



DG DIGIT

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Open Source Software Country Intelligence Report

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South Africa

Executive Summary

The Department of Public Service and Administration (DPSA) is the main federal entity in charge of information and communication technology (ICT) policies and South Africa digital transformation. In this regard, the Ministry is assisted by other public entities such as the State Information Technology Agency (SITA), whose role is to support the delivery of e-Government services to all citizens and to define strategic priorities of the country's digital transformation.

Although the use of open source in the public sector remains limited in South Africa, several open source initiatives have been developed since early 2010s in collaboration with public entities. In 2019, SITA published the Strategic Plan for the Digital Transformation 2020-2024, mentioning the government's will to promote the re-use of digital resources and the development of open technologies.

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

Policy makers

- The Department of Public Service and Administration (DPSA) is the governmental entity in charge of the public sector information and communication technology (ICT) management.¹ The DPSA is responsible of ICT infrastructure, policy, strategy and regulation, as well as e-Governance. The DPSA is the main body in charge of the Federal Digital Agenda for South-Africa. One of its roles is also to supervise the activities of the State Information Technology Agency.
- The Department of Communications and Digital Technologies (DCDT) is a new entity of the South-African government in charge of communications and technologies in the digital sector. It was established in June 2019 by the merger of two former departments: The Department of Communications (DOC) and the Department of Telecommunications and Postal Services (DTPS).² The DCDT advises and supports the DPSA in the design of policies or strategies related to the use of ICT in the public sector and e-Governance.

¹ <http://www.dpsa.gov.za/>

² <https://nationalgovernment.co.za/units/view/428/department-of-communications-and-digital-technologies-dcdt>

- The State Information Technology Agency (SITA) was established in 1999 by the South African Government to consolidate and coordinate the State’s information technology resources in order to achieve cost savings, increase delivery capabilities and enhance interoperability.³ The main role of SITA is to manage the IT procurement (and delivery processes) and, more broadly, to support the delivery of e-Government services to all citizens. In addition, SITA also provides annual strategic plans and performance analysis to the DPSA concerning the Digital Agenda priorities for the country.
- The Government Information Technology Officers Council (GITOC) is the governmental body responsible of the implementation of the Digital Strategy defined by the DPSA in every other departments. In addition, its role is also to advise and provide policy recommendations on ICT to the DPSA. The GITOC plays a strategic role in ensuring that public service information products are accessible to all, through cooperation between all spheres of the government and, most importantly, through the sharing of best practices.⁴

Strategic players

- The Technology Innovation Agency (TIA) is a national public entity whose role is to be the bridge between research and development from higher education institutions, science councils, public entities on one side, and private sector and commercialisation on the other.⁵ TIA’s objective is “to be a leading technology innovation agency that stimulates and supports technological innovation to improve the quality of life for all South Africans”.⁶
- The CSIR Meraka Institute is an operating unit, focused on Information and communication technology (ICT). It is part of the Council for Scientific and Industrial Research (CSIR), a research and development organisation created by the government. The Meraka Institute is the largest group working on ICT technologies in South Africa.⁷
- OpenUp (formerly Code for South Africa) is a South-African civic technology non-profit organisation with the aim to use data and technology to promote informed decision-making, raise awareness and empower citizens.⁸ They are working on various project linked to open technologies and are currently offering training for people working in the public and private sectors, who need to communicate information on data and technologies in an effective and easy-to-understand way.⁹ OpenUp is also running a community of programmers, activists, data analysts, government officials, journalists and other professionals who collaborate on social change projects, called “OpenBridge”. The mission of this open community, which counts more

³ <http://www.sita.co.za/>

⁴ <https://www.gov.za/speeches/minister-faith-muthambi-opening-government-information-technology-officers-council>

⁵ <https://www.tia.org.za/>

⁶ <https://www.tia.org.za/strategic-goals/>

⁷ <https://www.developmentaid.org/#!/organizations/view/83067/csir-meraka-institute>

⁸ <https://openup.org.za/projects>

⁹ <https://openup.org.za/about>

than 1,500 people, is to use civic technology to develop innovations and alternate ways to address some of society's problems.¹⁰ They also created two "CodeBridge Labs" (in Cape Town and in Durban), as meeting places for their community and to host events and trainings on open technologies.¹¹

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 Strategic Plan for the Digital Transformation 2020-2024, published by SITA in 2019, mentions the South African government's willingness to enhance collaborations and re-use of digital resources to promote and develop innovation. According to this plan, digital transformation should be achieved through "open" digital platforms providing data services, software services and infrastructure services.¹²
- The Policy on Free and Open Source Software Use for South African Government (2006)¹³, drafted by the DPSA, states that the South African government will implement Free and Open Source Software (FOSS) unless proprietary software is demonstrated to be significantly superior. Whenever the advantages of FOSS and proprietary software are comparable, FOSS will be implemented when choosing a software solution for a new project. Whenever FOSS is not implemented, then a reason must be provided in order to justify the implementation of proprietary software. In addition, the policy mentions that all new software developed for or by the South African Government will be based on open standards and licensed using a FOSS license when possible. The policy also specifies that the South African Government will encourage the use of open content and open standards within South Africa. In the appendix of this policy, the DPSA also added an addendum on "How Free and Open Source Software and Open Content (FOSS/OC) is linked to economic development"¹⁴.

The implementation of this policy, which had been included in the DPSA Strategic plan 2012-2015¹⁵, was finally abandoned in 2015 in result of the DPSA Annual Performance Plan 2014-2015¹⁶ due to ICT cost reduction measures.

¹⁰ <https://codebridge.org.za/>

¹¹ <https://www.meetup.com/fr-FR/Codebridge/events/calendar/>

¹² <http://www.sita.co.za/sites/default/files/Strategic%20Plan%202020-2024.pdf>

¹³ https://www.gov.za/sites/default/files/gcis_document/201409/fosspolicy0.pdf

¹⁴ <http://gissa.org.za/special-interest-groups/open-source/foss-documents/how-free-and-open-source-software-and-open-content-foss-oc-is-linked-to-development>

¹⁵ http://www.dpsa.gov.za/dpsa2g/documents/dpsa/2012/Strat_Plan_2012.pdf

¹⁶ <http://www.dpsa.gov.za/dpsa2g/documents/institutional/2014-15%20Annual%20Performance%20Plan.pdf>

Open source software initiatives

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

- Vulekamali, 2018¹⁷: Vulekamali is an online budget data portal created by OpenUp for the South African Department of the National Treasury and Imali Yethu, a civic society coalition for open budget.¹⁸ The purpose of this portal is to publish easily accessible data in a user-friendly format, to enable more effective information sharing, analyses and research on South Africa's finances. The portal also supports involvement by civil society and the public in the budget process and enables citizens to have informed discussions in different government policy areas. The development of this portal is based on an open source approach.¹⁹
- Open Gazettes, 2017²⁰: Open Gazettes is an open source initiative developed by OpenUp in collaboration with the Southern African Legal Information Institute (SAFLII) and the African Networks of Centres for Investigative Reporting, with the support from The Indigo Trust and Code for Africa. Open Gazettes is the largest freely available online collection of government gazettes in South Africa. These gazettes include important information such as by-laws, corporate agreements, land claims, court orders and tenders. The collection extends from 1958 to 2021²¹, retracing the history of the country²².
- CodeBridge Youth, 2017²³: The Codebridge Youth Programme is a youth-led programme, created by OpenUp, that encourages young people to get involved with building tools and solving problems within their communities using open technologies. It aims to empower local governments, civic organisations and members of the youth across South Africa. In the context of this programme, the community gathers locally (in person or virtually) to organise events (e.g. webinars, youth summit, OSS launch, etc.).
- Municipal Money, 2016²⁴: Municipal Money is an initiative developed by OpenUp for the South African Department of the National Treasury, which has collected extensive municipal financial data over several years and would like to share this information with the public.²⁵ The purpose of this initiative is to make this data available to every citizen, in order to increase transparency, strengthen civic oversight and promote accountability on a local level. Municipal Money is an open source project, created under the MIT License and includes two websites: one user-

¹⁷ <https://openup.org.za/projects/vulekamali>

¹⁸ <https://vulekamali.gov.za/about#background>

¹⁹ <https://github.com/vulekamali>

²⁰ <https://openup.org.za/projects/open-gazettes>

²¹ As reported in May 2021.

²² <https://opengazettes.org.za/about>

²³ <https://openup.org.za/projects/codebridge-youth>

²⁴ <https://openup.org.za/projects/municipal-money>

²⁵ <https://github.com/OpenUpSA/municipal-data>

friendly website²⁶ for the general public and a second allowing data exploration and the download of the UI and the API²⁷.

- Youth Explorer, 2016²⁸: The Youth Explorer is an open source initiative that provides a range of information related to young people in one easily accessible place. Indicators on young people's education, economic opportunities, family and living environment, health and more are made available on the platform.²⁹ The tool was developed by the Poverty and Inequality Initiative of the Cape Town University³⁰, in partnership with OpenUp, the State Department of Statistics³¹ and the Economies of Regions Learning Network (ERLN)³².
- Wazimap, 2014³³: Wazimap is a joint initiative developed by OpenUp and Media Monitoring Africa, which provides easy access to South African census and elections data. This platform was created in 2014 during the national elections in order to allow citizens to have a more comprehensive overview of the challenges of the election (e.g. sustainability, racism, xenophobia, poverty, inequality, gender-based violence and child abuse).³⁴ Since then, Wazimap has been updated with data of every election and the OSS has also been adapted for Kenya and Nigeria. A new version of Wazimap, called Wazimap-NG, is currently being developed.³⁵
- Medicine Price Registry (MPR), 2013³⁶: The MPR is an open source API, developed by OpenUp, aiming to inform consumers about the prices of medicine in South Africa. This tool can be used by citizens to detect price fluctuations, to see if pharmacies are overcharging them and to know if there are generic cheaper alternatives for their medicines. The prices are published regularly by the government in the form of Microsoft Excel spreadsheets, which can be inaccessible for casual users. The purpose of this open source API is to build a basic and user-friendly interface to query this database.³⁷
- Parliamentary Monitoring Group (PMG), 2009³⁸: This initiative, developed by OpenUp for the Parliamentary Monitoring Group, is an open source platform which lists day-to-day workings of the South African Parliament, including committee memberships, meeting reports and questions and replies. The purpose of this platform is to make the information generated available to a wider audience, especially useful for social justice and citizens' organisations in order to lobby

²⁶ <https://municipalmoney.gov.za/>

²⁷ <https://municipaldata.treasury.gov.za/>

²⁸ <https://openup.org.za/projects/youth-explorer>

²⁹ <https://youthexplorer.org.za/>

³⁰ <http://www.povertyandinequality.uct.ac.za/>

³¹ http://www.statssa.gov.za/?page_id=7944

³² <http://www.erln.org.za/>

³³ <https://openup.org.za/projects/wazimap>

³⁴ <https://wazimap.co.za/about>

³⁵ <https://github.com/openupsa/wazimap-ng>

³⁶ <https://openup.org.za/projects/medicine-price-registry>

³⁷ <https://github.com/Code4SA/medicine-price-registry>

³⁸ <https://openup.org.za/projects/pmg>

the Parliament on pieces of legislation, matters of democratic processes and parliamentary oversight of the executive.³⁹ The PMG data is also available through an API.⁴⁰

- Wireless Africa Programme, 2007⁴¹: This programme is a pan-African initiative, based on an open source approach and led by the CSIR Meraka Institute. Wireless Africa is a research programme aimed to find new ways and means to develop sustainable information and communications technology in South Africa and other developing countries in Africa (e.g. Ghana, Nigeria, Uganda, etc.). This goal is supposed to be achieved through community-owned decentralised mesh networks, built on open source technology.

³⁹ <https://pmg.org.za/>

⁴⁰ <http://api.pmg.org.za/>

⁴¹ http://wirelessafrica.meraka.org.za/wiki/index.php/Wireless_Africa_Home_Page

