JUNE 2022

The OSPO

A New Tool for Digital Government

OpenForum Europe

OpenForum Europe (OFE) is a not-for-profit, Brussels-based independent think tank which explains the merits of openness in computing to policy makers and communities across Europe.

Originally launched in 2002 to accelerate and broaden the use of Open Source Software (OSS) among businesses, consumers and governments, OFE's focus has since evolved. OFE currently maintains a Policy Research and Development team based in Brussels, which is supported both by our network of supporters and by specific specialist advisors. The main policy topics that we cover are: Open Source, Open standards, Digital Government, public procurement, Intellectual Property, cloud computing and Internet policy.

OFE also hosts an independent global network of OpenForum Academy Fellows, each contributing significant innovative thought leadership on core topics, in order to provide new input and insight into the key issues which impact the openness of the ICT market. OFE works closely with the European Commission, the European Parliament, national and local governments, both directly and via its national partners.

The OSPO Alliance

The OSPO Alliance was launched in June 2021 by European non profit organisations — OW2, Eclipse Foundation, OpenForum Europe, and Foundation for Public Code — and concerned individuals to promote an approach to excellence in Open Source software management. Together we created the OSPO.Zone — an open experience-sharing platform to facilitate discovery of tools and best practices and help define the state of the art in this domain.

The OSPO Alliance aims to bring actionable guidance and solutions to all organisations willing to professionally manage the usage, contribution to and publication of Open Source software, regardless of their size, revenue model or whether public and private. In particular it will help organisations make the best out of the inexorable advance of Open Source software in their information systems and processes. We will facilitate the discovery and implementation of tools and best practices when engaging with Open Source software.

By professionalizing the management of Open Source software, the OSPO Alliance will make engaging with Open Source software less risky and more predictable. It will lower barriers to adoption of Open Source and will enable organisations to leverage it to enhance their digital sovereignty.

INDEX

INTRO AND CONTEXT

There is an unmistakable trend in governments at all levels (local, municipal, regional, national and supra-national) of thinking about Open Source strategically, aimed at more ambitious goals. The ubiquitous presence of Open Source in the technological landscape justifies, or even demands, a more active and horizontal approach to Open Source for most digitally-enabled public sector organisations.

As government bodies at all levels look to better engage citizens, make more efficient use of taxpayer funds, and solve global challenges in a local context, the value of a strategic approach to Open Source software has come into sharper focus. Public sector and government entities have procured, used and contributed to Open Source for decades, but the rise of the Open Source Program Office in government promises to support the public sector in best leveraging its engagement with open communities—software, standards, data, culture, research, and more.

Government CIOs and IT departments that are well-versed in Open Source are increasingly aware that the value they can realise through Open Source increases drastically when they increase their ability to participate in and contribute back to projects and the Open Source community. As a result, an increasing number of government CIOs have opted for the Open Source Programme Office as the tool to increase their organisation's ability to meet both old and new demands.

The Open Source Programme Office (OSPO) is an institutional organisational construct that supports and accelerates the consumption, creation, and application of Open Source software. The OSPO is the centre of gravity and Open Source competence of an institution, working strategically to achieve the policy objectives of the institution that intersect with Open Source.

This paper explores early attempts to move OSPO's into the public sector. It will discuss the evolution of Open Source in the context of governmental strategy, the value of engaging within Open Source communities, and the potential role of the OSPO in providing both the expertise and connections to manifest the value of globally networked collaboration and co-creation.

This paper takes the view of the OSPO as a multifaceted tool to solve challenges and meet demands that interact with Open Source software (OSS) facing senior executives in diverse public sector organisations across a wide array of roles. The topic is thus organisational capacity-building in the public sector.

The case studies that follow are based on interviews of OSPO leaders in the public sector, investigating why and how they built OSPOs. The case studies outline the different OSPOs' responsibilities and activities, and look at the potential of the OSPO to achieve a series of policy goals.
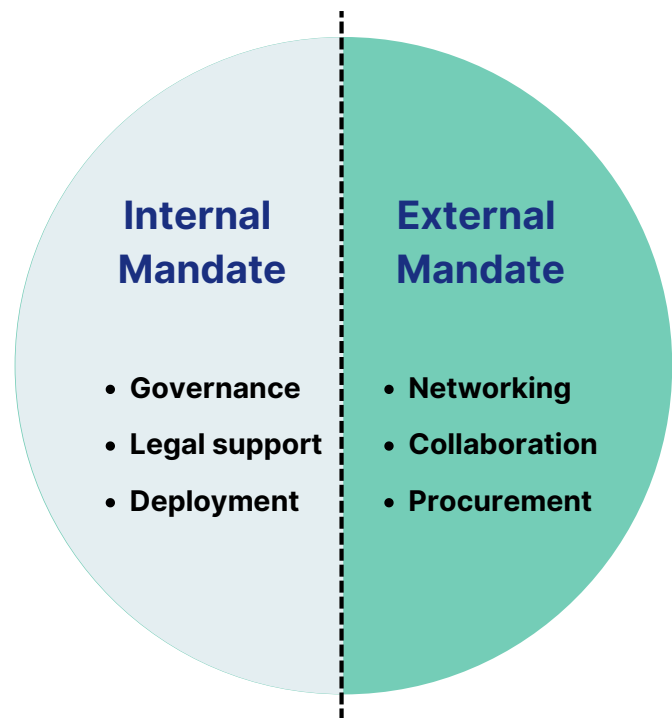
The trend of building OSPOs is a response to broader trends facing the digital government. Citizens and politicians demand high quality services with more openness, accountability and accessibility. They ask for this to be met within tight budget restraints, while maintaining digital sovereignty, system resilience and cybersecurity. Open Source has a role to play across this changing landscape, and the OSPO is the government CIO's tool to leverage OSS to meet the demands. These are complex challenges, but the OSPO is a new tool for the digital government to navigate these complexities.

The establishment of OSPOs in the private sector has been fundamental to innovating and co-creating at scale. With OSPOs, companies have figured out how to unlock vast amounts of value through Open Source, benefiting shareholders worldwide. This paper finds that the value proposition for the public sector is closely related, but fundamentally different.

The paper also looks into the mandate of the modern OSPO. It needs to provide value internally, in matters of compliance, security and governance of OSS.

Critically, the OSPO should be created with a mandate to exchange and collaborate with the external Open Source ecosystem. It needs to be an interface, supporting and managing the flows of information, ideas, software contributions, relationships and procurement between the organisation as a whole and external stakeholders.

The aim of this paper is not to outline solutions to all the different challenges and barriers facing all government CIOs, at all levels of government. Instead, the main conclusion of the paper is that OSPOs are built to give the Government CIO pragmatic options, flexibility, and control with regards to software products and services, which in turn gives them the ability to better and more efficiently meet the diverse and complex demands put on them.

Internal Mandate

- **Governance**
- **Legal support**
- **Deployment**

External Mandate

- **Networking**
- **Collaboration**
- **Procurement**

Paper Structure and Definitions

This paper can be seen as a follow up to the European Commission's impact of Open Source on the European economy, which included the policy recommendation to support the building of 20 OSPOs in the public and academic sectors in the EU.

Building OSPOs in the public sector is an area of rapid policy innovation. In order to present a view of the landscape, the paper transitions liberally between current practice and theory; what an OSPO is and what it can be. It does not present organisational models, standard approaches or "minimum viable OSPOs". That will be the topic of future papers.

Procurement of Open Source products and services is also not the main focus of this paper. OSPOs will have an important (if not crucial) role to play in effective procurement of Open Source, but building OSPOs will not be as relevant for organisations that are still debating whether or not to procure Open Source in general. Organisations that are building OSPOs tend to have moved beyond the old paradigm of Open Source as merely a cost saver, and are looking to their strategic approach to maximise value, innovation and agility.

By "Open Source software" of "OSS", we mean software under a licence approved by the Open Source Initiative, in compliance with the Open Source definition; simply stated, source code that can be accessed, modified, and improved by its user.

The paper makes several references to "share and reuse". By this we mean source code that can be accessed by anyone, modified for need, and republished with these improvements for general use.

This paper uses "public sector", "government organisation", "public entity" and "public authority" interchangeably. This is done to underscore the broad relevance of the OSPO concept to all parts of the economy controlled wholly or partially by the state.

Equally, by "government CIO" this paper refers to the positions in a public sector organisation responsible for information technology and computer systems in order to support organisational and political goals. This covers roles such as a chief digital information officer (CDIO) or IT director. They will be the most senior executive with the mandate to build an OSPO.

Last but not least, the authors would like to thank the expert group that supported the writing of this paper:

Bastien Guerry, Government of France
Clare Dillon, InnerSource Commons Foundation & OSPO++
Danese Cooper, InnerSource Commons Foundation & OSPO++
Deborah Bryant, Independent Advisor & Open Source Initiative Board Emeritus
Frederik Blachetta, Dataport
Gaël Blondelle, Eclipse Foundation
Gijs Hillenius, European Commission
Jacob Green, Mosslabs.io, OSPO++
James Vasile, Open Tech Strategies
Johan Linåker, RISE Research Institutes of Sweden
Leslie Hawthorn, Red Hat & Open Source Initiative Board Emeritus
Mala Kumar, GitHub
Michael Plagge, Eclipse Foundation
Miguel Diez-Blanco, European Commission
Philippe Bareille, City of Paris
Richard Littauer, Open Source Collective and Sustain
Sayeed Choudhury, Johns Hopkins University & OSPO++

THE PUBLIC SECTOR AND OPEN SOURCE

Cities have different needs than national governments. Tax authorities have different mandates than supra-national organisations such as the EU. The reasons for public entities to procure, use and deploy Open Source solutions are multifaceted and it is difficult to generalise across something as broad as the public sector. That said, advertently or inadvertently, all public sector organisations engage with Open Source software. Early adoption and use of OSS applications and tools in the public sector were often resourceful responses to fulfilling unfunded policy mandates (i.e. a new program or capability yet no associated budget) along with reduced procurement friction.

The reasons for the use of Open Source with strategic intent stem from benefits that proprietary solutions don't offer: software under a OSS licence eases inspection, interoperability, co-creation, scalability, sustainability and customisation. For example, if you have 60,000 schools that need a software solution, it is better to fund the development and support of the software than pay a licence for each school. The reasons for using Open Source in the public sector are (but are not limited to):

- Transparency and Trust
- Cost-savings
- Avoiding lock-in to software vendors
- Increased access for SMEs in procurement processes
- Interoperability
- Citizen engagement
- Reducing friction of inter- and intra government collaboration

- Leveraging state of the art technology
- Increase capacity and skills of the government organisation
- Attracting and retaining talent
- New and novel ways for industry and government organisations to collaborate

The public sector has been working with Open Source since before the coinage of the term. Looking to the organisations referenced in this paper as examples, the European Commission defined a strategy concerning the internal use of Open Source software already in December 2000. The City of Paris' involvement in OS also spans over 20 years. A key moment at the beginning of the engagement was when the City Council voted for opening the Lutece platform in 2002.
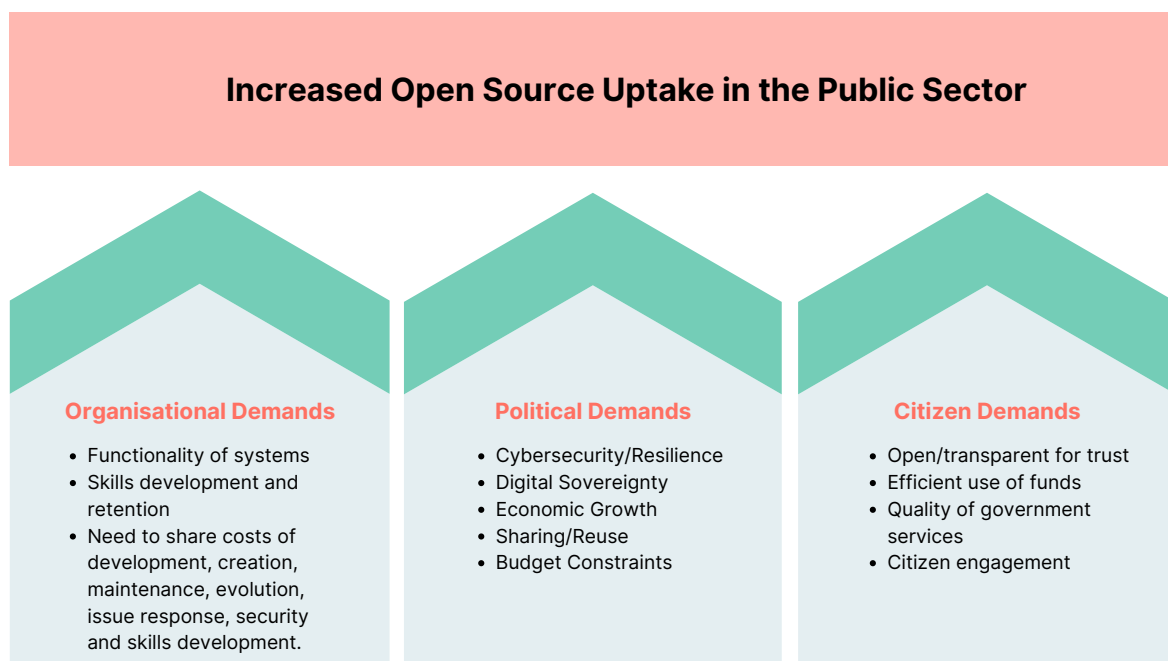
Staying at the general level, the understanding of Open Source and the practical implementation of the openness paradigm in the public sector varies across countries, institutions and levels of administrations. There are public sector entities and countries that have a high knowledge and ambition regarding Open Source. They see it as one of the crucial tools of their broader digital strategy focusing on delivering a digital transformation while maintaining sovereignty and security. Others have just started their Open Source journey.

The reasons for the uptick in Open Source engagement will be explored in the case studies below, but one way to understand this development is through the lens of new demands

for Open Source put on Government CIOs, often outlined in different strategy documents.

For example, the European Commission's OSS strategy outlines the strategic political reasons as follows: *"The European Commission aims to invigorate the EU's unique social market economy, promote competition and encourage SMEs — our innovators and entrepreneurs. We want to bring Europe's people together in an inclusive, open approach, to find new opportunities and transition to an inclusive, better digital environment that is ready for the realities of today's global economy. In all of this, Open Source software has a role to play."*

The graphic below summarises some of the demands that drive Open Source uptake in the public sector.

Increased Open Source Uptake in the Public Sector

Organisational Demands

- Functionality of systems
- Skills development and retention
- Need to share costs of development, creation, maintenance, evolution, issue response, security and skills development.

Political Demands

- Cybersecurity/Resilience
- Digital Sovereignty
- Economic Growth
- Sharing/Reuse
- Budget Constraints

Citizen Demands

- Open/transparent for trust
- Efficient use of funds
- Quality of government services
- Citizen engagement

Arguably the momentum towards more Open Source in the public sector has increased due to the demands listed above. It should be noted that the importance of each driver, and this list is far from exhaustive, will vary between countries, forms of government organisation, and history with working with Open Source.

Out of the demands put on government CIOs, five strategic elements stand out.

Digital Sovereignty
The notion of digital sovereignty is one of the key topics in digital policy debates in several jurisdictions as governments have recognized over-dependence on certain software solutions and capacities of a limited number of vendors. Open Source, especially when coupled with an open standards-based procurement process, offers the public sector's procurement authorities real choice and avoids vendor lock-in. This is not a new realisation, but seen from a strategic lens, high levels of lock-in across a society undermines digital sovereignty. This demand is driven by the political layer.

Economic Growth

The price of the public sector not working effectively with OSS is paid not only in higher monetary costs, lowered competition, inflexible systems and lock-in, but in high opportunity costs in terms of economic growth. The European Commission study on the Impact of Open Source on the European Economy outlines the vast (largely unrealised) positive economic externalities in the form of growth, jobs and start-ups that come from governments releasing, using and contributing to OSS. This is also supported by the findings of Frank Nagle's research on the decision of the French Government to release more code, finding that "the regulation led to a 0.6% - 5.4% yearly increase in companies that use OSS, a 9% - 18% yearly increase in the number of IT-related startups, a 6.6% - 14% yearly increase in the number of individuals employed in IT related jobs". This demand is also increasingly driven by the political layer.

Interoperable cross-border and cross-sector public services

Open Source, especially when coupled with the use of open standards, give the public sector more opportunities to harmonise services between adjacent nations. This interoperability also lends the public sector the ability to leverage the very best minds to solve problems, regardless of location. Finally, code sharing, reuse and modification decreases the time needed to improve or launch citizen services / back office applications.

Transparency and Accountability of Government Digital Services

Open Source is not a silver bullet for trust and transparency, but increases the ability of citizens to inspect and interact with the code that makes up a digital service. This demand is driven both by citizens themselves and politicians. In order to fulfil the promise of digital government, citizens must trust the services that are provided. Generally, but also for digital services, social trends are leading to increased demands for citizen participation, SME-involvement and more government operational transparency and accountability.

Skills and and Talent Acquisition

All organisations, both in the private and the public sector, struggle to find technical talent. In the private sector, Open Source has drastically increased as it allows developer teams, and by extension companies, to share costs of development, creation, maintenance, evolution, issue response, security and skills development. Moreover, Open Source is the preference of developers as it increases their ability to more quickly iterate on solutions to solve technical challenges while delivering high-quality code.

AN OSPO DEEP DIVE

The OSPO presents an opportunity as increasing demands are made of Open Source software and today's government CIO. The demands on OSS go far beyond the code and extend to the organisational culture, commitment to openness and transparency, and, above all, cooperation. When we talk about digital policy and software, we talk about Open Source. It is the fundamental innovation layer for the digital world. For the government CIO, the OSPO is the interface between their organisation and that layer.

The OSPO is an established concept in the private sector. The academic and government

sectors are now increasingly building OSPOs. An OSPO is an institutional organisational construct that supports and accelerates the consumption, creation, and application of Open Source software. It is the central office of an institution, which works on the policy objectives of the institution that intersect with Open Source.

Depending on its sector, size and type, an organisation's Open Source goals will differ. Organisations build OSPOs to meet those goals, and thus all OSPOs are different.

The establishment of OSPOs in the private sector has been fundamental in figuring out how to unlock the vast amounts of value and to spur innovation through Open Source, benefiting shareholders worldwide. The rise of the OSPO is a direct consequence of the ubiquity of Open Source today. In fact, 92% of all applications use Open Source components.
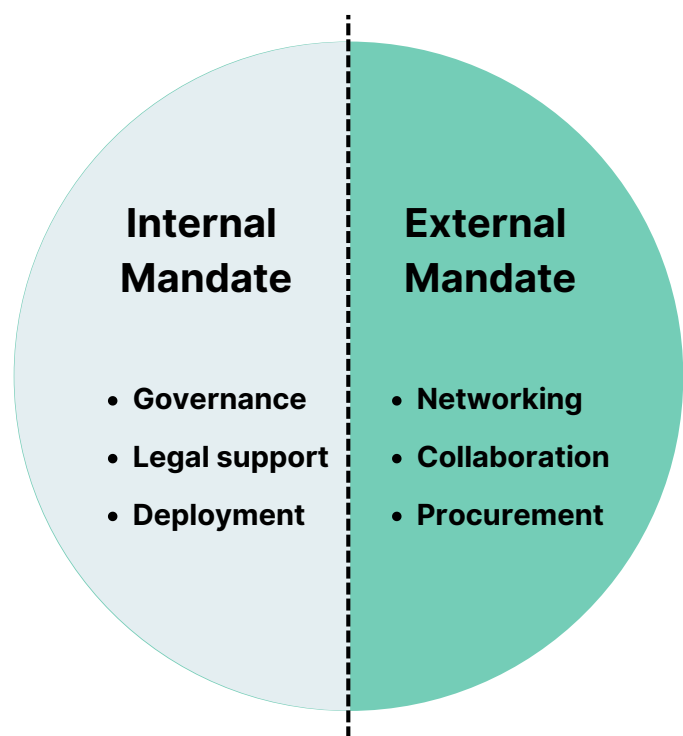
Companies build OSPOs in order to provide the capacity, skills and engagement needed to be a part of the Open Source ecosystem in a meaningful way. They are a response to the realisation that using Open Source is not a choice anymore, but a necessity.

Larger companies have put effort and resources into learning and adopting processes and methodologies that are characteristic for Open Source developments.

For the government, most aspects that are relevant for the private sector OSPOs apply, but the government OSPO can (and potentially should) have a broader mandate. That is because the public sector's responsibility towards citizens is broader than that of companies to their shareholders. Seen from this lens, the OSPO can on the one hand help achieve Open Source goals, but it can also to meet broader policy goals that require Open Source.

In other words, the OSPO's responsibility should importantly include the day-to-day dealings with software development and maintenance, but it can (or should) also support the achievement of systemic policy goals such as privacy, security, trust, diversity, participation, and access to technology.

The OSPO of yesteryear was internally-focused. The modern OSPO has clear internal and external mandates. This conceptual graphic, based on the model of the work of the OSPO++ network, shows how the OSPO is the interface of the organisation to collaborate with their peers OSPOs and others in the Open Source ecosystem (and beyond).

Internal Mandate

- **Governance**
- **Legal support**
- **Deployment**

External Mandate

- **Networking**
- **Collaboration**
- **Procurement**

Internal Mandate

The OSPO has a horizontal outlook on the organisation in which it is housed. This allows for using existing resources in an effective way. Examples of activities within the internal mandate are listed below. This includes implementing appropriate tools, platforms and practices required for best practice OSS development and cybersecurity. Moreover, this mandate of the OSPO supports the evolution of open culture within the organisation, going beyond software and digital infrastructures. It is built as a tool for culture change. The European Commission OSPO has this role explicitly, and the Microsoft OSPO can be seen as a private sector example of the "culture change-OSPO".

Examples of activities within the internal mandate of an OSPO include:

- ensuring legal compliance
- developing and implementing OSS strategies
- helping teams launching new software projects to use Open Source well
- Cooperative Digital Strategy
- measuring the organisation's usage of OSS and progress (metrics and statistics)
- shaping funding programs for OSS
- providing training and guidance for employees on how they could engage in OSS activities
- advocating and communicating *internally* about Open Source initiatives, and any other activities that make up the organisation's involvement in Open Source

External Mandate

The OSPO needs to provide direct value for the organisation that it serves through its internal mandate. Due to the nature of Open Source, however, OSPO-enabled organisations are meant to be part of communities that co-create value. Thus, the modern OSPO has a significant external mandate to be able to identify new projects, tools, actors and practices that can improve the organisation's work, effectiveness and future strategies of the OSPO and of the organisation as a whole. As the case studies will show, this external component is often cited by public officials and those involved in OSPO networks as one of the most crucial features of an OSPO in supporting the organisation it serves.

On the flip side, there is often a challenge that external Open Source developers and projects face when they want to engage with a public sector organisation on Open Source: whom to contact if they want to discuss a potential solution, or are not sure about the licensing related to a government-run digital solution? This can and should go beyond code. An OSPO can provide such an interface: an entryway for other public officials, developers and OS projects, and for other OSPOs nationally and globally.

When it comes to the day-to-day activities of the organisation, the government OSPO's external mandate can assist the organisation in the communication and translation between policy, procurement, IT, and vendors, as well as with the other public organisations that they collaborate with in the acquisition process. This is especially important and visible on the municipal level.

Procurement will activate both the internal and external mandates. Arguably, this will be the most monetary value the OSPO can bring to the public sector organisation. The establishment of an OSPO adds the competence and resources supporting effective procurement of OSS products and services. The OSPO can assist in identifying Open Source alternatives, evaluating the products and services against requirements and specifications, assessing the health and security of the OSS projects, calculating total cost of ownership, and determining need for customisation and integrations.

Examples of activities within the external mandate of an OSPO include:

- receiving and giving external code contributions securely and sustainably
- advocating and communicating *externally* about Open Source initiatives, and any other activities that organise the organisation's involvement in Open Source
- developing collaborations with foundations/organisations and OSS communities
- providing knowledge and awareness of what alternatives are already developed in Open Source to avoid unnecessary replication
- managing the diversity of Open Source stakeholders in the ecosystem
- supporting the procurement of OSS products and services
- enabling the sharing and reuse of software

An important point of refinement is that OSPO as an interface should not create an additional bureaucratic layer—it should be an enabler. In other words, not everything needs to go through the OSPO.

Collaboration of Public Sector OSPO with External and Internal Mandate

OSS Communities

Private Companies

Public Sector OSPOs
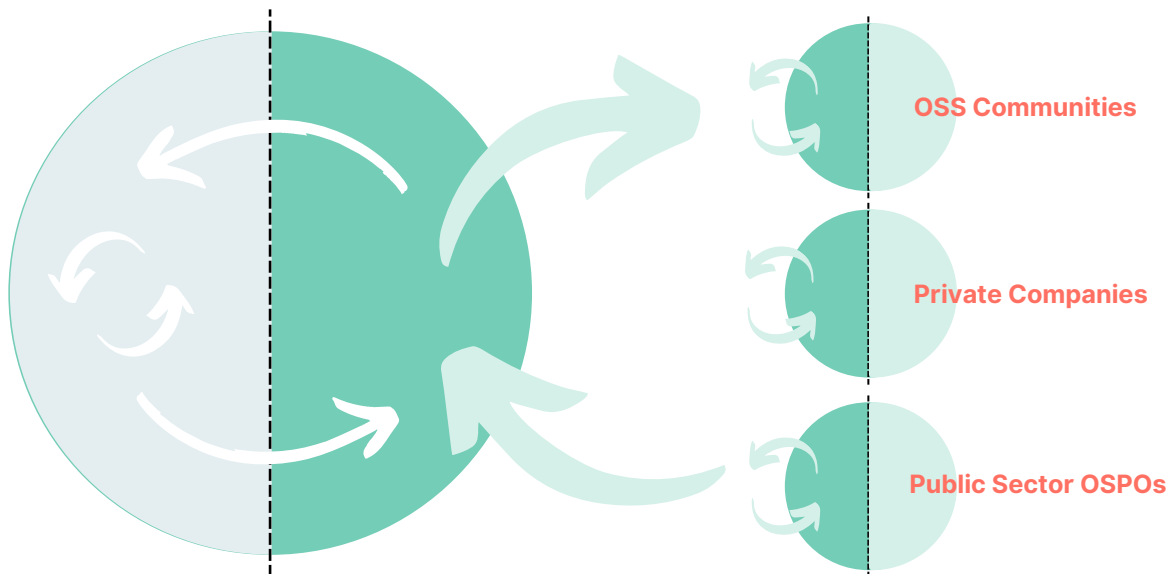
The Government OSPO supports the flows of code, ideas, procurement, communications and knowledge within the organisation, as well as between the organisation as a whole and

external stakeholders. It is the universal interface for everything 'open'. It took the private sector decades to structure the rhythm of the internal and external mandates of OSPOs. For governments, which have a clearer mandate to collaborate instead of compete, this should come more naturally.

CASE STUDIES OF PUBLIC SECTOR OSPOs

The European Commission OSPO

The European Commission announced its intent to build an OSPO (EC OSPO) in October 2020. This was a part of the presentation of its Open Source software strategy 2020-2023. The Commission published this iteration of the Open Source software strategy as a Commission Communication, making it the strategy of the European Commission as a whole, and not just the IT directorate. It also gave the OSPO a stronger political mandate.

The EC OSPO works to enable the vision and achieve the goals outlined in the OSS strategy: *"The Commission leverages the transformative, innovative, and collaborative power of Open Source, encouraging the sharing and reuse of software solutions, knowledge and expertise, to deliver better European services that enrich society and focus on lowering costs to that society."*

The EC OSPO is a tool for culture change within the Commission. It works "to reinforce and extend the open-source working culture." It is housed within the Directorate General for Informatics, but is meant to support all directorates-general, and is supposed to be given the political and organisational support to do so. This is because software development, use and uptake takes place across the institution. The OSPO is supposed to work across these teams and projects to make Commission-developed source code available to all developer teams. This is done first within the Commission. The OSPO is currently working to remove identified legal and technical barriers so that the Commission will, with the support of the OSPO, make more of its solutions publicly available.

Over time, the European Commission wants to use the OSPO to prepare itself to accept Open Source contributions from outside the organisation and open itself up to wider collaboration. This could go beyond code. The OSPO and the strategy also indicate a commitment to actively support Open Source developer communities beyond the Commission's walls. Practically, the goal with the OSPO is to connect and engage with Open Source communities and projects—especially those contributing to the tools the Commission depends on, such as it has already done with Drupal.

The EC OSPO shows that a government OSPO doesn't have to be large or expensive to make an impact. The European Commission has around 32,000 employees. The OSPO's initial team was two people. The Commission then reinforced the OSPO with a new hire bringing additional institutional and managerial knowledge and competencies, and whose main responsibility is to develop the EC OSPO organisationally.

The EC OSPO was the logical next step after 20 years of increased work with Open

Source in the European Commission. That said, the authors of the strategy put a lot of consideration into setting up an OSPO in the Commission. The idea had been circulating for a few years among the officials most closely engaged with Open Source in the institution. A key preceding process was the development of a study by an external consultancy of the Commission's Open Source governance and adoption. In this study, the recommendation to build an OSPO came from conversations with private companies, governments and civil society organisations. More specifically, it recommended setting up an EC OSPO as a "state-of-the-art structure in corporate management". This was based on examples from the initiatives taken by the French national government and Google's Open Source Programme Office.

The French Government OSPO

Like the European Commission, the French government is a long-time champion when it comes to promoting and using Open Source. It has over the years implemented several policies supporting OSS in its public sector. For example, Circulaire 5608 requires all public entities to consider Open Source first in procurement. A key moment for the foundation of the French OSPO was the publication of the Bothorel Report in 2020. This text, the result of a French parliamentary mission, recommended setting up a national OSPO. In 2021, the Minister of Public Sector Transformation and the Civil Service announced the OSPO together with a range of actions to promote, adopt and improve OSS within public administrations.

The new OSPO (*Pôle d'expertise logiciels libres*) is one of the first of its kind for a national government. It is housed within the Interministerial Directorate for Digital Services (DINUM), and thus supports all arms of the French government. Similar to the EC OSPO, the French Government OSPO gets its mandate from a strategy document: *Plan d'action logiciels libres et communs numériques*. In short, the French OSPO works to increase awareness, use and development of OSS in the public sector.

An important stated goal is to increase the attractiveness of the public sector as an employer to young talent with digital skills. It does this through actions together with the Blue Hats, the French government's Open Source developer community, organising annual "Free and Open Source Sprint" events, but also through the use of Open Source itself. The stated reason is that developers and software engineers are less likely to choose a job where their ability to use and contribute to Open Source is limited.

There are several ambitious initiatives that the OSPO will engage in. The government has for example dedicated 30 million EUR to finance Open Source solutions for local authorities. In terms of development, it will work with the publication of source code for the digital identity aggregator FranceConnect. Moreover, it will run the development of the site code.gouv.fr (also available in English). It is also launching the BlueHats Semester of Code programme in which engineering students will contribute for six months to Open Source software.

Networking is of specific importance to a national OSPO. The French OSPO team stated

that they cannot ignore work that is done in cities, municipalities, universities and other entities. Those experiences bring an important perspective and involving them ensures the best usage of resources and high rate of implementation, as well as innovations and modifications. There is therefore a need for a strong collaboration and networking mechanism between the central OSPO and different agencies/entities.

According to the OSPO team, the key Open Source challenge is realising the potential of sharing and reuse of Open Source solutions. There is a strong need to make sense of all the Open Source resources available so that other parts of the administration can use them, and avoid duplication. This also extends to cities, towns and municipalities that often have similar needs in terms of software products. There is also a need to help agencies developing and maintaining these solutions to find new users. The goal is to have a set of ready-made solutions that can be downloaded and installed easily by a diverse set of public sector users and organisations.

The biggest challenge of the OSPO, however, is similar to that of the government CIO in general: meeting diverse demands and needs. The OSPO is asked to address the needs of the many arms of the public sector—from ministries, departments, specific initiatives and local public sector institutions. In other words, the OSPO has an internal mandate to support the Open Source engagement of the government, but also an external mandate to engage with cities, municipalities, universities and other entities.

The City of Paris OSPO

The creation of the City of Paris' OSPO was announced in November 2021, having as its most important aim to be the interface between public administration, community users and other projects and initiatives. A stand-out element of the process of setting up the Paris OSPO was that it was a bottom-up project. It was driven by a group of dedicated individuals in City Hall. A key moment on the City of Paris' OSPO journey took place already in 2002, when the city council voted for opening the Lutece platform. Most of the open source initiatives put forward by the City of Paris over the last 20 years, and now the idea of building an OSPO, stem from this project.

As with the European Commission, several exchanges with other institutions predated the setting up of the OSPO. For example, the team in the Paris City Hall was, ahead of the announcement, involved with the OSPO initiatives OSPO++ and the OSPO Alliance. This in turn added the culture of networking with other OSPOs into the mindset and working methods of the Paris OSPO from the outset.

The city has tasked its OSPO with increasing its capacity to participate in Open Source communities. The goal of this is, on the one hand, to strengthen the community around Lutece. On the other hand, it is also a way to communicate to other OSPOs, Open Source communities, and their own administration that the City of Paris is serious and professional when it comes to Open Source.

The City of Paris' focus on external communities and networking is important, but the Paris

OSPO underscores that it is first and foremost working on strengthening its own capacity. They want to formalise their internal Open Source processes, such as licence compliance, and they must add value to the city's IT administration. They state that Open Source is already part of the day-to-day reality for the modern public sector CIO, for whom the OSPO works, but the City needs more structure to get the most out of Open Source. The internal mandate of the OSPO is to develop policies for compliance, technical ability and experience, in order to fully be able to participate in the ecosystem over time. In order to make this actionable, the Paris OSPO is adopting a tailored version of the OW2 Good Governance initiative guidelines. The OW2 Good Governance initiative aims to increase awareness and expertise on how to use and contribute to Open Source software through organisation-wide policies. It provides a blueprint for implementation of an Open Source Programme Office within the organisation.

The City of Paris built its OSPO to increase its digital sovereignty and technical autonomy. In theory, the team says, it would be less costly and easier to build the city's digital infrastructures with outsourced suppliers and licensed software. But this means losing control over its digital assets and, over time, decreasing the government's ability to engage with the technology. This is a source of over-dependence and lock-in. Avoiding this is a political demand for digital sovereignty from both politicians, high-level public officials and citizens. It has been an important driver for the setting up of the OSPO.

Looking to the next few years, the Paris team sees great potential in creating a network of city OSPOs. Cities are big deliverers of digital government services, and often in a different, more direct way than national governments. But to achieve the Open Source goals set up by Paris, the existing network of initiatives that are mostly at national level don't fully respond to their needs. Cities should specifically work together focusing on experience-sharing, common testing of ideas, programs, and, perhaps most importantly, software itself.

For the public sector, Open Source is more than just code and IT management, however. While the OSPO is a useful concept that helps operationalise its Open Source involvement, the Paris team sees it as one part of the larger idea of digital commons and public goods. Sharing software is easy, but reuse is difficult. The aim of the City's OSPO is to avoid unnecessary duplication. A network of city OSPOs should be built to lower the transaction costs of sharing and reusing digital government solutions. The City of Paris approach towards this has been to work with implementing the OSPO++ collaborative model. This is the biggest promise of networked OSPOs.

OSPO NETWORKS ENABLING THE SHARING AND REUSE OF SOFTWARE

From the case studies, it becomes clear that the OSPO's value proposition for the public sector is closely related, but fundamentally different to the value proposition in the private sector.

It took more than a decade for the private sector OSPOs to go beyond legal and support to becoming agents in support of intercompany exchange and collaboration. Today, we see networks of corporate OSPOs in bodies such as the OSPO Alliance and TODO Group.

Public sector organisations building OSPOs are looking to externally enable them from the outset. On the one hand, this can be explained by the relatively limited resources internally when compared to the private sector. On the other hand, however, collaboration should come more naturally to the public sector since they have certain specialised project needs. Obvious examples here would be fire departments, police and libraries, but could also encompass digital services in general.

It is important to note that there are innumerable collaborative networks meant to facilitate collaboration at speed and scale for public sector organisations at all levels. Yet, from an Open Source perspective or digital government more broadly, the potential of collaboration is not met. An interesting enabler that is quite unique to Open Source collaboration is that it offers an alternative legal basis for collaboration. Contracts and memoranda of understanding (MoUs) for formal collaborations between public sector organisations are bureaucratic and tedious to negotiate. But across the world already, Open Source projects that uphold the world's digital infrastructure rest on a well-established legal framework that creates trust: the Open Source licence.

This touches more on the potential than a widely accepted norm for Open Source collaboration in the public sector, but there are examples where it happens without contracts or MoUs. For example, several contributions to the City of Paris' Lutece platform were provided through the Johns Hopkins University OSPO in Baltimore, the first university OSPO in the USA. Lutece is now used by the St. Francis Neighbourhood Center in Baltimore. The teams of the Paris and Johns Hopkins OSPOs described this as collaboration through unofficial channels that was done informally, but resting on the trusted Open Source licences used. This is a tangible example of OSPO collaboration, without the bureaucracy of contracts or MoUs, enabling actual sharing and reuse.

This matters because over the last couple of decades, the promise of sharing and reuse of software products for digital government has arguably not been realised. An explanation given by the European Commission's OSPO representative is that "sharing is easy, reuse is harder". Moreover, the European Commission's "Sharing and Reuse Framework for IT Solutions", the European Interoperability Framework in its different iterations, and countless national efforts have set in place approaches and processes to increase the "reusability" of software. This has undoubtedly increased the potential of reuse, but the

OSPO can in the public sector context be seen as the enabler to actually achieve it. Reuse is hindered by organisational, legal, technical and communication barriers: the public sector OSPO with an external mandate targets all four. Moreover, matched with proper structures for internal compliance, the OSPOs lower transaction costs for Open Source collaboration at scale, while maintaining technical autonomy, risk mitigation and stability.

OBSERVATIONS AND CONCLUSION

Hopefully, government CIOs will take conclusions from this paper that are specifically relevant for the organisation they represent. Taking a general perspective on the case studies, however, there are a few obvious observations regarding Open Source and OSPOs in the public sector. These should be relevant for most government CIOs.

Open Source Observations

- Open Source software is everywhere, and the public sector depends on it
- The public sector needs to assess its Open Source use, compliance, security and key dependencies. This can be done through landscape studies, matrices and statistics
- Sharing and reuse of software between public sector organisations holds the biggest promise, but it is still largely unrealised
- Political goals, such as economic growth, digital sovereignty and cybersecurity, are supported by increased public sector Open Source competence and capacity
- Open Source saves money, and procurement law and structure matters, but to achieve full value, an organisation will require investments in capacity and changes to working culture
- Open Source matters for technical talent attraction and retention

OSPO Observations

- OSPOs are and should be different depending on the organisation and its goals
- The value proposition of the OSPO is different in the public sector than in the private sector
- OSPOs are tools to achieve open source goals and policy goals that require open source
- OSPOs are capacity and cultural change constructs
- OSPOs don't require a big budget, but a strong mandate
- OSPOs are currently being built in organisations with extensive OSS experience
- The OSPO needs a mandate to support the internal open source processes of the organisation, but for the OSPO to realise value from open source it needs an external mandate to collaborate
- An OSPO will be as good as the strategy it supports
- When building an OSPO, learn from earlier efforts through the existing OSPO networks: don't remake the wheel

Conclusion

It is early in the process for OSPOs in government to make firm conclusions. That said, the general conclusion is that **OSPOs are built to give the Government CIO options and real choice.**

Considering the observations from the case studies, as well as the theoretical considerations from the point of view of government CIOs, the OSPOs built or being planned are responses to the complex demands put on CIOs in terms of political goals and citizen needs.

OSPOs are responses to today's digital reality where Open Source is ubiquitous and unavoidable. More importantly perhaps, they are also being built as a response to strategic goals where Open Source needs to be leveraged with intent. Strategic use of Open Source can increase an organisation's, region's or nation's digital sovereignty and the jurisdiction's economic growth in terms of start-ups, jobs and GDP. For the digital services themselves, Open Source is a tool to achieve better interoperability and quality, but at the same time it helps increase their transparency and accountability.

The OSPO is the institutional organisational construct that supports and accelerates consumption, creation, and application of Open Source software in the organisation that houses it. Doing this well in an organisation also has benefits for the government CIO in terms of attracting and retaining technical talent.

One of the main arguments for using Open Source in the public sector is IT cost savings, both in terms of acquisition and total cost of ownership. This is still true. The trend of building OSPOs in governments at all levels (local, municipal, regional, national and supra-national) is however the result of Government CIOs now thinking about Open Source strategically, aimed at more ambitious goals.

OSPOs give Government CIOs more pragmatic options. They give the executives of the organisations more options, flexibility, and control when it comes to their day-to-day as well as long-term strategic goals. This, in turn gives them the ability to better and more efficiently meet the diverse and complex demands put on them.

ADDITIONAL RESOURCES

The OSPO Alliance

The OSPO Alliance aims to bring actionable guidance and solutions to all organisations willing to professionally manage the usage, contribution to and publication of Open Source software, regardless of their size, revenue model or whether public and private. By professionalising the management of Open Source software, the OSPO Alliance will make engaging with Open Source software less risky and more predictable. It will lower barriers to adoption of Open Source and will enable organisations to leverage it to enhance their digital sovereignty.

The OSPO Alliances has built and hosts the OSPO.Zone — an open experience-sharing platform to facilitate discovery of tools and best practices and help define the state of the art in this domain.

OSPO++

OSPO++ is a network and a community of collaborative Open Source Program Offices in universities, governments, and civic institutions. It builds resources to help create OSPOs, actively engaging in discussions on how to best manage and grow Open Source programs, and how to garden sustainable communities that last.

TODO Group

TODO is an open community of practitioners who aim to create and share knowledge, collaborate on practices, tools, and other ways to run successful and effective Open Source Program Offices or similar Open Source initiatives.

TODO Group is formed by its 1,600+ Community participants and supported by its 70+ General Members.

OpenForum Europe

OpenForum Europe (OFE) is a not-for-profit, independent European based think tank which focuses on openness within the IT sector. We draw our support not only from some of the most influential global industry players, but most importantly from across European SMEs and consumer organisations and the open community. OFE also hosts a global network of OpenForum Academy Fellows, each contributing significant innovative thought leadership on core topics.

Views expressed by OFE do not necessarily reflect those held by all its supporters.

OFE aisbl, a Belgian international non-profit association
Transparency number 2702114689-05
Registered in Belgium with enterprise number 721975651
RPM Tribunal de l'Entreprise Francophone de Bruxelles
Registered office: Avenue des Arts 56, 4C, 1000 Brussels, Belgium
Web: openforumeurope.org
e-mail: info@openforumeurope.org