Digital Commons and Infrastructure Funding

Analysis of the funding and support landscape in the EU

Paul Keller, Jan Krewer, Zuzanna Warso (Open Future)
November 2024

NGI COMMONS

Purpose of this document

This document provides a quick scan type overview of the policy/support landscape for digital infrastructure in the EU toward the end of 2024. It looks at (1) existing instruments (2) proposals for new instruments and (3) other relevant concepts.

The document is based on desk research and is intended to provide a shared understanding for the discussion about the digital commons strategic agenda within the NGI commons consortium and with project's advisory bodies.

NGI COMMONS

Criteria for the analysis

This landscape analysis looks at different initiatives that can serve as support for Public Digital Infrastructure in the European Union. As such it excludes purely national/local or global initiatives.

The strengths and weaknesses are related to the ability of the initiative to provide support for projects with infrastructural properties. What is considered a strength in this context may very well be a weakness in another (and vice-versa).

NGI COMMONS

1. Existing initiatives

NGI COMMONS

Horizon Europe (Cluster 4)

Type: Funding program (grants)

Amount: €15,3B (Cluster 4)

Time period: Current MFF

Description

- Horizon Europe is the main R&D funding scheme of the EU. Cluster 4 is dedicated to digital, industry and space.

- The funding is allocated via 2 year workplans that that define specific calls related to areas of intervention.

Con's

- Short term and project based funding.

- Focus on high tech and innovation, not maintenance

NGI COMMONS

Next Generation Internet (NGI) Initiative (1)

Type: Area of intervention under Horizon Europe

Amount: €140M (2019-2024)
€32M (2024-2027)

Time period: current MFF (2019 - 2027)

Description:

• The NGI initiative supports initiatives aimed at creating a more human-centric internet through various open-source projects and technologies.

• Funding is allocated via calls, that go towards three types of projects: (1) cascade funding where the majority of the grant needs to be passed on to projects under open calls (2) direct funding for consortia working on scaling up NGI technologies (3) support actions.

NGI COMMONS

Next Generation Internet (NGI) Initiative (2)

Pro's

- Existing scheme with good reputation among FLOSS development community.

- Aligns well with digital values (Gartner study)

Con's

- Future beyond 2026 currently unclear

- Convoluted setup (Cascade funding under Horizon)

- Scale of funding too small

- Innovation funding (not infrastructure)

Current focus:

The core cascade funding mechanism under NGI is currently provided via the NGI0 Commons Fund that will disburse €21,6M between January 2024 and June 2027

NGI COMMONS

Digital Europe Programme

Type: Project Funding (grants)

Time period: Current MFF (2021-2027)

Amount: €7.6 billion

Pro's

- DE is more focussed on digital infrastructure

- DE is designed to bridge the gap between digital technology research and market deployment. Grants are generally bigger than under HE

Con's

- Grants under DE require more substantial own contributions than grants under HE

- No specific funding lines related to Open Source (but Open Source, Open standards and interoperability are preferred)

NGI COMMONS

Connecting Europe Facility - Digital

Type: Project Funding (grants, equity investments, loans)

Amount: €2.07B

Time period: Current MFF

Pro's

- Multiple forms of support

- Has a Digital Services Infrastructures focus area (development and deployment of infrastructures that enable cross-border digital public services)

Con's

- Focus on connectivity and backbone infrastructure.

- No specific funding lines related to Open Source (but Open Source, open standards and interoperability are preferred)

NGI COMMONS

Resilience and Recovery Facility / Next Gen EU

Type: Project Funding

Time period: 2021-2026

Amount: €648B (€357B grants, €291B in loans) -> min 20% for digital transformation

Pro's

Con's

- Very sizable overall budget for digital transformation (~€120B) focussed on digital public services, digital skills, Innovation, digital infrastructure (broadband, connectivity, cloud) and cybersecurity.

- Largely Member State driven which results in a lack of a clear programmatic focus.

- No specific funding lines related to Open Source (but Open Source, Open standards and interoperability are preferred)

NGI COMMONS

Invest EU

Type: Investment fund

Time period: 2021-2027

Amount: €26,2B (guarantees)

Pro's

- Investment instrument that seeks to mobilize private funding by providing guarantees for equity investments, loans, etc via implementation partners (EIB and national institutions)

Con's

- Not focussed on digital infrastructure but on stimulating investment, innovation, and job creation in general. Digital infrastructure fits in the "sustainable infrastructure" and "research innovation and digitization" policy areas

Strategic Technologies for Europe Platform

Type: Platform

Amount: n/a (no own budget)

Time period: Launched in June 2023

Pro's

Con's

- Intended to streamline investment in strategic technologies that enhance competitiveness and sovereignty.

- This is mainly a branding exercise that bundles ressources already allocated to other programs (Horizon, Digital Europe, RRF)

- Focus on AI, cybersecurity, quantum computing, and green technologies (not explicit focus on infrastructure)

NGI COMMONS

Sovereign Tech Fund (Germany)

Type: Project funding

Amount: €17M (2024)

Time period: 2023-2025

Pro's

Con's

- Focus on maintenance of critical infrastructure.

- Mix between open calls and targeted support.

- Funding via procurement.

- Narrow focus on "tech to build tech"

NGI COMMONS

Observations:

(1) NGI / Horizon Europe is the only programme that is specifically directed towards Open Source but open source, open standards and interoperability are preferred in all programs (at least on paper)

(2) Digital infrastructure is either understood as broadband/5G with a dash of cloud infrastructure added in or as digital public service delivery.

(3) There is a very consistent focus across programs on a small number of strategic priorities: skills, cybersecurity, high performance computing.

(4) Outside of NGI there are relatively few references to rights/values or the need to provide alternatives to commercial services

NGI COMMONS

2. Proposed initiatives

NGI COMMONS

Open Europe Stack (proposed)

Type: Cascade funding under HE | **Amount:** €10M

Time period: 2026 onwards (funded under current MFF)

Pro's

- Relatively substantial contributions per project (up to €400K)

- 15% of the cascade funding can be spend outside of open calls.

Con's

- Only a draft proposal

- Convoluted setup (cascade funding under Horizon)

- Limited capacity (1/3 of NGI0 Commons fund)

- Tied to problematic objective (3C networks)

NGI COMMONS

European Competitiveness Fund (VDL)

Type: Investment fund

Amount: unclear

Time period: 2025 - ?? (Ambition to include in next MFF)

Pro's

- Proposal unveiled in VdL [work program 2024-2029](): Political backing at the highest level

- Clear links to discussion about industrial policy

- Makes claim about inclusion in next MFF

Con's

- Currently unclear if (public) digital infrastructure is in scope as it is not mentioned in the very high level work program (there is an opportunity to shape focus)

NGI COMMONS

European Technological Sovereignty Fund/EuroStack (Francesca Bria)

Type: Blended investments

Amount: €10B (period unclear)

Time period: Proposal from 2023 aimed at next MFF

Pro's

- Ambitious in size and scope: *"independent digital infrastructure that includes cloud computing, advanced chips, AI, digital IDs, data spaces, and payment systems"*

- Suggests a mix of funding types

Con's

- High level proposal, no implementation details so far.

- Seems to be evolving

NGI COMMONS

Public Digital Infrastructure Fund (Open Future)

Type: Project Funding (Grants)

Amount: €100M per year

Time period: Proposal from 2023 aimed at next MFF

Pro's

- Clear focus on maintenance non-physical public digital infrastructure and digital commons.

- Budget would be a step up in comparison to reference initiatives (NGI and Sovereign Tech Fund)

Con's

- Lacks details on where the funds need to come from during the current MFF period

- Relatively small amount when compared to overall EU budget for investment in digital infrastructure.

NGI COMMONS

3. Other relevant initiatives

NGI COMMONS

Digital Commons EDIC

Type: Support institution

Time period: 2025 onwards

Amount: unspecified. Does not foresee 3rd party support

Pro's

- Supported by key EU member states (FR/DE/NL)

- Would create an institution with mission to support Digital Commons

Con's

- Not there yet (considerable political instability in key MS)

- Funding is currently unclear. Unlikely to include significant funds to support 3rd parties

NGI COMMONS

Important Projects of Common European Interest

Type: Funding structure

Amount: varies

Time period: 2014 - today

Pro's

Con's

- IPCEIs allow Member States to pool resources and are exempt from EU state aid rules.

- Serve as umbrella for funding to individual initiatives.

- So far there is only one IPCEI that relates to digital infrastructure (see next slide)

IPCEI-CIS (Cloud Infrastructure and Services)

Type: IPCEI

Amount: €5.2B

Time period: 2021 - today

Pro's

Con's

- Project aimed at developing a competitive and innovative cloud infrastructure and services ecosystem in Europe.

- Unclear in how far this infrastructure can be considered to be "public".

NGI COMMONS

3c (Connected Collaborative Computing)

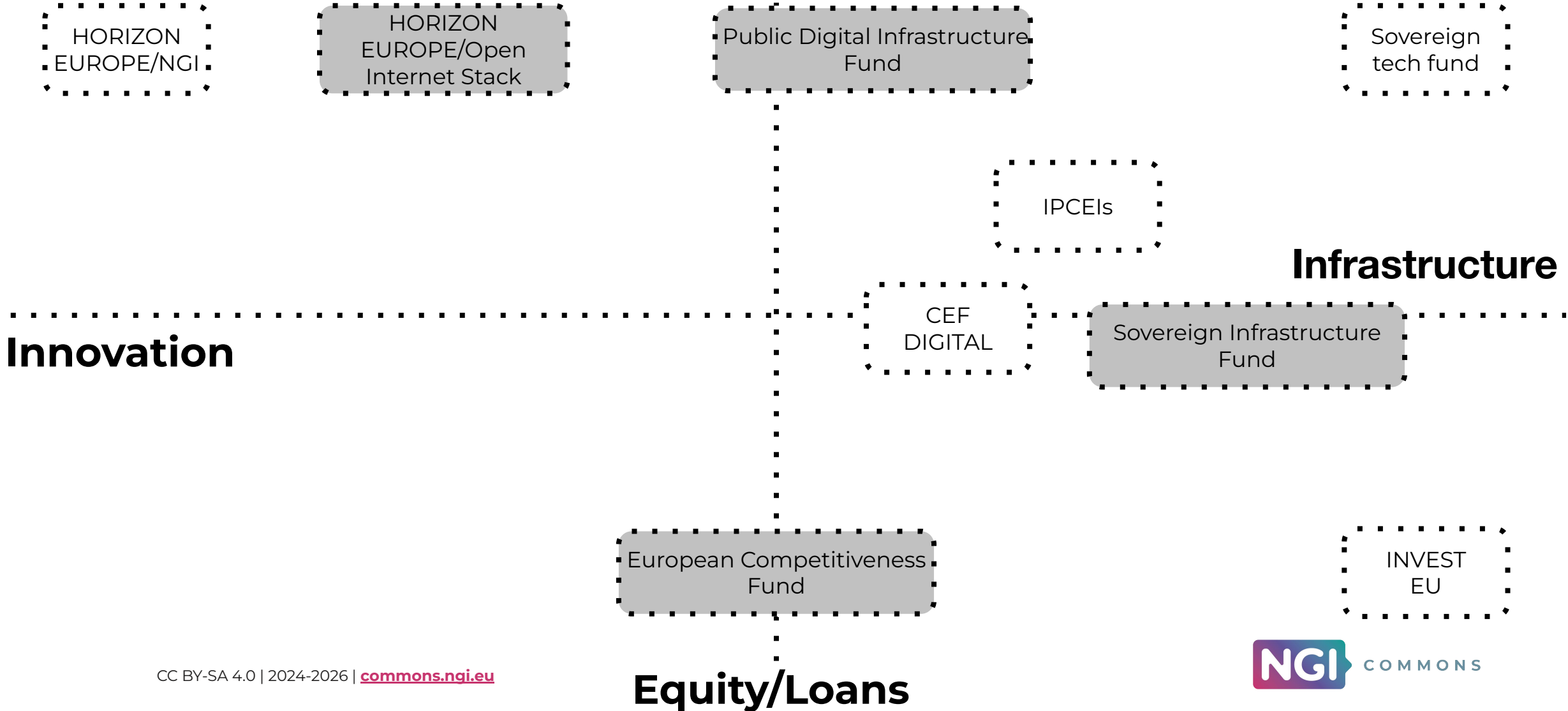**Type:** Policy concept

Amount: €80M under HE

Time period: 2024

Description:

- The idea of 3C was presented in the commission white paper "How to master Europe's digital infrastructure needs?" as an answer the supposed convergence of electronic communications networks and cloud services at the edge and cloud.

- This supposed convergence is taken as a justification for deregulation of EU Telcos and investment into 3C. The idea of 3C is highly problematic and has been criticized by civil society and public interest technologists

- 3C is closely related to the IPCEI-CIS (previous slide)

Grants/Procurement

HORIZON EUROPE/NGI

HORIZON EUROPE/Open Internet Stack

Public Digital Infrastructure Fund

Sovereign tech fund

IPCEIs

Infrastructure

Innovation

CEF DIGITAL

Sovereign Infrastructure Fund

European Competitiveness Fund

INVEST EU

CC BY-SA 4.0 | 2024-2026 | commons.ngi.eu

Equity/Loans

NGI COMMONS

Please share feedback with
jan@openfuture.eu

NGI COMMONS

PARTNERS:

commons.ngi.eu

@NGICommons

@NGICommons@eupolicy.social

@ngi-commons

NGI COMMONS