

FROM PUBLIC INVESTMENT TO PUBLIC VALUE

An agenda for digital sovereignty

OPEN FUTURE # 9

Authors: dr Zuzanna Warso & Aditya Singh

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ABOUT THIS POLICY BRIEF



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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.

dr Zuzanna Warso is the Research Director at Open Future. She has over ten years of experience with human rights research and advocacy. In her work, she focuses on the intersection of science, technology, human rights, and ethics. She holds a Ph.D. in International Law from the University of Warsaw.

Aditya Singh is a Senior Policy Analyst at Open Future with expertise in digital rights, data governance, and technology ethics. His doctoral research on agricultural data governance informs his interests in commons, food systems, and knowledge infrastructures.



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INTRODUCTION

Propelled by a combination of deep technological dependencies and growing geopolitical instability, the discussion on Europe's digital sovereignty¹ is now yielding concrete political and financial commitments. Recently, this shift was clearly reflected in Commission President Ursula von der Leyen's State of the Union speech² and in the Franco-German Economic Agenda.³

This moment presents a strategic opportunity to shape Europe's digital future. The upcoming 2028–2034 Multiannual Financial Framework (MFF), combined with planned policy initiatives such as the proposed public procurement directive reform and the Cloud and AI Development Act, provides a tangible framework for supporting a more open and just digital space.

Seizing this window of opportunity, this policy brief presents a pragmatic agenda for advancing digital sovereignty. It seeks to use industrial policy to channel investment into innovation and technologies with positive societal outcomes, guarantee access to reliable and trustworthy public digital infrastructure, empower users, reinforce democratic accountability, and ultimately bolster Europe's strategic autonomy.

This agenda intentionally does not present advancing AI technologies as a primary pathway to sovereignty, despite the high expectations many stakeholders place on it. This omission reflects the conviction that, thus far, the promise of AI has been largely speculative. The point is not to dismiss AI's potential, but to approach it without the hype, ensuring that its development is sustainable, open, and democratic. The policy interventions proposed here, particularly those focused on investment in open source, data commons, and sovereign cloud, are designed to create the necessary conditions for such an approach.

The agenda rests on two premises that are now widely recognized but not yet fully embedded in the EU's digital policies.

The first is the recognition that the business models dominating today's digital landscape—and the financing structures driving them—are fundamentally incompatible with building public digital infrastructure, the very foundation of digital sovereignty. These models, and the services

¹ Digital sovereignty remains an ambiguous concept. For an analysis of why this ambiguity may be strategically useful rather than problematic, see: Timo Seidl and Luuk Schmitz, "Moving on to Not Fall behind? Technological Sovereignty and the 'Geo-Dirigiste' Turn in EU Industrial Policy," Journal of European Public Policy 31, no. 8 (2024): 2147–74, https://doi.org/10.1080/13501763.2023.2248204. For the purpose of this brief digital sovereignty is simply defined as "independent and self-determined use and design of digital technologies and systems by the state, private organizations and individuals". This definition draws on recent interpretations, including those from the Sovereign Tech Fund Feasibility Study and the European Parliamentary Research Service, which emphasise autonomy, resilience, and democratic oversight as key pillars of digital sovereignty.

² See: https://commission.europa.eu/strategy-and-policy/state-union/state-union-2025_en

³ See: https://www.elysee.fr/en/emmanuel-macron/2025/09/01/franco-german-economic-agenda

they generate, concentrate power, lock users into proprietary systems, and extract value through vertical integration, data harvesting, and attention capture.⁴

In response, the EU must update its strategy for digital sovereignty to respond to the political economy of digital technologies, where power is concentrated in commercial entities operating largely beyond democratic oversight. The EU must support alternative models for investing in, developing, and governing digital technologies, such as Digital Commons. Digital Commons—collectively governed digital resources—have proven capable of providing robust and reliable infrastructure.⁵ These range from knowledge repositories such as Wikipedia, to publicly developed office software such as Germany's openDesk or France's La Suite numérique, and extend to the foundational backbone of the internet itself, which relies on open-source components like Apache web servers and critical libraries such as OpenSSL. Digital Commons deserve sustainable investment, policy support, and institutional integration.

Second, building on the first point, the EU's dependencies across the entire digital technology stack and their far-reaching impact call for a strategic partnership between market innovation and coordinated public investment. Public investment should no longer be guided by a narrowly conceived idea of market failure alone, but also by a commitment to creating public value: the shared societal benefits that markets are not structured to deliver.

Building on this, this brief proposes five concrete policy interventions designed to leverage the 2028–2034 MFF as a catalyst for Europe's digital sovereignty through investment in public digital infrastructure and Digital Commons.

Each targets an important element of the digital ecosystem from funding through core infrastructure, adoption, applications, and governance, so that strategic public action can create change across the lifecycle of digital technologies.

https://commons.ngi.eu/2024/11/14/digital-commons-as-providers-of-public-digital-infrastructures/

⁴ See for example: Lina M. Khan, "Amazon's Antitrust Paradox," Yale Law Journal 126, no. 3 (2017): 710-805; and Shoshana Zuboff, The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power (New York: PublicAffairs, 2019). Khan demonstrates how digital platforms leverage structural market advantages to achieve dominance; Zuboff defines surveillance capitalism as a new economic order that claims human experience as free raw material for hidden commercial practices of extraction, prediction, and sales. See also: Catherine Bracy, "World Eaters: How Venture Capital is Cannibalizing the Economy" (New York: Dutton, 2025).

⁵ The report "Digital Commons as Providers of Public Digital Infrastructure" explores how digital commons are increasingly recognised as a viable and valuable mechanism for providing digital infrastructure. This approach maximises public value by combining public attributes, such as unrestricted access enabled by openness and interoperability, with public functions that empower and support people and institutions, and public ownership through government or civic participation in the production, funding, and stewardship of the infrastructure. This model of providing digital infrastructure reinforces fundamental rights by ensuring greater transparency and democratic oversight in the design and operation of digital systems. See:

This agenda highlights five such areas:

- Funding Reform—bridging the gap between research, innovation and deployment so that
 technologies that serve public interest can scale instead of withering or being forced into
 extractive models.
- **Sovereign Cloud Infrastructure**—securing the foundational layer that underpins many digital services by reducing power concentration at the infrastructure level.
- **Strategic Public Procurement**—leveraging Europe's vast spending power to create demand for sovereign alternatives.
- **Digital Public Space and Sustainable Information Ecosystem**—protecting the information layer from corporate or state capture and ensuring access to pluralistic and accountable communication spaces.
- **Digital Commons EDIC Institutional Framework**—supporting cross-border coordination and long-term stewardship and maintenance to avoid fragmentation and sustain investment over time.

For each proposed policy intervention, the brief specifies the relevant budget channel under the Commission's MFF proposal and, where applicable, indicative funding envelope.

The approach presented in this brief recognizes that Europe cannot and should not replicate every aspect of the existing digital ecosystem. Instead, the proposed interventions focus on some of the key bottlenecks and chokepoints that have created and continue to sustain the EU's digital dependence.

FUNDING FRAMEWORK

The recommendations in this brief build on the European Commission's MFF proposals of 16 July 2025.

At the center is the European Competitiveness Fund (ECF), with a proposed budget of €409 billion, designed to drive competitiveness and sovereignty investments across several policy windows, including "digital leadership" and "resilience, security, defence, and space" both critical for reducing dependence on foreign technology and strengthening Europe's strategic autonomy.

The ECF would consolidate existing EU funding programmes for digital infrastructure, including the Digital Europe Programme and the Connecting Europe Facility−Digital. It would work in close coordination with the successor to Horizon Europe (retaining the same name), which has a proposed budget of €175 billion. Together, these instruments aim to create a more coherent pathway from research to deployment, addressing long-standing gaps in translating EU funding into measurable impact.

While MFF negotiations are ongoing, several instruments beyond the ECF and Horizon Europe stand out as particularly relevant for supporting public digital infrastructure and Digital Commons:

- InvestEU, which would serve as a cross-cutting instrument offering loans, equity, and guarantees to attract private investment, and would be crucial for capital-intensive projects such as the sovereign cloud infrastructure, where private capital is essential to meet demand and scale solutions;
- AgoraEU—a program designed to support media pluralism, democracy, and civil society, relevant for reinforcing democratic digital communication spaces, a sustainable information ecosystem, and supporting the participatory governance of Digital Commons;
- Global Europe that would channel EU funds to international priorities, potentially supporting
 the development of Digital Commons models in partnership with other countries through
 collaborative initiatives.

By directing funding through these instruments toward public digital infrastructure and Digital Commons, the EU would ensure that **public investment delivers public value**, that is, it translates into tangible benefits for society.

While the Commission's MFF proposals highlight strategic autonomy, digital sovereignty, and resilience against unfair competition, information manipulation, and cyber threats, it stops short of explicitly recognizing Digital Commons as pathways to these goals. Instead, the focus remains on market-based approaches, leaving commons-based alternatives only implicitly included. Explicit recognition within the MFF would strengthen Digital Commons' role in reducing dependencies and position them as essential to Europe's digital sovereignty

FIVE POLICY INTERVENTIONS FOR A SOVEREIGN DIGITAL EUROPE

Intervention 1: Align Investment with the Lifecycle of Public Digital Infrastructure and Digital Commons

Problem: EU funding for digital technologies with an infrastructural role—from open-source software components to tools for online communication or collaboration, under programmes such as Horizon Europe or Digital Europe—is largely short-term and project-based. Many promising initiatives lose support once project-based grants end. This 'sustainability gap,' compounded by the reluctance of public institutions to act as early adopters and to signal confidence in the very solutions they fund, prevents these projects from evolving into widely adopted infrastructure

Proposed Solution: The EU must reform its investment architecture (including the public procurement framework—see Intervention 3) to support the full lifecycle of priority areas of

public digital infrastructure that are key to the goal of sovereignty, from research and development to long-term maintenance and governance. As with other essential infrastructure, the digital systems underpinning social and economic life require sustained, predictable investment beyond initial development.

Two priorities stand out:

- Long-Term Funding for Open Source Projects of Critical Importance: Essential software is maintained by a handful of underfunded volunteers, creating systemic risks.⁶ The EU should establish a dedicated instrument for sustained support, treating these projects as strategic assets and strategic public goods.
- European Data Commons: Curate high-quality datasets as shared public resources under commons-based governance. This would go beyond existing open data initiatives by embedding long-term stewardship, collective agency, and responsible reuse that would contribute to the health of the information ecosystem.

IMPLEMENTATION VIA THE 2028-2034 MFF

Budget Channel: The European Competitiveness Fund (ECF), through its Digital Leadership and Resilience and Security windows, in close coordination with Horizon Europe.

The proposed ECF would consolidate 14 programmes into a single framework intended to address the current sustainability gap by creating a coherent investment pathway from research to deployment. This makes it the most suitable channel for long-term support of projects that move beyond pilots to become infrastructure of critical importance. The ECF would be equipped with a full range of financial tools, including grants, procurement, loans, and equity that can be adapted to support the diverse economic models underpinning Digital Commons, from cooperative structures to public utility approaches.

The proposal aligns directly with the ECF's priorities:

- Digital Leadership: aims to build technological sovereignty through resilient digital ecosystems.
- Resilience and Security: targets capacity in key value chains, including critical digital infrastructure.

Coordination with Horizon Europe via integrated work programmes would ensure that foundational research feeds into ECF-supported deployment and long-term maintenance.

⁶ A lack of funding for the maintenance and security of critical open-source infrastructure leaves the users exposed to systemic risks, such as the Log4j vulnerability that affected millions of systems globally. See: https://www.sovereign.tech/tech/log4j

The indicative budget suggested for these interventions is €350–€500 million over seven years for long-term funding of critical open source projects, and €350 million over seven years for the development of European Data Commons.

Intervention 2: Support a Sovereign and Interoperable Cloud Ecosystem

Problem: Europe's digital infrastructure is heavily concentrated among a few non-EU hyperscale cloud⁷ providers. This concentration, coupled with vertical integration and bundling practices, creates strategic vulnerabilities that lead to vendor lock-in for public services and businesses, expose European operations to foreign jurisdictions, and increase supply-chain risks. Without viable alternatives, the EU's digital sovereignty and economic security are severely compromised. Cloud infrastructure serves as the foundation of digital sovereignty upon which other elements of public digital infrastructure, from government services to communication platforms, are built, yet this critical layer is currently controlled elsewhere.

Proposed Solution: The EU should adopt a clear strategy to reduce reliance on hyperscalers by fostering a sovereign and interoperable cloud ecosystem.

Any form of public investment in cloud infrastructure, including public procurement being a key lever to shape the market, must be grounded in principles of openness, interoperability, and freedom from vendor lock-in. Strategic procurement at both EU and member state levels should be leveraged to stimulate demand and drive investment into trusted sovereign solutions (see Intervention 3).

The EU should establish clear requirements for any cloud infrastructure receiving public investment:

- Service unbundling: providers must offer infrastructure, platforms, and software as separately purchasable services, preventing forced comprehensive packages that limit user choice.
- Mandatory interoperability and data portability: cloud providers must use open standards and formats, ensuring workloads and data can move between providers without prohibitive costs or technical barriers.
- Guaranteed migration capability: providers must supply tools, documentation, and support to enable complete system transfers to competing platforms.
- Transparent pricing: service terms and costs must be clearly separated by layer, enabling meaningful comparison and preventing hidden dependencies.

⁷ The term "cloud" refers to a layered architecture, from infrastructure (laaS) to platform (PaaS) and software (SaaS) services, each with different implications for control and sovereignty. A core challenge is the fact that providers increasingly bundle infrastructure, platform, and software services into vertically integrated offerings, making it harder for users to maintain control or switch between layers independently. See also: Bert Hubert, "The (European) Cloud Ladder: From Virtual Server to MS 365," March 14, 2025, https://berthub.eu/articles/posts/cloud-ladder/

These requirements should apply to all forms of public cloud investment, ensuring that public money contributes to building competitive, sovereign infrastructure rather than reinforcing foreign dependencies. Efforts to develop sovereign cloud infrastructure must align with the Commission's goal of climate-neutral, energy-efficient data centers by 2030, serving as a key benchmark for the soundness of cloud policy.⁸

Connection to procurement (see Intervention 3): These cloud infrastructure standards ought to be implemented through public procurement rules, which make compliance mandatory for public contracts and extend openness principles to digital services beyond cloud.

IMPLEMENTATION VIA THE 2028-2034 MFF

Budget Channel: The European Competitiveness Fund (ECF) via its Digital Leadership and Resilience and Security windows, with private capital mobilised through the ECF InvestEU Instrument. The ECF is explicitly mandated to build "world-class and secure digital infrastructure" and reduce strategic dependencies, making it the natural home for sovereign cloud initiatives.

Alignment with ECF Priorities:

- Digital Leadership: supports resilient digital ecosystems, including sovereign cloud.
- Resilience and Security: strengthens key value chains and critical infrastructure.
- InvestEU Instrument: the Union's risk-sharing tool, important for leveraging and de-risking private investment in large-scale infrastructure that public funds alone cannot sustain.

Indicative budget: Estimating the exact annual expenditure of the European public sector on cloud services is challenging due to the diversity of services and the lack of centralized reporting.⁹ While precise figures are not available, a significant portion of this market is likely attributable to government contracts, reflecting the growing adoption of cloud services across public administration. To promote market diversity and reduce dependence on non-EU providers, public-sector cloud procurement should aim for 50% allocation to EU-based sovereign providers by 2034. This target is supported by the draft ECF Regulation's "EU Preference" clause (Article 10), which permits procurement measures to safeguard strategic interests.

⁸ See: https://openfuture.eu/publication/how-data-center-expansion-risks-derailing-climate-goals-and-what-to-do-about-it/

⁹ Available data provides some guidance - In 2023, the European cloud computing market was valued at over €110 billion and was projected to reach €129 billion by 2024. See: https://interoperable-europe.ec.europa.eu/collection/rolling-plan-ict-standardisation/cloud-and-edge-computing-rp-2025
According to a recent report 80% of total spending on cloud software and services for business use in Europe went to US companies, representing a volume of €265 billion. See: https://www.cigref.fr/technological-dependence-on-american-software-and-cloud-services-an-assessment-of-the-economic-consequences-in-europe

Intervention 3: Leverage Public Procurement to Drive Adoption of Sovereign Solutions

Problem: Public procurement represents a substantial share of the EU's GDP, but its potential to advance digital sovereignty remains untapped.

Current procurement practices favour established, non-EU technology providers and proprietary solutions, reinforcing vendor lock-in and limiting opportunities for European alternatives. By prioritizing short-term cost savings over long-term strategic objectives, including interoperability and autonomy, these practices de facto subsidize foreign technology with public funds.

Proposed Solution: The upcoming reform of public procurement should embed openness as a guiding principle, while allowing preference for EU-based providers in critical sectors, uses, and strategically important areas where additional safeguards for strategic autonomy and resilience are essential. This approach is central to a more assertive industrial policy that reframes procurement from simply a purchasing exercise into a strategic market-building effort.¹⁰

To advance this objective, procurement reform should prioritize:

- Favor open-source solutions and avoid proprietary requirements that exclude open alternatives.
- Require multi-sourcing: for contracts of certain value (e.g., above €1 million) or for infrastructure of critical importance, require multiple providers with one being EU-based to prevent over-dependence on any single vendor.
- Mandate interoperability: require that purchased systems can work together and integrate with other providers' services, preventing vendor isolation that forces long-term dependency.
- Guarantee exit rights: contracts must ensure organizations can export their data in standard formats and switch providers without excessive delays or punitive costs.
- Test switching capability: for complex IT services, providers must demonstrate during the bidding process that they can actually transfer systems to competitors.
- Pre-commercial procurement: use early-stage procurement to fund development of innovative, open solutions tailored to public needs.

Connection to cloud strategy (see Intervention 2): Procurement rules operationalize sovereign cloud standards, creating demand for interoperable and unbundled cloud services.

¹⁰ This strategic approach has recently been underscored by the European Parliament's call for a more assertive stance on reciprocity, demanding the full use of the International Procurement Instrument and leveraging recent CJEU case law to counter unfair competition from subsidised non-EU bidders that lack reciprocal market access. See: https://www.europarl.europa.eu/doceo/document/TA-10-2025-0174 EN.html

IMPLEMENTATION VIA THE 2028-2034 MFF

Budget Channels: European Competitiveness Fund (ECF), Single Market Programme, and National and Regional Partnership Plans.

Alignment with MFF Priorities:

- ECF: Procurement is explicitly included in its financial toolbox. The fund's "EU Preference" clause (Article 10) provides a clear legal basis for procurement rules that favor Union entities to safeguard strategic interests.
- Single Market Programme: Supports strengthening procurement frameworks, developing pan-European interoperability standards, and promoting cooperation among national procurement administrations.
- National and Regional Partnership Plans (€865 billion): Ensure consistent implementation of reformed procurement principles across Member States and regions, aligning national spending with EU-wide digital sovereignty objectives.

Indicative Budget: While primarily policy-driven, this intervention leverages existing procurement budgets (ca. 14 percent of EU GDP) by redirecting spending toward sovereign and open solutions, creating a sustainable market for European technology providers.

Intervention 4: Support Democratic Control over Digital Communication Spaces

Problem: Digital platforms that shape public discourse in Europe are concentrated among a few dominant corporations whose advertising-driven business models prioritize engagement over democratic values. Content moderation, data governance, and algorithmic transparency remain internal corporate functions rather than matters of public deliberation. These platforms can amplify disinformation, contribute to declining institutional trust, and weaken societal cohesion, posing significant challenges to democratic discourse. While regulations such as the Digital Services Act address platform accountability, they do not create the structural alternatives needed for genuinely democratic digital public spaces.

Proposed Solution: The EU should recognize sovereign digital communication spaces as critical public digital infrastructure and invest in open, publicly governed, interoperable, and decentralized alternatives to prevent corporate or state capture. Institutions that fund these alternatives should lead by example and commit to using them, serving as early adopters to demonstrate their viability and build market confidence. These alternatives should employ complementary models, including decentralized federated Digital Commons and public service media approaches, where trusted institutions provide high-quality, accountable information environments that contribute to a sustainable information ecosystem.

IMPLEMENTATION VIA THE 2028-2034 MFF

Budget Channels: AgoraEU, European Competitiveness Fund (ECF), and Global Europe. This combination addresses the democratic, technical, and geopolitical dimensions of the challenge.

Alignment with the MFF Priorities:

- ECF 'Digital Leadership' Window: provide technical and infrastructure funding to invest in alternative solutions, supporting interoperable public digital infrastructure.
- AgoraEU: AgoraEU is meant to support the "pillars of strong democracy, including culture, media, and civil society," while addressing threats such as declining media pluralism and disinformation. The intervention's goal of supporting democratic digital spaces aligns perfectly with this mission,
- Global Europe: meant to enable the EU to co-develop and promote these democratic digital models internationally.

Indicative Budget: €100-€150 million over seven years.

An investment of such an order of magnitude should enable seeding a diverse ecosystem of solutions serving Europe's multilingual and multicultural population.

Intervention 5: Harness the Digital Commons EDIC for Long-Term Governance

Problem: While EU funding has launched many innovative digital projects, the absence of a stable, long-term institutional home for governance and stewardship means that many promising initiatives fail to achieve lasting impact or scalability. This 'sustainability gap,' identified in Intervention 1, leads to fragmented efforts and suboptimal returns on public investment, as valuable projects are often abandoned once initial funding ends.

Proposed Solution:

The EU has a unique opportunity to seize political momentum by fully empowering the recently proposed Digital Commons European Digital Infrastructure Consortium (EDIC) as the governance vehicle for Digital Commons projects that become providers of public digital infrastructure. The Digital Commons EDIC provides the legal and operational framework for Member States to jointly develop, govern, and sustain digital infrastructure, enabling long-term policy alignment and shared cost management. This is no longer a theoretical proposal but a Member State-led initiative already in motion.

The Digital Commons EDIC could act as an institutional anchor by:

- Hosting critical projects and coordinating multi-country initiatives.
- Managing funding flows to ensure continuity from research to deployment.

• Maintaining shared digital tools and infrastructure for the public good.

IMPLEMENTATION VIA THE 2028-2034 MFF

Budget Channels and Alignment with ECF Priorities: The draft ECF Regulation provides the direct legal and financial basis for funding EDICs (Art 39 (2)c), making it the primary implementation channel.

Projects hosted by the EDIC would be funded through the ECF's relevant policy windows, embedding them in the Union's core sovereignty strategy.

Horizon Europe will continue to fund foundational research and pilot projects, which can later transition to the EDIC for long-term stewardship, creating the "seamless investment journey" envisioned by the MFF.

Indicative Budget: A dedicated annual envelope of at least €4 million (€28 million total) for 2028–2034 to cover the EDIC's core coordination and governance functions. The budget should be adjusted based on the number of countries that join the DC EDIC and the scope of work. The operational budget is separate from the larger funding allocated to the infrastructure projects hosted by the EDIC, which will come from the main ECF windows.

WAY FORWARD

The interventions presented in this brief build on the analytical and empirical work undertaken within the NGI Commons project. They contribute to the ongoing discussion on European digital sovereignty and the role of public investment in strengthening digital infrastructure, aiming to inform negotiations for the EU's next Multiannual Financial Framework (2028–2034).

Historically, engagement in EU budget discussions has been limited, with industrial, economic, and state-centric perspectives dominating the agenda. The current turn towards industrial policy, coupled with the growing emphasis on digital sovereignty, makes it particularly important to consider the social implications of investments in digital infrastructure.

The interventions are intended as a starting point for consultation, inviting expert feedback and stakeholder engagement. Through such validation, the proposals outlined here can be refined, expanded, and grounded in broader perspectives, helping to ensure that investment in Digital Commons and public digital infrastructure effectively supports a vision of digital sovereignty that serves people.