European Commission

DG DIGIT

Unit.B2 (Interoperability Unit)

Open Source Software Country Intelligence Report

The Netherlands

2023

The initial research was carried out for the ISA2 Programme by Wavestone's European Services team. This is an updated version of the report by OpenForum Europe, carried out for the Interoperable Europe initiative under the Digital Europe Programme. The report provides an overview of open source software (OSS) in the Netherlands as of June 2023. It was enriched with the kind contribution Koos Steenbergen and Boris van Hoytema.

Authors

2023 version	2020 version
Axel Thévenet (axel@openforumeurope.com)	Federico Chiarelli (federico.chiarelli@wavestone.com)
Ciarán O'Riordan (ciaran@openforumeurope.com)	Vivien Devenyi (vivien.devenyi@wavestone.com)
Jaakko Karhu (jaakko@openforumeurope.com)	Debora Di Giacomo (debora.digiacomo@wavestone.com)
Paula Grzegorzewska (paula@openforumeurope.com)	Chloé Dussutour (chloe.dussutour@wavestone.com)

Contact us

Disclaimer

Updated in August 2023

Table of Contents

The Netherlands

Executive Summary

The Netherlands has made significant strides in promoting the adoption of open source software (OSS) within its government and public administration. Led by the Ministry of Interior and Kingdom Relations (BZK), the government has actively pursued a wider use of open source across its institutions. The BZK has conducted thorough studies and reports to assess the viability of implementing an "open unless" policy, which mandates information sharing with citizens and consequently necessitates the sharing of source code. To support these efforts, the BZK has established the BZK Open Source Programme Office (OSPO) to drive the administration's open source agenda.

The BZK OSPO has started to mobilise the vibrant open source ecosystem within the country, collaborating with numerous companies and associations that develop and advocate for OSS. This collaboration laid the foundation for a comprehensive open source strategy. With the grouping of public entities in the newly created Dutch OSPO Knowledge Network, the Dutch government is showing efforts towards collaboration between public administrations using open source to a greater extent.

Open source adoption is not limited to the national level but also has a strong presence at the local level. Noteworthy examples include the decade-long efforts of the city of Amsterdam, the commitment of the Association of Dutch Municipalities, and the active network of public servants using open source. The maturity of open source use in the Netherlands has reached a level where knowledge sharing between users in public administrations is increasingly facilitated. Through educational initiatives and sharing best practices, institutions are enabling the successful implementation of open source in new administrations.

Actors

This section presents the key governmental bodies responsible for setting OSS policies and the main strategic players that work together with the government at all levels to raise awareness of OSS.

Policy makers

- The Ministry of Interior and Kingdom Relations[1] (BZK) oversees the digitalisation of the government. The State Secretary for Interior and Kingdom Relations is responsible for the development and implementation of the Dutch Digital Strategy.

- Within the Ministry of Interior and Kingdom Relations, the newly created Open Source Programme Office (OSPO) will collaborate with various policy and staff departments in the field of purchasing ICT solutions, disclosure of government information and the development of the European Digital

---

[1] Ministry of the Interior and Kingdom Relations | Government.nl

Identity wallet.[2] Started in August 2023[3,4], it will be in a pilot phase for two years. It was established after a recommendation from the "Open source works: beyond the non-commitment" report.[5]

- Within the Ministry of Interior and Kingdom Relations, the ICT Unit[6] acts as an independent advisory to help the Dutch government improve its ICT services through the development and use of OSS solutions.

- Logius[7] is a digital government service originating from within the Ministry of the Interior and Kingdom Relations. Logius developed the Dutch government's public digital applications, including DigiD, MyGovernment and Digipoort. By using these services, Dutch citizens can file their tax returns, access their data, and directly receive messages from the public administration.[8]

- OBDO (Overheidsbreed Beleidsoverleg Digitale Overheid)[9] is the government-wide Digital Government Policy Consultation Body. They advise the State Secretary on digital government policies, the use of digital technology as part of policy development, and the alignment of sectoral digital ambitions with other policies.

Strategic players

- The Dutch OSPO Knowledge Network[10,11] is an initiative of the Ministry of the Interior and Kingdom Relations, the Tax and Customs Administration, Kadaster, Alliander, the Municipality of Amsterdam, the Province of South Holland, and VNG Realisatie. It is designed to share knowledge and experiences of open working, open standards, and open source among public organisations.

- Code for NL[12] is a network of developers and designers supporting OSS, open government initiatives, and government digitalisation. Code for NL is the Dutch branch of the Code for All network.

- VNG Realisatie[13], the Association of Dutch Municipalities is the umbrella organisation of all municipalities of the Netherlands. They work together to set the agenda for issues and developments relevant to municipalities. They have a strong open source engagement and support its use in local administrations.[14]

---

[2] BZK richt Open Source Program Office op - Digitale Overheid
[3] BZK richt Open Source Program Office op - Digitale Overheid
[4] "Open source werken vraagt om vertrouwen en lef" - Digitale Overheid
[5] Opensourcewerken: de vrijblijvendheid voorbij | Rapport | Rijksoverheid.nl
[6] ICTU
[7] Logius
[8] Diensten | Logius
[9] Governance Digitale Overheid
[10] OSPO kennisnetwerk voor publieke organisaties
[11] The Dutch OSPO knowledge network has started
[12] Code for NL
[13] VNG
[14] Open Webconcept | VNG

- NLnet Foundation[15]: Founded in 1982, the foundation was at the forefront of spreading Internet in Europe.[16] It supports an important number of projects, among which are many open source and open technologies.[17]

- Delta10[18] is a team of developers, designers, and legal experts with public sector experience. Their aim is to improve ICT in the Dutch public administration using OSS solutions.

- The Standardisation Forum supports the Dutch government in the development, use and establishment of open standards for electronic information exchange. The second goal of the Standardisation Forum is to prevent vendor lock-in and reduce costs in government spending on ICT.[19]

- The Forus Foundation[20] is an independent network of organisations and individuals contributing to the development of OSS for public administrations and municipalities.

- The Foundation for Public Code was established to help open source projects for public organisations to become successful, build sustainable communities around them and create a thriving public open source ecosystem.[21]

- Waag technology & society is a middle-ground organisation composed of research groups that work with both grassroots initiatives and institutional partners across Europe. The mission of Waag is 'making technology & society more open, fair and inclusive.'[22]

Policy and legal framework

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

- The report on Market Research on Open Source Encryption[23], published by the Scientific Research and Documentation Centre[24] in 2023 explores the need for and supply of open source encryption tools at government level. Although the report demonstrates the potential for maintaining confidentiality at the department level, it also expresses disappointment regarding the insufficient information accessible on the matter, thereby impeding the formulation of policy recommendations.

---

[15] https://nlnet.nl/
[16] https://nlnet.nl/foundation/history/
[17] https://nlnet.nl/thema/
[18] Delta10 - The specialist in open source for municipalities
[19] Forum Standaardisatie
[20] Forus.io
[21] Foundation for Public Code
[22] Waag | Futurelab
[23] Marktverkenning open source encryptie
[24] WODC

- The report on "Open source works, Beyond non-commitment"[25], published in 2022 by the BZK provides an analysis and assessment on how to properly implement the "open unless" policy. This report also sets the pillars for creating of the BZK OSPO.

- The Value-Driven Digitalisation Work Agenda,[26] published in 2022 by the Ministry of the Interior and Kingdom Relations. This ambitious work plan announces among others: the transition to an open source based Generic Digital Infrastructure[27], the development of an open source wallet for identity management and the application of the "open unless" policy

- Open Government Act[28] (Wet open overheid - Woo) which came into effect in 2022 defines the active duty for disclosure of government information, including open source. It replaces the Public Access Act and intends to make the government even more transparent. It also represents the implementation of the Public Sector Information (PSI) Directive[29] with a broader interpretation of government information.

- Revision of the Competition Act[30], initiated in 2021 by the government and still pending in 2023, aims to adapt the Dutch Competition Act to allow public administrations to be exempted from competition limitation when releasing source code.[31] This revision was also supported in its interpretation by the decision of the Dutch Competition Authority in 2023 on a similar case.[32]

- The report on exploring costs and benefits of releasing Open Source Software[33], published in 2021 following the announcement of the "open unless" policy, explores the practical budget costs of open source. Among other conclusions, it claims that the release of open source software is expected to lead to large benefits for users and owners of the software, but also needs investment.

- Public Software Procurement Playbook[34], published in 2021 to facilitate the work on the "open unless" policy, this report compiles interviews and a legal study on tendering ICT and designates possible strategies to procure open source. The report is produced by the Kafka Brigade[35], an independent non-profit research institution, founded to identify and tackle redundant and dysfunctional bureaucracy.

- Netherlands' Open Government Action Plan 2020-2022: As part of the Open Government Partnership, the Dutch government has made some commitments regarding the use of open

---

25 https://open.overheid.nl/documenten/ronl-11418083f5e2244a462069137d519ef852237b3f/pdf
26 Value-Driven Digitalisation Work Agenda | Report | Government.nl
27 Generieke Digitale Infrastructuur (GDI)
28 Wet open overheid - BWBR0045754
29 32019L1024 - EN - EUR-Lex
30 Wetsvoorstel Wijziging van de Mededingingswet in verband met aanpassing van de bepalingen over markt en overheid
31 Kamerstuk 35985, nr. 2 | Overheid.nl > Officiële bekendmakingen
32 No competition infringement for sharing Open Source software | Joinup
33 https://open.overheid.nl/documenten/ronl-b6ca5330-708c-4019-a485-0632f3f93cd6/pdf
34 PUBLIEKE SOFTWARE OPEN TENZIJ Over dit document Versie Inhoud
35 Kafka Brigade

source.[36] The main ones are related to the open unless policy. The plan also provides for the promotion of open source as the standard for democratic participation tools.

- Report on "Considerations for Open Unless and Open Source Approach"[37] and adjoined letter to Parliament about releasing source code for government software.[38] Issued by the Ministry of the Interior in 2020, the letter called for the open unless policy. The report defines action points for the Ministry including:

  - investigating options for an exemption provision for open source in the Market and Government Act (an amendment to the Competition Act) and the publication of a legal manual covering the most important aspects when releasing open source software;

  - fostering the open source community within the government, documenting best cases of community management, producing guidelines on releasing source code creating a platform to exchange best practices and producing a catalogue of solutions;

  - making open source a criterion when allocating the innovation budget for Digital Government, conducting studies on the release of software by the government and creating an award for leading open source projects;

  - producing an interdepartmental study on costs and benefits of releasing open source software.

- In April 2019, the Dutch government published NL DIGITAAL, also referred to as the Government Data Agenda, detailing a plan to improve policymaking and resolve societal issues by making better use of data. Action 2, "Focusing on legislation and public values", recommends the use of OSS in order to increase transparency with regard to software used by the public administration. The following actions have been planned as part of the NL DIGITAAL[39] strategy:

  - 2019: Discussions between the Ministry of the Interior and Kingdom Relations, the Ministry of Justice and Security, Statistics Netherlands (CBS), the Department for Public Works and Water Management, and the Association of Netherlands Municipalities on whether to publish algorithms.

  - 2019: Development of policies and guidelines concerning transparency, open software and algorithms by the Ministry of the Interior and Kingdom Relations, in conjunction with the Ministry of Justice and Security.

---

[36] Open Government, Open Democracy
[37] Overwegingen bij Open tenzij en Aanpak open source | Publicatie | Rijksoverheid.nl
[38] Kamerbrief over vrijgeven broncode overheidssoftware | Kamerstuk | Rijksoverheid.nl
[39] Data Agenda Government

- ○ 2019: Creation of an intergovernmental 'transparency lab' to develop and test applications to increase governmental transparency on data, source code, and algorithms by the Ministry of the Interior and Kingdom Relation.

- The Digital Government Agenda[40], published by the Dutch government in July 2018, encourages the use and release of OSS within the Dutch public administration. Action 3 of the Plan, "Opportunities and Challenges in a Digital Society", mentions the following:

  - ○ The Dutch government wants to "[develop] a knowledge network and [prepare] guidelines for the publication of proprietary software as open source software."

  - ○ The government also plans to coordinate with government parties and remove legal obstacles to the use and release of OSS whenever possible. A legal guideline will be developed covering all kinds of advice and guidance on legal obstacles (competition law, IPR, licences, etc).

- The Digital Government Law[41], adopted in June 2018, paved the way to creating the Standardisation Forum. This Forum lists the software that can be used across the Dutch public administration.[42]

- Since 2017, the political consensus on OSS has been more cohesive. In 2016, the Second Chamber of the Dutch Parliament adopted several motions encouraging the use of OSS, as listed below:

  - ○ Government Information (Public Access) Act: Former Labour MPs Oosenbrug and Gesthuizen submitted a motion on the use of open standards and the application of OSS in October 2016, requesting an investigation on how the government can become less dependent on proprietary IT providers. This motion was adopted almost unanimously by the Parliament, showing cross-partisan support for OSS solutions.[43]

  - ○ On 30 November 2016, former Labour MP Oosenbrug submitted a motion on making the source code of software developed in-house available to the public. The motion was adopted unanimously by the Second Chamber of the Dutch Parliament.[44]

  - ○ In April 2020, the Dutch government sent a policy letter to the Parliament in order to respond to the motions mentioned above. The letter announces a policy of open source by default. All source code of software developed in-house should be available to the public unless there are reasons or concerns. While policies on the use of open source software originate from 2004, the policy letter is the first political statement on the release of the

---

[40] Digital Government Agenda
[41] Kamerstuk 34972, nr. 2 | Overheid.nl > Officiële bekendmakingen
[42] OpenAPI Specification | Forum Standaardisatie
[43] Toepassing van de Wet openbaarheid van bestuur | Tweede Kamer der Staten-Generaal
[44] Motie van het lid Oosenbrug cs over het beschikbaar stellen van de broncode van in eigen opdracht ontwikkelde software

software source code. The letter includes an open source action plan of which several actions were announced in the Digital Government Agenda (see above).

- Report on Knowledge Centre Open Source Software[45], commissioned by the Ministry of the Interior and Kingdom Relations and published in 2017, investigated whether there is a need within the government for an OSS knowledge centre. The report recommends developing a referral index for OSS-knowledge, developing a Dutch version of 'Code.gov' and developing procurement expertise around OSS.

- Research on publication of Open Source Software[46], commissioned by the Ministry of the Interior and Kingdom Relations and published in 2017, studies the benefits of releasing source code. The report recommendations are to release the source code due to its important benefits for both the government and other EU Member States. The report also points to the limitations of the Market and Government Act.

- In October 2016, a Parliamentary motion by Member Oosenbrug C.S. was adopted, calling for a law which would mandate the use of open standards as well as publishing all knowledge on OSS that the government possesses.[47] This motion supported researching the publication of OSS and producing a report on the Knowledge Centre Open Source Software.

- In 2003, the Dutch government's Open Standards and Open Source Software (OSOSS) Programme[48] was tasked with developing of a manual for government organisations on how to approach open standards and OSS in public procurement. Under the framework of this programme, the Dutch government released a manual outlining precise definitions relevant for any such open source initiative, explaining how to properly refer to OSS in calls for tender.[49] In response to this OSOSS strategy, ten Dutch cities signed the Manifesto of Open Cities (in December 2006) calling for software suppliers to use open standards and signalling their interest in OSS solutions.

- The intellectual property of software is regulated by the Dutch Copyright Act from 2002, which transposed the provisions of the Council Directive (91/250/EEC) of 14 May 1991 on the legal protection of computer programs into national law.

Open source software initiatives

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

---

[45] https://www.kennisopenbaarbestuur.nl/documenten/rapporten/2017/02/02/rapport-kenniscentrum-open-source-software
[46] Onderzoek publiceren Open Source Software
[47] https://zoek.officielebekendmakingen.nl/kst-32802-33.pdf
[48] Ten big Dutch cities demand open standards - Linux.com
[49] e-Procurement Feasibility Study - Final Report - DG ENTR

- Amsterdam open source policy, 2023[50]: While the city of Amsterdam already started publishing source code in 2013, the city administration has also maintained and developed an open approach to digital services. The city has set up its own platform where it shares both projects and guidelines on open source[51] displaying the city's commitment to an open approach to governance.[52] Moreover, the city is displaying a comprehensive approach towards the use of open source which includes evaluating software based on aspects such as reusability and projects' health.[53]

- DigiD release of source code, 2023[54]: Following a Woo (Open Government Act) request, Logius, a BZK agency, decided to disclose a snapshot of the source code of DigiD.[55] This app serves as a trusted identifier for Dutch citizens. While the first release was limited, Logius is changing its work method to allow them to update this snapshot as needed.[56]

- The Algorithm Register, 2022[57]: A register that should ultimately display all algorithms used by public bodies and relevant for citizens. Contribution to the register is currently voluntary. By the end of 2025, it will become a legal requirement to make algorithms publicly available except for "justified exceptions" as specified in the Work Agenda for Values Driven Digitalisation. The code for the platform is also open.[58] This register was inspired by the one from the city of Amsterdam, created in 2020.[59,60]

- Online course on open source (OMOOC), 2022[61]: Developed by the Association for Government Management[62], these "Massive Online Open Courses"[63] are aimed at public administration professionals with the objective of sharing best practices. The series has been developed in collaboration with the Ministry of the Interior and Kingdom Relations and develops different subjects related to the use of open source in public administration.

- Alliander's OSPO, 2020[64]: Alliander, a Dutch public limited company owned in full by Dutch provinces and municipalities, created its own OSPO, which is a board member of the Linux Foundation committee on Energy and is engaged in several open source projects.[65] They share the projects they developed on Github.[66]

---

[50] Gemeente Amsterdam · GitHub
[51] Open Source at the City of Amsterdam
[52] Essential enabler | Joinup
[53] How we track Open Source health
[54] GitHub - MinBZK/woo-besluit-broncode-digid-app
[55] Beslisnota bij Kamerbrief over openbaarmaking broncode DigiD-app | Beleidsnota | Rijksoverheid.nl
[56] Kamerbrief over openbaarmaking broncode DigiD-app | Kamerstuk | Rijksoverheid.nl
[57] Het Algoritmeregister van de Nederlandse overheid
[58] GitHub - MinBZK/Algoritmeregister: Samen werken aan verantwoorde en transparante inzet van algoritmische toepassingen door overheden.
[59] More information – Amsterdam Algoritmeregister
[60] https://open.overheid.nl/documenten/ronl-391fc340bc62f9c0b60f7408f9d780aa6be5168e/pdf
[61] Open source: van ambitie naar realiteit - OMOOC
[62] Wie zijn wij? - Vereniging voor OverheidsManagement
[63] OMOOC
[64] Alliander and open source
[65] Open source projects - Alliander
[66] https://github.com/orgs/alliander-opensource/repositories

- ALEF, 2019[67]: The Netherlands Tax & Customs Administration has set up an Agile Law Execution Factory (ALEF) built with Jetbrains MPS, an open source solution.[68] ALEF automates software creation from specifications in RuleSpeak, a 'controlled natural language' for specifying tax rules which can be executed by a machine to produce tax calculations.

- Government's software developer portal, 2019[69]: developer.overheid.nl is an initiative from the Ministry of the Interior and Kingdom Relations and Association of Netherlands Municipalities.[70] It displays APIs and Open Source repositories published under the responsibility of government organisations.[71] Its source code is on GitLab.[72]

- Digilevering, 2019[73]: Logius, the Dutch government digital service that is part of the Ministry of the Interior and Kingdom relations, launched a data exchange service which is based on OSS. The system can be used by both public and private organisations to, for example, exchange messages and receive direct notifications about personalised events.

- Open Web concept, 2019[74]: Started on a small scale, the initiative involves utilising a handful of Open Source components that enable municipalities to swiftly establish their own web portals. With 29 members now, the Open Web concept does not focus on realising a large all-encompassing solution, but rather on developing small building blocks that are reusable between municipalities.[75]

- Standardisation Forum, 2018[76]: Increasingly, open standards are deemed mandatory within the Dutch public administration, some of which specify and recommend the use of OSS solutions. In July 2018, the Standardisation Forum classified the OpenAPI Specification, an OSS solution, as being mandatory for all public administration bodies.

- Digital Democracy, 2017[77]: In 2017 the foundation Netwerk Democratie (Network Democracy) and the Ministry of Interior took the initiative to strengthen local digital democracy in the Netherlands by connecting Dutch practices with those abroad. The aim was to improve digital participation processes. The use of open source was an important digital tool. As part of this development, various tools were launched such as OpenStad Amsterdam[78] (launched in 2017)— a set of interactive tools (websites, apps) allowing collaboration between Amsterdammers and the

---

[67] Wendbare wetsuitvoering
[68] Decision Management Community Challenge March 2019 Offering Donated Organs for Transplant
[69] Developer Overheid
[70] https://developer.overheid.nl/about
[71] Developer Overheid: open source repositories
[72] Issues · Common Ground / DON / developer.overheid.nl · GitLab
[73] Logius
[74] Wie zijn wij - Open Webconcept
[75] Open Webconcept | VNG
[76] OpenAPI Specification | Forum Standaardisatie
[77] Digital Democracy - Netwerk Democratie and Netwerk Democratie (2020). Digital Democracy Guide. A guide on local practices of digital participation
[78] OpenStad

municipality. The city of Groningen also uses a digital participation platform, Consul, first developed by the city of Madrid.[79]

- Open source interactive map, 2017[80]: Since 2017, the city of Rotterdam has been using OSS for ClimateScan, an interactive map which proposes climate-related measures. Users can access interactive, open source tools and gather detailed data to track climate-related actions in their neighbourhood.[81]

- Netherlands' Cadastre (Kadaster) Land Registry and Mapping Agency's Github, 2016[82]: Kadaster has started to share various projects as open source, among which are the Topographical Registration specifications, Infrastructure mapping, and the model of the Addresses and Buildings Key Register.

- Open source in the police, 2013[83]: In 2013, the Digital Police Office was introduced. Built using OSS solutions, the service aims to directly involve the population in the crime-fighting activities of the police force by implementing a single Content Management System (CMS) to store all relevant content and deliver it to the multiple channels that the Digital Police Office supports (including TV, website, tablet, and smartphone).

- Pleio, 2011[84]: Pleio was launched in 2011 as a small open source social media project owned by Dutch public servants. In the eight years that followed, it expanded and became more professional. Today, it has over 600,000 users monthly, offering various applications for policy design and internal collaboration.[85]

- Government cloud, 2011[86]: The Dutch government's data centre, also called ODC-Noord, opened a cloud service in 2011 that is accessible to all public administration bodies. The cloud is based on an open source cloud infrastructure, OpenStack, and an open source storage platform, Ceph. The use of OSS solutions has helped to limit costs and has allowed the Dutch government to scale up to meet demand with ease.

- Transition to OpenOffice, 2009[87]: In 2009, the province of Groningen decided to stop using Microsoft Office in favour of the open source OpenOffice, thus saving the province €50,000 per year in licences.

---

[79] OpenStad
[80] Internationale City Climatescan Rotterdam: Onderzoeksresultaten Klimaatadaptatie
[81] ClimateScan - Project detail
[82] Kadaster · GitHub
[83] Introducing a single Digital Police Office for the Netherlands with the open source Hippo CMS | Joinup
[84] Pleio
[85] Annual report Pleio 2022
[86] Open source makes Dutch government cloud a reality | Joinup
[87] NL: Groningen province plans to use Open Office

- Transition to open source desktop, 2007[88]: In 2007, both the Netherlands Patent Office and the Netherlands Competition Authority announced their ambition to start using an open source IT infrastructure in order to increase innovation and reduce costs.

- OpenTaal, 2007[89]: The OpenTaal Dutch spell-checker was certified in 2007 by the Dutch Language Union. In order to use this tool, it is recommended that users download the open source keyboard app, AnySoftKeyboard, which is customisable and adapted to the Dutch language.

- Forensics OSS, 2004[90]: In 2004, the Netherlands Forensic Institute (NFI) published its own software, TULP2G, under an open source licence. The decision was based on their recognition that OSS has advantages when gathering and analysing digital evidence because reliability of source code can be easily verified.

---

[88] NL: First two public institutes switch to Open Source desktop
[89] Dutch open source language project gets official certification - Linux.com
[90] Netherlands Forensic Institute develops and publishes open source software

Interoperable
Europe