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Open Source Software Country Intelligence Report

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FINLAND

Executive summary

Finland is a pioneer in the development of open source software (OSS). The Linux kernel was created in 1991 by Linus Torvalds, a Finnish student, and it has since grown to be one of the largest OSS projects in the world. Within the public sector, the first policies encouraging the use of OSS as an alternative to proprietary software were implemented as early as in 2003. More recently, in June 2019, the newly appointed Government published its Programme¹ titled "A participatory and knowledgeable Finland – a socially, economically and ecologically sustainable society". The Programme aims to help Finland excel in information management and to enhance the use of OSS solutions in public information systems and procurement.

In addition to the strong support shown by the Finnish government in the transition to the use of OSS in public administrations, Finnish associations such as COSS² and Avoinkoodi³ play an active role throughout the country. The two associations run projects for the governmental, municipal, educational, and the private sectors. Cities and municipalities, for example, are developing open source-based websites and web services for the benefit of Finnish citizens.

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 Finland, there is no governmental body that is specifically responsible for OSS policies.

Policy makers

- The Department of Information and Communication Technology (Public ICT) within the Ministry of Finance⁴ is responsible for the general development of digital government in public administrations and the coordination of joint development projects. It was involved in the publication of older policies and legal documents such as the Ministry of Finance's Working Paper recommendation on the Openness of the Code and Interfaces of State Information Systems (2003).

¹

http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161664/Inclusive%20and%20competent%20Finland_2019_WEB.pdf?sequence=7&isAllowed=y

² <https://coss.fi/>

³ <http://avoinkoodi.fi/>

⁴ <https://vm.fi/osastot>

- As a supporting body for the Ministry of Finance and as a co-operation body for public administration authorities, the Public Administration Information Management Advisory Board (JUHTA)⁵ was in charge of giving recommendations on public administration information management, including the use of OSS in public administrations.⁶ It was appointed by the Finnish Government every three years but its mandate has not been renewed since February 2019.⁷

Strategic players

- *Kuntaliitto* is the Finnish Association of Local Authorities.⁸ It collaborated with COSS and AvoinKoodi.fi (described below) to work on their common goal of promoting OSS and making existing OSS solutions available to citizens. With the contribution of *Kuntaliitto*, many municipalities in Finland are currently working to adopt the use of OSS.⁹
- The Finnish Centre for Open Systems and Solutions (COSS)¹⁰ is a non-profit association that promotes open source, open data, open standards, and APIs. COSS focuses on enterprise solutions, the public sector, schools, and mobile and embedded systems. COSS is a platform that helps those looking for software and services to find matching solutions and corporate partners. COSS also arranges meetings, organises international cooperation and legal services by providing expert assistance in licencing, and provides other various services to support businesses. Furthermore, COSS supports research on the topic of OSS and develops OSS to be used in schools.

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 Government Programme 2019¹¹ highlights open source, open data, and open interfaces. The use of OSS solutions is promoted as a priority for public administrations. The Government has also imposed an obligation to require open interfaces in the acquisition of public information systems.

⁵ JUHTA is a permanent co-operation and negotiation body for ministries and municipal governments. The task of JUHTA is to promote the modernisation and implementation of public administration practices and services by utilising ICT.

⁶ <http://www.jhs-suositukset.fi/suomi/jhs169>

⁷ <https://vm.fi/hanke?tunnus=VM130:00/2015>

⁸ <https://www.kuntaliitto.fi/>

⁹ <https://www.itewiki.fi/blog/2019/05/kuntasektori-suuntaa-kohti-avoimen-lahdekoodin-ratkaisuja/>

¹⁰ <https://coss.fi/en/>

¹¹ http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161664/Inclusive%20and%20competent%20Finland_2019_WEB.pdf?sequence=7&isAllowed=y

- Ten years earlier, in February 2009, a recommendation specifically drafted for the use of OSS was adopted. The Public Administration Recommendation for the use of Open Source Software (JHS 169)¹² aimed to:
 - Lower IT-buyers' threshold to take advantage of OSS in public sector acquisitions.
 - Increase the public sector's IT-buyers' knowledge about OSS.
 - Provide advice on how to solve legal and commercial problems on acquiring the software.
 - Spread good practices in OSS procurement.
- In 2008, JUHTA published an Open Source Procurement Guide for public administrations.¹³ It explores the special acquisition process of OSS in procurement. It also contains information on how to tackle legal issues pertaining to open source licences, risks, and their management, with a focus on Government actors.
- Previous relevant policies are the Joint Venture on the Applied Linux Institute (2003)^{14,15} and the Recommendation on the Openness of the Code and Interfaces of State Information Systems, Ministry of Finance Working Paper (2003)¹⁶, calling for government agencies to consider OSS alternatives.

Open source software initiatives

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

- KOHA library system, 2019¹⁷: KOHA is an open source library system that was adopted in various libraries across Finland from 2019 onwards, starting with the University of Jyväskylä. KOHA is a modular system composed of various open source features such as the catalogue software, Melinda¹⁸. Other academic libraries in Finland as well as the National Library of Finland are in the process of migrating to KOHA.

¹² <http://www.jhs-suositukset.fi/suomi/jhs169>

¹³ http://www.jhs-suositukset.fi/c/document_library/get_file?folderId=50575&name=DLFE-1208.pdf

¹⁴ <https://www.linuxjournal.com/article/7110>

¹⁵ The Applied Linux Institute run by the Department of Communications and the Institution of Adult Education of Vantaa at the University of Helsinki, and the Department of Schooling and Education of the City of Vantaa, (all public institutions), conducts research and development on OS applications.

¹⁶ <http://www.valo-cd.fi/oppaat/VM-suositus-avoimuudesta.pdf>

¹⁷ <https://www.kiwi.fi/pages/viewpage.action?pageId=93197824>

¹⁸ <https://www.kansalliskirjasto.fi/en/services/metadata-reserve-services/melinda>

- X-Road and NIIS, 2017¹⁹: X-Road, the data exchange layer for information systems used by Estonia and Finland, is a technological and organisational environment enabling a secure Internet-based data exchange between information systems. In 2017, the two countries established the Nordic Institute for Interoperability Solutions (NIIS) in order to deepen their cooperation in a more formal manner and jointly manage the development of X-Road.²⁰ The entire X-Road source code is publicly available for anyone to use. The X-Road technology is used nationwide in the Estonian public administration and in the Suomi.fi Data Exchange Layer service.
- Oskari, 2017²¹: Oskari is a Finnish open source map platform, developed in 2017. It shares best practices and highlights the benefits of sharing government IT solutions. The use of OSS means that the system is of a high quality, it is continuously updated, and there is no concern of it being trapped in a technical vendor.
- City of Turku, 2016²²: Turku provides its online open source service as a joint use agreement with the original licence. The openness of the web service allows everyone to take advantage of the source code of the news functionality and the event calendar features. The site was launched in 2016 by the City of Turku. The development of the service is customer-centric and agile in order to address the needs of users.
- "Helsinki Loves Developers", 2015²³: The capital city of Finland, Helsinki, has launched a developer's portal which is operated by the city's OSS development team since 2015. They are also active on GitHub.
- Open Kvarken, 2008²⁴: Umeå in Sweden and Vaasa in Finland collaborated on the Open Kvarken Project from 2008 to 2011. During the project, they tested, introduced, and marketed different OSS solutions in the region.
- AvoinKoodi.fi²⁵: AvoinKoodi is a service maintained by COSS which gathers OSS solutions for which the source code has been published openly. The service mainly covers government administrations, open source education services, municipalities, and cities.
- Open Hämeenlinna initiative (the City of Open Technology)²⁶: All actors in the city of Hämeenlinna are committed to using and promoting open technology (open source, open data and open APIs). Such actors include the municipality of Hämeenlinna, educational institutions

¹⁹ <https://www.niis.org/>

²⁰ <https://www.niis.org/history>

²¹ <https://verkosto.oskari.org/en/front-page/>

²² https://www.turku.fi/uutinen/2016-09-08_turku-avaa-verkkopalvelun-lahdekoodin-yhteiseen-kayttoon-0

²³ <https://dev.hel.fi/>

²⁴ <http://www.openkvarken.fi/>

²⁵ <http://avoinkoodi.fi/>

²⁶ www.openhameenlinna.fi

(providing open technology education programmes and study paths), and various large-size companies with a history of using OSS solutions. The initiative includes a roadmap for all actors on how they can promote Open Hämeenlinna and open government.

- Roam.fi²⁷: Roam.fi is a high-quality, easy-to-expand network with open standards and identification that shares wireless networking used by municipalities and cities in Finland.

²⁷ <https://www.roam.fi/>

