

**Open source in government:** creating the conditions  
for success

**2021/11/16 @ OFA Symposium**

A decorative graphic consisting of several overlapping circles. A large, thick black circle is the central element. To its left, a series of thinner, light-colored circles are stacked and overlap each other, creating a sense of depth and movement.

**public  
digital**

Welcome

# Hello 🖐️



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**Public Digital** advises leaders in governments and large institutions around the world on serving the public better through use of the internet.

We call this digital transformation:  
**using the culture, processes,  
business models & technologies**  
to respond to people's raised  
expectations.

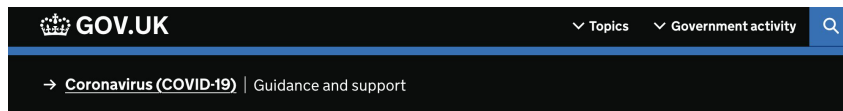


Welcome

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Guidance

## Be open and use open source

Publish your code and use open source to improve transparency, flexibility and accountability.

<https://www.gov.uk/guidance/be-open-and-use-open-source>



Open source - Strive to create future Government systems, tradecraft, manuals and standards as open source and shareable between Participants

<https://www.leadingdigitalgovs.org/about>

We recently conducted a short study on  
**creating the conditions for success** for  
open source software.

– <https://github.com/publicdigital/open-source-in-government>

- ❏ Context for our study
- ❏ Our recommendations for governments
- ❏ Public Digital Open Source Capability Model

“Open source software solutions that support **mission-critical public services**, and platforms that form part of a government’s digital infrastructure”

– <https://github.com/publicdigital/open-source-in-government>

Adoption of open source is a powerful way to accelerate digital transformation.

### **Governments can...**

- share and reuse solutions internally and across borders
- quickly experiment and pilot services without complex and expensive procurement
- connect into a global community through an open source project, and share ideas, best practices, and build on each other's expertise.



It is a powerful  
lever for system  
level change.

## **It helps governments**

- move away from being locked-in to single vendors, giving greater flexibility and control over how services are delivered
- create competition (bringing quality up and prices down)
- support local or regional digital economies

But... it's **complicated**

Take **action** in these four areas to build the conditions for success.

Policy environment

In-house skills and capabilities

Open source vendor ecosystem

Sustainability

“Political stability is essential. Where there is instability the process halts”

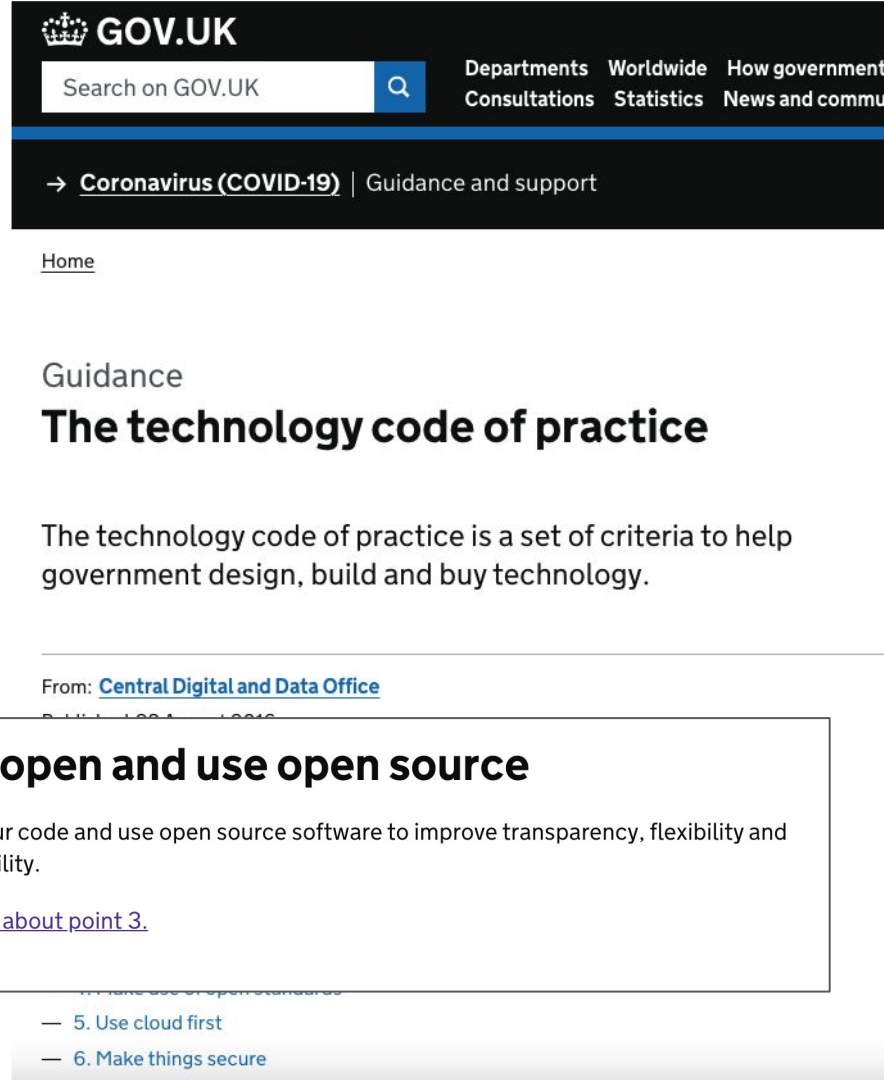
- interviewee

**Build political consensus and support for open source software adoption,** to strengthen long-term sustainability.

- **Are there ministers and/or senior officials willing to be champions for open source software both inside and outside the government?**
- **Can consensus be found in the strategic objectives for adopting open source?**
- **Would developing – or amending – a decree, policy or law encourage use of open source software in government?**

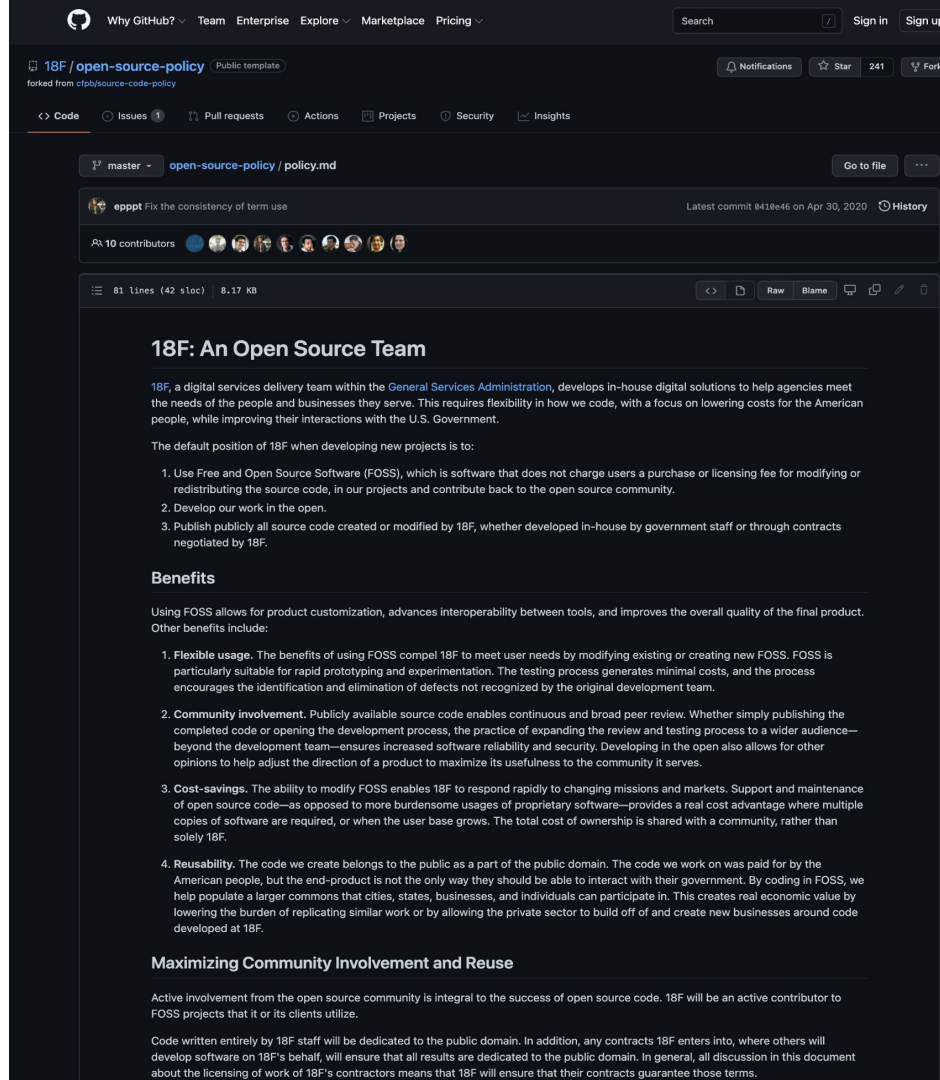
# Publish a government technology strategy

which includes clear objectives for open source software.



# Make a central official or team responsible for setting open source standards and policy, to support and guide its use in government.

<https://github.com/18F/open-source-policy/blob/master/policy.md>





# **Find champions and develop an internal community around open source.**

- **What is best practice across government? Is it possible to openly share the experience using open source, for example through blogs, news articles and events?**
- **What technical skills do teams have in-house? Which are missing?**
- **Who is already using open source in government? What best practices can be used and developed further for wider good?**

# Encourage reuse within government to develop the right technical skills and experience.

Find opportunities to release publicly-funded code in the open.

<https://docs.italia.it/italia/developers-italia/gl-acquisition-and-reuse-software-for-pa-docs/en/>

Torna a 3.3. Developers Italia and identifying software for reuse

## 3.4. Process of making software available for reuse under open licence

The process of making software available for reuse is as follows:

1. The administration identifies a **code hosting tool**. Once the tool has been identified, it can be utilised for all software that is to be reused ([3.4.1 Identifying a code hosting tool](#)).
2. The administration chooses an open licence to use ([3.5 Open licences and choice of licence](#)).
3. The administration, using its own resources or through procurement, publishes the complete source code of the software and the relevant technical documentation on the code hosting tool. This technological process is described in [Annex A: Guide to publishing software as open source](#), attached to these guidelines. The guide is written in such a way that it can be attached to a tender technical specification, to facilitate the acquisition of a service by entrusting the supplier with the obligations required by these guidelines.
4. The administration shall 'register' the software on the Developers Italia platform, so that it is indexed by the search engine and made visible to other administrations looking for reusable software.

The process outlined here is valid for existing software owned by administrations ([3.6 Releasing existing software under open licence](#)), as well as for software that will be developed in the future ([3.7 Development of software for reuse](#)).

# Review procurement policies and practices

to ensure they aren't inadvertently blocking open source software.

- Are policies around using only enterprise-approved tools blocking teams from experimentation with open source software?
- Can policies be changed, or is there an opportunity to develop new policies that remove these blockers?

**In the longer term,  
develop a range of  
procurement options  
for buying software and  
related services.**

- Are procurement processes outcome driven?
- Can procurement processes manage the ambiguity of evolving requirements?

"Open source can require a higher level of tech expertise. You have to deeply understand the codebase of the software you're adopting in order to customise it, and accept the decisions developers have made"

- Interviewee, on vendors supporting open source.

# Grow and support the local ecosystem of vendors.

Promote new business and delivery models built around open source software.

- How strong is the local community of developers or vendors?
- How close is the government's relationship with this community?
- How can it help grow and support the community, and promote new business and delivery models?

## Approach funding in a sustainable way.

Understand the short and long term costs of open source software projects, using early experiments and pilots.

- How are the costs of long term maintenance and implementation factored into funding bids and government budgets?
- How are you balancing the trade-off between what might be a higher upfront cost, with greater control and flexibility over the long-term?

"If we were to use a community version of open source software, we would need to ensure that we have a competent internal team that can maintain it."

- Government interviewee



1 Free support through a mature community  
For a very simple implementation or small pilot. Often through chat forums or online communities.

2 Software-as-a-service  
For a simple implementation without many custom elements, this could be a support and maintenance service provided by the developer of the open source software, or through a separate vendor.

3 Full commercial support  
For a complex or heavily custom implementation, commercial support could include day-to-day first line support for users, disaster recovery and fixes, as well as senior level points of contact

# Engage and contribute with the global open source software community.

Share experiences in the open, and contribute practically by encouraging contributions to open source projects.



**Start small,**  
share in the open,  
and find your peers.

# Public Digital **Open Source Capability Model**

# We developed an Open Source Capability Model to help governments understand their open source capabilities and strengths.

This model is based on – and designed to complement – [the Harvard Maturity Model for Digital Services](#), which Public Digital contributed to. The development of the open source model was supported by the Omidyar Network.

1. **Policy environment**
2. **In-house skills and capabilities**
3. **Open source vendor ecosystem**
4. **Sustainability**

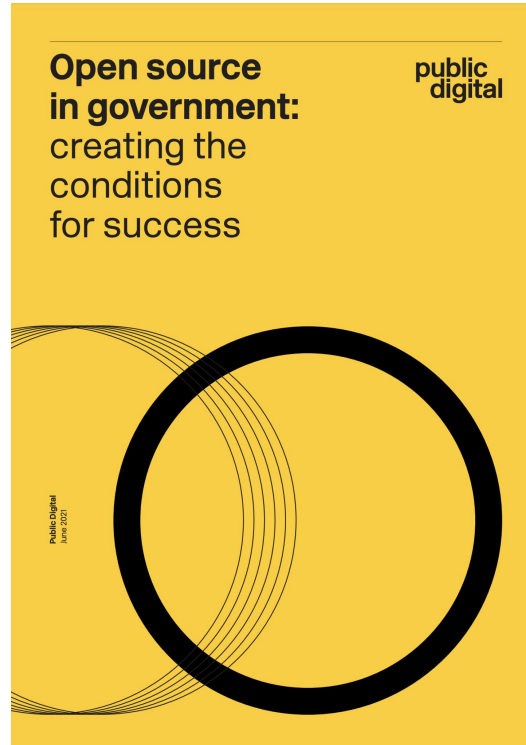
In-house skills and capabilities			
Area	Low	Medium	High
Open source leadership and coordination	One or two individuals champion open source. There is no succession plan if they leave the team or government.  Little wider understanding of open source software.	A small team promotes new ways of working, including open source but lacks the leverage to promote and support the delivery of services using open source.	An empowered team exists within government that works across departments to promote and support the delivery of services using open source.  Teams have a clear strategy for using open source software, and they understand when its use is appropriate.
Technical skills or experience in implementing open source software	Little to no in-house technical skills. All software has been provided through large enterprise products and contracts.  Little experience in using open source. Open source may have been used by vendors but it is not something the government is directly aware of.  No culture of reuse.	Some technical skills or leadership, perhaps in one team, but experience is limited and dependent on a few individuals. Some experience of evaluating software outcomes.  Some open source infrastructure software, some examples of code released in a public repository.	In-house technical skills embedded across government. Ability to evaluate an open source solution (for example, features, funding, codebase etc).  Have moved from one-off use of small pieces of open source infrastructure to open source platforms.  Common practice to make source code for public services available in a public repository.  Reuse is encouraged.

**For governments to self-assess needs and prioritise investment in building open source software skills and experience.**

It is open source and free to use.

Sustainability			
Area	Low	Medium	High
Sustainable funding	No plan for long term funding. There is a misunderstanding of open source (for example, that it is free). Teams struggle to find funding past the initial capital to implement a new service or tool.	There is some awareness and planning to secure funding for open source software beyond the initial implementation.	There is widespread awareness and long-term planning for sustainable funding of open source software.
Ability to manage and maintain software	Little to no in-house experience in managing or maintaining software.	The government sometimes considers maintenance and management in funding bids, RFPs, hiring plans.	Government is able to identify the level of support required based on the complexity of the software implementation.  Have the capacity to develop open source software that they are the primary maintainer for with a dedicated team to support long term.
Engagement with the global open source	Little to no awareness of the global open	Aware and beginning to engage with the	Government is working to be a "good

<https://github.com/publicdigital/open-source-in-government>



<https://public.digital/research>

# Digital. Teams. Work.

Get in touch if you have questions or feedback about our study.

## How to contact us

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