



NGI COMMONS WORKSHOP 2024

Summary Report



commons.ngi.eu



Grant Agreement No.: 101135279
Type of action: HORIZON Coordination and Support Actions

Topic: HORIZON-CL4-2023-HUMAN-01-14
Call: HORIZON-CL4-2023-HUMAN-01-CNECT

DISCLAIMER



Funded by
the European Union

Project funded by

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Under Privatinitiative

Federal Department of Economic Affairs
Educatioens- und Reserch-ETF
State Secretariat for Education,
Research and Innovation SERI

NGI Commons (*Open Source and Internet Commons for Europe's Digital Sovereignty*) project is funded by the European Union's **Horizon Europe research and innovation programme** under Grant Agreement number 101120640. This work has received funding from the **Swiss State Secretariat for Education, Research, and Innovation (SERI)**.

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

COPYRIGHT NOTICE

© 2024 - 2026 NGI Commons Consortium

Project funded by the European Commission in the Horizon Europe Programme		
Nature of the deliverable:	R*	
Dissemination Level		
PU	Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page)	✓
SEN	Sensitive, limited under the conditions of the Grant Agreement	
Classified R-UE/ EU-R	EU RESTRICTED under the Commission Decision No2015/ 444	
Classified C-UE/ EU-C	EU CONFIDENTIAL under the Commission Decision No2015/ 444	
Classified S-UE/ EU-S	EU SECRET under the Commission Decision No2015/ 444	



TABLE OF CONTENTS

- TABLE OF CONTENTS..... 3**
- EXECUTIVE SUMMARY 4**
- 1 INTRODUCTION 6**
 - 1.1 Project Context 6
- 2 OVERVIEW OF THE WORKSHOP 8**
 - 2.1 Event Opening and Introduction to NGI Commons..... 8
 - 2.2 Introduction to the European Digital Commons Landscape..... 9
 - 2.3 Workshop #1 – What Do We Mean When We Talk about Digital Commons? 10
 - 2.4 Lightning Talks – European Digital Commons Initiatives..... 11
 - 2.5 Workshop #2 – Discussion of Criteria for Evaluating Leverage Effect of NGI Funding 12
 - 2.6 Brainstorming – Mapping and Identifying Priorities for Digital and Internet Commons. 14
 - 2.7 Detailed SWOT Analysis – Aggregate Findings from the Brainstorming Sessions 15
 - 2.7.1 Strengths 15
 - 2.7.2 Weaknesses 16
 - 2.7.3 Opportunities 17
 - 2.7.4 Threats 18
- 3 APPLICABILITY AND FUTURE CONSIDERATIONS 20**
 - 3.1 Consideration #1 – Be aware of and respond to the potential for concept drift 20
 - 3.2 Consideration #2 – More actively market and raise awareness around the term Digital Commons 20
 - 3.3 Consideration #3 – Consider funding holistically and examine in granular detail funding approaches from NGI and beyond, in order to learn what works and what does not 21
 - 3.4 Consideration #4 – Connect the Digital Commons agenda to other policy debates..... 21
- 4 CONCLUSION..... 23**

EXECUTIVE SUMMARY

What are Digital Commons? How could we possibly co-create Europe's digital future by developing shared, public interest digital resources and infrastructures? What role can or should the public sector play in funding the Digital Commons, and how can we measure the leverage effect of funding on the prosperity of the Digital Commons in Europe and beyond?

These were some of the many questions put forth by a recent workshop held by the [Next Generation Internet \(NGI\) Commons](#)¹ consortium. The [NGI Commons Workshop 2024: Co-Creating Digital Commons Priorities for Europe's Digital Decade](#)² was a unique engagement workshop held on 5 June 2024, located at the Tolhuistuin venue in Amsterdam's Noord neighbourhood.

The aim of the workshop was to gather representatives from the European Digital Commons ecosystem, including experts members of NGI Commons' advisory bodies (the Digital Commons Task Force (DCTF) and Strategic Advisory Panel (SAP)), with the goal of triangulating Digital Commons priorities and topics perceived by commoners, experts, and policymakers as being relevant to those ambitions being expressed by NGI Commons and related policy initiatives in the EU. (In this case, related initiatives include, for example, the [European Digital Infrastructure Consortium \(EDIC\)](#)³ for Digital Commons, which is currently being scoped as an initiative of France, Netherlands, Germany, and Estonia.)

The event gathered over 40 commoners and experts together, with 10 more participants joining online throughout various points of the day. Across six sessions, members of the NGI Commons consortium shared more details and context about the activities of the NGI Commons project, as well as situated their work in a broader context of the Next Generation Internet (NGI) and policy landscape. Two of these sessions were facilitated as interactive workshops, wherein participants shared their insights and experiences in relation to active work being done by the NGI Commons. The day concluded with an in-depth brainstorming and ideation workshop, where participants were invited to share their perspectives and experiences on the past and future of Digital Commons in Europe and discuss what the future priorities for the Digital Commons should be.

The workshop was rich and busy, providing us a useful foundation of inputs from the community which will hopefully lead the way in creating a Digital Commons environment that serves the interests of all its citizens and contributes positively to global progress. During our brainstorming sessions, participants broadly agreed that the future of the Digital Commons landscape in Europe should capitalise on its strengths, address weaknesses, mitigate threats, and seize opportunities to flourish – even if they differed in their understanding of Digital Commons and how to achieve that.

In particular, four key considerations were identified:

- **Consideration #1 – Be aware of and respond to the potential for concept drift:** While there have been many attempts at defining and providing more substantiation to the idea of Digital Commons, there is a risk that people do not connect with the definition and it loses its currency amongst policymakers. This could happen as a result of any number of factors, whether it be the failure of specific policy initiatives or simply the inability to properly socialise and raise awareness of the concept.
- **Consideration #2 – More actively market and raise awareness around the term Digital Commons:** As a result of some of the considerations highlighted above, it will be

¹ <https://commons.ngi.eu/>

² <https://commons.ngi.eu/event/ngi-commons-workshop-2024/>

³ <https://digital-strategy.ec.europa.eu/en/policies/edic>

important to build a narrative for Digital Commons which extends beyond NGI Commons. Many suggested more active ‘marketing’ of the term, trying to get it part of more regular policy debates by collaborating more with the media. In this way, it could be useful to test out a stronger and more forceful message about the need to protect the commons, as well as identify the role of Digital Commons in other discourses around digital governance and human-centric digital transformation more broadly.

- **Consideration #3 – Consider funding holistically and examine in granular detail funding approaches from NGI and beyond, in order to learn what works and what does not:** In terms of funding, many believed that it would be difficult to quantitatively measure the leverage effect of NGI funding and that the research might uncover a need for NGI to test and experiment with different approaches. In particular, cascade funding for projects – to see what works for projects given their particular needs – was considered an approach worth studying and testing. In order to enable this, alternatives for legal/fiscal ownership and stewardship may need to be explored through NGI Commons policy recommendations.
- **Consideration #4: Connect the Digital Commons agenda to other policy debates:** In order to make a case for Digital Commons at scale, it will be important that the consortium does not allow Digital Commons to become siloed or separate from other policy debates. While the process of making this case is only just beginning with the NGI Commons project, many worried in the workshop that a lack of sustained attention would become a big threat to the Digital Commons agenda.

As the key considerations above make clear, the Digital Commons agenda has stirred useful conversations about how to create public alternatives to Big Tech solutions as part of our use of technology across the whole of society. While the Digital Commons landscape in Europe is still young, there are some strong foundations and even stronger opportunities for us to seize on as NGI Commons.

1 INTRODUCTION

What are Digital Commons? How could we possibly co-create Europe's digital future by developing shared, public interest digital resources and infrastructures? What role can or should the public sector play in funding the Digital Commons, and how can we measure the leverage effect of funding on the prosperity of the Digital Commons in Europe and beyond?

These were some of the many questions put forth by a recent workshop held by the [Next Generation Internet \(NGI\) Commons](#)⁴ consortium. The [NGI Commons Workshop 2024: Co-Creating Digital Commons Priorities for Europe's Digital Decade](#)⁵ was a unique engagement workshop held on 5 June 2024, located at the Tolhuistuin venue in Amsterdam's Noord neighbourhood.

The aim of the workshop was to gather representatives from the European Digital Commons ecosystem, including experts members of NGI Commons' advisory bodies (the Digital Commons Task Force (DCTF) and Strategic Advisory Panel (SAP)), with the goal of triangulating Digital Commons priorities and topics perceived by commoners, experts, and policymakers as being relevant to those ambitions being expressed by NGI Commons and related policy initiatives in the EU. (In this case, related initiatives include, for example, the [European Digital Infrastructure Consortium \(EDIC\)](#)⁶ for Digital Commons, which is currently being scoped as an initiative of France, Netherlands, Germany, and Estonia.)

The event gathered over 40 commoners and experts together, with 10 more participants joining online throughout various points of the day. Across six sessions, members of the NGI Commons consortium shared more details and context about the activities of the NGI Commons project, as well as situated their work in a broader context of the Next Generation Internet (NGI) and policy landscape. Two of these sessions were facilitated as interactive workshops, wherein participants shared their insights and experiences in relation to active work being done by the NGI Commons. The day concluded with an in-depth brainstorming and ideation workshop, where participants were invited to share their perspectives and experiences on the past and future of Digital Commons in Europe and discuss what the future priorities for the Digital Commons should be.

This summary report summarises some of the main activities and insights of the day, providing a broad overview of what happened and why it mattered. As such, this report is structured in three subsequent parts: *Overview of the Workshop*, *Applicability and Future Considerations*, and *Conclusion*.

A summary version of this more detailed report will be released publicly via the NGI Commons website, for consideration of the participants and other commoners interested in learning more about what happened in this engagement workshop and why it matters for future understanding of Digital Commons and their role in Europe's digital ambitions.

1.1 PROJECT CONTEXT

NGI Commons is part of the European Commission's [Next Generation Internet \(NGI\) initiative](#)⁷. The NGI initiative aims to reimagine the internet as an interoperable platform ecosystem that embodies the values of openness, inclusivity, transparency, privacy, and cooperation. The end goal is to create a range of open-source and decentralised solutions that users can choose

⁴ <https://commons.ngi.eu/>

⁵ <https://commons.ngi.eu/event/ngi-commons-workshop-2024/>

⁶ <https://digital-strategy.ec.europa.eu/en/policies/edic>

⁷ <https://www.ngi.eu>

from. NGI has already provided 1000+ innovative projects with more than 350 million euros of funding since 2018.

NGI Commons will act as an underpinning coordination project for the NGI initiative, seeking to learn from past experiences and propose a way forward for the EU. To this end it will **define a long-term strategic agenda to support Digital Commons**. NGI Commons is run by a consortium that includes [Martel Innovate](#)⁸, who coordinates the project, [OpenForum Europe](#)⁹, the [Open Future Foundation](#)¹⁰, the [Linux Foundation Europe](#)¹¹, and the [Centre Internet et Société](#)¹² (CIS) of [Centre national de la recherche scientifique](#)¹³ (National Centre for Scientific Research, in English). The project will be carried out between January 2024 to December 2026.

⁸ <https://www.martel-innovate.com/>

⁹ <https://openforumeurope.org/>

¹⁰ <https://openfuture.eu/>

¹¹ <https://www.linuxfoundation.org/>

¹² <https://cis.cnrs.fr/>

¹³ <https://www.cnrs.fr/en>

2 OVERVIEW OF THE WORKSHOP

The NGI Commons Workshop 2024 was structured in six distinct parts, highlighted below. The last section, Section 2.7, builds on Section 2.7 to capture more detailed findings of the SWOT analysis exercise done during the brainstorming activities.

A more detailed version of the agenda for the day can be found on the NGI Commons [website](#)¹⁴.

2.1 EVENT OPENING AND INTRODUCTION TO NGI COMMONS



FIGURE 1 | WORKSHOP INTRODUCTION BY JEAN-LUC DOREL OF THE EUROPEAN COMMISSION
(SOURCE: [NGI COMMONS](#))

The workshop was opened by [OpenForum Europe](#)¹⁵ (hereinafter ‘OFE’) and [Martel Innovate](#)¹⁶ (hereinafter ‘Martel’). Consortium members Nicholas Gates and Karolina Gyurovszka introduced the project to a broader audience and highlighted its goals and outcomes, as well as previewed what is to come from the workshop. They then invited Jean-Luc Dorel, the Project Officer (PO) for NGI Commons at the European Commission, to present his view on the goals and outcomes of the NGI Commons project, as well as discuss expectations and objectives for the project over its three-year lifecycle. How do we position the NGI Commons in the broader context of the Next Generation Internet initiative. Representatives of the European Digital Infrastructure Consortium (EDIC) for Digital Commons also came to discuss the emerging opportunity for Digital Commons funding in Europe by presenting the view of the EDIC and its role in the broader Digital Commons ecosystem.

¹⁴ <https://commons.ngi.eu/event/ngi-commons-workshop-2024/>

¹⁵ <https://openforumeurope.org/>

¹⁶ <https://www.martel-innovate.com/>

Jean-Luc Dorel positioned NGI Commons in the broader context of the Next Generation Internet (NGI) initiative launched five years ago, and the broader ecosystem of NGI projects supported by the European Commission. Dorel stated that: “No other initiative at this scale had ever been made to support community-based open source projects. Over 1,000 projects have already been funded.” Lieke van Schouwenburg, from the Dutch Ministry of Interior and Kingdom Relations, introduced the EDIC by framing it as a new tool which allows multi-country projects to be developed with the support from the European Commission. Van Schouwenburg also expressed a key topic in the initiative: the governance. “We want to reflect the bottom-up approach of Digital Commons in our design of the EDIC. We want to have stakeholders represented in an advisory board that will provide recommendations to the assembly of members (made of member states), which has decision power.”

2.2 INTRODUCTION TO THE EUROPEAN DIGITAL COMMONS LANDSCAPE



FIGURE 2 | PRESENTATION: INTRODUCTION TO THE EUROPEAN DIGITAL COMMONS LANDSCAPE, BY JAN KREWER OF OPEN FUTURE (SOURCE: [NGI COMMONS](https://openfuture.eu/))

[Open Future](https://openfuture.eu/)¹⁷ (hereinafter ‘OF’) briefly surveyed the history of Digital Commons policymaking in Europe, from earliest discussions in academic and policy circles all the way up to the attention provided by France’s EU Presidency in 2022 and the European Commission. The presentation was based on initial findings of the policy mapping that the NGI Commons consortium will produce in 2024.

OF demonstrated using numerous examples how in the early 2000s, European policymakers began promoting Digital Commons initiatives focused on openness and free access to knowledge. Influenced by Yochai Benkler’s concept of “commons-based peer production,” these initiatives emphasised the benefits of decentralised collaboration and free sharing of information over proprietary models. Advocates of the Digital Commons aimed to mitigate the restrictive nature of intellectual property laws by promoting private licences allowing the free

¹⁷ <https://openfuture.eu/>

sharing of digital resources and supporting the establishment of copyright rules that favoured open access. Key sectors targeted by policies included open source software, open data, especially within the public sector, open science, and open knowledge, to foster both innovation and democratic participation.

Over the past five years, the focus of policies has shifted towards supporting Digital Commons as alternative governance models for technology in response to the consolidation of power by major digital platforms and increasing concerns over digital sovereignty. Recognizing the limitations of mere openness, new policies stress the importance of managing digital resources to maximise public benefit and address power imbalances in the information economy. The EU's "Next Generation Internet" initiative exemplifies this approach, promoting digital sovereignty through investments that complement EU's new set of regulations. This evolving perspective aligns with global trends toward recognizing the need for more digital public goods and infrastructure, based on public intervention to ensure that digital technologies serve broader societal interests.

Paul Keller from OF joined in at the end to highlight this need and make a forceful case on how the NGI Commons project should shape the work of European institutions and get support for Digital Commons and public digital infrastructure included in the next multiannual financial framework of the European Union.

2.3 WORKSHOP #1 – WHAT DO WE MEAN WHEN WE TALK ABOUT DIGITAL COMMONS?



FIGURE 3 | PRESENTATION: WORKSHOP #1 – WHAT DO WE MEAN WHEN WE TALK ABOUT DIGITAL COMMONS?
(SOURCE: [NGI COMMONS](#))

Centre national de la recherche scientifique¹⁸ (hereinafter 'CNRS') presented an overview of the work done to date on conceptualising and operationalising a definition of Digital Commons which is useful for evaluation of digital commons resources, communities, and governance. The session unpacked some of the common definitions of Digital Commons and presented the

¹⁸ <https://www.cnrs.fr/en>

emerging perspective of consortium partners, as well as overview the methodology and evaluation criteria developed to date as part of our research into typologies of digital commons. It also facilitated discussion with the audience, inviting perspectives on the technical, governance, and values-laden discussions inherent in defining Digital Commons.

Valérien Guillier, the moderator of the session from CNRS, gave the floor to the participants who, one after the other, came up with their own key single words and key elements which they think define Digital Commons. Participants shared examples like: “Everything that adheres to the principle of openness!”; “Digital resource, community, and governance!”; “Not for profit aspect, universalist aspect!”; “Digital solutions that can not be weaponised by states!”; “Digital public goods: non-rival and non-exclusive!”; And these are just a few of remarks gathered at the workshop.

One participant said during the discussion: “If you talk about Digital Commons, you talk about collective processes, you talk about communities governing together as stewarding resources. As a society, we have made quite a move towards an individualistic approach to everything. And in a way, the pendulum has to come back with a more collective approach. But that really requires a cultural change, a social cultural change. For the commons to thrive, this is really a priority.”

Valérien then presented some aspects of the definition as one could find it in the literature, as well as pointed out that the definitions of digital commons varied over time and depending on the different analysis. He offered some common ground of all definitions of digital commons and then pointed out differences and tensions between the definitions. (The point was not to offer the definitive definition but rather to show the spectrum of possibility.) He then presented the methodology of the research on actors of digital commons CNRS is about to start within the context of NGI Commons.

2.4 LIGHTNING TALKS – EUROPEAN DIGITAL COMMONS INITIATIVES



FIGURE 4 | CHRISTOPHER WILSON OF MYDATA GLOBAL PRESENTS HIS WORK ON A HUMAN-CENTRIC APPROACH TO DIGITAL COMMONS DURING THE LIGHTNING TALKS (SOURCE: [NGI COMMONS](#))

This session was moderated by OFE and invited attendees to present perspectives from their existing initiatives and communities doing work in this space. It included 6x presentations of about 5-6 minutes each, with several minutes for Q&A from the audience.

2.5 WORKSHOP #2 – DISCUSSION OF CRITERIA FOR EVALUATING LEVERAGE EFFECT OF NGI FUNDING



FIGURE 5 | PRESENTATION: WORKSHOP #2 – DISCUSSION OF CRITERIA FOR EVALUATING LEVERAGE EFFECT OF NGI FUNDING
(SOURCE: [NGI COMMONS](#))

[Linux Foundation Europe](#)¹⁹ (hereinafter ‘LFE’) presented and discussed plans to research the “leverage effect” of NGI funding by providing a background on NGI funding, discussing the methodology currently being deployed, and presenting the selection criteria for choosing NGI funded projects. The session gathered inputs on refining the criteria, brainstormed and refined potential impact metrics, and highlighted emerging use cases from the Digital Commons ecosystem. It also facilitated discussion with the audience, gathering ideas for additional elements to include and determining next steps for moving the research forward.

Cailean Osborne, the moderator of the session from LFE, shared early insights on the possibilities of capturing how and to what extent projects are influenced by the funding they receive. “All models are wrong, but some are useful”, as his presentation noted. He invited participants to share their feedback on the methodology for how this might be accomplished. Participants reacted strongly during discussions on whether and how the “leverage effect” of funding, particularly that provided by the NGI, can be quantified and operationalized – as well as the limitations of a quantitative approach.

In the discussions surrounding Cailean’s presentation, participants highlighted the challenges in quantitatively measuring the variability of funding’s leverage effect on project stewardship, maintenance, and governance. They shared their reflections on particular variables that were more or less difficult to evaluate, as well as their opinions on how feasible it would be to

¹⁹ <https://www.linuxfoundation.org/>

calculate leverage effect using a largely or purely quantitative methodology. For more on some of the key considerations that go into this quantitative approach, see Figure 6 below.

Key considerations

- Preference for quantitative approach to produce quantitative evidence of leverage effect
 - Leverage effect formulated roughly as outputs/outcomes per €1000
 - Examine leverage effect of two funding formulas separately
- But we know from conversations with NGI project coordinators that:
 - Proposition of 150k equity free for startups is different from a stipend to an independent researcher
 - Not easy at all to measure impact of funding in a standardised way
 - Quantitative measures don't tell the full story of the leverage effect of funding for a project
 - How does one measure the leverage effect of funding decentralised architectures?
 - Qualitative evaluations can tell leverage effect stories much more coherently...
- Data considerations
 - We know: ~1,200 projects via NGI database & NGI RIA budgets via CORDIS database
 - We don't know: € funding per recipient (described as "looking for the hen with the golden eggs")
 - Gartner dataset (n=291): NGI Assure (18%), NGIO-Discovery (18%), NGIO-PET (18%), NGI Trust (7%), eSSIF-lab (6%), DAPSI (6%), Trublo (6%), Ontochain (5%), NGI-POINTER (4%), LEDGER (4%), Atlantic (4%)

FIGURE 6 | HIGHLIGHTED KEY CONSIDERATIONS FOR POTENTIALLY USING A QUANTITATIVE METHODOLOGY FOR MEASURING LEVERAGE EFFECT OF NGI FUNDING (SOURCE: [NGI COMMONS](#))

In consideration of such a quantitative methodology, participants were not overly optimistic of the ability to calculate leverage effect in a way that was standardised, accurate, and meaningful given the many nuances between projects (e.g. funding approach, project maturity, etc); and some went so far as to state they thought it was impossible. Their insights proved critical in reframing some of the key elements of the discussion to focus on when it comes to evaluating the impact of funding, as well as directed the consortium to prefer a mixed-methods approach, which we had also given some consideration to. For more on the mixed-methods approach and the types of models that might entail, see Figure 7 below.

Overview of mixed-methods approach

Approach	Objective	Method	Data
Technical Contribution Analysis	Measure how funding influences development activity	Time-series analysis, before-and-after comparison	Gartner data, GitHub, GitLab, new survey?
Community Growth Analysis	Assess impact of funding on size & engagement of the community	Quantitative analysis of community stats	Gartner data, GitHub, GitLab, new survey?
Economic Impact Analysis	Measure economic impact on the OSS project, ecosystem and/or industry.	Input-output analysis, econometric modelling	Gartner data, , financial/economic data, new survey (?)
Interviews and case studies	Deeper understanding of the various leverage effects of funding	Ask NGI project coordinators to nominate 5 projects that can tell different leverage effect stories	Interviews, desk research

183 / 291 projects from Gartner dataset that are open source & in public repository

FIGURE 7 | OVERVIEW OF POTENTIAL MIXED-METHODS APPROACH FOR MEASURING LEVERAGE EFFECT OF NGI FUNDING (SOURCE: [NGI COMMONS](#))

There is no doubt that all of these reflections will help the NGI Commons project in operationalising its understanding of Digital Commons to increase investment in the space.

2.6 BRAINSTORMING – MAPPING AND IDENTIFYING PRIORITIES FOR DIGITAL AND INTERNET COMMONS



FIGURE 8 | A SCENE FROM THE BRAINSTORMING SESSIONS AT THE END OF THE NGI COMMONS WORKSHOP
(SOURCE: [NGI COMMONS](#))

This session facilitated a brainstorming and ideation exercise which invited participants to share their perspectives, beliefs, opinions, and priorities for Digital Commons policymaking in Europe, wherein a SWOT analysis of the Digital Commons was conducted. Participants were broken into four groups. Afterwards, a synthesis exercise was facilitated by Karolina Gyurovszka of Martel to help bring the brainstorming outcomes together as part of a wrap-up exercise, mapping those priorities to different parts of the Digital Commons agenda. Participants heard summarised findings from the moderators, and were further invited to provide additional inputs, reflections, and clarifications.

As a summary of the session, it has been concluded that both funding and regulation can represent a strength, a weakness, a threat or an opportunity for the Digital Commons based on how they are defined. As regards setting up funding, the participants have agreed that both innovation as well as maintenance funding are important, with a slight inclination towards maintenance funding becoming increasingly important for the Digital Commons.

Participants agreed that the NGI initiative and its cascade funding has been one of the first and most important support mechanisms for Digital Commons in Europe, but that it would require additional resources to support Digital Commons sustainably in the long-term, and therefore to deliver all of the expected policy impacts at the technical, economic and societal levels, for instance on interoperability, digital sovereignty, or the respect of digital rights. While cascade funding can provide great support for bottom-up innovation, research and grassroots communities, more centralised and targeted funding for large-scale development and deployments of technologies could allow to have more strategic and impactful investments. In

general, almost all participants agreed that the amount of funding available both at the EU and Member States level is currently largely insufficient.

Additionally, participants discussed some positive examples of collaborations between public institutions and the Digital Commons. Especially in the field of open source software, but also for citizen science initiatives for example, the synergies and positive relationships between public institutions and Digital Commons are mainstreamed and even increasingly formalised, as in the case of OSPOs for instance. One key challenge in this respect that was often mentioned by participants was the adaptation of procurement rules to the specific nature of Digital Commons. Unfortunately, there was not much time to discuss regulation in greater detail, but it has been agreed that it will be discussed at the next workshop.

2.7 DETAILED SWOT ANALYSIS – AGGREGATE FINDINGS FROM THE BRAINSTORMING SESSIONS



FIGURE 9 | THE WORKSHOP DISCUSSIONS WERE SPIRITED AND LED THROUGH INDIVIDUAL BREAKOUT GROUPS
(SOURCE: [NGI COMMONS](#))

Whereas the last sections of this part of the report summarised more cross-cutting findings from the workshops and other sessions, this section will focus specifically on the findings from the brainstorming sessions, using the methodology discussed previously. Note that where **bolded**, this has been done to indicate where an observation is being drawn from the data points summarised by the participants. Some of the extrapolations from those observations have been taken from the discussions surrounding those brainstorming exercises and contemporaneous notes by the moderators, which have been paraphrased here.

2.7.1 Strengths

While there was admittedly much focus on weaknesses, opportunities, and threats in the discussions participants had, the Digital Commons debate taking place in the workshop was widely recognised as largely being possible because of the strong digital and non-digital foundations already established in Europe.

People recognised that there was generally a high value of **trust** in Europe already, and that **Digital Commons raised trust and built a narrative of trust and community cooperation**. In this way, many believed that the **inherent association with public values and public goods** would help make the agenda successful, as well as give it a competitive edge in Europe when compared to some other policies. This would provide a strong foundation for doing anything in the digital policy space, but especially activities around Digital Commons, which are premised on cooperation and support.

Additionally, it seemed to be a widely held belief among the workshop's participants that because of the **EU's convening power and the recognition provided by the European Commission**, the Digital Commons policy mandate was one that had huge potential to bring together diverse individuals, organisations, and communities in Europe towards **common goals aligned with European values**. It was also recognised by attendees that the **fundamental willingness and proclivity** to collaborate made this possible, and that there was a **natural openness** to working towards **shared and common goals** given the history of working across borders.

The **adequacy of European governance instruments towards supporting Digital Commons** was also recognised as a strength. The **presence of a common market**, the **relative availability of public funding** (albeit not enough), and the **existence of public funding frameworks** meant that there was a **large ecosystem of supporting technology providers** from which to draw on and support. There was some optimism in the room that this might help to **concretise existing bottom-up initiatives** by linking them with EU instruments.

2.7.2 Weaknesses

Admittedly, many of the strengths were *potential* strengths of the EU environment, ones which had not necessarily been fully realised. As a result, there was also a long list of weaknesses that people saw in the landscape as it is currently constituted, which people thought might naturally provide a constraint on the Digital Commons agenda despite the presence of some enabling values and building blocks.

Many pointed to the fact that, at present, there was a degree of **fragmentation** in the Digital Commons agenda across Europe. The belief here seemed to be that while there are many pockets of activity in various jurisdictions and initiatives, the lack of a **formal and uniform "commons culture"** presented challenges to policy coherence and further policy development. Furthermore, the **detachment of those policy discussions from technical communities** was seen as exacerbating these challenges, as was the lack of **wider adoption** and the lack of **support tools for standardisation and interoperability**.

Relatedly, the **policy agenda was also seen as opaque** by some, when compared to what people were doing on the ground at the project level. It was believed by some that there were **few prescriptive policies** at the moment and **a lot of talk, but with very little action**. Moreover, it was worried that there might be a degree of **groupthink** in policy circles regarding Digital Commons, which created some distance between them as a technocratic policy ideal and the real experience of specific projects and communities. People were worried that over time, this would create **misaligned incentives for the policy and technical communities**, with the policy community pushing for a "one-size-fits-all" or "few sizes fit most" approach that was just **solutionism** by a different name.

Even amongst policy circles, many saw the Digital Commons agenda as currently constituted as rather niche (though with the opportunity to scale). Many pointed out that was **not really a part of the policy agenda for digital government** at the EU-level or within Member States yet, and that a lack of demand or buy-in from governments might not be there while countries struggle with more pressing geopolitical challenges. Additionally, other issues like interoperability were seen as eating up a lot of the oxygen at the EU-level, which many worried

might have cascading effects in terms of the EU being able to provide the sustainable levels of investment that a Digital Commons agenda demands.

The EU instruments were also seen as having some weaknesses in terms of its ability to **fund and support commons at scale**. People wondered aloud whether antitrust law was sufficient to help combat **market concentration**, get Digital Commons on the agenda at scale, and fight the monopoly power of Big Tech. They also saw a **diverse but under-funded range of funding modalities** that were insufficient to support Digital Commons in a harmonised way. In order for the agenda to be successful, many attendees pointed out that there would need to be **more funding – and different types of funding** – available to support a range of activities, from innovation to maintenance to adoption and scaling.



FIGURE 10 | THE WORKSHOP DISCUSSIONS WERE SPIRITED AND LED THROUGH INDIVIDUAL BREAKOUT GROUPS
(SOURCE: [NGI COMMONS](#))

2.7.3 Opportunities

Despite those weaknesses, many were strongly declaring the potential of Digital Commons coming out of the workshop, even if there were a lot of unknowns and dependencies on certain things becoming true (or continuing to be true).

Regulation was seen as an opportunity for Digital Commons, if the right attention was given to implementing recently passed European digital regulations in a way that supports the Digital Commons agenda. In this regard, many believed that the pace of digital regulation might slow down a little given the volume passed in recent years, and that there might be an opportunity to **create standards and frameworks** for implementing Digital Commons. For example, some highlighted the Interoperable Europe Act and the **mandate for interoperability in EU texts** as helping to create an opportunity for the Digital Commons agenda to support collaboration around common resources for standardisation and interoperability.

Many people shared their beliefs that a **larger diversity of digital actors** needed to be brought into the Digital Commons agenda. In particular, **integration channels with industry** were seen as a priority, as was the **involvement of telecommunications providers and the media**. Relatedly, another opportunity seen was to diversify the range of initiatives involved in the project. For example, **better defining what Digital Commons are and explicitly defining the relationships between different types of open initiatives** might help to surface new

innovations that could be connected into the Digital Commons agenda and gain attention, as well as access to resources and funding.

Many also believed the Digital Commons agenda could help make an effective case for **public policy innovation** at the EU-level, which in turn could spill down to projects. If funded and resourced sufficiently, Digital Commons could create **good/strong collaboration between EU researchers**, leading to better collaboration around open science. Using the Digital Commons agenda to **incentivise more participatory open source development** was seen as possibly supporting a wide range of actions and initiatives, including (but not limited to): growth of **public large language models (LLMs)**, a business case for **publishing and sharing open data**, **convergence between similar projects** to support interoperability, and **more collaboration around data spaces**.

Finally, another opportunity identified – and a risk if not done right – was simply to build more awareness and understanding of the Digital Commons and what it represents. This could be done through **funding incentives to provide motivation for communicating the value of wider adoption**, as well as marketing efforts to **promote communication about public values and why it matters**. In turn, this could help bring necessary **political attention** and use that attention to connect different communities.



FIGURE 11 | KAROLINA GYUROVSZKA WRAPS UP THE WORKSHOP ON BEHALF OF THE NGI COMMONS CONSORTIUM
(SOURCE: [NGI COMMONS](#))

2.7.4 Threats

While many were optimistic about the potential strengths and opportunities of Digital Commons, they also saw the weaknesses and were therefore also verbose in communicating potential threats.

One concern considered the definition itself. A few people thought there were several **overloaded definitions** for Digital Commons at present (e.g. that they promised a lot and tried to bring many ideas together), and that there was an attendant threat of **concept drift**. They also believed that the proliferation of different understandings of Digital Commons might lead to **initiatives that promise a lot, but where the promise is disconnected from reality**.

Another commonly identified threat was that, broadly, the scope of the ambition from policymakers might not match the realistic possibilities for these projects actually being implemented through policymaking and/or legislation. For example, many worried that **hesitant policymakers** might abandon the Digital Commons agenda at the drop of a hat, that **existing regulations and frameworks** might dominate all the attention, that **government funding** dries up, or the EU fails to create a strong **market rationale** for governments to adopt Digital Commons at scale. Some also mused about potential other issues, including the implementation of the **Cyber Resilience Act (CRA)** or **central government interference** in Member States.

Governance of Digital Commons was also cited as a challenge that could potentially become a threat to Digital Commons' long-term viability, with some viewing the prospects better than others. Some pointed to challenges in **long-term maintenance**, the **complex governance model** for commons, and the **inherent difficulty of democratising**. Some worried that some of the new efforts around **standardisation (e.g. from the CRA)** might **leave out smaller initiatives that lack the resources to comply**, therefore making it more challenging for projects to continue governing themselves sustainably.

Many of the attendees also admired the ideals of Digital Commons, but were concerned about the potential threat of **market capture** and/or capture by industry incumbents. In other words, they believed it was very possible that that market logic that has dominated the last 30 years of digital infrastructure development would continue to dominate conversations about using Digital Commons alternatives. Some pointed to **"big market sharks"** which might sweep in and buy out smaller initiatives or **undercut approaches at public commons partnerships**. Others pointed to potential **infrastructure bottlenecks like cloud** that might make it hard for Digital Commons to wrest meaningful control back from the private sector.

3 APPLICABILITY AND FUTURE CONSIDERATIONS

This part of the report will consider the applicability of some of the detailed findings of the summarised workshops and SWOT analysis as a whole and identify some future considerations for using them as part of the NGI Commons research, policy, and advocacy work to be implemented till the end of the project. These considerations are based on all of the reflections gathered and analysed during the workshop, as well as the second part of the brainstorming sessions, where people addressed more forward-looking ideas regarding the Digital Commons policy landscape in Europe.

3.1 CONSIDERATION #1 – BE AWARE OF AND RESPOND TO THE POTENTIAL FOR CONCEPT DRIFT

While there have been many attempts at defining and providing more substantiation to the idea of Digital Commons, there is a risk that people do not connect with the definition and it loses its currency amongst policymakers. This could happen as a result of any number of factors, whether it be the failure of specific policy initiatives or simply the inability to properly socialise and raise awareness of the concept.

Building on this, it will be important for Digital Commons to achieve a similar level of awareness in Europe and be part of the conversation around how to improve and govern highly open technologies in the public interest. This might be achieved through a disciplined message about what comprises Digital Commons – for example, digital resources, communities, and access and sharing rules. Therefore, NGI Commons will need to continue socialising the term and identify ways of talking about it that resonate with decision-makers, even if people don't always agree on the specifics.

This is not a big shift, it just requires redoubling our efforts, and ensuring our research informs our policy-advocacy. The work we are doing to conceptualise common attributes and properties of Digital Commons will be vital in this regard, as will marketing and socialisation of the concept in new fora and communities.

3.2 CONSIDERATION #2 – MORE ACTIVELY MARKET AND RAISE AWARENESS AROUND THE TERM DIGITAL COMMONS

As a result of some of the considerations highlighted above, it will be important to build a narrative for Digital Commons which extends beyond NGI Commons. Many suggested more active 'marketing' of the term, trying to get it part of more regular policy debates by collaborating more with the media. In this way, it could be useful to test out a stronger and more forceful message about the need to protect the commons, as well as identify the role of Digital Commons in other discourses around digital governance and human-centric digital transformation more broadly.

Attendees suggested different points of emphasis to help make this case. It was also suggested that these efforts could improve the message around inclusion as part of Digital Commons, as well as their role in safeguarding digital infrastructure. Some participants also suggested 'emphasising the local', and actively trying to localise the message to the needs and interests of particular Member States. Pursuing both of these paths might help involve communities more in decision-making around Digital Commons, as well as create a federated

network of individuals and 'lobbying' organisations fighting for Digital Commons across Europe.

3.3 CONSIDERATION #3 – CONSIDER FUNDING HOLISTICALLY AND EXAMINE IN GRANULAR DETAIL FUNDING APPROACHES FROM NGI AND BEYOND, IN ORDER TO LEARN WHAT WORKS AND WHAT DOES NOT

In terms of funding, many believed that it would be difficult to quantitatively measure the leverage effect of NGI funding and that the research might uncover a need for NGI to test and experiment with different approaches. In particular, cascade funding for projects – to see what works for projects given their particular needs – was considered an approach worth studying and testing. In order to enable this, alternatives for legal/fiscal ownership and stewardship may need to be explored through NGI Commons policy recommendations.

Most attendees at the workshop seemed to believe that NGI funding was important, but insufficient on its own. Many called for robust public investment at the EU-level, and from Member States, for Digital Commons funding that could complement the NGI innovation funding which is already being provided. Many believed that additional funding would help support both maintenance and innovation, as well as promote digital skills-building and help attract IT competition and talent; for example, funding education for IT and open source skills from primary school onward.

Some other suggestions were identified as well. Given the variability in project sizes, structures, and experience, a participatory approach towards deciding how funding is used was something highlighted as a strong potential of NGI funding. Funding might also need to be long-term and support scale-up, not just innovation, for many projects. It was also suggested that improving the application processes and funding not just one project but the application of a project, could be useful as well.

While the Digital Commons debates create a lot of discussion around governance of digital resources and the communities that support them, it is also important not to forget about the issue of maintenance. Digital Commons are historically hard to govern at infrastructure-scale given the fact that they are decentralised and run by communities, and this requires an active debate around how to maintain them and make them secure, not just adding new features or scaling them. This will require dedicated funding and resources over time.

3.4 CONSIDERATION #4 – CONNECT THE DIGITAL COMMONS AGENDA TO OTHER POLICY DEBATES

In order to make a case for Digital Commons at scale, it will be important that the consortium does not allow Digital Commons to become siloed or separate from other policy debates. While the process of making this case is only just beginning with the NGI Commons project, many worried in the workshop that a lack of sustained attention would become a big threat to the Digital Commons agenda.

For example, there are many important debates happening around digital government, cybersecurity, and standardisation which it will be important to connect into the messaging around Digital Commons. It will also be important to position Digital Commons as part of the

broader debates for combating the power of Big Tech and creating public alternatives that help to reduce market concentration.

Another suggestion is to improve the connection between the debates around Open Source Programme Offices, or OSPOs. An OSPO is a centre for excellence and policy coordination around open source, such as Germany's Center for Digital Sovereignty (ZenDis), and they are leading the way in supporting the health of open source communities and helping governments to nurture and contribute back to them. Given the role OSPOs play in formalising and coordinating relationships with open source communities, OSPOs could provide a unique form of 'policy infrastructure' that supports rules and governance for Digital Commons.

Some other suggestions included embedding principles of the Digital Commons agenda in policy being created to implement different pieces of digital regulation, like the Interoperable Europe Act, the Digital Markets Act, and the Cybersecurity Act. But it will also require more novel policy instruments beyond these pieces of regulation, such as being part of public tenders, embedding common principles in future data governance policies, or getting the idea of "public money, public code" into EU legislation. In other words, the Digital Commons agenda will need help with lobbying, and ensuring that the recently adopted regulation is implemented well.

4 CONCLUSION

NGI Commons approach to Digital Commons is multifaceted, reflecting a commitment to a broad, sustainable and impactful exploitation of digital resources. By fostering collaboration among diverse stakeholders and aligning policies with European values, our aim is that NGI Commons' work will bring clarity to debates about Digital Commons in Europe, evaluating current funding and investment in Digital Commons, and propose a way forward that makes sense in the evolving landscape. This workshop was the first step towards helping us to achieve that.

The workshop was rich and busy in this regard, providing us a useful foundation of inputs from the community which will hopefully lead the way in creating a Digital Commons environment that serves the interests of all its citizens and contributes positively to global progress. During our brainstorming sessions, participants broadly agreed that the future of the Digital Commons landscape in Europe should capitalise on its strengths, address weaknesses, mitigate threats, and seize opportunities to flourish – even if they differed in their understanding of Digital Commons and how to achieve that.

As the detailed findings above make clear, the Digital Commons agenda has stirred useful conversations about how to create public alternatives to Big Tech solutions as part of our use of technology across the whole of society. While the Digital Commons landscape in Europe is still young, there are some strong foundations and even stronger opportunities for us to seize on as NGI Commons.