DG DIGIT

Unit.D2 (Interoperability Unit)

# Open Source Software Country Intelligence Report

# Belgium

# 2020

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# BELGIUM

## Executive summary

The Belgian Federal Public Service Policy and Support (BOSA DG DT)[1] is the only federal entity working on OSS, actively contributing to open source software (OSS) solutions on GitHub such as the eID middleware and OpenFed, a tailored distribution of Drupal.[2] However, it is not the appointed central and federal entity for the development and supervision of OSS.

While there is no specified entity for the development of OSS policies at the federal level in Belgium, some legal provisions exist at the regional level in Brussels and Wallonia. Here, the use of OSS solutions is encouraged by public administrations in order to ensure the accessibility of information and communications technology.

In Belgium, there are various strategic players working to promote the adoption of OSS in public administrations through community outreach. These actors produce OSS solutions for local administrations and promote OSS more generally. Furthermore, there exists an impressive number of initiatives at the local and municipal level that have been put in place in recent years, signalling a willingness among citizens and government staff to move away from proprietary software towards OSS solutions in public administrations.

## Actors

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

*Policy makers*

- The Belgian Federal Public Service Policy and Support, the Directorate-General Digital Transformation (FOD BOSA DG DT) is responsible for the implementation of the federal digital agenda.[3,4]

- The Digital Agency (*Agence du Numérique*, AdN)[5] is the public service body responsible for monitoring technological innovation and habits relating to digital technology, as well as advising

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[1] https://dt.bosa.be/en
[2] https://github.com/Fedict
[3] https://dt.bosa.be/en
[4] BOSA DG DT is the successor of FPS Information and Communication Technology (Fedict).
[5] https://www.adn.be/en/agence-du-numerique-2/

the Walloon Government and its departments. The AdN also monitors the implementation of the Digital Wallonia Strategy 2019-2024[6].

- The Flanders Information Agency (*Informatie Vlaanderen*)[7] aims to develop a coherent Government-wide information policy. It supports the Flemish Government and helps to lead the transition to an information-driven Government. The organisation is active on GitHub[8] and maintains various registries on street names and buildings, among other things.

*Strategic players*

- iMio *(La mutualisation informatique au service des pouvoirs locaux,)*[9] is an IT sharing body offering services to local authorities. It was created in the wake of the Minister of Local Authorities' desire to establish a unique structure to promote and coordinate the pooling of organisational solutions, IT products and IT services for the local authorities of Wallonia. One of its main activities is the production of OSS solutions to meet the needs of these local authorities.

- Abelli *(L'association belge de promotion du logiciel libre,)*[10] is the Belgian association for the promotion of free software. Their objective is to inform the broader public about alternative software that respects digital privacy.

# Policy and legal framework

This section recapitulates the main OSS-related policies and legal acts of the last ten years. The list is presented in a chronological order, starting with the most recent milestone.

- The Policy Statement of the Wallonia-Brussels Federation 2019-2024[11] has a dedicated chapter on digitalisation. It promotes open standards, OSS, and open data as indispensable tools within public administrations.

- The Political Declaration of Wallonia 2019-2024[12] aims to promote the use of open standards and OSS, both of which are deemed as essential tools to ensure accessibility to ICT while simultaneously guaranteeing the freedom of individual users. For this reason, Walloon public administrations intend to adopt OSS solutions and promote their use among citizens and companies.

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[6] https://www.digitalwallonia.be/en/digital-strategy
[7] https://www.ewi-vlaanderen.be/
[8] https://github.com/Informatievlaanderen
[9] https://www.imio.be/presentation
[10] https://abelli-asbl.be/
[11] http://archive.pfwb.be/1000000020c6026
[12] https://www.wallonie.be/sites/default/files/2019-09/declaration_politique_regionale_2019-2024.pdf

- The 2009-2014 Brussels-Capital Regional Government Agreement titled "Sustainable regional development for the people of Brussels"[13] favoured the use of OSS both at communal and regional levels.

- The Declaration on the French Community Policy 2009-2014 titled "A shared energy for a sustainable, humane and supportive society" (*Une énergie partagée pour une société durable, humaine et solidaire*)[14] promotes the use of OSS in administrations and ministerial offices.

## Open source software initiatives

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

- BOSA DG DT Accessibility Check, 2019[15]: BOSA DG DT Accessibility Check is a JavaScript application that checks webpages and detects violations of a defined presentation or accessibility standard. It is a fork originating from HTML Sniffer[16].

- OSS in Education, 2019: The Flemish Ministry for Education has been promoting the use of free software for many years. In 2005, all Flemish primary and secondary schools received an extensive manual on the use of free software.[17] In 2019, the Flemish Minister of Education, Hilde Crevits, announced that students with learning difficulties that impede their ability to read and write fluidly will soon also be able to use free reading software offered by the government in higher education.[18]

- OSS in Enabel, 2019[19]: The Belgian development cooperation agency Enabel[20] has opted for OSS since 2019. The software has helped to lower the barriers for collaboration between the agency and public institutions and non-governmental organisations due to its accessible and affordable nature.

- OSS in Walloon municipalities, 2019[21]: In 2017, 75% of municipalities in the Walloon region of Belgium were using OSS and open source services. Today[22], 290 cities, towns, villages and other public administrations in the region are using eight open source-based solutions that are managed and maintained by iMio.

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[13] https://www.febisp.be/media/static/files/AccordGouvernement/texte_accord_12_juillet.pdf
[14] http://archive.pfwb.be/10000000104701e
[15] https://github.com/openfed/AccessibilityCheck
[16] https://github.com/squizlabs/HTML_CodeSniffer
[17] http://www.skolo.org/nl/2005/08/18/minister-promoot-vrije-software-in-onderwijs/
[18] https://www.vrt.be/vrtnws/nl/2019/01/19/gratis-voorleessoftware-binnenkort-ook-voor-studenten-hoger-onde/
[19] https://joinup.ec.europa.eu/collection/open-source-observatory-osor/news/inclusion-and-sharing
[20] https://www.enabel.be/
[21] https://joinup.ec.europa.eu/collection/open-source-observatory-osor/news/majority-towns-wallonia
[22] https://www.imio.be/presentation

- Check Your House (*Check Je Huis*), 2015[23]: Launched in 2015, Check Your House is an online tool developed by the city of Ghent. Locals can calculate how energy efficient their house is and how their rating can be improved. Since 2017, the tool has become open source in order to respond to the interest shown by non-residents and other governments.

- Desktop system running on open source, 2015[24]: A green political party in Belgium, Ecolo, completed its move to an entirely open source desktop system in 2015. More than 125 workstations run GNU/Linux and use only OSS within the Parliament.

- Local Decisions as Linked Open Data, 2015[25]: The Agency for Local Governance in Flanders facilitates a more transparent decision-making process by publishing local council decisions as Linked Open Data. This initiative, started in 2015, created an open source editor to support administrations when writing and publishing linked decisions. A vibrant community of public administrations, companies and academia are involved in the development of the software.

- Athramhasis, 2014[26]: Athramhasis is an online SKOS editor developed by the Flemish Heritage Agency in 2014. It allows users to create and edit an online thesaurus or vocabulary adhering to the SKOS specification through a simple web interface. This allows any user with access to a web browser to consult the thesauri and edit them.[27]

- OpenFed, 2012[28]: BOSA DG DT is funding the development of a tailored distribution of the webCMS Drupal, called OpenFed. Started in 2012 by Fedict, this multilingual distribution is currently used by dozens of federal websites.

- Orthanc, 2012[29]: Orthanc is an award-winning Belgian lightweight DICOM server for healthcare and medical research. Development of the server began in 2012 at the University Hospital of Liège.

- Digital Signature Service, 2009[30]: BOSA DG DT started developing the digital signature service in 2009 as an open source framework of modular building blocks. This framework formed the basis of the service until 2017.

- eID Middleware[31]: BOSA DG DT is actively developing the middleware of the state-issued electronic identity cards on GitHub.

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[23] https://klimaat.stad.gent/checkjehuis/
[24] https://ecolo.be/ecolo-acheve-sa-liberation-informatique/
[25] https://github.com/lblod
[26] https://github.com/OnroerendErfgoed/atramhasis
[27] https://atramhasis.readthedocs.io/en/latest/intro.html
[28] https://www.drupal.org/project/openfed
[29] https://www.orthanc-server.com/
[30] https://dt.bosa.be/en/over_bosa/realisaties/Signing_Box
[31] https://github.com/Fedict/eid-mw

- Technical Libraries by the Flemish Heritage Agency[32]: The Flemish Heritage Agency has made several technical libraries that are used to build Flanders Heritage's web applications open to the public. These technical libraries mainly use OSS solutions such as Python, Pyramid technology, Javascript, Dojo, and Aurelia.

- Open data portal of Flanders[33]: The Comprehensive Knowledge Archive Network (CKAN), together with Flanders Government, is developing an open data portal. The portal will also be implementing TheDataTank[34], a tool that helps users to create open datasets in the correct electronic formats. This solution is being developed as OSS by Open Knowledge Belgium.

- Open Knowledge Belgium (OKBE)[35] and the Open Summer of Code[36]: Every summer, OKBE gives students the opportunity to experience what it is like to work on a real project in a field relevant to their studies. Students are coached by experts working in public and private organisations who want to share their experience. In return, these organisations can innovate and develop OSS tools while scouting for potential talent. The four-week event started out as the "iRail Summer of Code" in 2011 and has now grown to an event with almost 100 students and coaches working on 20 different OSS projects[37]. OpenKnowledge also supports initiatives like HackYourFuture, a coding school for refugees with an open source curriculum. The graduation project is the development and completion of an OSS project.

- System of Flemish Base Registries (*Stelsel van Vlaamse Basisregisters*)[38]: The system is an event-based solution for base registries (authentic sources of information in public administrations) developed by the Flanders Information Agency. By using OSS, the Flemish Information Agency hopes to foster the creation of new base registries in conjunction with the creation of other OSS solutions within the .NET ecosystem using previously used software.

- OSLO toolchain[39]: The OSLO toolchain is an open and transparent environment for the publication of semantical data standards developed by the Flanders Information Agency. It consists of open source components which transform UML documents into human and machine-readable data standards. The complete transformation process from source until publication is publicly visible in GitHub and several support tools are available.

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[32] https://github.com/onroerenderfgoed
[33] https://opendata.vlaanderen.be/
[34] https://data.vlaanderen.be/cms/VlaamseURI-StandaardVoorData_V1.0.pdf
[35] https://be.okfn.org/
[36] https://summerofcode.be/
[37] https://2019.summerofcode.be/2019
[38] https://github.com/Informatievlaanderen/base-registries
[39] https://informatievlaanderen.github.io/handreikingOslo/