatives from the public sector and open source advocates.

Authors

2024 version	2020 version
Yannis Chourmouziadis (yannis@openforumeurope.org)	Giorgio Cacciaguerra Ranghieri
Axel Thévenet (axel@openforumeurope.org)	Federico Chiarelli
Jan Ainali (info@openbydefault.se)	Vivien Devenyi
	Debora Di Giacomo
	Eleonora Zoboli

Contact OSOR

EU-OSOR@ec.europa.eu

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

@InteroperableEU

Disclaimer

Table of Contents

Cyprus

Executive Summary

Since 2020, the use and development of Open Source Software (OSS) in Cyprus' public administration has slightly matured. This increase has been caused by the country's efforts to digitalise its public sector and by a shift towards the EU principle of openness, especially regarding access to information[1]. The Cypriot Deputy Ministry of Research, Innovation and Digital Policy (DMRID), the country's three public universities, and an active community of OS advocates are playing a key role in encouraging the adoption of open science practices including by distributing OSS and monitoring its adoption.

The National Policy on Open Science Practices[2], adopted in 2022 by DMRID, is a key policy for promoting OSS. The policy emphasises several key areas such as promoting open science for scientific publications and strongly encouraging the release of OSS tools. It also ensures the inclusion of Cyprus in open science developments at an EU level.

This foundational policy supporting openness and OSS, along with the 2023 Cypriot Open Data Portal's[3] use of OSS, suggests that the country's focus on open data and efforts by stakeholders could drive future adoption of OSS. Although many of the Cypriot digital strategy reports[4] do not explicitly address the use of OSS, there remains a fundamental recognition of its importance. Moreover, the KIOS Research and Innovation Center of Excellence (KIOS CoE)[5], part of the University of Cyprus, has emerged as a key player regarding the promotion of open science and has worked on OSS initiatives in conjunction with the Cypriot public sector. Additionally, there is a community of volunteers called ELLAK Cyprus that promotes Free and Open Source Software (FOSS), technologies, and the culture thereof [6].

---

[1] https://european-union.europa.eu/principles-countries-history/principles-and-values/access-information
[2] National Policy of the Republic of Cyprus for Open Science Practices
[3] data.gov.cy
[4] Deputy Ministry of Research, Innovation and Digital Policy - gov.cy
[5] KIOS
[6] Ελλακ Κύπρου

Actors

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

Policy makers

- The Deputy Ministry of Research, Innovation and Digital Policy (DMRID)[7] is the main policy maker for digital policies including the National Policy of the Republic of Cyprus for Open Science Practices, which mentions OSS. More specifically, it designs and implements Cyprus' National Digital Policy and Strategy, the National Strategy for Research and Innovation, and the Integrated Cybersecurity Strategic Policy Framework. However, as highlighted in the government's Action Plan 2023-2024[8], certain goals related to the digital transformation of the Cypriot public sector involve collaboration between DMRID and specific service areas of other ministries such as the Ministry of Economy and the Ministry of Industry.

Strategic players

- KIOS Research and Innovation Center of Excellence (KIOS CoE): Established in 2008, KIOS CoE operates within the University of Cyprus as a funding recipient of the EU Horizon 2020 Programme[9]. KIOS CoE is the largest research and innovation centre in Cyprus addressing ICT. A key aspect of its work involves promoting a comprehensive framework for open information to support open data and open access to knowledge. KIOS CoE has a policy that encourages its researchers to upload their work, including on OSS, in accordance with the principles of Open Science[10]. While not explicitly mentioned among its capabilities[11], KIOS CoE has participated in several projects and events supporting the use of OSS in the public sector since its inception.

- ELLAK Cyprus – Cypriot Free Software Community[12]: This is a group of volunteer OSS advocates who aim to promote FOSS in Cyprus. They research this subject matter with other bodies and legal entities and raise awareness of OSS in public and private sector bodies. In March 2020, the community began campaigning for the implementation of a pilot training platform based on OSS to meet the needs of Cypriot schools for distance learning[13]. They also promote collaboration with other OSS groups such as that of the QGIS Cyprus community through events, meetups, hack days, workshops and seminars.[14]

---

[7] Deputy Ministry of Research, Innovation and Digital Policy - gov.cy
[8] https://www.gov.cy/media/sites/11/2024/06/mof-sxedio-drasis-2023-2024.pdf
[9] KIOS
[10] KIOS CoE Open Knowledge Portal
[11] KIOS at a glance
[12] https://ellak.org.cy/%ce%ba%ce%bf%ce%b9%ce%bd%cf%8c%cf%84%ce%b7%cf%84%ce%b1/
[13] https://ellak.org.cy/2020/03/20
[14] https://ellak.org.cy/2020/09/30

- Open University of Cyprus, University of Cyprus, and Cyprus University of Technology: The country's three public universities are using and supporting OSS applications for their internal infrastructure and research needs. Moreover, the Open University of Cyprus and the University of Cyprus are shareholders of the Greek non-profit organisation Open Technologies Alliance ELLAK (GFOSS) which promotes OSS and is collaborating with the Greek government on open data [15] [16].

Policy and legal framework

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

- National Policy of the Republic of Cyprus for Open Science Practices, 2022[17]: This policy entered into force on 27 December 2022. It is compulsory for all public researchers in the Republic of Cyprus and encourages private stakeholders to also follow its prescriptions. More specifically, it "actively encourages" the adoption of open science practices such as the involvement in citizen science projects, the use of open peer review, the use of open educational resources, the release of data and content under open and standard open licences, and the release of OSS.

- Cyprus Space Strategy 2022-2027[18]: This strategy acknowledges and supports the use of OSS as an international trend in space observation that can be used to strengthen Cyprus' national space ecosystem.

- Open Data, the Reuse of Public Sector Documents and Information and Related Matters Act, 2021[19]: This law aims to harmonise Cypriot legislation on open data (re)use with the European Union Directive 2019/1024 on open data and the reuse of public sector information[20]. While not directly related to OSS it forms part of the general Cypriot effort to promote legislation and a culture aligned with the EU principle of openness through the legal use of open data.

---

[15] GFOSS
[16] Συνεργασίες – Οργανισμός Ανοιχτών Τεχνολογιών – ΕΕΛΛΑΚ
[17] National Policy of the Republic of Cyprus for Open Science Practices
[18] https://dec.dmrid.gov.cy3.pdf
[19] Cypriot open data legislation
[20] Open data and the reuse of public-sector information

- The law establishing the Deputy Ministry of Research, Innovation, and Digital Policy, 2020 [21,22]: In February 2020 DMRID was created with the primary responsibility of designing and implementing the National Digital Policy and Strategy. It is a relevant policy that fundamentally coordinates the digital transformation of the country's public sector including the promotion of OSS through policy-making, such as the National Policy and Strategy for Research and Innovation.[23]

Open source software initiatives

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

- KIOS CoE, University of Cyprus, 2024[24]: The KIOS CoE, affiliated with the University of Cyprus, releases the code of the software needed to validate its public research results to the KIOS CoE Github Repository[25]. The repository contains 77 entries of OS toolkits and datasets that are kept up to date. The most recent update was that of LeakDB (Leakage Diagnosis Benchmark), a dataset for water distribution networks containing a scoring algorithm in MATLAB code.

- Final Progress Report for the Strategic Plan for the Promotion of Open Data 2017 - 2022, 2023[26]: This report notes that the new Cypriot Open Data Portal is developed and hosted using OSS. It also presents technical guidelines on Publication of Open Data on the Open Data Portal which include the usage of the Creative Commons Attribution 4.0 International (CC BY 4.0)[27] and Creative Commons Attribution-Share Alike 4.0 International (CC BY-SA 4.0)[28] open data documentation licences.

- QGIS Cyprus, 2020[29]: Promoted by the Cypriot Free Software Community, ELLAK-Cyprus, the QGIS Cyprus community aims to gather users and developers and to spread knowledge through events, meetups, hack days, workshops and seminars about the QGIS software, a FOSS platform hosting a geographical information system (GIS)[30]. It also promotes the creation of links with other OS-oriented groups.

---

[21] Ο περί της Ίδρυσης Υφυπουργείου Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής και Διορισμού Υφυπουργού Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής παρά τω Προέδρω και Συναφών Θεμάτων Νόμος του 2020 - 14(I)/2020
[22] Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής - gov.cy
[23] Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής - gov.cy
[24] Open knowledge – KIOS CoE Teaming for Excellence Project
[25] KIOS Research and Innovation Center of Excellence, University of Cyprus · GitHub
[26] FINAL PROGRESS REPORT MARCH 2023 for the Strategic Plan for the promotion of Open Data 2017 - 2022
[27] Creative Commons Attribution License (cc-by) - Open Definition
[28] Creative Commons Attribution Share-Alike (cc-by-sa) - Open Definition
[29] https://ellak.org.cy/2020/09/30/
[30] QGIS is a free, open source, cross platform (lin/win/mac) geographical information system (GIS)

- DKAN, 2018[31]: The Cypriot Open Data Portal[32] in its present form was developed using the DKAN data management system"[33], which is FOSS[34]. DKAN is hosted at the Open University of Cyprus and supported by the Open Data team at the Department of Public Administration. The portal is still active.

- KIOS CoE, 2017[35]: KIOS CoE promotes open science practices including a dedicated Dataset and Software Repository on GitHub[36]; the KIOS Open Knowledge Portal[37], a research platform hosted on Zenodo; and the Reproducible Research Platform hosted on Code Ocean[38] for encouraging reproducible research, namely the code and data accompanying scientific publications. All of these serve as an online repository for storing, viewing and managing all research papers, open research data, and OS code generated during KIOS' operations[39].

- SWIFTERS, 2017[40]: Discontinued in 2019, SWIFTERS can nonetheless be considered one of the symbolic OSS collaborations between KIOS CoE and the Cypriot public sector. SWIFTERS used drone swarms to study, design, develop, and test drone cooperation strategies that could help assist civil protection operations, particularly with regards to disaster management. The project was developed by KIOS CoE, the Centre for Security Studies of the Ministry of Interior, and the Cyprus Civil Defence. The software package has been released under an open source licence. The project received funding from the European Union Humanitarian Aid and Civil Protection department (ECHO).

- Cyprus University of Technology, 2012[41]: The University continues to use several OS platforms such as Moodle (2014) for its e-learning needs, integrated with BigBlueButton (2019), Limesurvey (2014) for questionnaires and forms, WordPress (2012) for websites, Helios Voting (2020) for a secure anonymous voting platform, and Owncloud for file sharing and hosting.

- Open University of Cyprus, 2010[42]: Since 2010, the Open University of Cyprus has been using several open source platforms such as Moodle for its e-learning Platform and Joomla for its website.

- University of Cyprus, 2008[43]: KIOS CoE has functioned under the auspices of the University since 2008. Moreover, the University's library supporting OS solutions, even developing its OS mirror

---

[31] DKAN Demo
[32] data.gov.cy
[33] https://www.data.gov.cy/sites/default/files/CYOpenData_Lisbon_2018%20-%20Final.pdf
[34] DKAN · GitHub
[35] Open knowledge – KIOS CoE Teaming for Excellence Project
[36] KIOS Research and Innovation Center of Excellence, University of Cyprus · GitHub
[37] https://zenodo.org/communities/kios-coe/records?q=&l=list&p=1&s=10&sort=newest
[38] Explore Capsules | Code Ocean
[39] https://www.kios.ucy.ac.cy/wp-content/uploads/2024/09/KIOS-ACTIVITY-REPORT-2023-web.pdf
[40] Project
[41] ΤΕΧΝΟΛΟΓΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΥΠΡΟΥ
[42] UNIVERSITY OF CYPRUS ELEARNING PLATFORM
[43] KIOS at a glance

server which hosts copies of OSS packages and makes them available for download and fully available to the public[44]. Among other OSS, the library from 2008 uses DSPACE for its Digital Collections[45] and from 2023 is using KOHA for its Information System. Researchers affiliated with the university focus on assisting the adoption of OSS by creating online web applications that support the choice of OSS licences[46]. Finally, Moodle is used for teaching activities at the Department of Computer Science.

---

[44] Open Source Software – University of Cyprus Library
[45] ILSaS goes to Koha - DATALY TECH
[46] findOSSLicense