

DG DIGIT Unit.B2 (Interoperability and Digital Government)

Open Source Software Country Intelligence Report

Latvia

2025

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Latvia

Executive Summary

Since 2020, Latvia has adopted new policies promoting open source software, maintained an active network of advocates within and outside the public sector, and launched important initiatives that rely on open source components.

The Latvian government has adopted two key policies that have benefited the development of open source solutions in the public sector: Cabinet Regulation No. 367 and Cabinet Order No. 490. The former is the "General Technical Requirements for Information Systems" regulation that sets out the general requirements for the state IT system. It establishes the use of open source software as a default principle. As a result, Latvian public administration is obliged to use open source solutions and may only allow proprietary ones in justified circumstances. Meanwhile, with the adoption of the Cabinet Order No. 490, the Latvian government has established the Digital Transformation Guidelines 2021-2027 that set "reuse and open source" as a core digital government design principle. These guidelines mandate public administration to prioritise the use of open source technologies and solutions to foster interoperability and ensure their widespread adoption. These two policies have marked a turning point in how the Latvian public sector promotes the use of open source solutions.

In terms of key stakeholders, the Ministry of Smart Administration and Regional Development (VARAM) leads the national digital transformation policy and integrates the adoption of open source software as a principle for public sector information systems. It also supervises the work of the State Digital Development Agency (SDDA), which is responsible for developing the eGovernment policies. Outside public administration, the Latvian Open Technology Association (LATA) remains the leading advocate contributing to the use of open source technologies. LATA promotes open source software through dedicated hackathons, awards, education, training, and conferences.

Latvia has developed several initiatives involving open source software at both national and local levels. At the national level, Latvia has created the National Artificial Intelligence Center. It intends to release reference implementations under permissive licences and develop a Latvian-language open source model repository. VARAM runs the Portal of State Administration Services as the one-stop shop for digital public services, as well as the Building Information System (BIS) e-permitting platform. In parallel, local municipalities have maintained a strong commitment to promoting open source, particularly in Ventspils and Valmiera.

Overall, Latvia's public sector has demonstrated a strong commitment to using open source solutions. The adoption of the "General Technical Requirements for Information Systems" regulation reflects this commitment and has supported the development of additional open source initiatives backed by VARAM

and LATA.

Actors

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

Policymakers

- Ministry of Smart Administration and Regional Development (VARAM)¹. This Ministry is responsible for government ICT. Its areas of activity include Digital Government Architecture, the EU Digital Identity Wallet, and the Portal of State Administration Services, which applies the one-stop shop principle for state and local government services. The Ministry is also responsible for policies on the National Radio Frequency and the National Numbering Plan. Implementation and coordination of e-Governance policies is another of its responsibilities. VARAM created the ICT Council in 2022 to develop its digital policies. The Ministry also leads national digital transformation policy and integrates the adoption of open source software as a principle for new public-sector information systems.
- State Digital Development Agency (SDDA)². The agency operates under the supervision of VARAM, and its objective is to develop eGovernment through ICT solutions. It pursues this mission through several lines of action, including the development of national eGovernment and the provision of electronic procurement. SDDA reports directly to the Minister of Smart Administration and Regional Development, ensuring that policies and legislative initiatives comply with applicable digital legislation. In 2025, LATA recognised SDDA for its work in advancing open solutions within state digital infrastructure and promoting accessible technologies.

Strategic players

- Procurement Monitoring Bureau (IUB)³. This administrative authority, subordinate to the Ministry
 of Finance, plays a key role in public procurement procedures. IUB oversees compliance with legal
 requirements in public procurement and concession procedures, provides methodological support
 to contracting authorities, and performs other functions defined by procurement-related legislation.
- Latvian Open Technology Association (LATA)⁴. The association encompasses IT providers, users, and technology organisations. It advocates for the use of open source solutions in Latvia. LATA plays an active role in the policy discussions, promoting openness of technologies, interoperability, reusability, and open standards in Latvia. Since 2014 it has organised dedicated conferences,

¹ https://www.varam.gov.lv

² https://www.vdaa.gov.lv/en/about-us-0

³ https://www.iub.gov.lv/en

⁴ https://www.lata.org.lv/

hackathons, and awards. LATA's role extends beyond advocacy and event organisation to include education and training for children and young people.

• The Latvian Geospatial Information Agency (LGIA)⁵. The agency collects and provides geographic data, ensuring Latvia's official maps remain accurate and up to date. It surveys borders, produces maps for aviation and military purposes, maintains the official register of place names, and provides related services to public and private users. Although not an open source organisation, LGIA is recognised by the Latvian Open Technology Association (LATA) as an actor fostering innovation through open data.

Policy and legal framework

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

- Cabinet Regulation No. 367 ("General Technical Requirements for Information Systems") of 4 July 2023⁶. This regulation lays down the general technical requirements of State information systems, covering data quality and metadata, including their opening and sharing, as well as software sharing and architectural requirements. Under its software sharing and architectural requirements section of article 2.4.5, the regulation requires new public sector information systems to use open source solutions by default, except where a documented justification permits the use of proprietary alternatives. This requirement also applies when existing information systems are reconstructed or parts of their software code are replaced. Only when standalone systems do not have an open source solution can public administrations opt for proprietary alternatives. This regulation has positively impacted the promotion of open source solutions, as most ICT development tenders in Latvia have included open source technologies.
- Digital Transformation Guidelines 2021-2027 (Cabinet Order No. 490)⁷. The guidelines are aligned with the National Development Plan for 2021 2027⁸ objective: "A digitally transformed public administration a rationally managed organisational and technological ecosystem is integrated and open to create shared value, innovation, with a user-oriented approach for delivering public services both in the physical and digital environments". The guidelines establish "reuse and open source" as a core digital government design principle. Its 4.4.10 action line "Rational support for public administration technologies" establishes that public administrations should prioritise the use of open source technologies and solutions to foster interoperability and ensure their dissemination. When prioritising open source solutions, public administrations should avoid using commercial

⁵ https://www.lgia.gov.lv/en

⁶ https://likumi.lv/ta/id/343549

https://likumi.lv/ta/id/324715

⁸ https://www.mk.gov.lv/lv/media/15165/download?attachment

products and platforms that do not directly meet the requirements of the specific system. The guidelines recognise the benefits of open source software in reducing dependence on technology manufacturers while ensuring reliable and effective solutions. Finally, action line 4.4.10 calls for the creation of a reconstruction plan for public administration information systems, prioritising the use of open source software.

- Public Administration Modernisation Plan 2023-2027⁹. The plan commits to increasing the reuse of open source software to reduce development costs and energy consumption. Under its action line "Digital Transformation of Public Administration", the use of open source software is considered a way to develop a modern information system architecture and consolidate an energy-efficient infrastructure.
- Cabinet Regulation No. 402 of e-services of public administration, 2017¹⁰: The regulation aims to improve public administration services and promote digitalisation. The regulation also requires software for digital public services to be licensed as open source software. However, this regulation does not prevent vendors from building plug-ins and add-ons to open source software solutions using proprietary software.

Open source software initiatives

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

- National Artificial Intelligence Centre, 2025¹¹: The AI Centre aims to become the leading platform for developing and implementing AI solutions. It was established as a foundation with members from the public and private sectors. The Ministry of Smart Administration and Regional Development (VARAM), the Ministry of Economics, and the Ministry of Defence represent the state. The Latvian Information and Communication Technology Association represents the private sector, while the Latvian Universities Association represents higher education institutions. The Centre started its activities in March 2025 and will release reference implementations under permissive licences, as well as develop a Latvian-language open source model repository.
- "Process Digitalisation & AI Solutions" grant, 2025¹²: The Investment and Development Agency of Latvia (LIAA) established this programme to promote the digitisation of commercial processes and activities, and the development of AI solutions. The programme covers the introduction and

https://www.mk.gov.lv/lv/valsts-parvaldes-modernizacijas-plans?utm_source=https%3A%2F%2Fmail.google.com%2F

https://likumi.lv/ta/id/292261-valsts-parvaldes-e-pakalpojumu-noteikumi

¹¹ https://www.em.gov.lv/en/article/national-artificial-intelligence-center-innovative-solution-promote-research-and-development-foster-business-growth-and-attract-investment-field-artificial-intelligence

https://business.gov.lv/atbalsta-iespejas/atbalsts-procesu-digitalizacijai-un-maksliga-intelekta-risinajum iem

customisation of open source enterprise resource planning, e-commerce, AI/ML, and cybersecurity stacks for SMEs. Applicants can apply for a maximum grant of €200 000.

- Portal of State Administration Services, 2024¹³: The portal serves as a central platform for information regarding public administration services and electronic use. It is maintained by the State Digital Development Agency. The portal's user authentication method is available on GitHub¹⁴ and uses Drupal open source components.
- Hugo.lv, 2024¹⁵: The Latvian state administration language technology platform, which is freely accessible to every resident in Latvia. Hugo provides automatic translation, speech recognition, and speech synthesis, as well as a range of tools for supporting multilingual features in e-services. The National Language Technology Platform (NLTP)¹⁶ has tailored language services for the Latvian public administration and made its source code available on GitHub¹⁷.
- Innovation Voucher Programme, 2023¹⁸: The programme sought to support the development or update of digital technologies that contributed to the objectives of the Latvian Strategy for Smart Specialisation. The prototypes released under any open source licence qualified for co-financing up to €25 000.
- Central Statistical Bureau, 2020¹⁹: This statistical portal gathers public data on various topics, including the labour market, the environment, business, and the economy. It also includes interactive maps and dedicated dashboards on climate change and gender equality. The system was built around open source tools commonly employed in statistics, such as PxWeb (used in Nordic countries) and the spatial data exploration tool Stage2 (used by Statistics Slovenia). The company Wunder developed a custom Drupal module to manage PxWeb data through the Drupal interface. Wunder also created PxWeb data tables and imported data from multiple sources, such as CSV files and external databases.
- Building Information System (BIS), 2020²⁰: This is the national e-permitting platform that runs on open source components such as Ruby on Rails, PostgreSQL and CentOS. BIS ensures the flow of information between participants in the construction process, maintains the requested registers, and provides e-services related to these processes and registers. BIS also provides a unified environment for building managers and owners within the Operations and Building Affairs section. This enables them to store property management documentation in one place, organise residents' meetings and surveys electronically, and submit and process inspection applications. BIS became

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¹³ https://latvija.gov.lv/Home/

¹⁴ https://git.drupalcode.org/project/latvia auth saml

¹⁵ https://hugo.lv/en

¹⁶ https://www.nltp-info.eu/

¹⁷ https://github.com/orgs/nltp-project/repositories

¹⁸ https://business.gov.lv/atbalsta-iespejas/inovaciju-vauceri

¹⁹ https://www.csp.gov.lv/en

²⁰ https://bis.gov.lv/

mandatory in 2020 and includes 11 registers, with data exchanges involving more than 20 state information systems. The State Construction Control Bureau is responsible for the maintenance and development of the BIS.

- CareQueue 2018²¹: This open source solution shows on a map the space availability and waiting lists in Latvian preschools. CareQueue was built on Ruby on Rails, PostgreSQL and D3.js and uses OpenStreetMap for map visualisation. This project won the Open Data Hackathon 2018 in Riga, organised by the Latvian Open Technology Association (LATA) and the Investment and Development Agency of Latvia (LIAA).
- Open Data Portal, 2017²²: The portal uses open source technologies, notably the CKAN open data catalogue platform, with developed add-ons made available as open source on GitHub²³. The portal was developed by the company SIA in accordance with the requirements of the Ministry of Environmental Protection and Regional Development.
- <u>Sargs.lv</u>²⁴: The Ministry of Defence founded this military news portal that uses the Drupal 8 open source component for content management and its architecture. For its creation, the Ministry and the company Wunder migrated the news archive and relevant data using Drupal 8.
- Riga's Children's Hospital, 2014²⁵: The Children's Hospital in Riga (BKUS) has been using openSUSE Linux32 and other open source solutions since 2003. The main reason for this early adoptionwas the higher cost-effectiveness benefits (no licensing fees, efficient task management and no risk of vendor lock-in). The hospital's IT department has well-consolidated expertise in managing open source components, and that has allowed BKUS to opt for this type of solution. Later, BKUS implemented Ubuntu Linux distribution, proving its early commitment to open source solutions.
- Periodika, 2012²⁶: SIA 'Datakom' company developed this portal for the Latvian National Library that includes almost 3000 newspapers and magazines published in Latvia and in exile from all historical periods. This digitalisation project, which received State support and European Regional Development Funds, started in 2007 and was fully implemented in 2012. The architecture is partly based on the open source bnlviewer²⁷ developed by the National Library of Luxembourg. Periodika was the winner of LATA's Annual Open Technologies Competition in the public sector category in 2013.

https://interoperable-europe.ec.europa.eu/collection/open-source-observatory-osor/news/developers-a im-reuse

https://interoperable-europe.ec.europa.eu/collection/open-source-observatory-osor/news/more-and-more-linux-riga-c

²¹

²² https://data.gov.lv

²³ https://github.com/dpp-dev?tab=repositories

²⁴ https://www.sargs.lv/lv

²⁵

²⁶ https://periodika.lndb.lv/

https://sourceforge.net/projects/bnlviewer/

- Open source related initiatives developed at the local level:
 - Valmiera City Municipality, 2014²⁸: The Valmiera City Municipality has been successfully using open source solutions for day-to-day operations in municipal office buildings and educational institutions since 2014. One example is the use of Proxmox VE as the main server virtualisation platform. This open source platform provided a low-cost approach without compromising the quality or security of public services.
 - Ventspils City Municipality, 2009²⁹: Ventspils city has been implementing and using open source software solutions since 2009. Its workstations and server hosts run on the Debian Linux, Ubuntu Linux or CentOS Linux distributions. The city has implemented a great variety of open source solutions in key IT services. Its mail infrastructure, as well as its anti-virus and anti-spam services combine Exim, SpamAssassin and Clamav. Its groupware is offered by using SOGO and Postfix. Its users, files and department management use Samba. Its telephony infrastructure runs Asterisk. Telemetry and building management are handled by Domoticz, MongoDB, Mosquitto and other open source solutions. Lastly, for system monitoring and to manage workstations, Ventspils IT technicians use a combination of Zabbix, Fog Project and OCS Inventory. This extended use of open source solutions made Ventspils City Municipality win an award at LATA's Annual Open Technologies Competition in the public sector category for their work with open source software in 2016.

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²⁸ https://www.proxmox.com/en/about/about-us/stories/story/valmiera-city-council

