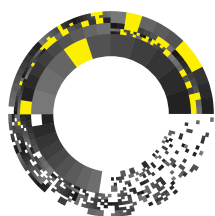
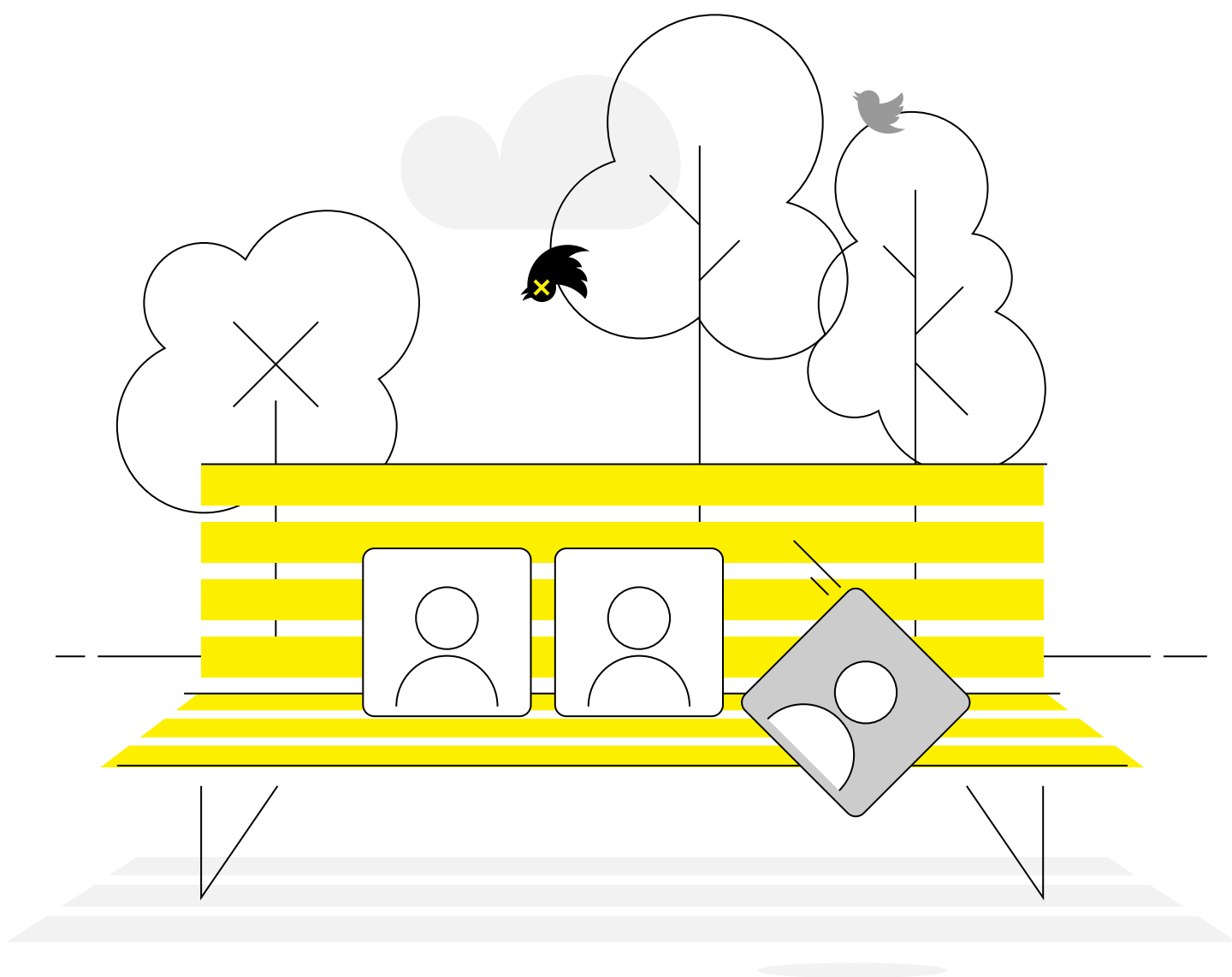


EUROPEAN PUBLIC DIGITAL INFRASTRUCTURE FUND



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EXECUTIVE SUMMARY

In a fragmented world, the Digital Commons offer a model of shared and collective governance over essential resources. It is no secret that Europe is paving the way when it comes to regulating digital markets and services. Henceforth, we need to go beyond our current capacities. By fully including Digital Commons in its digital strategy, Europe is able to unlock the full potential of these resources while offering a new method to assert the Union's values and principles.

Europe has an unmatched opportunity to position itself at the forefront of the defense for a free, open, and democratic digital society: let's take action. – [Towards a Sovereign Digital Infrastructure of Commons - Report of the European Working Team on Digital Commons, June 2022.](#)

This white paper¹ identifies the need for a consolidated European approach to support Public Digital Infrastructures and build out Digital Public Spaces in Europe. It argues that such an effort is necessary to ensure that the recent regulatory interventions aimed at limiting the power of commercial platform intermediaries will achieve their objective of creating a European digital space based on the European Union's values and principles. It argues that for these efforts to succeed, it will be key to strengthen both the Digital Commons and the role of public institutions in the digital space to provide alternatives to the digital infrastructures offered via commercial services and platforms. In doing so, the effort to build Digital Public Spaces will contribute to ensuring Europe's digital sovereignty while at the same time providing a blueprint for a digital space that allows free, open, and democratic societies to flourish.

The white paper proceeds as follows. The first part defines key concepts that underpin the proposal, including the notions of Digital Public Spaces, Public Digital Infrastructure, Digital Commons, Public Institutions, and Interoperability. The following section describes the historical opportunity for investing in Public Digital Infrastructures and describes existing initiatives (mainly at the Member State level). The final section contains the proposal for a European Public Digital Infrastructure Fund.

1. INTRODUCTION

The idea of a government-backed fund to develop key societal technologies is nothing new or groundbreaking. Governments have a long history of supporting technological developments via various means. Usually, this takes the form of supporting academic or industrial research and development to bring such technologies to market via commercial enterprises².

¹ This paper has benefitted feedback from and conversations with among others: Alek Tarkowski, Anna Mazgal, Diego Naranjo, Dimi Dimitrow, Felix Reda, Jan Penfrath, Krzysztof Siewicz, Naphsica Papanicolaou, Paul Stacy, Sophie Bloemen, Tara Tarakiyee, Volker Grassmuck, Wouter Tebbens and Zuzanna Warso. We are grateful for their input and feedback.

² Mazzucato, M. (2011), The Entrepreneurial State, Demos.

In the realms of software development and the provision of digital communications services that underpin much of the modern digital economy, we see another type of technology development. The development models underpinning free and open source software and practices derived from them have led to the development of Digital Commons that contribute to the availability of software, infrastructure, data and knowledge outside of commercial enterprises' control. Governments are increasingly recognizing the value of such *digital public goods*³ and looking for ways to support their creation and maintenance.

One of the earliest examples of a government program to support the creation of digital public goods is the [Open Technology Fund](#) (OTF), which was established in 2012 at the initiative of the US State Department (it has since been transformed into an independent nonprofit corporation funded by the US government). As outlined in its [Values & Principles](#), the open technology fund supports “*open technologies and communities that increase free expression to circumvent censorship, and obstruct repressive surveillance as a way to promote human rights and open societies.*”

While the OTF has been established as a foreign policy instrument, it has become a model for government support for independent open (source) technology projects. As such, the OTF serves as an important reference point in discussions about supporting the development of *Public Digital Infrastructures* and other digital public goods.

In the European Union, the model established by the Open Technology Fund has – directly and indirectly – inspired the creation of various instruments and proposals. These include the European Union's [Next Generation Internet initiative](#), the German initiative for a [Sovereign Tech Fund](#), and the recent [French Digital Commons](#) initiative. All of these initiatives recognize the crucial role played by Free and Open Software projects and other examples of Digital Commons and seek to support such initiatives. This recognition is often based on the insight that many of these projects provide essential underlying technological building blocks that underpin the digital tools and services that modern societies and economies increasingly rely on⁴. Government funding is seen as an intervention to ensure the sustained maintenance of such digital base technologies that are often underfunded or lack funding models altogether. In addition, there is an increasing realization that funding the creation and sustainability of digital public goods can – and should – serve more ambitious objectives than ensuring the financial sustainability of critical elements of the technological stack⁵ underpinning the digital economy.

This white paper builds on the insight that creating Digital Public Spaces requires a different model for developing the infrastructure required to run it. **As long as the development of the**

³ The Digital Public Goods Alliance [defines digital public goods](#) as “open-source software, open data, open AI models, open standards, and open content that adhere to privacy and other applicable laws and best practices, do no harm by design, and help attain the Sustainable Development Goals (SDGs).”

⁴ “[Roads and Bridges: The Unseen Labor Behind Our Digital Infrastructure.](#)”

⁵ We use the term “stack” to denote the idea that digital networks and infrastructures are generally composed from layers with the lower layers of the stack providing the necessary conditions for higher levels of the stack to function. This concept has its roots in the [Open Systems Interconnection model](#) but has recently been reapplied in the concept of competing value systems, see for Example [Waag's work on a Public Stack model](#).

vast majority of user-facing communication technologies is driven by private investment, the resulting communication services and tools will always be optimized for generating a financial return on investment⁶ to their funders. Developing technologies and building infrastructures that instead optimize for values such as openness, equality and democratic control over their use requires a different type of funding – public funding. It also requires a different approach to governing these infrastructures – as Digital Commons.

Notes on terminology

Before we further develop the rationale and proposal for a European Public Digital Infrastructure Fund, we need to clarify some recurring terms in this paper, such as “Public Digital Infrastructures” and “Digital Public Spaces,” and what we mean when we invoke the concepts of “Digital Commons,” “Public institutions” and “Interoperability.”

Public Digital Infrastructures are a subset of digital public goods. We use this term not to indicate the material-technical infrastructure of the Internet (such as cables, wireless networks, data centers, internet exchanges) but rather to indicate services and platforms that enable connection and exchange between users (both individual and institutional). This concerns communication services and platforms, storage services, identity services and underlying software functionality, protocols and standards. To be considered public, they need to be open and under the control of their users, workers and maintainers (as opposed to being under the proprietary control of private entities). Ideally, Public Digital Infrastructures are developed, maintained and governed as Digital Commons. Public Digital Infrastructures can promote more sovereign societies and individuals through the democratization of access, transparency and accountability, while shared standards and Interoperability will allow knowledge and culture to flow, helping people to connect. Public Digital Infrastructures are one of the building blocks for Digital Public Spaces.

Public Digital Infrastructure could help us move away from a platform economy – where one actor owns a whole suite of tools and can unilaterally set the rules – towards a protocol-based economy – in which we could see a collaborative ecosystem of smaller, interoperable solutions and applications emerging, built on top of a shared set of rules and open protocols. We could see this as an alternative and parallel infrastructure made up of open, trustworthy solutions and public goods. – NGI forward: Towards Public Digital Infrastructure.

Digital Commons are a key mechanism for providing Public Digital Infrastructures. As defined by 2009 Nobel Prize winner Elinor Ostrom, Commons are those goods that depict a high subtractability of use and where it is highly difficult to exclude potential beneficiaries. In the

⁶ Which does not mean that it is exclusively based on private investment. Mazzucato (Ibid.) has shown that there is a lot of public investment in technological building blocks that are privatized in the later stages of the product development process. This fact does not mean that there should be less public investment in technology but rather that the public sector must also think about how it can benefit from the returns on investments – via taxation or otherwise – so that they can be reinvested in Public Digital Infrastructures.

digital environment, the issue of subtractability is less pronounced, but Ostrom's principles identified for managing commons are nevertheless helpful. In line with them, we understand Digital Commons to be resources designed and governed by a community with established access and sharing rules. Based on Ostrom's work, Mayo Fuster Morell [defines Digital Commons](#) as "information and knowledge resources that are collectively created and owned or shared between or among a community and that tend to be non-exclusive, that is, be (generally freely) available to third parties. Thus, they are oriented to favor use and reuse, rather than to exchange as a commodity. Additionally, the community of people building them can intervene in the governing of their interaction processes and their shared resources⁷"

Digital Public Spaces are digital ecosystems that exist outside the control of commercial entities that extract value from users of these platforms. Digital public spaces can be operated as Digital Commons and provided as public services by public institutions or civic initiatives. They provide fora for public and private exchanges, access to information and tools for civic organization. This white paper envisages Digital Public Spaces as an interoperable ecosystem maintained by a dense web of public institutions, Digital Commons and other civic initiatives. Digital Public Spaces are based on democratic values and Public Digital Infrastructure and ensure the existence of a rights-based, society-centered alternative to the services provided by commercial platforms.

A practical illustration of how these structural differences between privatized space and public space play out in the digital domain is provided by Rebecca Giblin & Cory Doctorow in their 2022 book "[Chokepoint Capitalism](#)," in which they contrast the way Amazon extracts value from reading ebooks sold via its platform with the way public libraries protect the privacy of their patrons:

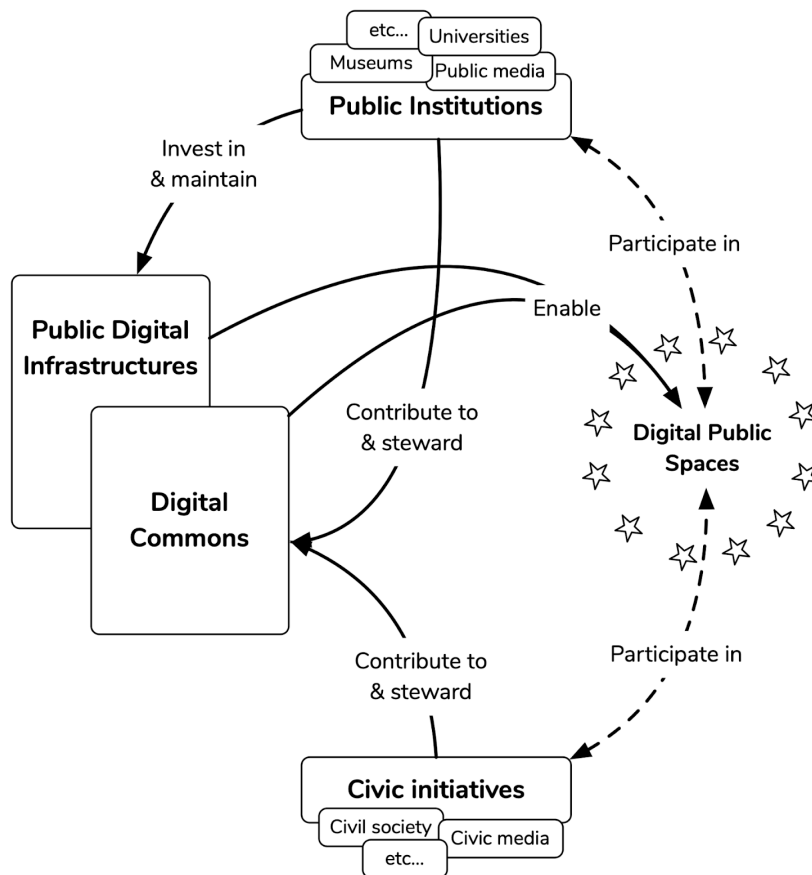
Amazon tracks the phrases we highlight, the words we look up, who else is reading from the same address. All this allows it to deduce the most intimate information about our lives: whether we're struggling with our gender identity or sexual orientation, if we think our partner is cheating or that we might be depressed, if we're having money problems or struggling to get pregnant or considering leaving our jobs. Public libraries have some of this same information and guard it fiercely, but Amazon feeds it into an insatiable machine designed to extract maximum profit. (Page 36)

In the context of this white paper, **Public Institutions** are understood to be institutions and organizations that exist in the public sector that are not part of the government. This includes educational institutions (from primary to higher education and academia), cultural institutions (Libraries, Archives, Museums and other publicly funded venues for cultural expression), and public service media. The relevant characteristics of these entities are their public interest-based missions and not-for-profit character.

⁷ The Report of the European Working Team on Digital Commons very similarly defines Digital Commons as "non-rivalrous and non-exclusive resources defined by their distributed and communal production, ownership and governance. Within the digital environment, Digital Commons arise from the collaborative governance and maintenance of resources such as data, knowledge and (free and open source) software."

One – unfortunately hypothetical – example of Public Institutions investing in public digital infrastructure leveraging an existing Digital Commons initiative would have been a collaboration by European Universities to invest in setting up and scaling up a video conferencing infrastructure based on a free software stack such as [Jitsi.org](https://jitsi.org) or [Big Blue Button](https://bigbluebutton.org) at the beginning of the pandemic by providing server infrastructure and network bandwidth.

Funding such a joint effort would have resulted in increased independence from commercial providers. It would have ensured that public funds contribute to the building and maintenance of public infrastructure and would have likely led to increased quality of the underlying service, which would, in turn, make these tools a more competitive alternative for other parts of society.



Finally, we see **Interoperability** as a key concept underpinning efforts to construct Digital Public Spaces. Interoperability within Digital Public Spaces must be ensured by building Public Digital Infrastructures on open standards and protocols. This will ensure that the different elements of Digital Public Spaces maintained by various contributors provide functionality that is more than

the sum of its parts⁸. By ensuring the Interoperability of the various elements constituting Digital Public Spaces, they can scale up to become alternatives to the privatized information spaces currently dominating the digital public arena in Europe (and elsewhere).

2. THE CASE FOR A EUROPEAN PUBLIC DIGITAL INFRASTRUCTURE FUND

Access to and use of digital communication services is no longer an innovation – it is an essential part of our societies and an important resource for individuals, organizations – both public and commercial. The online environment in Europe is dominated by a small set of commercial platforms that control online communication infrastructures and access to information and culture.

This stands in stark contrast to the structure and composition of European societies as a whole, which have historically seen a strong role of a dense network of public institutions and civic infrastructures. This includes civic, sports, religious, and political initiatives, public service & community media, educational and academic institutions, cultural venue producers and memory organizations.

In the online environment, these institutions are increasingly becoming dependent on the use of the infrastructure and services provided by commercial platforms. The result has been an enormous transfer of wealth, information and capacity to act from the public and civic sectors to these private actors' platforms, which in turn has allowed them to wield enormous power over the media landscape and public discourse, with little or no accountability. This imbalance and the lack of a viable alternative are detrimental to the Internet, to our democratic values, and to the health of our European societies.

While they should play an essential role in the digital transformation, European public institutions have largely been held back from updating their public interest missions in response to the challenges and opportunities resulting from this transformation. Outdated copyright rules have long held back educational and Cultural Heritage institutions, and public service media face substantial limitations when developing online services. Given that public service media are actively prevented from developing new online services due to competition rules, it is not surprising that for-profit entities from outside the EU dominate the field of social media.

Policymakers across Europe and society at large have started to realize that this status quo must be changed and that they can positively shape this landscape. Over the past few years, we have seen an increasing willingness to regulate in the digital space with the express aim of upholding democratic values and individual rights, accompanied by a clear recognition of the central role that digital plays across society and in Europe's future.

⁸ For a more detailed discussion of the role of Interoperability in building Digital Public Spaces, see [Generative Interoperability – Building public and civic spaces online](#), Open Future and Commons Network, 2022.

Earlier this year, this led to the passage of landmark regulatory instruments: The Digital Markets Act and the Digital Services Act. However, these – and other upcoming regulatory interventions – are primarily intended to prevent further concentrations of power and to limit the negative externalities produced by these platforms. It is not their primary purpose to change the overall structure of the online environment⁹ or to strengthen the capacity of other non-market players¹⁰.

These efforts to regulate and improve the digital space are very much welcome; however, Europe can and must do more to ensure the digital values and sovereignty that Europe aspires to. Regulatory initiatives focused on curbing the power of dominant commercial platforms and fixing the current platform ecosystem's harmful aspects lack a positive vision of a European digital society. This approach treats the current platform ecosystem, with its dominant, non-European commercial actors that exert their power in Europe, as inevitable and that in doing so, focuses on regulating this existing ecosystem instead of designing and building a different, alternative model¹¹. Moreover, some regulatory measures cannot meet their defined purpose in isolation. Interoperability measures proposed in current regulation are a good example of this as they are not meaningful if there are no viable alternatives to those of dominant platforms.¹²

Europe's digital vision must go beyond its current digital constitutionalist phase¹³ and should include an ambition to create Digital Public Spaces supported by Public Digital Infrastructures built on democratic principles that offer European citizens and organizations real alternatives.

Europe's digital ambition should reach beyond the role of the global regulator to that of the global builder if it is to realize its goal of digital sovereignty. It is not enough to aspire to an alternative to the existing commercial platforms, it must be actively built. European Digital Public Spaces, built on Public Digital Infrastructures, can become the cornerstone of that alternative.

In addition to these societal objectives, investing in Digital Public Spaces is also desirable from an economic perspective. In 2022 the European Commission published [a study about the impact of Open Source Software and Hardware on technological independence, competitiveness and innovation in the EU economy](#). The study estimates that companies located in the EU invested around €1 billion in open source software in 2018, for an estimated €65 – €95 billion positive impact on the EU economy. According to the study, a further increase of 10% in contributions to open source code would generate an additional 0.4% to 0.6% of GDP annually. This indicates

⁹ Although there are small elements that could contribute to this objective – for example, the Interoperability requirements for messenger services that have been introduced into the DMA during the final negotiations.

¹⁰ Although the DSA – in particular – includes a number of transparency obligations that should make the platforms falling into its scope more legible for researchers and other outsiders.

¹¹ Keller, P., & Tarkowski, A. (2021). [Digital Public Space – A missing policy frame for shaping Europe's digital future](#).

¹² Zuckerman, E. (2020), [The Case for Digital Public Infrastructure](#).

¹³ De Gregorio, G. (2021), [The rise of digital constitutionalism in the European Union](#).

that investment into Public Digital Infrastructures has the potential not only to reduce the dependence on for-profit platforms that extract value by monitoring their users but can also serve as a driver of economic activity.

Public Digital Infrastructures will promote more sovereign societies and individuals through the democratization of access and control of the infrastructure, transparency and accountability, while shared standards and Interoperability will allow knowledge and culture to flow, helping people to connect. Europe's technological and civic communities already lead the way in developing the building blocks that will make this a reality. However, that must be accompanied by ambition, investment and a strategic approach at the political and European levels.

The role of the proposed European Digital Infrastructure Fund –which we develop in more detail in the next section – would be to fund the development of such infrastructures. This would strengthen existing Digital Commons initiatives and projects and direct funding towards building public infrastructure services for areas where such alternatives currently do not exist. Building a strong ecosystem of interoperable Public Digital Infrastructures without the need to realize any financial return on investment will create the condition for Digital Public Spaces to emerge. Fostering such spaces alongside the existing platforms will also result in a much-needed increase in the diversity and resilience of the online ecosystem. José van Dijk¹⁴ argues that ensuring “diversity at the infrastructural, intermediary and sectoral levels” is a key responsibility for European lawmakers who “should be concerned about protecting public values and interests at all three levels while carving out space for independent institutions and civil society actors to operate independent platforms.”

3. THE CURRENT LANDSCAPE

Currently, several initiatives in Europe seek to support non-market internet infrastructures in various stages of development, ranging from long-established independent foundations (such as the [NLnet Foundation](#)) to proposals as those developed by the European Working Group for the Digital Commons under the French EU presidency in the first half of 2022. These projects and initiatives showcase various elements of the proposal for the European Public Digital Infrastructure fund proposed in this paper:

EU: Next Generation Internet (NGI)

Currently, most European-level funding for digital infrastructure is part of the Horizon Europe funding program for research and innovation that releases funds through calls for proposals. As part of this program, The Next Generation Internet (NGI) initiative explicitly aims at building a more trusted, secure, inclusive, and human-centric Internet. The NGI initiative, which is run through existing independent entities such as NLnet, has been an important mechanism of support for open source development communities, with 80% of the projects developing open source software.

¹⁴ Van Dijk, J (2020), [Seeing the forest for the trees: Visualizing platformization and its governance](#).

Between 2018 and 2020, the European Commission invested more than €250m into research and innovation through the NGI initiative, with an additional €62m¹⁵ becoming available in 2021 and 2022 under the Horizon Europe program allocated for work on “Trust and Data Sovereignty on the Internet; Trustworthy Open Search and Discovery; Internet Architecture and Decentralised Technologies; as well as enhanced EU-US and EU-Canada cooperation and collaboration.”¹⁶

The Next Generation Internet initiative shows that investment into technology can happen at the EU level and at a substantial scale (especially when it is conducted via independent entities with strong “on-the-ground experience”). In light of the objective to build and maintain European Digital Public Spaces based on Public Digital Infrastructure, the main weakness of the NGI initiative is that, with its focus on research and development, it is very much caught in the innovation paradigm, which makes it less useful as an instrument for maintaining public services at the infrastructure level.

In March 2022, the NGI forward project (one of the pillars of the broader NGI initiative) published the report “[Towards Public Digital Infrastructure: A proposed Governance model.](#)” The report, authored by Katja Bego, draws on the experiences from the NGI Forward project to propose “*a new model that would seek to redistribute power over the internet by building a more vibrant, diverse and resilient ecosystem of trustworthy open solutions on top of a shared set of rules and open protocols and standards.*” *The proposed model would consist of a “Public Technology Fund” working hand in hand with a “Public Digital Infrastructure Agency” that would be “tasked with establishing processes and frameworks for the development and maintenance of the Public Digital Infrastructures underlying standards and protocols [...] to ease Interoperability.”*

Germany: Sovereign Tech Fund

In 2021, Open Knowledge Foundation Deutschland published a [Feasibility Study to Examine a Funding Program for Open Digital Base Technologies as the Foundation for Innovation and Digital Sovereignty](#) that was funded by the Federal Ministry of Economic Affairs and Climate Action, which also provided support for launching the Sovereign Tech Fund in October 2022.

The fund, which is still in the startup phase, explicitly aims to support the development, improvement, and maintenance of open digital infrastructure. Its goal is “to sustainably strengthen the open source ecosystem [with a] focus on security, resilience, technological diversity, and the people behind the code.” As outlined in the feasibility study, the new fund will have two critical characteristics that differentiate it from other similar structures. The fund explicitly includes in its scope the maintenance of existing digital infrastructures and will be able to actively identify projects in need of support (instead of relying on applications alone).

¹⁵ See the [about page of the NGI initiative.](#)

¹⁶ There is another €42 million allocated for the NGI initiative in 2024 and 2025 in the Horizon Europe Work Programme 2023-2024 that was published on the 6th of December 2022.

Why funding matters – The open source ecosystem, while incredibly successful, is also increasingly fragile. Many more people are using the software than contributing to it. It is time to invest in Digital Commons, volunteer communities and the open source ecosystem to build the digital world we want to see. We are working to strengthen the self-determined use of digital technologies and systems by individuals, industries, and governments. We believe that openness, co-creation, interdependency and Interoperability will lead to digital sovereignty. (www.sovereigntechfund.de)

While the initial focus of the Sovereign Tech Fund is on “Open Digital Base Technologies,” which refers to infrastructural services at a lower level of the internet stack that is not immediately end-user facing, the concept and the ambition of the fund clearly align with the proposed Public Digital Infrastructure Fund.

France: Digital Commons Initiative

Under its Council presidency in the first half of 2022, the French Ministry of Foreign Affairs convened a working team on the Digital Commons consisting of representatives from 18 EU member states. The team extensively consulted with existing Digital Commons projects and civil society organizations and – in June 2022 – published its report “[Towards a Sovereign Digital Infrastructure of Commons](#).” The report urges the European Union and the Member States to invest in Digital Commons and to steer efforts related to the digital transformation “towards Digital Commons and make sure they remain accessible and part of the public good” to unlock “their full potential for Europe’s economy, innovations, security, resilience, and democracy.” To achieve this, the report suggests that the EU Member States “would greatly benefit from a pooling of resources” and from shifting their efforts away from a procurement logic towards a logic based on the idea of investing in the creation of Digital Commons.

The report proposes the following measures aimed at strengthening the Digital Commons in Europe:

- Creating a Digital Commons one-stop shop that would connect commons projects with sources of funding and expertise,
- Launching a call for commons proposals targeting strategic Digital Commons with a European component and enhancing our joint European digital sovereignty,
- Establishing a European foundation for Digital Commons and,
- Establish a Digital Commons first practice among public sector bodies.

Of these four points, the first three are clearly in line with other efforts to provide funding for European Digital Public Spaces based on Public Digital Infrastructure. The proposed European

foundation¹⁷ for the Digital Commons is clearly the most consequential idea, with the one-stop-shop and the call for proposals being more short-term steps towards realizing the objective. The report repeatedly stresses the need to develop these instruments in cooperation with Digital Commons communities and then to involve them in the governance of these instruments. Finally, it also highlights the importance of supporting existing initiatives instead of focusing on innovation. Both of these points are long-standing concerns of organizations and will be essential elements of our proposal.

While the current status of the initiative and the working team is somewhat uncertain (there has been no direct continuation under the Czech council presidency) and while there have been no formal financial commitments, the proposal has the support of 17 of the 27 EU Member States. This indicates broad support among Member States for the overall approach.

Throughout these approaches and proposals for new ones, there is a clear trend toward going beyond merely supporting technological building blocks and conceptualizing the task at hand in terms of building and maintaining ecosystems. This reflects a more profound understanding that investing in shaping the digital transformation is, in fact, investing in shaping society and goes well beyond shaping technology.

Civil society: Towards a Shared Digital Europe built on Public Digital Infrastructures

All of these initiatives point in the same direction and show a considerable alignment behind the idea that supporting Public Digital Infrastructure must be an essential part of Europe's digital strategy. These initiatives also strongly align with the proposals coming from European¹⁸ civil society organizations active on digital issues.

- In 2018, a large number of Dutch Public Institutions, ranging from public broadcasters to libraries, festivals and arts centers, set up [PublicSpaces](#), a coalition that “is committed to providing an alternative software ecosystem that serves the common interest.” The Public Spaces coalition, which has since grown to more than 40 members, seeks to orient public institutions to invest their resources into digital solutions that reflect a set of key values based on their Public Interest Missions (“Open, Transparent, Accountable, Sovereign and User Centric”).

¹⁷ In this context, the term “foundation” refers to the foundation model as practiced in the Open Source Software ecosystem where foundations (such as the [Apache Foundation](#), the [Mozilla Foundation](#) or the [Eclipse Foundation](#)) exist as entities stewarding one or more open source software projects. In the context of public digital infrastructures a particularly interesting adaptation of this model is the [Foundation for Public Code](#) that stewards a number of codebases developed by public entities across Europe. This model is also practiced for other types of digital commons as evidenced by the [Wikimedia Foundation](#) or the [Blender Foundation](#).

¹⁸ Similar proposals are also made by initiatives and academics in the US, who, given the relative lack of regulation capacity in the US, are increasingly looking towards Europe as a testing ground for a more publicly minded digital environment.

- In 2019, a group of 20 civil society thought leaders representing a broad spectrum of organizations active in the digital policy space published a [Vision for a Shared Digital Europe](#), a policy frame intended to steer discussion on digital policymaking away from the focus on the Digital Single Market and towards a more society centric perspective. The vision document lists the need to “Cultivate the Commons” and “Empower Public Institutions” as two core principles underpinning a new approach to digital policymaking.
- Since 2021, the [Shared Digital European Public Sphere \(SDEPS\) coalition](#) has been advocating for and collaborating on building “public digital infrastructures based on democratic values and can be used and shaped by public institutions and civic initiatives.”
- In June 2022, a group of 18 Digital Commons initiatives that had contributed their expertise to the European working team on the Digital Commons issued a joint statement (“[Digital commons are a pillar of European digital sovereignty – here’s how to support them](#)”) in support of the French Digital Commons initiative that reiterated the belief that “Europe has the ability and the duty to shape the digital society of tomorrow.”

It is clear that there is a strong alignment between civil society and policymakers that more investment into Public Digital Infrastructure represents a necessary next step in Europe’s ambition to shape a digital environment that reflects democratic values and supports the dense fabric of public and civic institutions and initiatives that underpins European societies.

With the majority of the new regulatory frameworks that have been at the heart of the current European Commission’s digital strategy adopted and the rest well underway towards adoption, there is a window of opportunity to focus on investing in Public Digital Infrastructures, which must become a focus for the 2nd part of Europe’s Digital Decade.

The following section describes the outlines of a European Public Digital Infrastructure Fund designed to make this happen.

4. OUTLINE FOR A EUROPEAN PUBLIC DIGITAL INFRASTRUCTURE FUND

Based on the considerations outlined above, we propose the creation of the European Public Digital Infrastructure Fund to establish European Digital Public Spaces. This fund should be created and funded at the EU level, either directly as an EU initiative or as the result of the voluntary cooperation of several EU Member States and should be seen as an extension of the activities outlined in the previous chapter.

Below we describe high-level objectives, principles, structure and governance considerations for such a proposed fund. This proposal aims not to deliver a detailed blueprint for its implementation – that should be the next step – but rather to provide a high-level outline for discussion and further refinement.

Objectives

The overall objective of the proposed fund is to support the emergence and maintenance of Digital Public Spaces in Europe by investing in the creation and maintenance of Public Digital Infrastructures. Only by investing public money can we ensure that Public Digital Infrastructures are optimized for societal value instead of economic returns and break the logic of extracting economic value from interactions in the digital sphere. More specifically:

- The proposed fund should **support the development and maintenance of Public Digital Infrastructures that deliver public value** by providing citizens, civic initiatives and public institutions with alternatives to commercial digital infrastructures. It aims at enabling the participation of everyone in digital life without being subject to tracking and value extraction.
- This includes **services and tools that empower public institutions** – including public service media, knowledge institutions and educational institutions – to better serve their public interest missions without having to rely on commercial infrastructure providers.
- This also includes **services and tools that empower citizens, commons projects, and civic, political and religious initiatives** by allowing them to communicate and organize without having to rely on commercial infrastructure providers.
- In addition to these two areas, the fund must also be able to support the development and maintenance of protocols, foundational free software technologies and development tools that support such tools.
- Across the board of these interventions, the objective of the fund is **to support the emergence of an ecosystem of interoperable actors** (Digital Commons projects, public institutions and civic initiatives) that share and pool resources to increase their autonomy and, as a consequence, the digital autonomy of our societies as a whole.

Principles

To achieve these objectives, the proposed European Public Digital Infrastructure Fund should be based on the following principles:

- The fund **invests in the development and maintenance of Public Digital Infrastructures that are either Digital Commons or stewarded by public institutions**. It does not invest in privately owned infrastructures.
- To ensure this, and in line with the principle “Public money = public code,” **all tools and services that are developed with support from the fund must be developed as free and open source software**, making use of open standards and maximizing Interoperability with the rest of the public infrastructures stack.

- This does not exclude **the ability of private entities (especially SMEs) to contribute to building and maintaining these infrastructures** as long as the infrastructures themselves remain public.
- The fund is based on the underlying assumption that **Public Digital Infrastructure requires continued public support**. This means that the fund must be able to provide ongoing support for both existing tools and services and the emergence of “missing” services.
- The fund is not a tool for supporting technological innovation for the sake of innovation and funding is not provided under the assumption that funded tools and services need to develop a business model after a “start-up,” or “scale-up” phase. **For services and tools that have demonstrated the ability to deliver public value, public support can be the only viable business model**. This should include support for strengthening community governance of shared resources as a social mechanism.
- The fund should also partner with public and commons-oriented incubators emerging in European cities and regions to support citizen-based initiatives.

The efforts supported by the fund must be placed in a broader regulatory context that enables the emergence of Public Digital Infrastructure services. This includes the new regulatory measures aimed at limiting the power of dominant commercial platforms (such as the DMA) but should also go further.

A particular focus must be on stipulating the use of the open standards and protocols underpinning the Public Digital Infrastructures (such as standards for data portability, data sharing and Interoperability) as part of public procurement rules. This will help open standards gain momentum and allow for more Interoperability across Digital Public Spaces and between Digital Public Spaces and private platforms and services.

Structure

The principles identified above need to be reflected in the structure of the fund, which should be based on the following considerations:

- **Such a fund must be European in scope since it needs to support infrastructures that operate on the European scale (and possibly beyond) to realize its objectives**. This means that the fund should focus on supporting generic infrastructures that provide public value across the EU.
- At the same time, the fund should not be limited to supporting projects that are European in scope. Many of the issues addressed by the fund are also playing out beyond the borders of the European Union, and many initiatives and projects contributing to the development and maintenance of digital infrastructures extend well beyond the territorial boundaries of the EU. **This means that the proposed European Public Digital Infrastructures Fund should also be seen as a tool to promote European values abroad**.

- In line with the objective of supporting the emergence of an ecosystem of interoperable actors, **the fund should actively seek to distribute its support across all EU member states.**
- The fund's activities should be closely coordinated with initiatives at the national level (like the German Sovereignty Tech Fund). Such coordination should be based on the design principles of Interoperability, open standards and open code.

The fund must have sufficient economic resources (initially, it should be able to disburse investments of €100M per year). This budget should be split into a bucket for maintaining existing Public Digital Infrastructures and a bucket for supporting the development of missing infrastructures. Over time, the maintenance budget should grow to account for the need to maintain the newly developed Public Digital Infrastructure on an ongoing basis, resulting in an increase of the overall volume of the fund.

Governance & Funding

As outlined above, various approaches can be taken when setting up a Public Digital Infrastructure fund. The report of the working team on the Digital Commons proposes a step-by-step process leading to the establishment of an independent foundation. The NGI forward report suggests setting up a fund alongside a Public Digital Infrastructure Agency. The details of the governance model will ultimately also be dependent on the source of funding.

In light of the overall objectives, the most important aspect of any organizational setup and the associated governance models will be a strong representation of the primary target groups of the fund: Digital Commons communities, public institutions and other civil society actors. Therefore

- **The fund should be run by an independent foundation** with a strong participatory governance model, ensuring that different stakeholders, including civil society and academia, are involved in decision-making, strategy development and resource allocation.
- **Funding for the European Public Digital Infrastructure Fund should ideally be secured from the EU budget**, possibly augmented with income from a dedicated tax on digital advertising revenues.
- Ahead of the next EU budget cycle, **Member States that are already committed to supporting a Public Digital Infrastructure fund should examine the possibility of setting up an initial version of the fund.** This could take the form of forming a European Digital Infrastructure Consortium (EDIC) to host the fund as a multi-country project.¹⁹

To fully leverage the potential of the proposed fund the decision to set up the fund must go alongside a structural commitment by other public funding bodies to make funding for digital

¹⁹ See articles 10 - 12 (on Multi-country projects) and 13-21 (on European Digital Infrastructure Consortiums) of the [Digital Decade Policy Programme 2030 adopted by the European Parliament and the Council on 14 December 2022](#).

infrastructure projects conditional on them either being implemented as public digital infrastructure or being fully interoperable with public digital infrastructures²⁰.

5. THE WAY FORWARD

By proposing the above outline for the creation of the European Public Digital Infrastructure Fund, we respond to a clear and urgent opportunity. As Europe completes its ambitious regulatory effort aimed at creating a more just and values-driven digital space, policymakers must now turn their attention to investing in public alternatives.

By setting up the European Public Digital Infrastructure Fund, they can give a concrete form to the ambitions formulated in [the European Declaration on Digital Rights and Principles for the Digital Decade](#). Echoing the principles underpinning our proposal, the Declaration calls for “promoting interoperability, transparency, open technologies, and standards as a way to further strengthen trust in technology as well as consumers’ ability to make autonomous and informed choices” and seeks to “foster participation in the digital public space.” The direction of travel is clear, and as observed by the European Working Team on Digital Commons, the time to take action is now.




²⁰ See also the fourth principle (“Digital Commons first”) identified in the [Report of the European Working Team on Digital Commons](#).

ABOUT OPEN FUTURE

[Open Future](#) is a European think tank that develops new approaches to an open internet that maximize societal benefits of shared data, knowledge and culture.

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