

How to Build an Open-Source Program Office



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Abstract

Open-source refers to software whose source code is publicly available for use, modification, and redistribution¹. Open-source software (OSS) has increasingly positioned itself as a powerful lever to enhance the impact of public investment. As more public institutions in Latin America and the Caribbean (LAC) position open-source as a strategic pillar of their digital transformation agendas, demand for concrete operational guidance on how to govern and sustain OSS adoption over the long term continues to grow.

Open-Source Program Offices (OSPOs) can set the rules, lower the friction, and build capacity so that public institutions can safely use, publish, and contribute to OSS at scale. They can, according to the institution's needs, coordinate policy and strategy, ensure legal and procurement compliance, set technical and security standards, and engage communities and ecosystems so that agencies can safely reuse and contribute to OSS (Linux Foundation Research, 2022)².

This document outlines a step-by-step roadmap for establishing and maturing the strategy and core functions of an Open-Source Program Office (OSPO). Its methodology reflects the IDB's operational experience, referenced publications, lessons from interviews with the global open-source ecosystem, and outputs from the roundtable session "Collective Mentorship: Establishing & Sustaining Government OSPOs" held at the Digital Public Goods Alliance Annual Member Meeting in November 2025. The methodology for establishing an OSPO strategy offers a robust framework for replication across institutions and follows the Mission Model Canvas structure: from Desirability (value and beneficiaries) to Feasibility (capabilities and structures), and ultimately to Viability (long-term sustainability). A phased maturity model then provides a practical path for implementation, enabling any government, regardless of its starting point, to deliver early results and progressively expand its capabilities.

¹A more complete definition of open-source can be found at <https://opensource.org/osd>

²Linux Foundation Research. (2022). *Deep dive: Open Source Program Offices*. https://8112310.fs1.hubspotusercontent-na1.net/hubfs/8112310/LF%20Research/LFR_LFAID_Deep_Dive_Open_Source_Program_Offices_081922.pdf

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1

PREFACE



This document provides guidance for governments interested in the systematic deployment of OSS across the public sector. It is based on the operational work of the Inter-American Development Bank (IDB) that focus on public sector modernization and digital transformation.

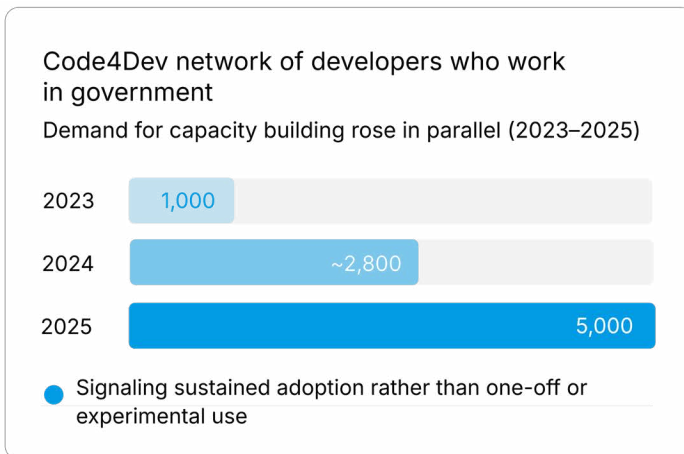
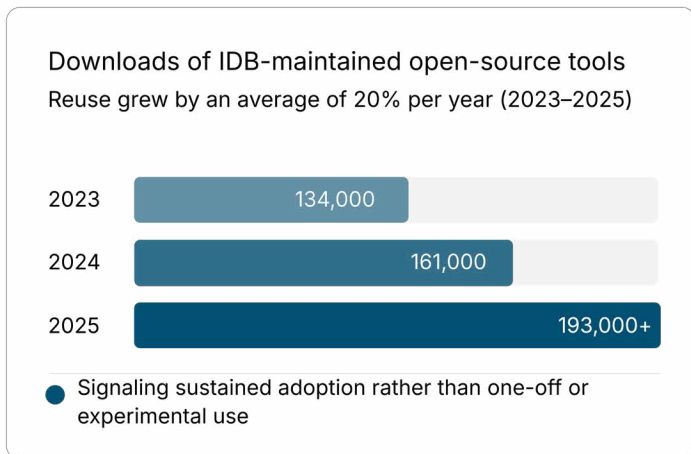
Code for Development at the IDB

Since 2017, the IDB has actively promoted the adoption of open-source solutions by governments in LAC through its own Open-Source Program Office, Code for Development³. As part of the Digital Public Goods Alliance⁴, this initiative focuses on expanding the availability of open-source tools aligned with public policy priorities. It does so by facilitating the open-sourcing of IDB-owned solutions⁵, curating open-source software⁶, building capacity for public managers through the Code4Dev network⁷, and supporting OSS reuse by governments.

In recent years, Code for Development has experienced growing demand for open-source software adoption among governments in LAC, particularly within digital public infrastructure investments supporting digital transformation. Between 2023 and 2025, the initiative supported 267 reuse requests and registered more than 193,000 downloads of IDB-maintained open-source tools. Reuse grew by an average of 20% per year, signaling sustained adoption rather than one-off or experimental use.

Demand for capacity building rose in parallel, as Code4Dev, Code for Development's network of developers who work in government, expanded from 1,000 to 5,000 members over the same period.

In the same timeframe, Code for Development also supported more than ten IDB operations, including the implementation of OSS for verifiable credentials, data exchange, civil registries, government-to-people payment, and the design and implementation of an OSPO, underscoring the increasing integration of open-source solutions into public investment projects.



³ Inter-American Development Bank. (n.d.). *Code for Development*. <https://knowledge.iadb.org/en/code-development>

⁴ Digital Public Goods Alliance. (n.d.). *Who we are*. <https://www.digitalpublicgoods.net/who-we-are>

⁵ Inter-American Development Bank. (n.d.). *EL-BID* [GitHub organization]. GitHub. <https://github.com/el-bid>

⁶ Inter-American Development Bank. (n.d.). *Open Source Solutions*. <https://knowledge.iadb.org/en/code-development/open-source-solutions>

⁷ Inter-American Development Bank. (n.d.). *Code for Development Community* <https://knowledge.iadb.org/en/code-development/join-our-community>

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- **Alexia Peralta**, United Nations Development Programme (UNDP)
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- **Bastien Guerry**, Interministerial Digital Directorate (DINUM), France
- **Benjamin Bertelsen**, United Nations Development Programme (UNDP)
- **Elena Machuca**, Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento (AGESIC), Uruguay
- **Genry Aquiles Lizardo Ovalle**, Oficina Gubernamental de Tecnologías de la Información y Comunicación (OGTIC), Dominican Republic
- **James Stewart**, Public Digital
- **Jon Lloyd**, Digital Public Goods Alliance
- **Kevin Jiménez Lorenzo**, Oficina Gubernamental de Tecnologías de la Información y Comunicación (OGTIC), Dominican Republic
- **Lucy Harris**, Digital Public Goods Alliance
- **Nil Homedes**, Decidim
- **Omar Mohsine**, United Nations Secretariat

*Nagle, F. (2019). Government technology policy, social value, and national competitiveness (Working Paper No. 19-103). *Harvard Business School*. https://www.hbs.edu/ris/Publication%20Files/19-103_70f212c8-c4fe-4989-ac99-e03cf8bbf02d.pdf

1.1 Purpose

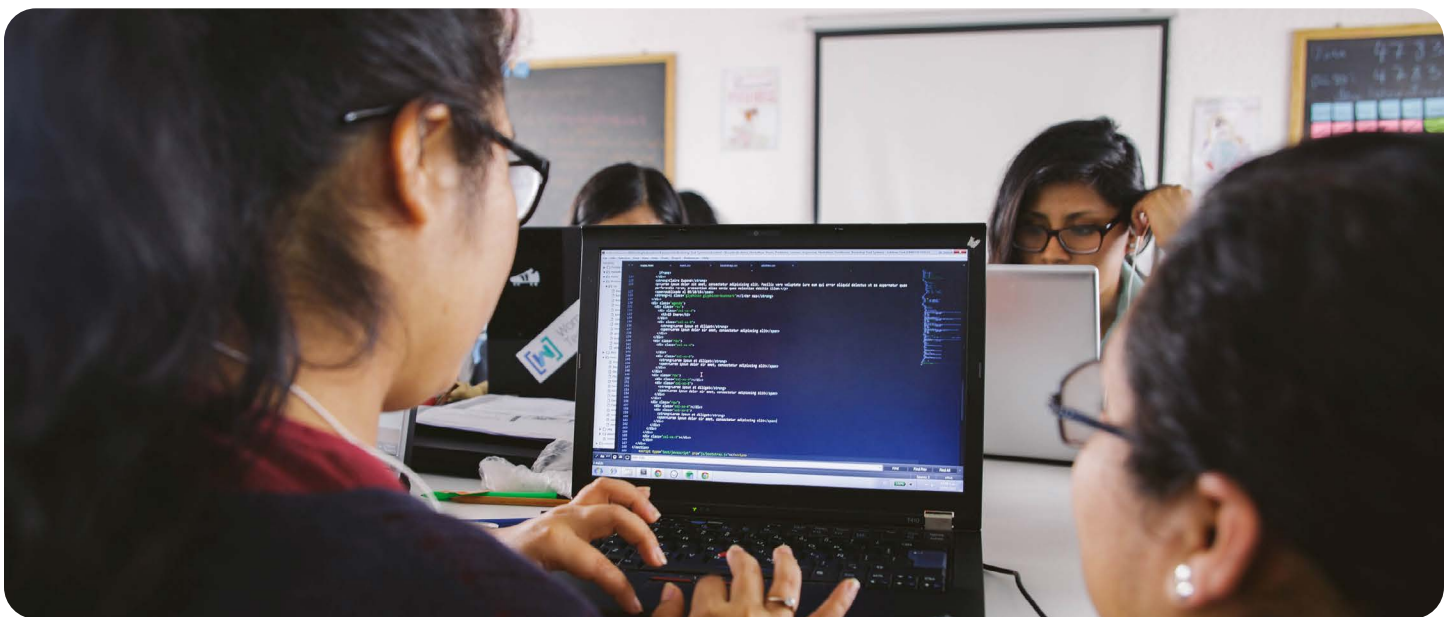
Open-source software offers a pathway to enhance transparency, increase autonomy, reduce costs, and accelerate innovation across public institutions. Research also shows how the adoption of open-source by governments can help shape and develop national technology ecosystems (Nagle, 2019)⁸.

These public institutions want to have ownership over their core infrastructure stack, avoid vendor lock-in, and allow for more agility and scalability at lower costs.

However, realizing these benefits requires not only ad-hoc adoption of open-source software, but also intentional strategic governance for long-term sustainability. Many of these public institutions are moving from “technology buyers” (purchasers of third-party software, equipment, and services) to “technology owners” (entities that hold ownership and stake in the success of technology implementation), which requires a new governance model and internal practices, even when the implementation and maintenance

of these open-source stacks are carried out by external vendors. An OSPO’s function is to set the rules, lower the friction, and build capacity so that public institutions can safely use, publish, and contribute to open-source software at scale.

This technical note aims to provide a toolkit for the creation of a full-fledged strategy and implementation roadmap for a national Open-Source Program Office (OSPO). The guidance emphasizes a functional approach, focusing on building coherent leadership for open-source adoption. Although this technical note focuses on government-wide OSPOs, insights can be transferable to agency-specific OSPOs. Sections 3–6 focus on the strategy exercise, describing in detail the strategic framework and the key dimensions that an OSPO strategy should encompass, from the value proposition it should have to the sustainability of its operations. Section 7 describes an implementation model based on pragmatic lessons learned from different practitioners across the world.



⁸Nagle, F. (2019). Government technology policy, social value, and national competitiveness (Working Paper No. 19-103). *Harvard Business School*. https://www.hbs.edu/ris/Publication%20Files/19-103_70f212c8-c4fe-4989-ac99-e03cf8bbf02d.pdf



1.2 Audience

This technical note is designed for public sector professionals, particularly those interested in designing and establishing an Open-Source Program Office (OSPO).

The following groups can take advantage of this technical note in several ways:

- **Public Sector Managers (CIOs, CDOs, CTOs, CSOs):** Support strategic planning efforts, secure political buy-in, and allocate resources for an open-source initiative.
- **Project Managers and Technical Leads:** Guide day-to-day implementation, establish governance workflows, and manage development teams.
- **Policymakers and Legal/Procurement Staff:** Inform the development of national digital policies, licensing frameworks, and acquisition models that support open-source.
- **Leaders in Civic Tech and Local Industry:** Draw on good practices to strengthen engagement with other stakeholders and foster proactive collaboration within the digital ecosystem.
- **Government vendors and outsourced contractors:** Understand how to provide adaptation, implementation, and maintenance services for public institutions interested in the adoption of open-source solutions and in an open-source-first strategy.
- **International Development Partners:** Design a roadmap to support digital transformation and strengthen digital capacity.

2

ABOUT OPEN-SOURCE SOFTWARE AND OPEN-SOURCE PROGRAM OFFICES

2.1 The Role and Importance of OSS

Open-source software (OSS) plays a transformative role in how governments adopt digital technologies. The adoption of open-source tools delivers significant benefits, including lower development costs, greater interoperability, and stronger alignment with national digital strategies (Clastornik Taube & Muento Kunigami, 2024)⁹.

Worldwide, public institutions increasingly embed OSS into their strategies. For example, the United Kingdom's Digital, Data and Technology Playbook states that software

should be open source (Government of the United Kingdom, 2022)¹⁰, while Canada's digital standards promote an open-first approach (Government of Canada, n.d.)^{11 12}. In Latin America and the Caribbean, several countries have formalized OSS adoption through legal, regulatory, or policy instruments, including Uruguay and the Dominican Republic, through national public software policies; Ecuador, through legal instruments; and Argentina, Brazil, and Mexico, through public policies and shared repositories that enable OSS reuse¹³.

Benefits include:



€65B–€95B / year Macroeconomic savings & productivity

A 2021 European Commission study estimated that open-source software contributes between €65 billion and €95 billion annually to European Union GDP, driven by cost savings, reduced duplication, and productivity gains across public and private sectors (European Commission, 2021)¹⁴. OSPOs enable public institutions to systematically capture these savings, rather than realizing them solely on a project-by-project basis.



Lower licensing costs Budget savings and cost avoidance

Achieved by reducing software licensing expenditures, avoiding duplicate development, and enabling systematic reuse of existing open-source solutions rather than commissioning bespoke systems (Hoffmann et al., 2024)¹⁵.

⁹ Government of the United Kingdom. (2022). *The digital, data and technology playbook*. <https://www.gov.uk/government/publications/the-digital-data-and-technology-playbook/the-digital-data-and-technology-playbook>

¹⁰ Government of Canada. (n.d.). *Open first white paper: How the Government of Canada Can Benefit from Open-Source Software*. <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/open-source-software/open-first-whitepaper/open-first-whitepaper-use.html#government-of-canada-digital-standards>

¹¹ Government of Canada. (n.d.). *Canada's digital standards*. <https://www.canada.ca/en/government/system/digital-government/government-canada-digital-standards.html>

¹² Inter-American Development Bank. (2025). *Open-source policy collection*. https://el-bid.github.io/OSS_policies/

¹³ Blind, K., Böhm, M., Grzegorzewska, P., Katz, A., Muto, S., Pättsch, S., & Schubert, T. (2021). *The impact of open source software and hardware on technological independence, competitiveness and innovation in the EU economy*. European Commission, Directorate-General for Communications

¹⁴ Blind, K., Böhm, M., Grzegorzewska, P., Katz, A., Muto, S., Pättsch, S., & Schubert, T. (2021). *The impact of open source software and hardware on technological independence, competitiveness and innovation in the EU economy*. European Commission, Directorate-General for Communications

¹⁵ Hoffmann, M., Nagle, F., & Zhou, Y. (2024). The value of open source software (Working Paper No. 24-038). Harvard Business School. https://www.hbs.edu/ris/Publication%20Files/24-038_51f8444f-502c-4139-8bf2-56eb4b65c58a.pdf



No vendor dependency
Life-cycle efficiency and reduced lock-in

As open standards and interoperable solutions lower total cost of ownership, facilitate maintenance and upgrades, and mitigate long-term dependency on single vendors (Blind et al., 2021)¹⁶.



Local investment retained
Strengthening local and regional digital ecosystems

By enabling collaboration with domestic firms, startups, universities, and open-source communities, thereby retaining public investment within national economies and supporting employment and skills development (Nagle, 2019)¹⁷.



More competitive markets
Improved competition and innovation

As coordinated OSS adoption lowers barriers to entry for suppliers and supports more competitive and transparent public procurement markets (Blind et al., 2021)¹⁸.

Despite its growing adoption in the public sector, open-source software (OSS) continues to be shaped by persistent misconceptions. Addressing them through evidence-based guidance, clear governance, and institutional coordination is one of the key roles of an OSPO.

• **Myth 1: “Open-source means free.”** Open-source does not imply zero cost. While OSS often reduces licensing fees, it requires investment in governance, maintenance, security, and skills. Its economic value lies in cost avoidance, reuse, and long-term sustainability rather than in the absence of a price (Hoffmann et al., 2024)¹⁹.

• **Myth 2: “Open-source can only be developed and maintained by internal teams.”** OSS is typically developed through distributed collaboration across public institutions, private firms, and communities. Government policies

that prioritize OSS have been shown to increase contributions from a diverse set of actors, expanding the available ecosystem beyond any single organization (Nagle, 2019). OSPOs provide the coordination needed to structure and sustain these hybrid models (Blind et al., 2021)²⁰.

• **Myth 3: “Open-source is less secure than proprietary software.”** Security outcomes depend on governance and processes, not on licensing models. Transparency and peer review can strengthen security by enabling independent verification and auditing of critical digital systems, if responsibilities and practices are clearly institutionalized (Nagle, 2019)²¹.

Tapping into these benefits and addressing these misconceptions does occur simply by designating OSS adoption as a priority but rather by having a systematic approach, strong governance, and established institutional capacity.

¹⁶ Blind, K., Böhm, M., Grzegorzewska, P., Katz, A., Muto, S., Pättsch, S., & Schubert, T. (2021). *The impact of open source software and hardware on technological independence, competitiveness and innovation in the EU economy*. European Commission, Directorate-General for Communications Networks, Content and Technology. <https://digital-strategy.ec.europa.eu/en/library/study-about-impact-open-source-software-and-hardware-technological-independence-competitiveness-and>

¹⁷ Nagle, F. (2019). Government technology policy, social value, and national competitiveness (Working Paper No. 19-103). Harvard Business School. https://www.hbs.edu/ris/Publication%20Files/19-103_70f212c8-c4fe-4989-ac99-e03cf8bbf02d.pdf

¹⁸ Blind, K., Böhm, M., Grzegorzewska, P., Katz, A., Muto, S., Pättsch, S., & Schubert, T. (2021). *The impact of open source software and hardware on technological independence, competitiveness and innovation in the EU economy*. European Commission, Directorate-General for Communications Networks, Content and Technology. <https://digital-strategy.ec.europa.eu/en/library/study-about-impact-open-source-software-and-hardware-technological-independence-competitiveness-and>

¹⁹ Hoffmann, M., Nagle, F., & Zhou, Y. (2024). The value of open source software (Working Paper No. 24-038). Harvard Business School. https://www.hbs.edu/ris/Publication%20Files/24-038_51f8444f-502c-4139-8bf2-56eb4b65c58a.pdf

²⁰ Blind, K., Böhm, M., Grzegorzewska, P., Katz, A., Muto, S., Pättsch, S., & Schubert, T. (2021). *The impact of open source software and hardware on technological independence, competitiveness and innovation in the EU economy*. European Commission, Directorate-General for Communications Networks, Content and Technology. <https://digital-strategy.ec.europa.eu/en/library/study-about-impact-open-source-software-and-hardware-technological-independence-competitiveness-and>

²¹ Nagle, F. (2019). Government technology policy, social value, and national competitiveness (Working Paper No. 19-103). Harvard Business School. https://www.hbs.edu/ris/Publication%20Files/19-103_70f212c8-c4fe-4989-ac99-e03cf8bbf02d.pdf

2.2 The Role and Importance of OSPOs

An Open-Source Program Office (OSPO) enables public institutions to translate the adoption of open-source software (OSS) into sustained economic and strategic value. The benefits of OSS depend on governance, institutional capacity, and coordinated implementation, all of which are core functions of an OSPO.

“Across LAC, we see strong experimentation with open-source technologies, but OSPOs are what allow governments to turn pilots into sustainable systems. When connected to digital public infrastructure priorities, they provide the institutional backbone needed to scale, govern, and sustain shared digital assets over time.” —

Aura Cifuentes

Director for Latin America and the Caribbean, Co-Develop

The Harvard Business School (HBS) describes OSPOs as organizational structures that enable large organizations to move from ad hoc use of open source to coordinated, strategic engagement, linking open-source activities to

broader institutional objectives such as cost efficiency, innovation, and risk management (Hoffmann et al., 2024)²².

In the context of government OSPOs, HBS frames OSPO-type functions as institutional mechanisms that operationalize government open-source policies, translating high-level mandates into procurement practices, contribution strategies, and ecosystem engagement (Nagle, 2019)²³. The Linux Foundation compares an OSPO to the “central nervous system for an organization’s open-source strategy, and it provides governance, oversight, and support for all things related to open source”²⁴.

OSPOs help build institutional confidence and support informed, strategic decision-making around open-source adoption. They may vary in form and scope but have shared core functions: governance, coordination, and value creation around open-source software.

An OSPO’s main goal is to enable government-wide open-source practices, incentivizing, supporting, and setting standards for how civil servants use and contribute to open-source software. Its primary functions can be grouped into four major categories. However, as discussed later in this document, an OSPO should not begin with an all-encompassing mandate, but rather with a focused scope aligned to internal needs and existing delivery capacity.

²² Hoffmann, M., Nagle, F., & Zhou, Y. (2024). The value of open source software (Working Paper No. 24-038). *Harvard Business School*. https://www.hbs.edu/ris/Publication%20Files/24-038_51f8444f-502c-4139-8bf2-56eb4b85c53a.pdf

²³ Nagle, F. (2019). Government technology policy, social value, and national competitiveness (Working Paper No. 19-103). *Harvard Business School*. https://www.hbs.edu/ris/Publication%20Files/19-103_70f212c8-c4fe-4989-ac99-e03cf8b1f02d.pdf

²⁴ Linux Foundation Research. (2022, August 19). *Deep dive: Open-source program offices*. *Linux Foundation*. https://8112310.fs1.hubspotusercontent-na1.net/hubfs/8112310/LF%20Research/LFR_LFAID_Deep_Dive_Open_Source_Program_Offices_081922.pdf

Four major categories of an OSPO's functions are:



Strategy and Governance

Developing OSS policy and strategy, aligning priorities with broader digital transformation efforts and stakeholder objectives, and increasing awareness across agencies.



Legal and Compliance

Managing license compliance, procurement, and legal risk, serving as a trusted advisor for teams that want to use and contribute to open-source software.



Technical Oversight

Setting quality and security standards, maintaining the OSS repository, supporting reuse and publishing of OSS, and managing dependencies.



Community and Ecosystem Engagement

Working with or building new contributor communities, partnering with universities to strengthen the talent pipeline and supporting the local technology ecosystem.

"A key value is ensuring legal compliance and stability of dependencies in the long run, which de-risks the use of open-source software for the entire government."

Bastien Guerry

Interministerial Digital Directorate,
Free Software Mission, France

The European Commission recommended creating an OSPO as the first step in its Open-Source Software Strategy 2020–2023 (European Commission, 2020)²⁵, and later recommended the establishment of a network of OSPOs across Europe to strengthen institutional capacity (European Commission, 2021)²⁶. For Bastien Guerry, from DINUM's Free Software Mission, France's OSPO, the initial need for an OSPO is often a mix of bottom-up technical capability and top-down strategic vision. For them, it began with the "convergence of technical expertise within the team and the political will to advance open-source from top down" (B. Guerry, November 2025). In Latin America and the Caribbean, agencies like the Government Office of Information and Communication Technologies

²⁵ European Commission. *Open-source Software Strategy*. (Accessed August 21, 2025). https://commission.europa.eu/about/departments-and-executive-agencies/digital-services/open-source-software-strategy_en

²⁶ European Commission. (2021). *The impact of open source software and hardware on technological independence, competitiveness and innovation in the EU economy*. <https://digital-strategy.ec.europa.eu/en/library/study-about-impact-open-source-software-and-hardware-technological-independence-competitiveness-and>

(OGTIC) in the Dominican Republic²⁷ and the Agency for e-Government and the Information and Knowledge Society (AGESIC) in Uruguay²⁸ have established governance models for open-source adoption, demonstrating its growing relevance in the region.

OGTIC, housed within the Ministry of Public Administration of the Dominican Republic, has the mandate to implement e-Government in the country through the dissemination and use of Information and Communication Technologies (ICT), with a focus on government-wide shared platforms and large-scale initiatives. The agency has cultivated a strong open-source culture, deploying OSS like X-road, Inji, and Cuenta Única, as well as releasing several government-owned digital solutions

(Oficina Gubernamental de Tecnologías de la Información y Comunicación [OGTIC], n.d.)²⁹. Genry Aquiles Lizardo Ovalle (Advisor to the Executive Director) and Kevin Jiménez Lorenzo (Platform and Service Manager), note that their open-source-first approach grew out of pragmatism: scarce resources and project scale demand fiscal responsibility, code ownership and self-sufficiency as opposed to license-based dependency.

OGTIC characterizes the broader transition to open, interoperable systems as a “grassroots, iterative effort”: incremental, institution by institution, but backed by political leadership that asked for open, cost-effective solutions and coordinated by an OSPO-style function that steers standards and reuse across agencies.



²⁷ República Dominicana. (2012). *Estrategia Nacional de Desarrollo 2030*. <https://mepyd.gob.do/mepyd/wp-content/uploads/archivos/end/marco-legal/ley-estrategia-nacional-de-desarrollo.pdf>

²⁸ Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento. (n.d.). *Software público uruguayo*. <https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/software-publico-uruguayo>

While open-source practices are embedded across technical and non-technical teams, OGTIC still advocates creating a formal, national OSPO to codify policy and to accelerate adoption by other public entities.

AGESIC's open-source path, on the other hand, was shaped by civil society and university advocates in the early 2000s. Elena Machuca (AGESIC's Architecture Manager) shares that the movement pushed software freedom onto the political agenda as a way to reduce external technological dependence and strengthen Uruguay's national tech ecosystem. Over time the open-source principles became policies, being institutionalized through the law on open formats for information exchange³⁰, and later with a default-open stance on software³¹, requiring agencies to justify any exceptions to AGESIC.

AGESIC's efforts led to the mainstreaming of open-source across the state, with code ownership being a baseline for vendor freedom.

"If we need to change supplier, we can because the code, documentation, and architecture are ours to build on." Making that real goes beyond publishing code: it requires documentation, clear architecture, and governance. To embed these practices, AGESIC has woven open-source principles into procurement and is developing a master procurement template, ensuring that technology acquisitions and custom development include predefined clauses on licensing, documentation, security, and architectural choices that sustain openness over time.

Neither OGTIC in the Dominican Republic nor AGESIC in Uruguay maintains a formal OSPO, yet both acknowledge that a government-wide OSPO could help scale their OSS principles across the broader public sector, building capabilities in the governance needed to publish, adopt, and sustain open-source software in a secure and strategic manner.

An effective approach for developing the strategy of an Open-Source Program Office (OSPO) begins with a structured strategic process. The recommended sequence is to start by defining the value you want the OSPO to bring (desirability), then assess whether it is possible to deliver that value in practice (feasibility), and finally determine whether the approach can be sustained over time (viability). This framework, based on the Mission Model Canvas (Strategyzer & Blank, n.d.)³², helps create a solid strategy that meets real-world needs and is designed for long-term sustainability.

This process, which emphasizes evidence-based inquiry over assumptions, is central to the support provided by the Inter-American Development Bank (IDB) for the strategic design of OSPO functions. The model has been used in Trinidad and Tobago to guide the early design of their national OSPO, to be established in the Ministry of Public Administration and Artificial Intelligence and designed as a partnership between the Government, the IDB, UNDP, and the University of the West Indies.

³⁰Uruguay. 2013. Law number 19.179 - *Regulacion Del Formato Para El Procesamiento Y Almacenamiento De Informacion Digital Por Parte De Determinados Organismos Y Empresas*. <https://www.impo.com.uy/bases/leyes/19179-2013>

³¹Uruguay. 2025. Decree number 44.2015 - *Reglamentacion De La Ley 19.179, Relativo A La Regulacion Del Formato Para El Procesamiento Y Almacenamiento De Informacion Digital Por Parte De Determinados Organismos Y Empresas*. <https://www.impo.com.uy/bases/decretos/44-2015>

³²Strategyzer AG, & Blank, S. (n.d.). The mission model canvas: An adapted business model canvas for mission-driven organizations. <https://www.strategyzer.com/library/the-mission-model-canvas-an-adapted-business-model-canvas-for-mission-driven-organizations>

3

MISSION MODEL

CANVAS FRAMEWORK

The Mission Model Canvas (Strategyzer & Blank, n.d.)³³ is the methodological framework used by the IDB to support the development of OSPOs. Developed as an adaptation of the Business Model Canvas (Osterwalder & Pigneur, 2010)³⁴ for public sector and mission-driven organizations, it shifts the focus from financial profit to the creation of public value. The canvas provides a clear way to simplify complex strategies into defined building blocks that can be adapted to the specific needs of the model being developed.

Adapted from Strategyzer AG, & Blank, S. (n.d.). The mission model canvas. <https://www.strategyzer.com/library/the-mission-model-canvas>

The image presents an adapted version of the Mission Model Canvas, originally designed by Strategyzer and modified to reflect the needs and operating models of Open Source Program Offices (OSPOs).

A. Desirability: Identifying the value the OSPO will deliver

Value proposition and portfolio, stakeholders, community and ecosystem engagement.

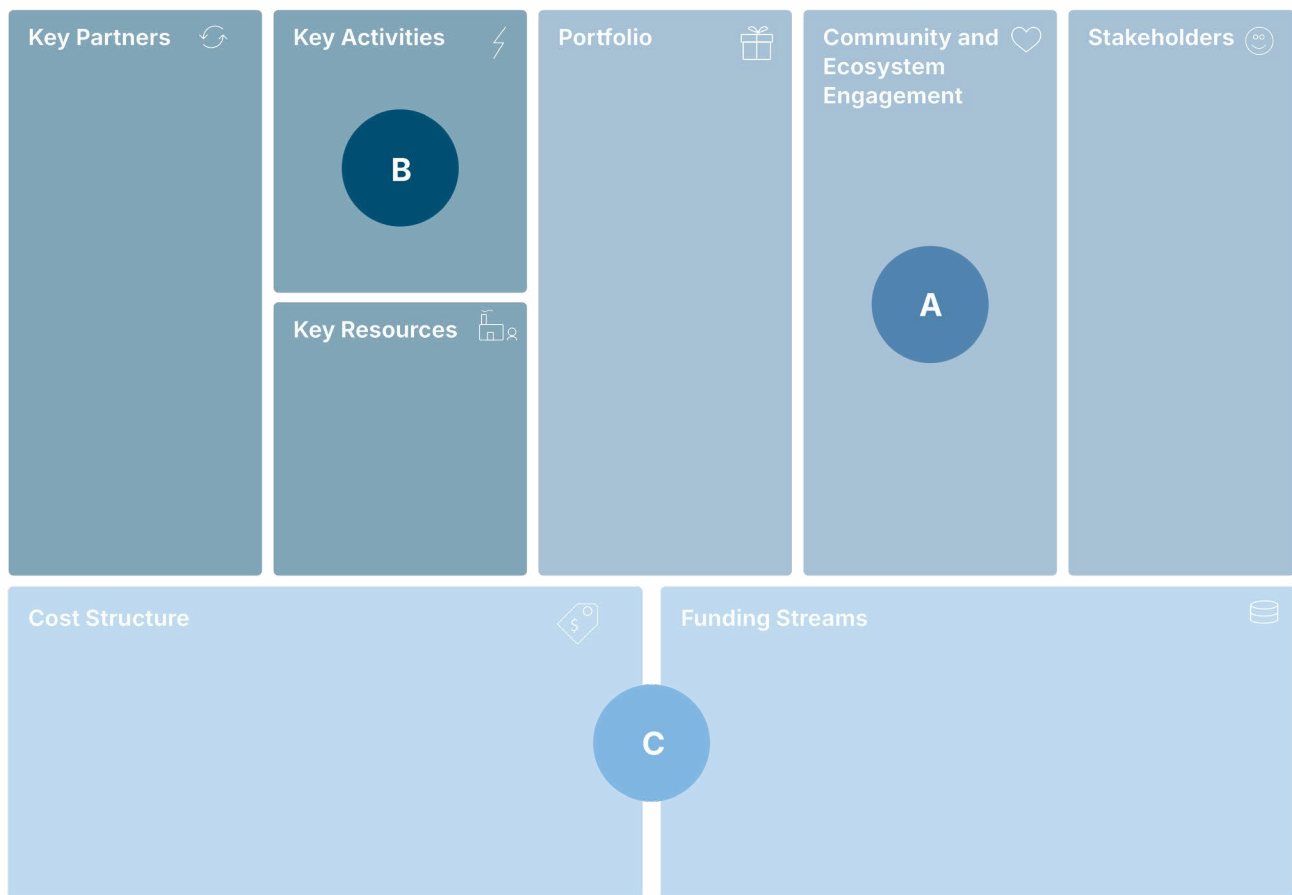
B. Feasibility: Building the OSPO's capacity to deliver

Key activities, key resources, key partners.

C. Viability: Securing the OSPO's long-term sustainability

Cost structure, funding streams.

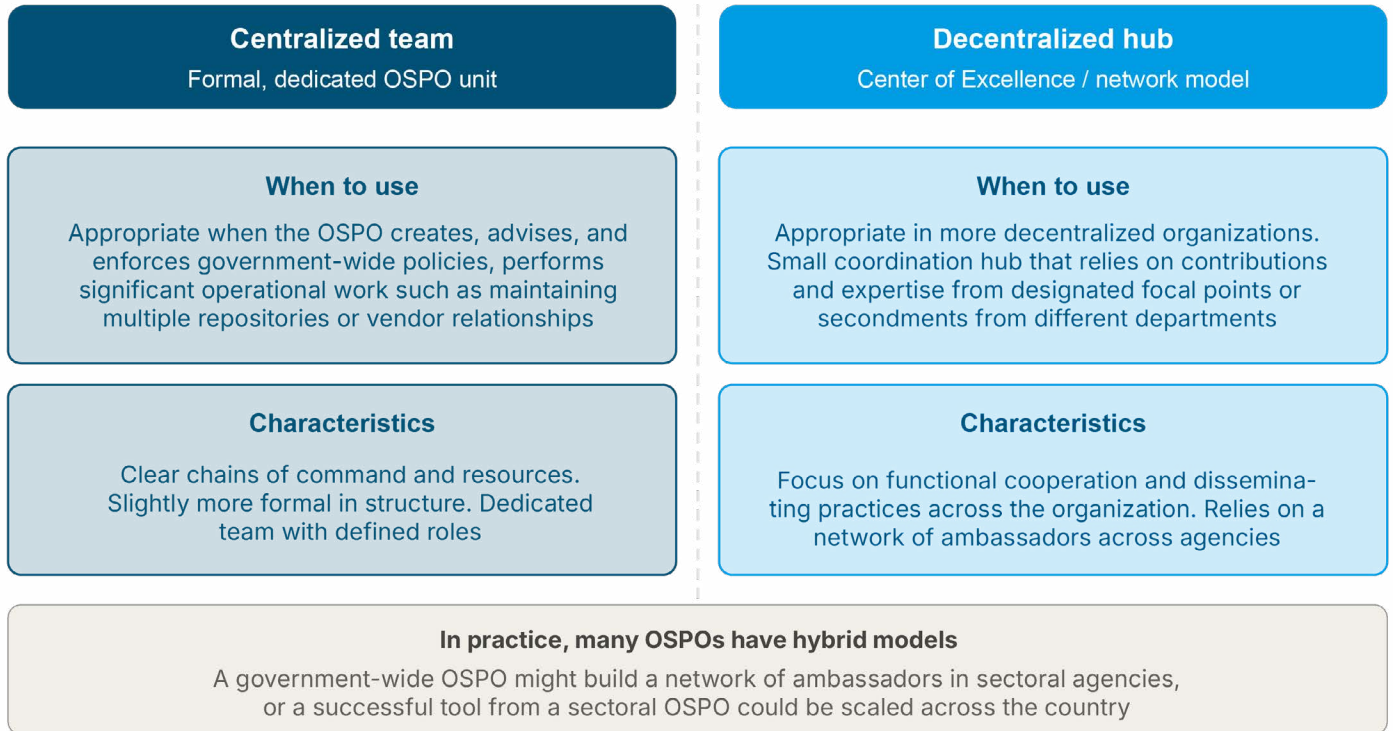
The Mission Model Canvas



³³ Strategyzer AG, & Blank, S. (n.d.). The mission model canvas: An adapted business model canvas for mission-driven organizations. <https://www.strategyzer.com/library/the-mission-model-canvas-an-adapted-business-model-canvas-for-mission-driven-organizations>

³⁴ Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers*. John Wiley & Sons.

The framework organizes the strategic inquiry around three fundamental questions, which should be explored in sequence:



1. Desirability: Is the strategy addressing an actual problem for the right people? This is the starting point. It shifts the emphasis to the beneficiaries and the value the OSPO will provide for them. A plan that doesn't meet a clear need is unlikely to succeed. Key questions at this stage are:

- **Value Proposition and Portfolio:** What goals must the state achieve, and how can OSS help? (e.g., decreasing costs, implementing digital public infrastructure, owning the code of strategic software). What is the main value that the OSPO can provide? (e.g., better access to legal compliance, providing curation and guidance on OSS tools, and lower procurement costs) (Osterwalder et al., 2014)³⁵.
- **Stakeholders:** Who are the primary users and stakeholders? (e.g., government development

teams, procurement officers, local tech companies).

- **Community and Ecosystem Engagement:** How will the OSPO reach, engage, and build trust with these beneficiaries? (e.g., workshops, code repositories, helpdesks).

“Open-source is a means to empower the user side (governments) with real market choice, and OSPOs are capacity-building vehicles for that goal.” — Astor Nummelin Carlberg, Executive Director, OpenForum Europe

³⁵ Osterwalder, A., Pigneur, Y., Bernarda, G., Smith, A., & Papadacos, T. (2014). *Value proposition design: How to create products and services customers want*. John Wiley & Sons.



Manuel Aguilera, Regional Lead for Latin America and the Caribbean at the Center for Digital Public Infrastructure (CDPI), also emphasizes its value in fostering DPI's long-term sustainability. "DPI's technical components should sit inside governance frameworks that are transparent, accountable, and open to public input, providing the oversight needed for security, compliance, and protection of legal rights, all of which build public trust. The nature of DPI also requires alignment between government, industry, civil society, and technical communities. Strong governance is key to creating clarity and predictability for everyone involved, and an OSPO can facilitate this process by building oversight mechanisms for stakeholders to audit the source code."

2. Feasibility: Can we build the OSPO and deliver the value as planned? Once you have a good value proposition, execution is key. This stage covers the operational capabilities necessary for executing the strategy. Questions include:

- **Key Resources:** What resources are you using? These include a dedicated team with the required skills and expertise, as well as governance structures that provide alignment and decision-making support.
- **Key Activities:** What are the major things that the OSPO should do? This section includes activities related to legal and compliance enablement, technical oversight, and the definition of best practices, as well as the institutionalization of open-source processes across the organization.
- **Key Partners:** What are the key partnerships needed to succeed? (e.g., other agencies, multilateral institutions, universities, OSS community, and technology ecosystem). This stage was documented throughout the technical note, guaranteeing that the discussions on stakeholders, portfolio, and activities were directly linked to the key partners needed for execution.

Lucy Harris, Digital Public Goods Alliance's COO, emphasizes that OSPOs succeed when they combine strong internal and external alliances. Internally, high-level leadership supports mandate execution, while a network of open-source champions keeps the momentum steady through political transitions or periods of limited support. Externally, tapping into practitioner networks like the Digital Public Good Alliance, along with partners such as the Inter-American Development Bank and peer governments, shortens the learning curve, avoids duplication, and lends visibility and legitimacy to the OSPO's work.

3. Viability: Is the OSPO able to sustain itself over time? Viability refers to the financial structure that the OSPO should have to ensure it can sustain its value proposition after its launch.

- **Cost Structure:** What expenses should be covered to deliver the OSPO value? (e.g., special projects, infrastructure, legal services, and staff).
- **Funding Streams:** How should the OSPO secure a budget to sustain its main costs? (e.g., public budget, grants, and financing from multilaterals and agencies).

As an OSPO proves its value and credibility, new funding paths open up beyond a single core budget. Our interviews surfaced several practical models. First, a savings-to-sustainability loop, where replacing overpriced proprietary systems generates verified savings that are reinvested to grow the team and systematically tackle similar contracts.

Second, earmarked tax revenues or public fees (e.g., on telecom/ISP revenues) that can be set aside to finance talent pipelines, provide salary top-ups for public-sector developers, and grants that help SMEs build a local OSS/DPI vendor base.

Third, private-sector co-investment when open components (for example, OSS-based digital ID) enable downstream services and scale.

Finally, blended approaches such as pooled agency contributions, donor or program windows, and university partnerships to co-maintain critical open-source dependencies. Together, these mechanisms diversify risk, align incentives across stakeholders, and allow an OSPO to become self-sufficient while expanding the country's open digital infrastructure.

With these three pillars, the Mission Model Canvas offers a solid methodological framework that can drive the design of an OSPO from the very first validation to a real strategy that can work over time.

*“High-level leadership supports mandate execution, while a network of open-source champions keeps the momentum steady through political transitions or periods of limited support.” — Lucy Harris
Chief Operating Officer, Secretariat of the Digital Public Goods Alliance (DPGA)*



3.1 How to approach this framework: From Idea to Validation

The Mission Model Canvas allows teams to adapt and refine the OSPO strategy from initial ideas to validated facts. This process can be done in five steps, working together with internal and external stakeholders to ensure the strategy is co-created, which is important for developing a solution that meets locally grounded needs and gains support from universities, institutions, startups, and communities. (Thomke, 2020)³⁶. As you navigate the next sections of this document, take into consideration the following steps when approaching the different areas listed:



1. Collect Initial Assumption

The first part of the process is to document the assumptions of the actors or team involved in designing the OSPO strategy. This process involves documenting all ideas related to the beneficiaries that need an OSPO, the problems that the local context is facing related to what the OSPO can offer, the current readiness of the institutions, and the expected outcomes. Teams can reach a shared understanding when they share their assumptions, which is helpful as a starting point before moving forward



2. Prioritize Assumptions

After gathering the team's assumptions, it is crucial to compile a list of the key concepts that require validation. The main focus should always start with "desirability," which includes whether the OSPO is needed, including evidence of local behaviors that may prove that there is an actual need that should be covered, and then, after validating the need for the OSPO, the team should assess the "feasibility," which includes the main resources and activities that should be aligned to make the OSPO operate effectively



3. Conduct Research

Once the assumptions have been prioritized, the team should gather information to validate or discard them. There is a series of useful activities to accomplish this step of the process:

- a. Qualitative methods, such as interviews (see Annex C for a template), as well as workshops, are relevant to collectively understanding the needs, barriers, and motivations of the context, as well as the opportunities and collaboration that can exist among local institutions.
- b. Quantitative methods, such as surveys, can validate patterns in the gathered information to ensure that identified needs and priorities align with the local context. For example, the team could conduct interviews to gather initial information; then a collaborative workshop with stakeholders could be facilitated to acquire a deeper understanding of the needs; and a survey could be added to identify the most relevant priorities.



4. Synthesize Insights and Identify Patterns

After research is complete, the team must collaboratively make sense of the findings. This involves organizing the data, identifying recurring themes, and separating clear signals from noise. Processes such as sensemaking³⁷ can facilitate the organization of related insights and aggregating fragmented knowledge into actionable findings. It is also a step to incorporate findings from benchmarking (comparing with peers to understand how other public sector OSPOs are structured, funded, and operated). This synthesis transforms raw data into a clear direction for the strategy (García, 2020).



5. Fill in the Mission Model Canvas

Finally, insights that have been validated can be transferred to the Mission Model Canvas (see Annex A for a template). Every block of the canvas is completed, not with what we assume the answers are, but with descriptions that are short on assumption and long on evidence. The canvas can be an effective summary or synthesis of the strategy. It serves as a strong device for communication and engagement with stakeholders and is a living document that can be updated as assumptions are proven.

With the above approach in mind, in the next sections we will dive deeper into each of the components of the Mission Model Canvas.

³⁷ García, B. (2020, February 5). *Design synthesis: A step-by-step guide to translate research into actionable insights*. Medium. <https://medium.com/design-thoughts-case-studies/design-synthesis-step-by-step-guide-1a46c73c503e>

4

DESIRABILITY: SHAPING THE NEEDS, TAKEHOLDERS, AND VALUE CREATION



A successful OSPO strategy is based on an in-depth understanding of the people it serves and how it creates value for them. Having introduced the methodological construct of the Mission Model Canvas, this section addresses the content of the first and most fundamental pillar of the canvas: Desirability. This step means transitioning from the strategy design process to a phase that clearly defines the core functions of the OSPO.

To accomplish this, three pillars are outlined in this section. It begins with an exploration of how to define a real portfolio of services and programs, which will reflect the strategic intent of the OSPO. Second, it provides guidance on recognizing and understanding the needs of the stakeholders who count, regardless of whether they are inside or outside government. Finally, it provides general strategies both to grow community and to foster engagement with the ecosystem, which are essential for the long-term sustainability and innovative potential of any open-source project.

Grounding the OSPO in a clear, evidence-based understanding of these elements is fundamental to its success. An OSPO that has been connected to people's needs since the beginning

of its design can drive better outcomes, meet the organization's objectives, and deliver solid results to last over time.

James Stewart, Partner and CTO of Public Digital, emphasizes that an OSPO that is set up without shared goals and cannot deliver clear outcomes and visible value to service delivery teams gets starved of resources and is quickly sidelined, as it is seen as a "license police," not a partner. Another common trap is sequencing: launching a rules-heavy office before there are visible products, pilots, or platforms supported. In that vacuum, the OSPO struggles to attract talent, measure value, or justify its budget; it gets starved and withers.

The remedy is outcome clarity, focused on supporting national priorities and anchoring the office in actual delivery with mechanisms to demonstrate value early and often. Omar Mohsine, United Nations Office for Digital and Emerging Technologies (ODET), advises that achieving this requires following the discovery methodology this guide proposes: "Start with a baseline: who uses open-source, who contributes, what policies exist, and where the security gaps are."

4.1 Value Proposition and Portfolio

Once there is a clear map of the current OSS landscape (e.g., internal and external OSS appetite, who is using what, where contributions happen, and what the gaps and risks are), the strategic focus shifts to defining the specific set of services, programs, and activities the OSPO will deliver to realize the value identified during the validation phase. This portfolio represents the OSPO's value proposition in practice, from the near-theoretical to what will implement in practice.

An OSPO's portfolio should evolve with its maturity. Bastien Guerry notes that the French OSPO's focus shifted over time. Today they structure their work around three pillars: encouraging public administrations to use more free and open-source software, enabling them

to contribute back to the ecosystem, and helping them publish their own high-quality open-source projects. This "use, contribute, publish" framework provides a clear and actionable way to define an OSPO's strategic portfolio.

The portfolio of an OSPO represents a suite of solutions designed to meet the needs of its users. A new OSPO should review a series of top demands to produce a menu of offerings and develop a list of potential solutions, including:

The portfolio of an OSPO represents a suite of solutions designed to meet the needs of its users. A new OSPO should review a series of top demands to produce a menu of offerings and develop a list of potential solutions, including:



- 1. Policy and Strategy:** Articulating and advocating open-source-first institutional or national policies linking to existing digital transformation objectives.
- 2. Software Use and Management:** Creating governance structures and processes to select, vet, and securely incorporate open-source software into the public system.
- 3. Government-Owned Software Publication:** Establishing a centralized governance framework and governance structure for open source government-owned solutions, including which code to open and which not to open, quality review, handling licensing, and managing code repositories.
- 4. Capacity Building and Knowledge Sharing:** Exchanging information and delivering training programs for public officials, developing practical toolkits, and encouraging peer learning networks.
- 5. Community and Ecosystem Engagement:** Growing contributor communities around public projects and establishing ways for local technology companies, universities, and civic tech organizations to contribute to relevant OSS.

An OSPO provides immense value to internal teams by acting as a center of excellence. As Lucy Harris, COO of the Digital Public Goods Alliance (DPGA) explains, it functions much like an HR department: “you do not expect everyone to be an HR expert,” but they know where to go

for support. This allows technical teams across government to move faster, knowing a dedicated resource exists for specialized compliance and licensing questions. Astor Nummelin Carlberg, Executive Director of Open Forum Europe, also emphasizes that OSPOs should avoid being purely focused on compliance, making sure they add value to government development teams.

The following sections will explore these areas in greater detail, providing a menu of options from which an institution can build a phased, context-appropriate portfolio.

4.2 Stakeholders

An OSPO serves a broad cross-section of communities, including government agencies, public developers, researchers, civic technologists, and local companies. Awareness of what makes these groups different, and how they create and receive value, is a key element of creating a successful, effective OSPO.

While the specifics of each OSPO's stakeholder ecosystem are unique, several successful public sector OSPOs describe similar types of internal and external stakeholders. The following can be used as a model to map your specific context.

Internal Stakeholders

These are the people or units inside the government that are consuming, using, or enable to act through the efforts of the OSPO.

OSPO



Technical teams in government agencies:

These teams are tasked with delivering digital services. An OSPO enables them by curating and managing reusable tools, security and compliance frameworks, shared infrastructure (such as code repositories), and peer networks that facilitate collaboration and maintenance of software.

The primary challenge in government digital transformation is often not a lack of open-source tools or funding, but rather a gap in institutional capacity to manage a new way of working. As Benjamin Bertelsen of UNDP explains, the bottleneck lies in understanding the new governance models required for the government's technology stack. An OSPO is specifically designed to build this capacity, helping public institutions navigate the shift away from traditional, siloed operations.



Chief Information/Digital Officers (CIOs/CDOs) and IT policy teams:

OSPOs can build on and strengthen the long-standing relationship between governments and academia. They deliver value to students by supporting the development of OSS-related curricula, providing hands-on experience to solve problems in the public interest and granting access to public data, thereby supporting research advancement. By embedding open-source practices into the curriculum, OSPOs contribute to the long-term sustainability of OSS strategies, increasing the flow of new talent with relevant OSS skills and mindsets. In addition, many governments partner with universities to maintain government-owned open-source solutions and receive training support.



Procurement and legal departments:

The OSPO creates value by supporting the development and customization of legal frameworks, as well as by educating stakeholders on open-source licenses and standard contract templates that reduce legal friction and enable more competitive and innovation-friendly procurement, including but not limited to the drafting and review of terms of reference, technical specifications, and the use of open standards. Even when a proprietary option is chosen, the presence of OSS competitors improves negotiating power and can lower license costs for the buyer. Other recommendations are available in the technical note "Open-Source Procurement," published by the IDB (Inter-American Development Bank, n.d.)³⁸.



Subnational governments (municipalities, provinces):

An OSPO can serve as an intermediary between national resources and local needs. This can give local authorities access to pre-vetted open-source products, training packages, and networks of implementers, speeding up their learning curve. This improves the delivery of digital services by local government while avoiding duplication of efforts.

At its core, an OSPO serves as a center for empowerment and capacity building. This perspective frames the OSPO's role not as a gatekeeper but as an enabler within governments.

*"OSPOs are fundamentally about building capacity. Their purpose is to equip the "user side" to have more meaningful choices in the technology market." — Astor Nummelin Carlberg
Executive Director, OpenForum Europe*

³⁸ Inter-American Development Bank. (n.d.). *Open-source software procurement*. <https://publications.iadb.org/en/open-source-software-procurement>

External Stakeholders

An OSPO intermediates between public institutions and the wider technology and civic ecosystem, allowing collaboration and co-creation to emerge.

Involving external stakeholders can also increase the OSPO's resilience during political changes. Benjamin Bertelsen of UNDP notes that when Trinidad and Tobago was selected to receive UNDP's grant to create an OSPO, a key requirement was to work with the University

of the West Indies. Having a university partner provides stability, protects the OSPO from sudden shifts in government priorities, and creates a sustainable pipeline of talent from university students who can engage with the OSPO's work (B. Bertelsen, n.d.). Trinidad and Tobago's OSPO is also supported by the Inter-American Development Bank through its loan operation with the Ministry of Public Administration and Artificial Intelligence (Inter-American Development Bank, n.d.)^{39 40}.

OSPO



Startups, local SMEs, and the tech ecosystem:

By fostering the use of open-source in government, an OSPO contributes to the predictability of government-sponsored market demand for implementation, support, and customization services for OSS. The reduction of government dependence on international suppliers also helps increase the involvement of local companies in shaping digital transformation initiatives. In a 2021 study, the European Commission estimated that open-source software had a positive economic potential, adding €65-95 billion to GDP in the European Union (European Commission, 2021)⁴¹.



Universities, researchers, and students:

OSPOs can build on and strengthen the long-standing relationship between governments and academia. They deliver value to students by supporting the development of OSS-related curricula, providing hands-on experience to solve problems in the public interest and granting access to public data, thereby supporting research advancement. By embedding open-source practices into the curriculum, OSPOs contribute to the long-term sustainability of OSS strategies, increasing the flow of new talent with relevant OSS skills and mindsets. In addition, many governments partner with universities to maintain government-owned open-source solutions and receive training support.



Civic tech and civil society organizations:

They often bring user-centered methodologies and deep community knowledge to the table. An OSPO can also provide avenues for them to contribute to open digital tools, co-design services, and offer feedback on solutions. For civil society, open-source means greater transparency in public digital systems.



Open-source contributors and developers:

Working on projects that significantly affect the public often inspires developers across sectors and demographics. An OSPO can offer trusted entry points for them to contribute back, with well-documented projects, and clear contribution mechanisms, which can be meaningful for the national technology stack.

³⁹ Inter-American Development Bank. (n.d.). *Programme to accelerate the digital transformation agenda (TT-L1061)*. <https://www.iadb.org/en/project/TT-L1061>

⁴⁰ Ministry of Public Administration and Artificial Intelligence. (n.d.). *Government partners with UNDP and UNESCO to launch national digital initiatives, including AI assessments*. <https://www.mpaai.gov.tt/media-releases/government-partners-undp-unesco-launch-national-digital-initiatives-ai-assessments>

⁴¹ European Commission. (2021). *The impact of open source software and hardware on technological independence, competitiveness and innovation in the EU economy*. European Union. <https://digital-strategy.ec.europa.eu/en/library/study-about-impact-open-source-software-and-hardware-technological-independence-competitiveness-and>

4.3 Value Proposition and Portfolio

An OSPO's work should extend beyond the mere mapping of stakeholders. A thriving local ecosystem of contributors, implementers, and service providers is critical to the long-term sustainability and impact of any public sector open-source strategy.

Moving beyond a passive relationship with stakeholders to active co-creation gives them a sense of ownership, turning them into partners in building national digital public goods.

These coordinated engagement initiatives typically fall into two different but related buckets: building a direct individual contributor community and building a technology ecosystem.

According to Bastien Guerry (DINUM's OSPO, France), BlueHats⁴², a worldwide community of public servants (teachers, researchers, and other government workers) who promote Free and Open-Source software, has proved to be a key multiplier force in France, translating open-source norms into everyday operations and turning community identity into institutional capability. By giving civil-servant contributors a clear identity and home base, BlueHats normalized contribution as part of public service culture, connecting peers across ministries and bringing maintainers closer to delivery teams. A visible network also accelerated knowledge exchange and bridged government, academia, and civil society collaboration, creating a natural pathway for SMEs and startups to engage.

Fostering a Community of Contributors

To ensure that government open-source projects mature and improve, it is good practice to build a community of contributors around them, allowing the public sector to draw on a range of technical skills and avoid the weight of maintenance while ensuring local ownership. According to the European Commission's Open-Source Observatory (OSOR), having OSS communities around each project decreases their long-term maintenance-related risks. Their Guidelines for Sustainable Open-Source Communities in the Public Sector (European Commission Open-Source Observatory, 2021)⁴³ go through successful European use cases, showcasing two solid paths: join an existing OSS community or build one within the administration, with clear governance, budget, and roles to ensure stewardship over time.

"Our permanent challenge, year after year, is building community. Those efforts must be present from the planning phase, bringing the community together early and generating commitment. There is a lot of work beyond purely technical tasks."

— Elena Machuca

Government Architecture Manager,
Agency for Electronic Government and
the Information and Knowledge Society
(AGESIC)

⁴² BlueHats. (n.d.). *BlueHats community*. <https://code.gouv.fr/en/bluehats/>

⁴³ European Commission Open Source Observatory. (2021). *Guidelines for sustainable open-source communities in the public sector*. https://interoperable-europe.ec.europa.eu/sites/default/files/inline-files/2021%20Updated%20Guidelines%20for%20creating%20sustainable%20OSS%20communities_1.pdfbal/research/open-source-dpi-adoption-lac/

Governments can foster a community of contributors by:



Establishing clear onboarding paths

Supporting well-defined goals, contribution guidelines, codes of conduct, and CLAs (Contributor License Agreements) to create trust and legal transparency.



Preparing Technical Foundations for Contribution

Repositories should be well-maintained with detailed documentation, issue templates, and tasks labeled as “good first issues” to ease the new contributor barrier.



Engaging with developers

It can include such activities as holding events (e.g., hackathons, bugfix sprints, and drives) and running or setting up forums or chats as the community support interface.



Recognizing and rewarding contributions

A formal program that recognizes top contributors with awards, public acclaim, or badges is an essential element of maintaining a sense of purpose.

Governments can leverage established programs that strengthen open-source software and its contributor ecosystems. Google Summer of Code⁴⁴(GSoC), for example, pairs new contributors with mentor organizations for structured OSS projects, bringing fresh talent into communities. Code4GovTech⁴⁵(C4GT) builds communities around Digital Public Goods and Digital Public Infrastructure through a dedicated mentoring program and summer coding tracks explicitly designed for public-sector use cases. In parallel, GitHub’s Skills-Based Volunteering model matches its engineers and computer scientists with social-sector and public-interest projects, providing guidance for governments and partners adapting, improving, or maintaining OSS solutions over time (GitHub, n.d.)^{46 47}.

For Nil Homedes, Director at Decidim⁴⁸, the platform’s success is rooted in its democratic governance framework, which has become a reference model for governing digital commons. Originally developed and open-sourced by the Barcelona City Council, growing demand for Decidim’s reuse prompted the City Council to transfer the management and maintenance of the source code to the Decidim Association. This shift enabled the community to propose new features and help define the roadmap, making Decidim a unique global example of implementing free software as a public policy through community-based governance. As a consequence, Decidim is used by more than 450 organizations worldwide.

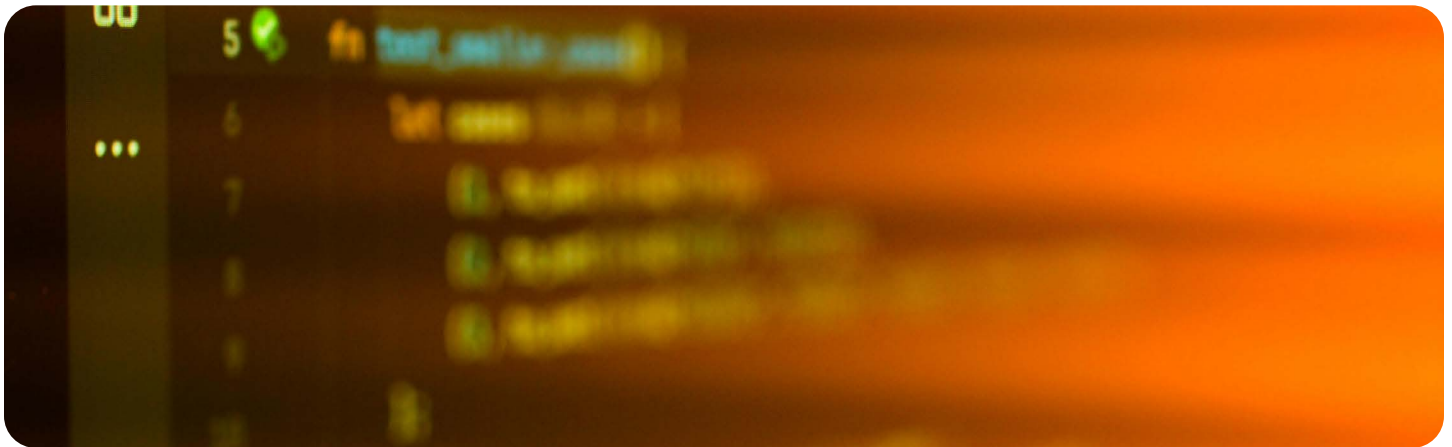
⁴⁴ Google. (n.d.). Google Summer of Code. <https://summerofcode.withgoogle.com/>

⁴⁵ Code4GovTech. (n.d.). Code4GovTech. <https://codeforgovtech.in/>

⁴⁶ GitHub. (n.d.). GitHub. <https://github.com/>

⁴⁷ GitHub. (n.d.). Skills-based volunteering [GitHub repository]. <https://github.com/github/Skills-Based-Volunteering-Public>

⁴⁸ Decidim. (n.d.). Decidim. <https://decidim.org/>



Decidim's participation model is open, flexible, and replicable, designed to maximize citizen engagement by enabling thousands of people to interact simultaneously and providing a standard for participation that can be easily adapted to different local contexts. As a public–common code infrastructure, Decidim demonstrates how a free and open-source software project can originate in the public sector while fostering a collaborative community involved in code development from the outset. Openness to contributions and strong alliances with local partners driven its global expansion and sustained community growth.

Developing the Local Technology Ecosystem

Engaging with and cultivating of the national ecosystem, spanning firms, universities, and innovation hubs, is essential to ensure that open-source tools are developed, deployed, and sustained over time. A healthy ecosystem gives government greater strategic flexibility, reducing reliance on internal development teams, while broadening the pool of qualified implementers and mitigating the risk of vendor lock-in that arises when only a few actors can deliver.

The risk is real even with open-source. As implementations grow in scale and complexity, from near–plug-and-play projects to nationwide digital public infrastructure, the learning curve

steepens, and the stakes rise. If governments want choice and resilience, they must invest in building and diversifying the local implementation ecosystem.

Developing the local technology ecosystem is also key for the long-term continuity of open-source software. Manuel Aguilera argues that despite the increasing number of technically mature OSS, they remain underutilized in Latin America and the Caribbean due to an underdeveloped market layer that can support public institutions. The support of implementers is still “insufficient and fragmented” (Aguilera, 2025)⁴⁹.

“Sustainability is about more than cost: it can be about how software is managed, maintained, and improved; about keeping open technology choices rather than being locked in; the ability to move a service from one supplier to another; and how government contributions to software can help governments learn and build on each other’s success around the world (Public Digital, 2020).”⁵⁰

⁴⁹ Aguilera, M. (2025). *Why Open-Source Lags Behind: Lessons for DPI Adoption in Latin America and the Caribbean*. <https://dial.glo>

⁵⁰ Public Digital. (2020). *Open-source in government: Creating the conditions for success*. https://assets.public.digital/Open_Source_Report.pdf

To achieve this vision, countries need a competitive market to emerge around the implementation of open-source solutions. For many countries, the core purpose of promoting open-source is the creation of more balanced and competitive digital markets. According to Astor Nummelin Carlberg of Open Forum Europe, a focus on open-source and open standards is a strategic way to challenge existing market concentrations held by large incumbents. This approach fosters healthier, more competitive markets with greater user choice, ultimately benefiting the entire ecosystem of technology users.

Public Digital⁵¹ reinforces that building an ecosystem of local technology vendors requires active engagement to help them move from licenses to consultancy and service provision. This transition, if done properly, will not only generate new markets for local companies, but also new possibilities for government service delivery. The UK Government's push toward the use of open-

source software, for example, created a £15bn market for the UK economy⁵².

Another example is GovTech Connect⁵³, a regional initiative launched in December 2025 by IDB Lab and the Local Innovation Network (RIL), with the support of IDB's Code for Development. The program seeks to strengthen the capacity of cities to understand and deploy open-source software, create pathways for GovTech startups to propose and implement open-source solutions that respond to concrete local government challenges and equip accelerators and other ecosystem actors with the skills needed to design sustainable OSS-based business models. By systematically connecting local governments, startups, and support organizations around open-source tools and practices, GovTech Connect contributes to the emergence of a more diversified and resilient market of implementers, laying the groundwork for scalable, high-impact OSS adoption across the region (Red de Innovación Local & IDB Lab, 2025).

OSPOs can support the development of the local technology ecosystem by:



Enhancing market predictability

Publishing roadmaps and pipelines of upcoming projects and open-source needs, so firms can plan investments and build relevant capabilities accordingly.



Mobilizing funding

Launching competitive grant windows and challenge calls for the development, adaptation, and implementation of open-source applications aligned with public sector priorities.



Building capacity in local firms

Partnering with maintainers of priority OSS to offer accredited training and certification for local providers, expanding the pool of qualified local implementers.



Enabling experimentation

Establishing innovative sandbox programs that allow selected stakeholders to pilot open-source solutions in real public sector contexts with clear safeguards, evaluation criteria, and pathways to scale.

⁵¹ Public Digital. (2020). *Open-source in government: Creating the conditions for success*. https://assets.public.digital/Open_Source_Report.pdf

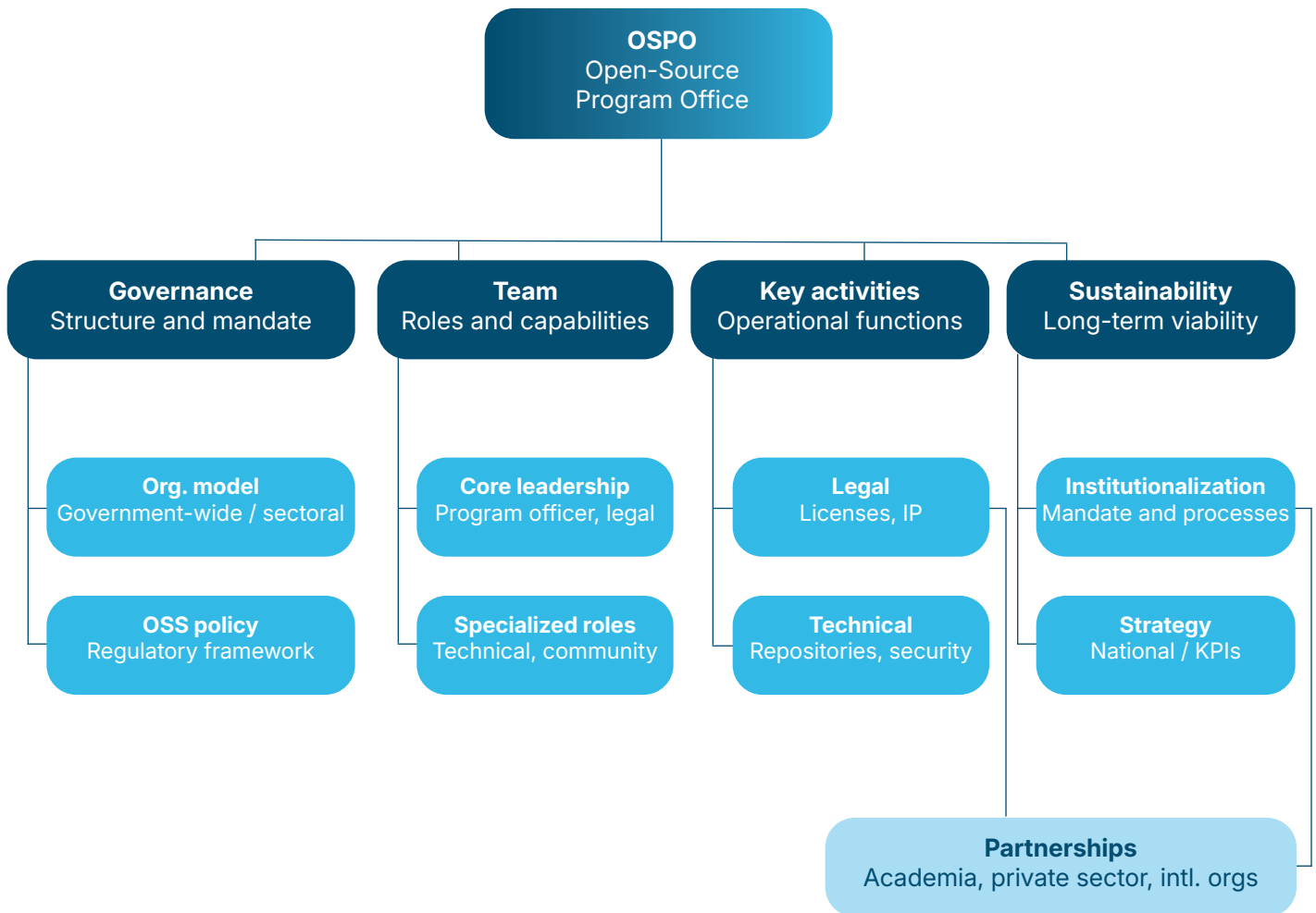
⁵² Public Digital. (2020). *Open-source in government: Creating the conditions for success*. https://assets.public.digital/Open_Source_Report.pdf

⁵³ Red de Innovación Local & IDB Lab. (2025, December 10). *RIL y BID Lab lanzan GovTech Connect, un programa regional para fortalecer el ecosistema GovTech en América Latina*. <https://www.redinnovacionlocal.org/novedades/527>

5

**DESIRABILITY:
SHAPING THE NEEDS,
TAKEHOLDERS, AND
VALUE CREATION**

OSPO FUNCTION MAP



- Core entity
- Pillars
- Sub-functions
- External / cross-cutting

Once the needs are understood, the next step in the strategy is to establish feasibility, in other words, determine what the OSPO should do to accomplish its value proposition. Feasibility is linked to the organization's capacity to execute and the availability of the necessary infrastructure.

“The success of OSPOs will depend on their ability to combine agility with institutionalization, and for that, they will need the proper team to deliver on the goals and scope that were established. Being agile requires short feedback loops, fast iteration, and a specific target rather than a diffuse set of objectives, so that stakeholders can rely on the OSPO to remove concrete bottlenecks. Institutional stability, on the other hand, comes from the formal backbone that gives the OSPO continuity, predictable processes, and authority that persists through political cycles and staff turnover.” —

Manuel Aguilera
Senior Regional Lead for Latin America and the Caribbean, Centre for Digital Public Infrastructure (CDPI)

Making the OSPO feasible involves defining a team with the necessary skills, authority, and tools to manage daily operations and achieve overarching goals, as well as establishing the right partnerships and relevant activities to execute the strategy effectively.

This section covers what will help the OSPO fulfill its goals and deliver its promised value. It addresses the main non-financial resources, either human or technical, that will turn the OSPO into an actionable initiative, and the key activities that would be supported by the core team, which are interconnected.

There is an additional block focused on partnerships, which is useful for addressing the gaps that the OSPO might not cover internally. These partnerships can be mapped during the initial part of the strategy and may change over time.

5.1 Key Resources

5.1.1 Team

Building a talented and committed team is fundamental to the success of an OSPO. While an established OSPO might have several specialized positions, many start with a team of one to three people that combines responsibilities. Its precise configuration depends on the OSPO's specific strategic priorities and the agency's location in government.

The roles described below represent a comprehensive model of a mature OSPO; in a smaller team, these responsibilities would be consolidated. An example of the Terms of Reference (ToR) for the Program Officer, which is typically the first position to be filled, is provided in Annex E.

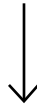
Core Leadership

Depending on the institutional context and scale, these functions may be fulfilled by distinct roles or combined within a small leadership team. In a basic starting team, a program officer can have a dual role with a policy lead, technical lead, or community lead, depending on their background and the activities of the community lead might be divided into the roles of the policy lead and the technical lead.



Program Officer

This role is responsible for leading the OSPO, which includes shaping its vision, ensuring alignment with a broader digital transformation strategy, managing the workflows across teams, and developing partnerships with internal and external stakeholders, such as leaders from organizations and governments. As part of the activities, the role involves coordinating daily implementation and budgeting. Strategic thinking, political skills, and program management expertise are needed.



Legal Advisor

This role needs to be part of the team that is developing policies and governance around the use of open-source licenses, IP, and liability. They help draft and vet policies, contributor agreements, and procurement language, ensuring that everything an OSPO is promoting is legal.



Policy Lead

This role's mandate is to articulate, develop, and socialize the broad open-source strategy. They bridge legal, engineering, and political communities, assist with the development of open-source policies, ensure that licensing rules are followed, and collaborate with procurement to minimize legal and administrative risks.



Technical Lead

This person guides the implementation of open-source software in government. They develop technical standards by which to measure code quality and security, maintain the government's open-source repositories, compile lists of vetted tools, and act as an internal help-desk for development teams.



Community Lead

This role is all about building a community around the government's open-source software. This position is also responsible for developing contributor onboarding programs, running engagement events (such as hackathons), working with universities and local technology organizations, recruiting partners at other companies, and helping to maintain an open culture.

Specialized Functional Roles

Based on the OSPO's strategic objectives, placement, and portfolio, it might need other specialized roles:



Tech Evangelist

This role advocates for the adoption and use of high-profile OSS tools. By providing training and technical assistance (TTA) and community outreach, this role promotes institutional trust and scalable adoption.



Curricula and Research Specialist

This role leads the design and institutionalization of OSS training, academic integration, and research programs that advance open-source capacity across government, academia, and the wider innovation ecosystem, focusing on the long-term development of local talent.

Essential Cross-Functional Support

Given the government structure, these experts may be located in other departments. However, for an OSPO to succeed, it must work in close collaboration with them.



Procurement Advisor

Works with the OSPO to develop procurement pathways and contract languages tailored for open-source-first software and services. Their experience should be leveraged to move away from traditional vendor lock-in toward cost-competitive and flexible procurement models.



Cybersecurity Specialist

Ensures that the open-source solutions in place meet security requirements. This person reviews repositories, provides guidance on code practices, vulnerabilities and risks, and reinforcing institutional confidence in the safety of open-source software.

5.1.2 Governance

Organizational Models and Placement

There is no single way to design an OSPO. The mandate, context, and institutional priorities will shape the value it aims to deliver and the way it will operate. The OSPO's "home" may also vary, depending on its focus, influence, and mode of operation.

To ensure long-term relevance and sustainability, an OSPO must be integrated with high-level national strategies, addressing challenges like economic competitiveness, cost reduction, and ownership of core digital infrastructure. This alignment elevates the OSPO from a technical support unit to an instrument of national policy. As Astor Nummelin Carlberg of Open Forum Europe suggests, the key is to first identify the national goals that open-source can

help solve and then design the OSPO's mission specifically to help the nation achieve them. A common best practice is to place the OSPO close to agency leadership to ensure political alignment, a clear mandate, and the necessary oversight.

Two key dimensions to consider are its institutional placement (government-wide vs. sectoral) and its operational structure (centralized vs. decentralized).

Institutional Placement: Government-wide vs. Sectoral

This document is written for a government-wide OSPO, but many of its insights are equally applicable to sectoral OSPOs. Nevertheless, it is important to distinguish between these models and their specificities.



Government-Wide Model

This is an OSPO model within an organization with a cross-cutting scope of action, e.g., within Ministries of Digital Transformation, central IT departments, or the Office of the National CIO. Under this framework, the OSPO has greater engagement across several ministries, departments, and agencies. The primary benefit of the OSPO model is that it can provide alignment with strategic priorities and reduce duplication and silos. Such offices also exist first and foremost to develop policies and frameworks, coordinate centralized repositories and infrastructure, and build OSS capacity within the entire public sector.



Sectoral Model

The OSPO can be located within a sectoral ministry (e.g., the Ministry of Health, Education, Finance, etc.). Initiatives under this model are particularly targeted at addressing specific problems, scaling solutions currently in use, and promoting solutions that can be reused across similar bodies, e.g., hospitals or schools. The primary benefit of this framework is to develop competence in the provision of customized solutions in its specific industry.

Not only can both models coexist, but in fact, depending on the context, one can lead to the other: on one hand, a successful sectoral OSPO can create demand for a centralized approach, whereas a mature government-wide OSPO often serves as an enabler for replication across the government. In France, for example, the government-wide OSPO, housed in the Interministerial Digital Directorate (DINUM), actively advises and supports individual ministries in establishing their own sectoral OSPOs. According to Bastien Guerry (DINUM OSPO, France), this creates a national network where the central office provides strategic guidance while sectoral offices can focus on

specific operational needs, demonstrating a scalable governance model.

Operational Structure: Centralized Team vs. Decentralized Hub

The internal structure of the OSPO also varies, from a formal, dedicated team to a more distributed network of collaborators.

In practice, many OSPOs have hybrid models. One government-wide OSPO might build a network of ambassadors in sectoral agencies, or a successful tool from a sectoral OSPO could be scaled across the country. The selected model represents a starting point that can change as the OSPO matures, the broader ecosystem evolves, and strategic priorities shift.



Centralized Team

A centralized model is frequently appropriate when the OSPO undertakes the creation, advisory, and enforcement of government-wide policies, performing significant operational work (e.g., maintaining multiple repositories or relationships with vendors), or leading the government-wide adoption of a single open-source solution across multiple agencies. It establishes clear chains of command and resources, is slightly more formal in structure, and has a dedicated team.



Decentralized Hub (or Center of excellence)

In more decentralized organizations, the OSPO can be a small coordination hub that relies on contributions and expertise from designated focal points or secondments from different departments. The focus should be on functional cooperation and disseminating practices across the organization instead of relying on a single office to manage all centralized functions.

Rules, Processes, and Structures

Effective governance provides the essential framework of rules, processes, and structures that guide an OSPO's decisions. It ensures that its activities are transparent, accountable, and consistently aligned with broader digital transformation goals. This governance should be rooted in principles of participation and transparency to build trust and legitimacy both inside and outside government.

A robust governance model should include both decision-making bodies and foundational policy documents.

France's trajectory shows the value of cumulative policymaking on open-source. In 2012, a Prime Ministerial circular set orientations for the proper use of OSS within government, establishing the tone for OSS-aware procurement (République française, 2012)⁵⁵. In 2016, the Digital Republic Act⁵⁶ then classified code produced by the administration as an "administrative document" subjected to public release, and encouraged the use of OSS in developing, purchasing, and operating information systems. Finally, in 2021, DINUM formalized a central OSPO and asked ministries to issue their own OSS policies, thereby accelerating adoption.

Although it took several years for the initial circular to be codified into law, research indicates that the 2012 procurement guidance advanced national competitiveness by normalizing openness at scale (Nagle, 2019)⁵⁷. By creating a clear preference for OSS across ministries, the policy generated a broad "demand shock" that drew more contributors into upstream projects, strengthened maintainer communities, and improved the availability and

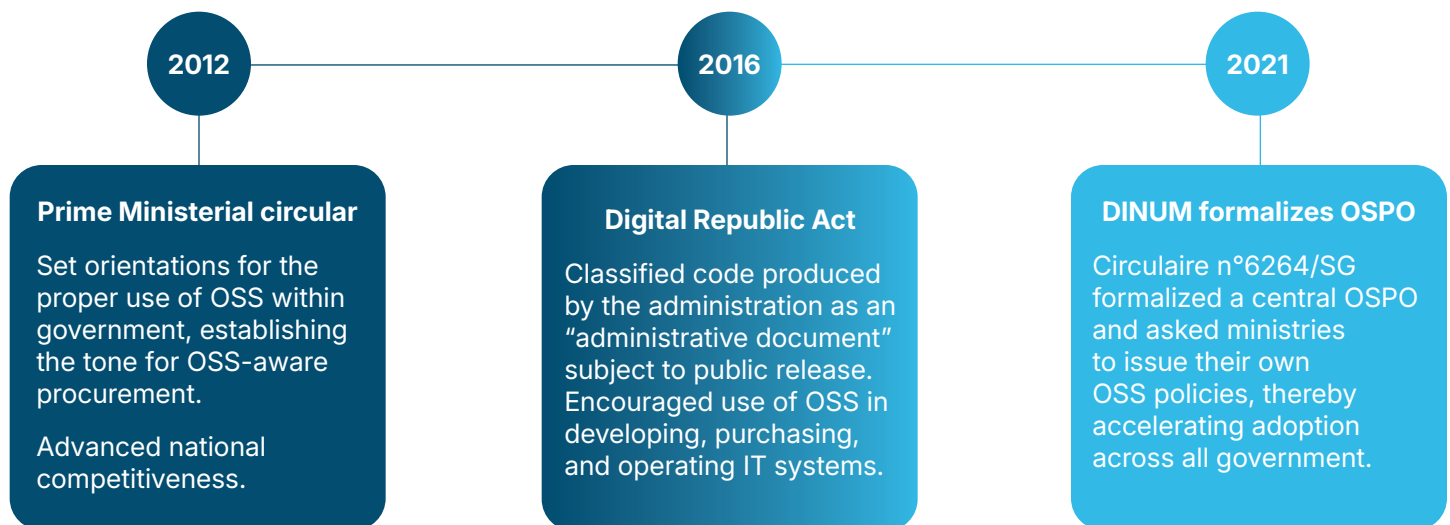
quality of public-interest code. These shifts spilled over into the broader economy, with more firms adopting OSS practices and new digital ventures emerging.

5.2 Key Activities

5.2.1 Legal and Compliance Enablement

Navigating the legal complexities of open-source licensing, intellectual property, and public procurement is often one of the most significant barriers to OSS adoption in government. The OSPO needs to provide clarity on legal matters to enable agency teams to operate with confidence and consistency.

The OSPO does not replace the government's central legal office but rather works hand in hand with it to develop specialized, reusable resources that address the specific legal attributes of open-source code, ensuring that all legal considerations are addressed from the outset.



The OSPO's work in this area typically focuses on three key functions:

1. License Compliance Management

The OSPO is responsible for providing clear guidance on open-source license usage. This involves pre-approving open-source licenses that align with the institution's interests and guiding teams on how to meet their obligations and limitations. The OSPO also facilitates the adoption of tools and processes that enable automatic scans of dependencies and track their license compliance, mitigating legal risks from incompatible licenses.

2. Procurement Modernization

Public procurement is typically tailored around the acquisition of proprietary software licenses, which hinders the adoption of OSS. OSPOs play a vital role, supporting procurement departments to adapt or create new contracting vehicles and standardized language for acquiring OSS-related services, e.g., implementation, customization, support, and maintenance of OSS. This includes creating reusable assets such as sample Terms of Reference, evaluation criteria, and contract clauses that promote competitive, innovation-friendly procurement. Detailed recommendations can be found in the IDB's Technical Note on "Open-Source Procurement" (Inter-American Development Bank, n.d.)⁵⁸.

3. Contribution and Intellectual Property (IP) Management

Institutions need a clear legal framework for managing the intellectual property of public contributions to their code repository. The OSPO is responsible for developing standard agreements such as a Contributor License Agreement (CLA) and a Developer Certificate of Origin (DCO) for broader government use.

These agreements provide the government with sufficient rights to use, modify, and re-license contributions made to its projects by external collaborators, which is critical to the project's longevity.

By centralizing these functions, the OSPO de-risks open-source adoption, reduces legal ambiguity, and streamlines processes, making it easier and safer for all government agencies to leverage the benefits of OSS.

5.2.2 Technical Oversight and Best Practices

Apart from a strategic role, the OSPO must be a center of technical excellence, making sure open-source software is consumed, created, and contributed by or on behalf of the government is of high quality, secure, and

sustainable. The OSPO must establish and provide support on technical standards and build shared infrastructure to simplify adherence to best practices for all teams.

1. Establishing a Centralized Code Repository

A central repository (e.g., on a platform like GitHub or GitLab) serves as the government's official, trusted source for its open-source projects. It is managed by the OSPO, which sets the standards for its use, including:

- a. Standardized Documentation: It should be mandatory for all projects to have base-level documentation, such as a README, installation

⁵⁸ Inter-American Development Bank. (n.d.). *Open-source software procurement*. <https://publications.iadb.org/en/open-source-software-procurement>

guides, software architecture summaries, and a well-defined contribution process.

b. Version Control and Structure: It ensures that users use version control correctly and organizes the repository so that all released code is easy to find, understand, and maintain.

2. Defining Security and Quality Baselines

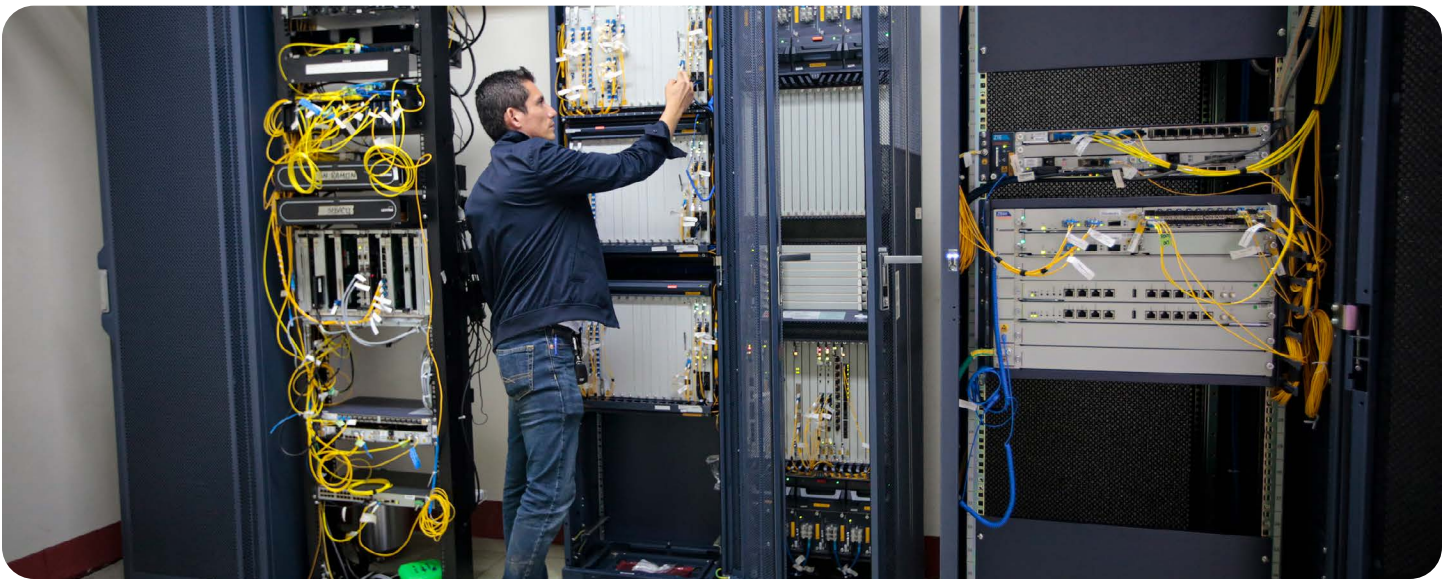
As part of building trust in open-source and ensuring the cybersecurity of deployed solutions, an OSPO should partner closely with cybersecurity coordination bodies to establish clear and binding security standards. This involves implementing a baseline set of security practices for all projects, such as:

a. Secure-by-design: Applying security considerations throughout the project lifecycle—including planning, requirement analysis, design, development, testing, deployment, and maintenance—is the most effective and efficient way to secure systems. At the planning stage, providing training, establishing standards, and implementing best practices for secure project design, coding, and configuration help prevent the inadvertent introduction of vulnerabilities. Security requirements should be incorporated

during the requirement analysis and design phases, as introducing them later significantly increases costs.

b. Vulnerabilities scanning and dependency management: Reviewing code quality and documentation before deployment helps teams detect potential security issues early and prevent vulnerable code from reaching production. For example, applying automated scanning tools to source code, third-party dependencies, and deployed systems help ensure software security during development and deployment. During the maintenance stage, promptly applying package updates and issuing alerts when unpatched vulnerabilities are discovered helps sustain a high level of security.

In line with Cybersecurity Capacity Maturity Model for Nations (CMM)⁵⁹, the OSPO can help ensure that systems adhere to standards, apply appropriate security controls, and maintain high quality across the OSS lifecycle. The IDB–OAS 2025 Cybersecurity Report highlights that the effective implementation of cybersecurity standards and good practices



⁵⁹ Global Cyber Security Capacity Centre. (n.d.). *National AI Cybersecurity Readiness Metric*. <https://gcscx.ac.uk/national-ai-cybersecurity-readiness-metric>

⁶⁰ Porriúa, M. et al. 2025. *2025 Cybersecurity Report: Vulnerability and Maturity Challenges to Bridging the Gaps in Latin America and the Caribbean*. Inter-American Development Bank. <https://publications.iadb.org/en/2025-cybersecurity-report-vulnerability-and-maturity-challenges-bridging-gaps-latin-america-and>

must be supported by processes, controls, and technologies that reduce risk (Porrúa et al., 2025)⁶⁰. For an OSPO, this implies establishing standards, processes, and requirements—such as secure-by-design practices, automated vulnerability and dependency scanning, and quality assurance gates—that must be met before any open-source component is deployed in production. Security requirements must also be integrated into procurement and vendor management process, ensuring that OSS implementation partners deliver adaptations, integrations, and maintenance services that comply with established security expectations.

It is important to note that OSS is not inherently more or less secure than closed-source solutions. First, system security depends on multiple factors, including IT infrastructure, solution deployment, configuration, monitoring and maintenance, and the security of the underlying code. Second, modern software systems rely extensively on dependencies that are outside the direct control of solution developers, whether those components are open-source or proprietary. Third, code review dynamics differ across models. In OSS, the community may review code and flag potential issues, although insufficiently vetted contributions may still be introduced. In closed-source software, developers are responsible for quality and security, but external verification is often limited. Fourth, support and maintenance models also differ. Closed-source software is typically supported by its vendors, whereas OSS can be supported by third-party providers, community contributors, or internal teams.

An estimated 96% of U.S. civil and military codebases include at least one open-source component, demonstrating that open-source system can be highly secure when governed with appropriate safeguards, including secure-by-design practices, dependency management, and continuous vulnerability scanning. Open-source software is also deployed in mission-critical contexts: for example, U.S. Navy systems and U.S. Space Force satellites reportedly run on Linux-derived platforms, underscoring that rigorous operational controls ultimately determine security outcomes (Tony Blair Institute for Global Change)⁶¹.

Overall, security depends more on implementing systems correctly than on whether software is open-source or proprietary. This is where an OSPO can add value by helping government implement projects securely while maintaining the pace of innovation.

By aligning repository practices, procurement requirements, and third-party risk management with national cybersecurity authorities, the OSPO can make security expectations clear, verifiable, and scalable, strengthening trust in government open-source components as they move from pilots to production and reuse across agencies.

“All things considered, security depends more on doing things right than on whether a solution is closed-source or open-source. This is where the OSPO can add value.” —

Ariel Nowersztern

Cybersecurity Lead Specialist, Inter-American Development Bank (IDB)

⁶¹ Ward-Jackson, G. et al. (2026). *Open Source: How Middle Powers Can Build Influence in the Age of AI*.

⁶² <https://institute.global/insights/tech-and-digitalisation/open-source-influence-age-of-ai>

⁶³ <https://knowledge.iadb.org/en/code-development/open-source-solutions>

⁶⁴ <https://www.digitalpublicgoods.net/registry>

⁶⁵ <https://exchange.dial.global/products>

⁶⁶ <https://opensource.unicc.org/explore/groups>

Examples of repositories from national and local government agencies:

Uruguay: <https://github.com/AGESIC-UY>

Dominican Republic: <https://github.com/ogticrd>

Singapore: <https://github.com/openqovsa>

Buenos Aires: <https://github.com/gcba/>, <https://github.com/datosgcbai/>

US Cybersecurity and Infrastructure Security Agency: <https://github.com/cisagov>

US Center for Medicare and Medicaid Services: <https://github.com/CMSgov>

Canada: <https://code.open.canada.ca/en/open-source-softwares.html>

Estonia: <https://koodivaramu.eesti.ee/explore>, <https://github.com/ria-ee>

France: <https://code.gouv.fr/fr/>, <https://github.com/etalab>

Barcelona: <https://github.com/ajuntamentdebarcelona>

3. Curating a Catalog of Reusable Software

A major benefit of increasing open-source adoption is the reduction of duplicative procurement and software development across government. To this end, the OSPO should create and maintain a curated catalog of vetted, open-source solutions for common government needs.

Having government-curated open-source solutions reduces the perceived risk of open-source adoption and helps promote scalable cultural change across agencies, increasing reuse practices. Its development does not require starting from scratch, as it leverages and complements existing open-source repositories made available by international organizations, such as the Inter-American Development Bank (IDB)⁶², the Digital Public Goods Alliance (DPGA)⁶³, the Digital Impact Alliance (DIAL)⁶⁴, and the United Nations (UN)⁶⁵ as well as national and local government agencies⁶⁶.

4. Governing the Software Lifecycle

The OSPO is responsible for managing open-

source software from adoption to release. This includes setting up an explicit process flow for the consumption of external OSS (which might involve vetting, sandboxing, or deployment or usage approval) and an organized mechanism for publishing internal government software (starting from inventorying, prioritizing software, finalizing code, and deciding who will maintain the code for the long term).

5.2.3 Institutionalization

The long-term sustainability of an OSPO depends on its success in transitioning from a project-by-project structure into the institutionalization of its mission, functions, and value into the permanent policies, culture, and structures. Achieving this requires a deliberate strategy focused on building deep institutional roots. Some key strategies to institutionalize an OSPO are:

Key institutionalization strategies

1. Secure a formal mandate

Executive decree, ministerial resolution, or statute

2. Integrate with national strategies

Digital transformation, open gov, modernization

3. Demonstrate value continuously

Quick wins, KPIs, cost savings, transparency

4. Standardize all core processes

SOPs, playbooks, toolkits for every function

5. Build internal champions

Agency network, capacity building, training

1. Secure a Formal Mandate

It is key to formalize the OSPO's existence and authority. This could be accomplished through a formal instrument, such as an executive decree or a ministerial resolution, or by embedding its mandate in statute, in the form of a digital government act or a law for public sector innovation. A formal mandate provides legitimacy for its inter-agency work, and stability during political transitions.

The French OSPO under DINUM, for example, was formalized in 2021 through the Circulaire n°6264/SG du 27 avril 2021, which also included the OSPO's action plan and a broader effort to prioritize the opening and reuse of public data, algorithms, and source code throughout the government (Légifrance, 2021)⁶⁷.

Having a formal mandate is essential, but it also helps to signal intent early and explain the path to formalization before the legal instruments are issued. Practical steps can include issuing a press release and hardwiring the OSPO commitment into financing documents, MoUs, and other partnership instruments. Trinidad and Tobago offers a good example, announcing the setup of their OSPO publicly through a press release (Trinidad and Tobago MPAAI, 2025)⁶⁸, a commitment that is also reflected in the related IDB loan documentation (IDB, n.d.)⁶⁹.

2. Integrate it with National Strategies

The OSPO's role should directly respond to broader national priorities, including the national digital transformation strategy, open government action plans, and modernization programs to reform the public sector.

3. Demonstrate and Communicate Value Continuously

The OSPO will need to show its value early and often. This will be achieved by delivering quick wins and defining and tracking key performance

indicators (KPIs) connected to national priorities. These metrics should demonstrate value, such as cost savings, faster digital services rollouts, more collaboration between departments, and economic benefits for the national technology ecosystem.

4. Standardize and Document All Core Processes

The OSPO cannot function solely on the institutional memory of its founding members. Institutionalization involves producing a set of documented standard operating procedures, useful playbooks, and reusable toolkits for every core function (e.g., how to vet a new OSS and how to open-source a government-owned tool). This documentation ensure operational continuity, makes the work of the OSPO scalable and replicable, and supports succession planning.

5. Build Internal Champions and Capacity

Long-term survival relies on broad support from champions. The OSPO must actively cultivate a network of champions in different agencies who understand its value and advocate for its work. This is reinforced by investing in capacity-building programs (training, workshops) that embed open-source knowledge and skills across the public sector. For the OSPO to truly become institutionalized, its principles must be understood and practiced by many, not just by its core team.

“Champions keep open-source alive through lean periods, they are essential even before a formal OSPO exists and mandatory to help it grow.” —

Jon Lloyd

Director of Advocacy and 50 in 5, Digital Public Goods Alliance (DPGA)

⁶⁷ Légifrance. (2021). *Circulaire n°6264/SG du 27 avril 2021 relative à la politique publique de la donnée, des algorithmes et des codes sources*. <https://www.legifrance.gouv.fr/circulaire/id/45162>.

⁶⁸ Ministry of Public Administration and Artificial Intelligence (Trinidad and Tobago). (2025). *Government Partners with UNDP and UNESCO to Launch National Digital Initiatives, Including AI Assessments*. <https://www.mpaai.gov.tt/media-releases/government-partners-undp-unesco-launch-national-digital-initiatives-ai-assessments>.

⁶⁹ Inter-American Development Bank. (n.d.). *Trinidad and Tobago Programme to Accelerate the Digital Transformation Agenda*. <https://www.iadb.org/en/project/TT-L1061>

6

**VIABILITY:
FINANCIAL AND
INSTITUTIONAL
SUSTAINABILITY**

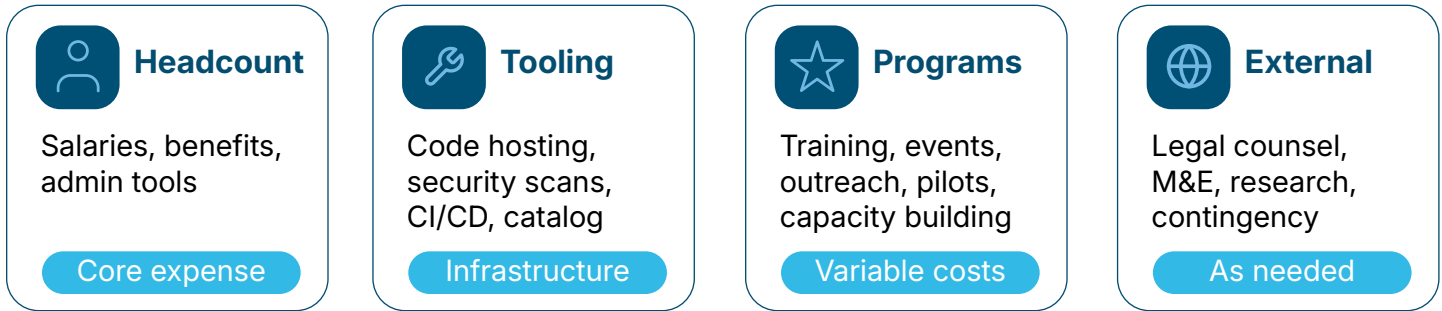


This section covers the third stage of the Mission Model Canvas: Viability. An OSPO, like any public initiative, needs a clear plan to ensure it continues delivering value long after launch. After establishing an OSPO's strategic value (Desirability) and building its operational capacity (Feasibility), the final consideration is long-term sustainability (Viability).

As outlined in Section 2 of this document, evidence shows that the value generated through open-source adoption, particularly in cost avoidance, reuse, and productivity gains, can exceed the operating costs of an OSPO by orders of magnitude. This short-term value creation provides a critical foundation for the long-term financial and institutional viability discussed in this section.

Viability goes beyond securing a one-year budget. It combines financial sustainability with institutional relevance. Financial sustainability calls for a strategy that provides stable, diversified funding. Institutional sustainability embeds the OSPO in the government's core mission, ensuring that its value is uncontested and remains a budget priority.

This section offers guidance for a sound financial plan: how to model costs and secure the resources needed to maintain core operations and grow impact over time, positioning the OSPO as a durable part of the public sector's digital infrastructure.



6.1 Cost Structure

A sustainable OSPO shifts its focus away from short-term project funding and establishes a stable long-term financial plan. This plan secures a stable operational budget, starting with a clear view of its full cost base and a strategy to build diversified funding.

The initial step in financial planning is to build a realistic cost model. This should be based on the OSPO's planned services and growth path, projecting expenses for its starting phase and for full operations (see Annex D). An additional valuable resource is expenditure reports from peer teams. For example, the French OSPO under DINUM publishes detailed annual expenditure reports starting from 2021, its first year of operations, where they spent €85,000, to 2024 at the time of this publication, where its budget was €170,000 (République française, n.d.)⁷⁰.

Typical expense categories are:

- Salaries, benefits and access to administrative tools for the dedicated OSPO team.
- Software, hosting, tools, and technical infrastructure related to the OSPO's activities and initiatives.
- Training programs, events, workshops, outreach campaigns and pilots.
- Legal expenses, monitoring and evaluation, and external services.

In most cases, the costs of implementing and maintaining specific OSS solutions remain with the engineering and product owner teams, while

the OSPO cost model focuses on sustaining shared capabilities and government-wide enablement. If the OSPO adds engineering capabilities, it will be essential to add the related budget to the team's cost model.

6.2 Funding Streams

A sustainable financial model does not rely on a single funding source but instead combines different sources of funding, such as:

- **Direct Public Funding:** Obtaining a dedicated, recurring line item in a ministry's annual budget is the most common model for public OSPOs; however, this requires a strong business case that demonstrates the OSPO's value and alignment with national goals.
- **Earmarked Public Fees/Taxes:** Dedicating a small, sector-based fee or tax to a legally protected fund that finances recurring OSPO costs and programs will provide long-term sustainability and engage the contributing industries.
- **Inter-Agency Co-Financing:** When an OSPO's services help multiple government agencies, a co-financing model works well. This might be direct money from beneficiary agencies or non-cash support such as lending specialized staff to help the OSPO's work.
- **Partnerships with Donors:** For initiatives like a training program or building a specific open-source tool, OSPOs can get co-financing from international partners, like multilateral banks or foundations.

⁷⁰ République française. (n.d.). *Expenditure, staff and impact (2021-2024)*. <https://code.gouv.fr/en/expenditure-staff-impact/>

- **Savings Loop:** Savings generated through the replacement of overpriced proprietary systems with OSS solutions are reinvested into expanding these types of initiatives led by the OSPO.
- **Services and pooled agency contributions:** OSPOs can establish a small, recurring contribution from participating public entities into a shared fund that underwrites common platforms, such as catalogs and repositories, and offer paid services, such as technical advisory and architecture reviews.
- **Private Sector Co-investment:** OSPOs can invite firms to fund the implementation and/or improvement of open components that their services rely on (e.g., digital ID, payments, registries). Contributions should be made to the open stack under approved licenses, with no exclusivity. Early supporters gain speed and certainty while the ecosystem remains open to all.

A successful example of using savings loops to finance capability comes from the UK's Government Digital Service (GDS), created in 2011 with the mandate to drive efficiency, the agency treated funding as a consequence of fixing waste at scale. James Stewart, Public Digital's Partner and CTO and former Director of Technical Architecture at GDS, recalls the team audited not only technology spending but also staffing and facilities, tracing a large share of costs to "failure demand", citizens forced to call or visit offices because digital services did not work the first time. They calculated that delivering better digital services more efficiently, working at first contact, would unlock substantial, recurring savings. GDS estimated that getting core services right could free up on the order of £1.8 billion per year, a figure later validated through formal audits. Those verified savings then became the engine for building internal capability.

In the early years, a significant portion of GDS's operating budget came from consolidating

web estates—most visibly replacing Directgov and BusinessLink with GOV.UK, where legacy contracts reportedly cost £60–70 million per year to run. Redirecting part of those savings financed the first three years of delivery and reform. As ambitions and scope grew, the funding model matured: the UK treats cross-government digital platforms and standards as public goods that merit stable central funding when they demonstrably reduce whole-of-government cost and risk. This blend—initial reinvestment of audited savings, followed by budgeted central support for platforms with clear economic value—turned the digital team from a cost center into a sustained capability for efficiency and service quality.

Cambodia illustrates a different path. In 2018 the country established a Capacity Building, Research & Development (CBRD) Fund, financed by a dedicated 1% levy on telecom operators' gross revenues (World Bank, 2018; Royal Government of Cambodia, 2022)^{71 72}. This predictable, off-budget stream supports the growth of the open digital ecosystem on which the state relies on, including initiatives such as (1) scholarships and internships to build OSS skills, (2) salary top-ups to retain scarce public-sector engineers, and (3) milestone-based grants for local SMEs to maintain, integrate, and localize priority open-source components as part of its efforts to foster innovation and software engineering standards in its domestic tech industry. The result is a financing mechanism that both sustains OSPO operations and seeds a domestic vendor base.

Governments and regional bodies are beginning to explore new funding models. The proposal for the European Sovereign Tech Fund (Open Forum Europe, 2025)⁷³, for example, reflects the growing recognition of open-source software as a strategic asset and highlights the importance of investing in the maintenance and security of critical components.

⁷¹ World Bank. (2018). *Benefiting from the digital economy: Cambodia policy note*. <https://documents1.worldbank.org/curated/en/100841543598854492/pdf/128267-REVISED-Digital-Economy-web.pdf>

⁷² Royal Government of Cambodia. (2022). *Cambodia digital government policy 2022–2035*. Ministry of Posts and Telecommunications. https://asset.cambodia.gov.kh/mptc/media/Cambodia_Digital_Government_Policy_2022_2035_English.pdf

⁷³ Open Forum Europe. (2025). *European Sovereign Tech Fund: Feasibility study*. https://eu-stf.openforumeurope.org/wp-content/uploads/2025/08/EU-STF-Feasibility-Study_final.pdf

7

**THE OSPO
IMPLEMENTATION
MODEL**

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Having discussed the strategy and building blocks for the design of an effective OSPO, this section delves into the practical question of how to establish one. Executing all aspects and dimensions discussed in the previous sections at once is a significant undertaking that can be challenging and risky for many governments. A broad mandate may become ambiguous for technical and policy teams, who may quickly lose clarity on how the OSPO can provide value. Moreover, OSPO teams trying to position themselves as a generalist advisory body might lack sufficient technical depth or clearly defined services.

This section focuses on presenting a staged implementation model. This model is flexible and serves as a roadmap for an institution to gradually develop its OSPO capability over time

building on the results of the strategic process described earlier. The goal is to provide an approach that can be practically implemented by reducing the many roles and responsibilities discussed earlier and transitioning them into a logical order of activity. Checklists and implementation kits can also be found in detail in Annex B.

Overall, an OSPO should start small but deliver immediate value and then move forward to credibility and scale. For that, the model is divided into three distinct stages with specific goals and milestones to guide implementation from an early stage to a fully sustainable operation. It can be adapted to any context, whether it is a one-person-led initiative in a local agency, or the setting up of a dedicated team with a national mandate.

7.1 Start-up and Activation

The first phase of the OSPO's lifecycle is about translating the validated strategy from the Mission Model Canvas into a Minimum Viable OSPO. The idea is to activate the most critical blocks of the canvas with a small, high-impact set of activities to build momentum, demonstrate immediate value, and secure early wins. The team is typically small, and the focus is on practical enablement, not comprehensive policy.

Key Responsibilities and Activities (Checklist)

The activities in this section aim to directly activate the core blocks of the canvas.

Enable your value proposition and beneficiary relationships (Desirability)

- [] Prove the value with a champion project: Select a project that has been identified as high-visibility and low-risk. You can provide hands-on support to help a team adopt OSS or open-source a government-owned solution. Document and disseminate that success story.
- [] Forge connections with introductory workshops: Conduct Open-Source 101 sessions for both technical and non-technical staff to establish the foundation and assist the OSPO in establishing itself as a leading authority on the topic.
- [] Assess beneficiary needs by taking stock of OSS use: Start mapping how and where open-source software is currently used to understand shared patterns, needs, and potential partners.
- [] Develop immediate value by serving as an internal helpdesk: Act as the first line of support for teams who have questions about licensing, security, or tooling.

Start by demonstrating to peers the value and knowledge that the OSPO brings. Be the one they can turn to when they are unsure about open-source challenges, from licensing to security to what tools to use.

Build Your Key Channels (Desirability)

- [] Establish your source of truth: Develop a primary means of communication (e.g., an internal wiki page or basic website) to publicly communicate the OSPO's mission, services, and how to contact them.

Establish Key Activities & Resources (Feasibility)

- [] Establish a centralized code repository: Create a home (e.g., on GitLab or GitHub) where open-source projects associated with the organization can flourish and be sustainably maintained.
 - o [] Create early critical assets and guidelines:
 - o [] A basic how-to guide for open-sourcing projects.
 - o [] A checklist for safely using external open-source software.
 - o [] A short, clear list of recommended open-source licenses

7.2 Formalization

Formalization should follow once the OSPO has demonstrated value and established credibility through quick, tangible wins, such as initial cost avoidance, reuse of existing open-source components, publication of core guidelines, or early adoption by one or two agencies.

The goal is to mature from an ad hoc support space and turn it into a formal, legitimate, and officially sanctioned function within government. This phase is about building institutional scaffolding that ensures the OSPO's work is consistent, legitimate, and sustainable.

Key Responsibilities and Activities (Checklist)

The OSPO formalizes the critical blocks of the Mission Model Canvas, expanding the initial guidelines and activities to endorsed policies and processes.

Formalize key activities and governance (Feasibility)

- [] Create an Open-Source First policy: Based on initial informal guidelines, lead a structured process to co-design, iterate, and secure formal government adoption of a whole-of-government open-source policy.
- [] Create a formal governance body: Bring the advisory committee and its members into operation as a formal governance body to provide formal strategic oversight and institutional buy-in.
- [] Secure a recurring budget: Work with leadership to move beyond temporary or project-based funding and establish a dedicated, recurring line item for the OSPO's operations in the institutional budget.

- [] Formalize legal and procurement processes: Collaborate with legal and procurement departments to create standardized, pre-approved contract language and clauses for acquiring open-source support and services.
- [] Establish a formal security review process: Work with the cybersecurity agency to formalize its previous recommendations into a clearly defined and mandatory security review process for all government-published and government-adopted open-source code.
- [] Establish and track context-specific KPIs: Define and monitor key performance indicators aligned with national priorities and the OSPO's value proposition, including short-term savings and longer-term ecosystem and institutional impact. KPIs should be established during implementation and tailored to the institutional context.

Consolidate Your Value Proposition (Desirability)

- [] Document a formal Service Catalog: Document and publicly share an inventory of services that other agencies can formally request through defined channels (e.g., License Compliance Review, Procurement Advisory, Project Publication Support).

7.3 Scaling

Once an OSPO has established its credibility, with a clear value proposition that is known throughout the government, stable funding, and recognized governance, the focus shifts from building internal structures to a much more external-facing work. From that solid base, the OSPO services will grow further, deepen their ecosystem engagement, and be strategically positioned to support the country's digital transformation at scale.

Key Responsibilities and Activities (Checklist)

This phase is about expanding the reach and sophistication of the OSPO's functions across the Mission Model Canvas.

Scale your value proposition (Desirability)

- [] Improve technical services and tools: Expand the central code repository into an actively managed, comprehensive, curated catalog of vetted and recommended open-source tools for common government functions.
- [] Drive strategic innovation: Use the OSPO as a platform to pilot emerging open-source technologies (e.g., generative artificial intelligence) for public-sector use cases, positioning it as a center for forward-looking innovation.

Strengthen beneficiary relationships & channels (Desirability)

- [] Start large-scale community engagement programs: Go beyond first contact and plan national hackathons, contributor awards, or mentorship programs to develop a healthy ecosystem.

- [] Establish deeper university partnerships: Move beyond one-off projects to co-designing curricula and creating a sustainable talent pipeline (e.g., internship programs).
- [] Expand formal communication and outreach:
 - o Write publicly accessible reports and dashboards demonstrating the impact and value of open-source to senior leaders and the public.
 - o Represent the government through involvement in local and international forums, enabling sharing of best practices and fostering global partnerships.

Ensure Long-Term Viability

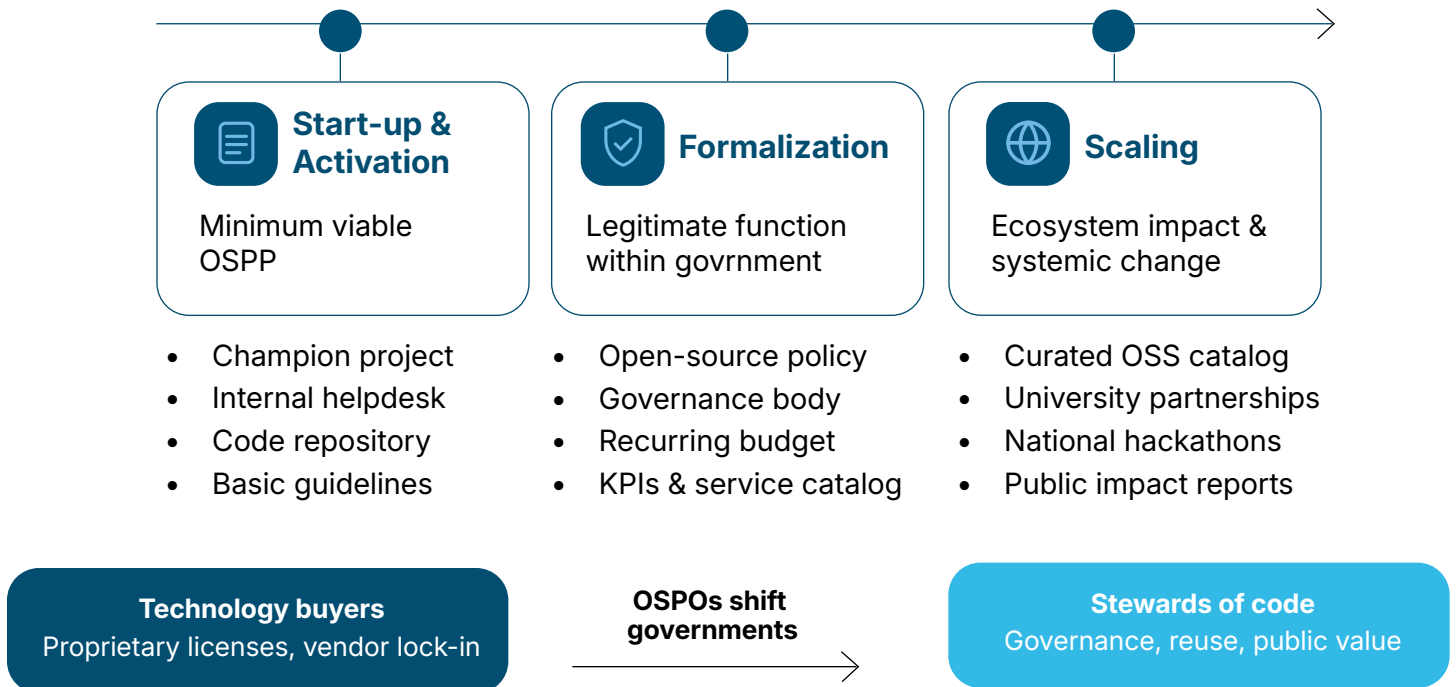
- [] Create continuous feedback loops for improvement: Have regular feedback sessions (surveys, stakeholder councils, etc.) on the effectiveness of OSPO services and strategy, enabling continuous evolution and adaptation to changing ecosystem needs.

8

CONCLUSION

Before
No OSPO

After
Mature OSPO



OSPOs begin with a limited mandate and expand over time as trust, capacity, and demand grow.

This document has shown that Open-Source Program Offices (OSPOs) represent an institutional capability that enables governments to publish, adopt, manage, and sustain open-source software in a structured, secure, and strategic manner. Across diverse contexts, OSPOs have emerged as mechanisms to coordinate policy, procurement, legal compliance, technical practices, and community engagement around open-source.

While there is no single blueprint for establishing an OSPO, the cases and frameworks reviewed in this publication reveal consistent patterns. Successful OSPOs tend to start by clarifying the value they are expected to create, gradually expanding their scope as institutional capacity matures. They act as focal points for reuse, reduce fragmentation across agencies, and help normalize open-source practices within public administrations.

Importantly, OSPOs shift how governments relate to software, from buyers of proprietary licenses to stewards of code. By creating clear governance, shared practices, and trusted guidance, they reduce the risks of open-source adoption and enable more informed decision-making. In doing so, they help public institutions move away from vendor-dependent approaches toward more sustainable models of digital development.

Beyond their internal organizational role, OSPOs function as institutional interfaces between public administrations, open-source communities, and market actors. By clarifying rules, expectations, and standards, OSPOs professionalize engagement with open-source ecosystems and contribute to the emergence of more diversified and resilient markets of implementers.

From a procurement perspective, OSPOs play a critical role in reframing how governments acquire software and digital services. Traditional procurement processes are often optimized for proprietary licensing models, which can limit competition and reuse. OSPOs support procurement teams in developing standardized language, reusable contractual assets, and guidance tailored to code ownership and open-source services such as implementation, customization, maintenance, and support. This strengthens governments' negotiating power and helps align procurement practices with long-term public value rather than short-term delivery.

OSPOs also contribute to institutional continuity, particularly in contexts marked by political turnover. By embedding open-source practices in policies, standards, and partnerships with universities, communities, and external stakeholders, OSPOs help preserve institutional memory and protect digital initiatives from abrupt shifts in political priorities.

Taken together, these implications suggest that OSPOs should be understood not as an additional administrative cost, but as an investment in governance capacity. Their functions align closely with emerging priorities around interoperability, reuse, vendor choice, and long-term stewardship of public digital assets. By institutionalizing open-source practices, OSPOs provide a practical entry point for governments seeking to move from isolated OSS projects to more systemic and scalable approaches.

Ultimately, OSPOs should be seen as evolving institutions. They often begin with a limited and focused mandate and expand over time as trust, capacity, and demand grow. Their long-term value lies in creating the institutional conditions for open-source practices to scale and endure sustainably. OSPOs help governments deliver more transparent, adaptable, and sustainable public services, and translate principle of openness into measurable and lasting public value.



9

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10

ANNEXES



This section provides templates and practical guides that enable public institutions to implement the ideas discussed in this technical note. The following annexes offer additional resources to support the structured planning, activation and operation of an OSPO.

Annex A: Mission Model Canvas Template

The image below presents the Mission Model Canvas template. It offers nine blocks designed to guide teams in articulating their strategy, from the value proposition to key resources, activities, partners, and cost structure.



Annex B: Checklists and Implementation Kits

This annex provides practical checklists to support OSPOs in their day-to-day operations:

- **Institutionalization Health Check:** A self-assessment tool that enables OSPO leaders to evaluate their progress towards becoming a sustainable and embedded government function.

| Cluster | Criteria | Readiness Level | | | | | |
|---------------------------|---|-----------------|--------|---------|------|--------|-------------|
| | | None | Little | Limited | Some | Strong | Very Strong |
| Institutional Foundations | 1. The OSPO has a formal mandate (e.g., executive decree, ministerial resolution, agency statute, digital government act, innovation law, etc.) | 0 | 1 | 2 | 3 | 4 | 5 |
| | 2. The OSPO has clearly defined and documented a framework of formal roles, processes, and responsibilities. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 3. Policies and processes exist for managing the use, contribution, and publication of open-source software (OSS). | 0 | 1 | 2 | 3 | 4 | 5 |
| | 4. The OSPO operates with regular processes for procurement, legal compliance, licensing, vulnerability management, and dependency management. | 0 | 1 | 2 | 3 | 4 | 5 |
| People & Practices | 5. The OSPO has an active OSS government community and has created mechanisms for communication and collaboration within government. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 6. OSS development best practices are adopted and consistently applied. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 7. Teams possess advanced open-source skills and receive ongoing training. | 0 | 1 | 2 | 3 | 4 | 5 |
| Strategic | 8. The OSPO engages and collaborates with external communities, OSS projects, and ecosystem stakeholders. | 0 | 1 | 2 | 3 | 4 | 5 |
| Maturity | 9. The OSPO has key performance indicators (KPIs) aligned with national priorities and communicates results transparently. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 10. The government publicly declares its use of OSS and has supporting policies. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 11. An open-source strategy exists and is integrated with national strategies and institutional priorities. | 0 | 1 | 2 | 3 | 4 | 5 |

- **Pre-Publication Readiness Checklist:** A checklist for government teams to prepare software for publication as open source software, including verification of documentation, security, and legal compliance.

| Cluster | Criteria | Readiness Level | | | | | |
|---|---|-----------------|--------|---------|------|--------|-------------|
| | | None | Little | Limited | Some | Strong | Very Strong |
| Legal & Authorization Readiness | 1. The team has obtained all formal approvals to publish the code as open-source software (OSS). | 0 | 1 | 2 | 3 | 4 | 5 |
| | 2. The government owns or is appropriately licensed to publish all the source code and included dependencies. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 3. The project includes the government copyright notice in accordance with current regulations. | 0 | 1 | 2 | 3 | 4 | 5 |
| Security and Risk Preparation | 4. The repository contains no credentials, keys, personal data, or sensitive information. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 5. The code has undergone security review and automated vulnerability scanning. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 6. Third-party dependencies follow secure software supply-chain practices, including minimal install-time lifecycle scripts, deterministic installations with committed lock files (or equivalent), and vulnerability and package-health checks to reduce the risk of dependency-based attacks. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 7. An OSS license (e.g., MIT, Apache, GPL) is selected and applied in accordance with applicable regulations and compatibility requirements. | 0 | 1 | 2 | 3 | 4 | 5 |
| Code and Repository Quality Preparation | 8. The code is hosted in a well-structured repository that uses version control and allows the public to access, download, and contribute the source code. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 9. The repository includes required files: README.md, LICENSE.md, SECURITY.md, and CONTRIBUTING.md. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 10. The code is modular and organized for future maintenance | 0 | 1 | 2 | 3 | 4 | 5 |
| | 11. Only the software overlay's source code is published (not compiled or object code). Dependency binaries are not included in the repository, unless strictly necessary and explicitly justified as an approved exception. | 0 | 1 | 2 | 3 | 4 | 5 |

Source: Inter-American Development Bank. (n.d.). Open-source software publication guide. <https://el-bid.github.io/guia-de-publicacion/en/>

- **OSS-Friendly Tender Checklist:** A checklist for public procurement officers to design tenders that are compatible with and supportive of open-source alternatives.

| Cluster | Criteria | Readiness Level | | | | | |
|--|--|-----------------|--------|---------|------|--------|-------------|
| | | None | Little | Limited | Some | Strong | Very Strong |
| Neutrality and Fair Competition | 1. The tender describes the software's purpose, essential functions, and operating environment in functional and vendor-neutral terms. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 2. Procurement documents clearly indicate that open-source solutions are allowed and, where relevant, preferred. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 3. OSS properties such as access to source code (and its history and documentation) and rights to modify and redistribute code are translated into concrete technical requirements and weighted award criteria. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 4. Even when a specific open-source code base is pre-identified through technical analysis, associated implementation, customization, support, and maintenance services are procured through competitive processes, with direct contracting reserved for exceptional and duly justified cases. | 0 | 1 | 2 | 3 | 4 | 5 |
| Open Standards and Interoperability | 5. Technical requirements promote the use of open standards and demonstrate interoperability with existing and future systems. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 6. No proprietary formats, technologies, or dependencies are imposed that exclude OSS alternatives. | 0 | 1 | 2 | 3 | 4 | 5 |
| Economic Evaluation and Sustainability | 7. The economic evaluation considers total cost of ownership, including migration and future maintenance. | 0 | 1 | 2 | 3 | 4 | 5 |
| | 8. Award criteria do not penalize OSS models (no per-user licenses or other incompatible requirements). | 0 | 1 | 2 | 3 | 4 | 5 |
| | 9. Award criteria and their weights are clearly defined, aligned with Fit-for-Purpose and Value-for-Money principles, and include relevant legal and licensing considerations, as well as aspects such as security, auditability, and transparency. | 0 | 1 | 2 | 3 | 4 | 5 |

Source: Inter-American Development Bank. (n.d.). Open-source software procurement. <https://publications.iadb.org/en/open-source-software-procurement>

Annex C: Stakeholder Interview Guide

This annex a sample interview guide to support the transition from idea to validation. It contains questions that can assist teams in understanding the needs, pain points, and expectations of the major internal and external stakeholders when designing an operationalizing an OSPO.

Current state of open-source adoption

- How would you describe your familiarity with open-source software?
- How would you describe the current state of open-source adoption within the agency and larger government ecosystem?
- What current initiatives and teams currently use open-source solutions?

Which ones?

- What are the main reasons the agency and larger government ecosystem are moving toward or have moved towards open-source adoption?
 - o Code ownership | Decrease the risk of vendor lock-in | Cost efficiency | Transparency and Trust | Development of national technology ecosystem | Security and resilience.
- What are the most important factors for your agency when considering adopting open-source solutions?
 - o Cost savings compared to proprietary alternatives | Security and compliance with government regulations | Ease of integration with existing IT infrastructure | Availability of technical support and long-term maintenance | Legal clarity on open-source licensing and intellectual property | Level of guidance and facilitation in the adoption process.
- What are the current initiatives in place to promote the use of open-source solutions?
- If you have any questions regarding the publishing or adoption of OSS, which team would you ask for help? How has your experience with their support been?

Pains and barriers

- What are the main challenges and frustrations regarding the adoption of open-source solutions within the agency or larger government ecosystem?
 - o Lack of awareness | Lack of clear internal policy | Resistance to change | Unclear legal or procurement frameworks | Difficulty in identifying suitable OSS | Weak national open-source/ technology ecosystem for support provision.
- Can you highlight any areas where you see duplication or inefficiency in the adoption of digital solutions?
- Have delays in completing work deliverables been caused by a lack of familiarity or issues using open-source applications? What are the main reasons for these delays? What would help you overcome these challenges?

Habits and current practices

- What tools and resources do your team already use in your projects?
- How do you normally communicate about the projects or information you are working on with others?
- What tools or resources would help streamline your work with open-source in your projects?
 - o Open-source licensing guidance | Procurement and legal support | Communication and advocacy | Centralized repository of OSS | Streamlined processes for managing the open-sourcing of internal tools | Advisory services | Decision-support artifacts (e.g. cost-benefit analysis, M&E frameworks, risk mitigation strategies) | Collaboration platforms

Gains and opportunities

- What enhancements would ease your work and make it more effective? Would the adoption of OSS contribute in any way with the enhancements you mentioned?
- Could you please share a recent experience where things went well within the development and/or adoption of digital products and what contributed to that success?
- What would be the dream scenario for the development or adoption of digital products? How would OSS contribute (or not) to that dream scenario?
- What are the agency's key strengths in open-source adoption that the OSPO can leverage?
- How do you think the OSPO can align its objectives with the agency's broader digital transformation goals?

Capacity and resources

- What resources (teams, budgets, tools, networks) do you already have?
- What capacity gaps do you observe in the implementation of digital products in general, as well as in the adoption of OSS that slow things down?
- What type of training would help you better leverage open-source in your agency?
- Who can bolster or amplify these efforts (inside or outside of this organization)?

Priorities for the OSPO

- What should be the main focus of the OSPO? Where would it add the most value to you and your team?
 - o Providing advisory support to existing OSS projects | Developing open-source policies and governance frameworks | Building and strengthening the open-source ecosystem in the country | Encouraging collaboration with local and international OSS communities | Supporting the open-sourcing of government-owned software solutions | Capacity-building and training on OSS adoption and management | Leading strategic OSS projects, such as replacing core proprietary systems | Networking opportunities to collaborate with other teams on open-source projects.

- What should the initiatives led by the OSPO be? Where would it add the most value to you and your team?

o Develop an open-source policy and governance framework | Build a curated repository of relevant OSS | Create an internal support system for agencies adopting open-source tools | Lead the adoption and transition of open-source in key operational systems | Identify opportunities to support open-source implementation | OSS capacity-building program for government staff | Engagement with local and international OSS communities | Support internally developed software to be open-sourced and maintained.

- What activities, in your opinion, should the OSPO avoid?

Closure

- What mistakes or common traps do you think should be avoided?
- Do you have any additional thoughts, concerns, or suggestions regarding the OSPO?
- Would you be interested in actively engaging with the OSPO (e.g., contributing expertise, participating in discussions, leading initiatives)?

Annex D: Example Cost Structure for an OSPO This annex presents a sample cost structure for the first two years of an OSPO, using previous IDB operations and interviews with different OSPOs as benchmarks. It outlines key elements such as human resources costs, infrastructure, tools, and programs, and should be adapted according to specific scopes, needs, and available resources. While costs will vary significantly across governments, these categories are consistently recognized as core components of open-source programs. The average costs shown in the table reflect estimated 2025 prices.

| Category | Line item | Observations | Avg. cost Y1 (USD) | Avg. cost Y2 (USD) |
|----------------------------|---|--|---------------------|---------------------|
| Headcount | OSPO Program Officer | Salaries vary by country, based on local market rates. | \$50,000 - \$75,000 | \$50,000 - \$75,000 |
| | Two or three team members | Salaries vary by country, based on local market rates. | \$60,000 - \$80,000 | \$60,000 - \$80,000 |
| Tooling and Infrastructure | Team equipment | Computer, administrative software, furniture, and supplies. | \$3,000 - \$7,000 | - |
| | Code hosting and related tools (registries, docs site, issue tracking and project management tools, and integrations) | Costs depend on the platform and the number of seats or users with access to the organization. As a reference, GitHub Team is priced per user per month; for 10–70 seats this is roughly US\$480–US\$3,360 per year (rounded to US\$400–US\$4,000 to account for variability and additional services). | \$500 - \$4,000 | \$500 - \$4,000 |
| | Code review and quality tooling | This can be largely covered by GitHub-native pull request reviews, branch protections, and required status checks. Many teams also rely on freemium or open-source tools (e.g., basic linters, code formatting, and limited-tier scanning). Additional spending typically applies if the OSPO standardizes enterprise-grade quality or security platforms, requires advanced reporting and governance features, or needs higher usage limits across many repositories. It is key to coordinate this cost with cybersecurity teams. | \$0 - \$10,000 | \$0 - \$10,000 |
| | CI and CD runners | It could be marginal if the organization stays within the GitHub Actions quota included in its plan. Costs increase when workflows (e.g., scans, SBOM generation, and policy checks) exceed included minutes; GitHub bills additional minutes per platform. | \$0–\$3,000 | \$0–\$3,000 |
| | Backups | May be minimal if backups are handled via periodic repository exports or clones and existing organizational retention policies. If compliance requires automated backup/restore (including repo metadata), a marketplace backup service may be used and is typically subscription-based. | \$0–\$3,000 | \$0–\$3,000 |
| | Inventory of OSS and public catalog maintenance, dashboards, and assessment tools. | May be marginal if the organization already has an internal service catalog/portal standard. Otherwise, costs are driven by initial UX/UI + information architecture, and then light ongoing maintenance (metadata governance, dashboards, and periodic assessments). | \$5,000–\$15,000 | \$3,000–\$5,000 |

| | | | | |
|--------------------------|--|---|---------------------|---------------------|
| Outreach | Awareness campaigns, communication strategies for policy rollout, case studies, success stories, outreach to repositories, social media campaigns, and press coordination. | Planning and execution of communication strategies, digital and media campaigns, press coordination for policy rollouts, development of case studies and success stories, and ongoing repository outreach to promote adoption and reuse of open-source solutions. | \$3,000 – \$15,000 | \$7,000 – \$20,000 |
| | Intranet page and web-site | Development and management of intranet and web-site content. | \$5,000 – \$20,000 | \$5,000 – \$30,000 |
| | Editorial and design costs | Copywriting and editing costs, graphic design (brand kit, templates, slide decks, infographics, banners, social media assets, and posters), and multimedia production (short videos, recorded demos, podcasts, subtitles/captions, and translations) | \$5,000 – \$20,000 | \$5,000 – \$30,000 |
| Events | Awareness events (OSPO launch, annual OSS community event, recognition events, hackathons) | Planning, production, and delivery of in-person events for approximately 100 participants, including venue rental, audiovisual production, logistics, speaker travel, on-site coordination, catering, materials, and post-event documentation. | \$5,000 – \$30,000 | \$5,000 – \$40,000 |
| | Community events (meetups and peer-to-peer mentorships) | Organization of small-scale community meetups and peer-to-peer mentorship sessions (20–50 participants), including light logistics, facilitation, basic audiovisual support, refreshments, materials, and documentation. | \$5,000 – \$10,000 | \$5,000 – \$7,000 |
| | Governance Events (board meetings and public consultations) | Organization of board meetings and public consultation sessions, including venue, hybrid audiovisual setup, facilitation, participant travel, working meals, and formal documentation of decisions and outcomes. | \$5,000 – \$20,000 | \$5,000 – \$20,000 |
| Travel | Missions and conferences | Participation in international events and bilateral meetings. | \$5,000 – \$20,000 | \$5,000 – \$20,000 |
| Capacity building | Development, adaptation, and acquisition of OSS training programs | Development, adaptation, and acquisition of open-source software training programs, including curriculum design, content production, localization, and ongoing maintenance to support sustainable capacity building. | \$10,000 – \$40,000 | \$10,000 – \$40,000 |
| | Training program on core OSS being adopted | Delivery of hands-on training programs for 2-3 core open-source solutions being adopted, including expert facilitation, practical labs, participant support, and follow-up to enable effective implementation. | \$10,000 – \$40,000 | \$10,000 – \$40,000 |
| | Research development | Examples of research include policy and legal aspects of OSS, market shaping studies, impact assessments, proprietary vs open-source in government (total cost of ownership, long-term sustainability, and cost reduction) | \$15,000 | \$15,000 – \$30,000 |

| | | | | |
|-------------------------------|---|---|------------------------------|------------------------------|
| OSS pilots | Generation and implementation of OSS pilots (open calls for government challenges, curation of OSS, hackathons) | Cost separated between generating demand in the first year and implementing the pilots in the second year. | \$10,000 - \$20,000 | \$30,000 - \$50,000 |
| Legal & compliance | External counsel (as needed) | Flexible legal and compliance support used in situations that require specialized advice beyond in-house capacity. | \$10,000 - \$30,000 | \$10,000 - \$30,000 |
| M&E | Monitoring and evaluation of office | Data collection, ex-ante and ex-post evaluations, qualitative assessment, and project reports. | \$5,000 | \$10,000 - \$20,000 |
| Buffer | Contingency | Reserve line set aside to cover unplanned but likely costs and absorb volatility during execution. It is commonly defined as a percentage of non-salary operating costs (e.g., 5-15%) | \$5,000 - \$10,000 | \$5,000 - \$10,000 |
| Total | | | \$216,000 - \$492,000 | \$240,500 - \$567,000 |

| Category | Line item | Observations | Avg. cost Y1 (USD) | Avg. cost Y2 (USD) |
|----------------------------|--|--|---------------------|---------------------|
| Headcount | OSPO Program Officer | Salaries vary by country, based on local market rates. | \$50,000 - \$75,000 | \$50,000 - \$75,000 |
| | Two or three team members | Salaries vary by country, based on local market rates. | \$60,000 - \$80,000 | \$60,000 - \$80,000 |
| Tooling and Infrastructure | Team equipment | Computer, administrative software, furniture, and supplies. | \$3,000 - \$7,000 | - |
| | Code hosting and related tools (registries, docs site, issue tracking and project management tools, and integrations) | Costs depend on the platform and the number of seats or users with access to the organization. As a reference, GitHub Team is priced per user per month; for 10–70 seats this is roughly US\$480–US\$3,360 per year (rounded to US\$400–US\$4,000 to account for variability and additional services). | \$500 - \$4,000 | \$500 - \$4,000 |
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| | CI and CD runners | It could be marginal if the organization stays within the GitHub Actions quota included in its plan. Costs increase when workflows (e.g., scans, SBOM generation, and policy checks) exceed included minutes; GitHub bills additional minutes per platform. | \$0–\$3,000 | \$0–\$3,000 |
| | Backups | May be minimal if backups are handled via periodic repository exports or clones and existing organizational retention policies. If compliance requires automated backup/restore (including repo metadata), a marketplace backup service may be used and is typically subscription-based. | \$0–\$3,000 | \$0–\$3,000 |
| | Inventory of OSS and public catalog maintenance, dashboards, and assessment tools. | May be marginal if the organization already has an internal service catalog/portal standard. Otherwise, costs are driven by initial UX/UI + information architecture, and then light ongoing maintenance (metadata governance, dashboards, and periodic assessments). | \$5,000–\$15,000 | \$3,000–\$5,000 |
| Outreach | Awareness campaigns, communication strategies for policy rollout, case studies, success stories, outreach to repositories, social media campaigns, and press coordination. | Planning and execution of communication strategies, digital and media campaigns, press coordination for policy rollouts, development of case studies and success stories, and ongoing repository outreach to promote adoption and reuse of open-source solutions. | \$3,000 – \$15,000 | \$7,000 – \$20,000 |

Annex E: Example Terms of Reference (ToR) for the OSPO Program Officer

This annex a sample interview guide to support the transition from idea to validation. I

This annex presents a sample Terms of Reference (ToR) for the OSPO Program Officer, typically the first position to be filled. The ToR outlines key elements such as the role's objectives, responsibilities, deliverables, qualification criteria, and competencies.

Objectives

The Open-Source Program Officer will lead the establishment and operations of the Open-Source Program Office (OSPO) within the [Agency Name]. The officer will be responsible for implementing the OSPO's strategic vision, ensuring alignment with the agency's or ministry's open-source-first approach, and leading national and regional open-source initiatives. The officer will also oversee governance structure, internal capacity-building, ecosystem development, and advisory services to strengthen open-source adoption across government entities.

Specific Objectives

The Program Officer will:

- Develop and oversee the implementation of the OSPO's strategy, governance framework, and roadmap, ensuring sustainability and alignment with the [Agency Name]'s digital transformation goals.
- Manage and provide leadership to a team of one to five professionals, including personnel focused on internal process development, ecosystem development, and open-source advisory for implementations.
- Facilitate stakeholder engagement within the public sector, private sector, and international open-source communities to foster collaboration and knowledge sharing.
- Oversee the design and implementation of pilot projects to showcase open-source benefits and drive adoption.
- Support the operationalization of open-source methodologies, standards, and best practices, including licensing policies, risk management frameworks, and procurement guidance.
- Lead the expansion of open-source training and capacity-building initiatives for staff and ecosystem stakeholders.
- Promote the replication and adaptation of successful open-source implementations across other Caribbean nations to strengthen regional collaboration.

Scope

The Program Officer will be responsible for the overall strategic, operational, and managerial aspects of the OSPO, ensuring its successful implementation and long-term impact. The scope of work includes, but is not limited to:

Strategic Leadership and Program Development

- Develop a cohesive strategy for the OSPO, integrating existing open-source initiatives and ensuring alignment with national digital transformation policies.
- Establish a governance framework and structure to support the scalability and sustainability of open-source adoption.

- Identify quick wins open-source pilot projects and oversee their implementation to demonstrate value and accelerate adoption.
- Develop a roadmap for the expansion of open-source adoption, with clear milestones.

Team and Organizational Management

- Lead and manage the OSPO team (on to five members), including professionals focused on internal processes, ecosystem development, and advisory support.
- Define clear roles, responsibilities, and performance expectations for OSPO staff.
- Supervise and provide strategic oversight to team members responsible for:
 - o Internal Processes and Advisory Support, including the development of internal frameworks, monitoring and evaluation, legal and policy guidance, and advisory support for ministries adopting open-source solutions.
 - o Ecosystem Development and Capacity Building, ensuring the growth of the local open-source community, vendor support, and training programs.
- Ensure the team has access to training and resources required to execute their roles effectively.

Stakeholder Engagement and Advisory Support

- Serve as the main point of contact for open-source adoption within the agency, ministry, or government, engaging with key government, private sector, and international stakeholders.
- Provide high-level advisory support to ministries and government entities on the selection, adoption, and implementation of open-source solutions.
- Oversee the development and implementation of legal and policy guidance on open-source licensing, procurement, and compliance.
- Support the team in developing a monitoring and evaluation framework to track the performance and impact of open-source initiatives.

Ecosystem Development and Capacity Building

- Support the implementation of capacity-building programs for staff, contractors, and vendors, ensuring training aligns with national priorities and international best practices.
- Foster the growth of the local open-source ecosystem by engaging developers, startups, and academia to stimulate innovation and collaboration.
- Collaborate with local and international partners, including open-source organizations, global OSPOs, and international development organizations, to leverage best practices and resources.
- Support the development of national repositories for open-source tools, best practices, and procurement frameworks.

Deliverables

The Program Officer will be responsible for delivering the following key outputs to ensure the successful establishment and operation of the OSPO:

- 1. Inception Report:** A detailed work plan outlining the OSPO's implementation strategy, timeline, identified risks, and stakeholder engagement approach.
- 2. OSPO Strategy and Governance Framework:** A comprehensive document defining the OSPO's structure, objectives, operational model, and policies.
- 3. Implementation Roadmap:** A phased action plan with milestones, budgets, and risk mitigation strategies.
- 4. Pilot Project Reports:** Documentation of pilot open-source implementations, including impact assessments and lessons learned. Reports shall be submitted on an annual basis.
- 5. Monitoring and Evaluation (M&E) Framework:** A system for tracking OSPO activities, including KPIs and success metrics.
- 6. Monthly Progress Reports:** Status updates covering key activities, challenges, stakeholder engagement, and next steps.
- 7. Knowledge Repository and Best Practices Guide:** A centralized collection of procurement methodologies, licensing guidelines, case studies, and implementation tools for open-source adoption.
- 8. Annual Project Report:** A comprehensive summary of OSPO activities, accomplishments, challenges, and recommendations for long-term sustainability.

Qualifications And Experience

Minimum academic qualifications

- Master's degree in Computer Science, Information Technology, Digital Governance, Public Policy, Engineering, Business Administration, or a related field.
- Alternatively, a bachelor's degree in a relevant field combined with a minimum of ten years of professional experience in digital transformation, open-source technology, or government digital initiatives.

Professional experience

- Minimum of seven years of professional experience managing digital transformation projects, open-source programs, or IT governance initiatives, preferably in the public sector or international organizations.
- Proven experience in leading and managing teams of at least three to five professionals in digital innovation, IT strategy, or technology governance.
- Strong expertise in open-source software adoption, governance models, and licensing policies, with a solid understanding of best practices and risk management in government environments.
- Demonstrated experience in stakeholder engagement and cross-sector collaboration, involving government agencies, private sector partners, and international organizations.

- Experience in designing and implementing digital strategies and public policies, particularly related to open-source technology, capacity building, and software procurement in government settings.
- Strong project management skills, including experience developing and executing implementation roadmaps, monitoring and evaluation frameworks, and structured reporting mechanisms.
- Solid understanding of digital public infrastructure, cybersecurity, and digital governance frameworks in the context of government digital transformation.
- Experience in regional or international collaboration on open-source initiatives, particularly in the Caribbean or Latin America, is desirable.

Key skills

- **Open-source expertise:** Comprehensive understanding of open-source principles, methodologies, and best practices is essential. Knowledge of popular open-source licenses, community dynamics, and development processes, as well as the latest trends and technologies in the open-source ecosystem.
- **Strategic thinking:** Ability to design and implement open-source adoption strategies to ensure that it complements the overall direction of the organization.
- **Project and program management:** Capacity to plan and oversee complex open-source initiatives, including defining objectives, establishing timelines, managing resources, and tracking progress. Familiarity with agile methodologies is desirable.
- **Collaboration and relationship management:** Ability to build and maintain effective relationships with internal and external stakeholders. Effective collaboration with development teams, contributors, community members, and external partners, while fostering collaborative and inclusive environment to encourage participation and engagement.
- **Communication and advocacy:** Strong written and verbal communication skills for conveying the value and benefits of open-source initiatives. Ability to translate complex technical concepts into non-technical audiences and advocate for the use of open-source solutions effectively..
- **Technical understanding digital development:** Sufficient technical knowledge to engage effectively with software development teams and evaluate open-source projects effectively, including familiarity with programming languages, software development practices, and the technical aspects of open-source tools and frameworks.
- **Analytical and problem-solving skills:** Ability to assess project requirements, identify challenges, propose effective solutions, analyze data, interpret metrics, and design evidence-based solutions to advance open-source initiatives.
- **Leadership and team management:** Demonstrated capacity to lead multidisciplinary teams, manage performance, mentor staff, and drive results within institutional environments.

| Acronym | Full Name | Description / Context |
|-----------|---|--|
| AGESIC | Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento (Uruguay) | National agency responsible for digital government and digital policy, cited as an example of open-source governance in Latin America. |
| CLA | Contributor License Agreement | Legal agreement that defines the intellectual property rights and permissions granted by contributors to an open-source project. |
| CIO / CDO | Chief Information Officer and Chief Digital Officer | Senior government roles responsible for information systems and digital strategy, referenced in this document when identifying OSPO stakeholders. |
| C4D | Code for Development | The IDB's open-source initiative that promotes the use, publication, and reuse of software for public-sector modernization. |
| DINUM | Direction Interministérielle du Numérique (France) | France's Interministerial Digital Directorate, whose Free Software Mission hosts the national OSPO. |
| DPGA | Digital Public Goods Alliance | A multi-stakeholder initiative endorsed by the UN to advance digital public goods globally. |
| DPG | Digital Public Good | A digital resource—software, data, standard, or content—that is open-source and aligned with principles of privacy, accessibility, and sustainability. |
| DPI | Digital Public Infrastructure | Shared digital systems such as identity, payments, and data exchanges that enable interoperable public services. |
| GDS | Government Digital Service (United Kingdom) | The UK government's pioneering digital office and an early example of an OSPO-like function. |
| IDB | Inter-American Development Bank | A multilateral development bank that promotes economic and social progress in Latin America and the Caribbean. |
| IDB Lab | IDB Innovation Lab | The innovation arm of the IDB Group supporting startups and technologies for social impact. |
| INJI | India Justice Infrastructure | An example of an interoperable, open-source platform developed under Digital India initiatives. |
| IP | Intellectual Property | Legal rights covering ownership and use of software code and related materials. |

| Acronym | Full Name | Description / Context |
|-------------|--|--|
| IT | Information Technology | The use of systems and software for storing, processing, and transmitting information. |
| KPI | Key Performance Indicator | A quantitative measure used to track the OSPO's progress and demonstrate value. |
| LAC | Latin America and the Caribbean | The geographic region served by the IDB and referenced throughout this technical note. |
| MMC | Mission Model Canvas | Strategic tool adapted by the IDB to design and validate OSPO strategies structured around Desirability, Feasibility, and Viability. |
| OGTIC | Oficina Gubernamental de Tecnologías de la Información y Comunicación (Dominican Republic) | A government office responsible for ICT policy and open-source adoption in the Dominican Republic. |
| OSS | Open-Source Software | Software whose source code is publicly available for use, modification, and redistribution. |
| OSPO | Open-Source Program Office | An institutional function that coordinates open-source strategy, governance, and community engagement within an organization. |
| SME | Small and Medium-Sized Enterprise | A local company referenced in examples of open-source ecosystems and vendor bases. |
| ToR | Terms of Reference | A formal document defining the scope, responsibilities, and qualifications for OSPO roles. |
| TTA | Technical Training and Assistance | A set of activities that promote open-source capacity building and adoption across institutions. |
| UK | United Kingdom | A country referenced through the Government Digital Service case study. |
| UN and UNDP | United Nations and United Nations Development Programme | UN agencies collaborating on digital government and open-source initiatives cited in examples. |
| USDS | United States Digital Service | A U.S. federal office that designs and delivers open digital services for government agencies. |
| X-Road | Cross Road Platform (Estonia) | Estonia's open-source interoperability platform connecting public and private information systems. |

