



ekip Policy Lab

Creativity as civic infrastructure: CCI and digital commons

Scoping Paper

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1 Introduction and definition

Creative activity has always depended on shared cultural resources, and creatives have a history of adopting new technology to expand creative possibilities, improve production processes and develop new products and experiences¹. Artists, creators and cultural institutions have built on existing knowledge, stories, images, techniques, archives and collective memory to produce new cultural value. Throughout history, these shared resources have functioned as commons: maintained, enriched and reused by successive generations.

In the digital age, these commons can take the form of digital resources, infrastructures and communities. **Digital commons** are the shared digital environments through which cultural resources are created, preserved, governed, accessed and reused. They include data such as digitalised creative works, archives, cultural heritage collections, metadata, open standards, software and collaborative platforms that enable cultural participation, innovation and knowledge sharing (see Table 1 below for the key concepts and definitions used throughout this scoping note).

This scoping note approaches digital commons as civic infrastructure. Like roads, libraries or public parks, digital commons provide enabling infrastructures that support activities extending far beyond their immediate users. They allow knowledge and culture to circulate, preserve collective memory, support education and research, enable creative experimentation, and provide shared resources on which creators, cultural institutions, SMEs, researchers and citizens depend. Their public value therefore lies not only in the digital resources themselves but also in the communities, governance arrangements and institutions that sustain them over time.

Digital commons are not self-sustaining. Their long-term value depends on continued contribution, stewardship, governance, technical maintenance, institutional support and investment. They require communities that contribute knowledge institutions that preserve and curate resources, infrastructures that enable access and reuse, and governance systems that balance openness with responsibility. Their sustainability is therefore social, economic, legal, technical and institutional.

The sustainability of the digital commons is becoming an urgent strategic issue in the context of generative Artificial Intelligence (AI), large-scale web scraping, platform concentration, copyright tensions, evolving data governance and the European Union's (EU) search for technological and digital sovereignty. AI innovation depends on access to high-quality data and cultural resources. However, when shared cultural resources are extracted without transparency, attribution, reciprocity or adequate value return, the communities and institutions that maintain the commons risk being weakened. The central question for this policy lab is therefore **how cultural and creative digital commons can be sustained as civic infrastructure: remaining open and accessible while ensuring reciprocity, supporting creators and cultural institutions, and strengthening the EU's cultural resilience, digital sovereignty and, eventually, competitiveness.** This requires approaches that recognise digital commons not simply as repositories of cultural assets, but as strategic public-interest infrastructures whose long-term sustainability reinforces the EU's capacity for creativity, innovation and democratic participation.

Addressing this challenge requires looking beyond copyright or AI regulation alone. The sustainability of digital commons depends on multiple interacting dimensions. Adopting the *ekip* building blocks to analyse the potential policies approaches allows considerations for diverse conditions required for functional and sustainable open innovation ecosystems. These include governance, infrastructure, research and innovation, regulation, skills, investment, competitiveness and social participation².

¹ LSE, Understanding the impact of AI in the creative industries <https://www.lse.ac.uk/school-of-public-policy/research/lse-growth-lab/understanding-the-impact-of-ai-in-the-creative-industries>

² For more information on *ekip* building blocks for open innovation, see <https://ekipengine.eu/open-innovation-a-game-changer/>

Table 1: Key concepts and definitions related to CCI and digital commons

Key terms	Definition
Commons	The Commons is both a pooled/shared resource (such as a workplace refrigerator or the ocean), and an activity (e.g. social practices, resource governance and community norms). It is not owned, created or controlled by any single entity or organisation³.
Digital commons	Digital commons are digital resources, including software, data, infrastructures, archives, datasets and cultural heritage materials, that are collectively created, maintained and governed by communities⁴. They are based on openness, sharing, non-exclusive ownership, public use and reuse, and distributed forms of production⁵. Their governance systems define how resources are accessed, shared and reused⁶.
Cultural commons	Cultural Commons refer to shared systems of collective action, located in time and space, either physical or virtual, and shared and expressed by a community. Cultural may be economically productive or non-monetary, depends on shared knowledge systems and is essentially non-rival⁷.
Creative Commons	- The creative commons consist of all artistic human creations – text, images, video, music etc. which are in the public domain or are available to be used by other creatives and innovators as inspiration or source, for remixing and reusing⁸. - Creative Commons is an international nonprofit organization working to empower people to grow and sustain the thriving commons of shared knowledge and culture, including the creation of the popular CC licencing framework⁹.
GLAM	Galleries, Libraries, Archives and Museums¹⁰
Open data	Open data as a concept is generally understood to denote data in a non-proprietary format that can be freely used, re-used and shared by anyone for any purpose¹¹
Public domain	The public domain comprises all the knowledge, information and works – including books, pictures, audiovisual and digital materials – which can be used without the need for permission. It comprises works where copyright has expired or do not qualify for copyright, ideas and facts, legal and public administration texts and works for which the rightsholder has relinquished their copyright¹².
Digital Public Infrastructure	Although there is not yet a single universally accepted definition, Digital Public Infrastructure (DPI) can be defined as a set of reusable, interoperable digital systems, specifications and building blocks that function as shared infrastructure for society-wide use, enabling secure digital identity, low-cost electronic payments, trusted data exchange and other essential capabilities for participation in public life, markets and the digital economy. DPI is characterised by open standards, reusability, interoperability, and, where appropriate, open-source design; its ‘public’ character derives not necessarily from government ownership, but from its orientation towards public value, public-

³ Hess, C., & Ostrom, E. (2006). Introduction: An overview of the knowledge commons. In Understanding Knowledge As a Commons: From Theory to Practice. MIT Press. p.4

⁴ Keller, P, Warso, Z, Singh, A. (2025) A Strategic Agenda for Digital Commons Advancing Public Digital Infrastructure in the next MFF. Open Future (<https://openfuture.eu/publication/a-strategic-agenda-for-digital-commons/>)

⁵ Open Future, Digital Commons, <https://openfuture.eu/tag/digital-commons/>

⁶ Krewerm J, Warso, Z. (2024), Digital Commons as Providers of Public Digital Infrastructure, Open Future <https://openfuture.eu/wp-content/uploads/2024/11/241113-Digital-Commons-as-Providers-of-Public-Digital-Infrastructures.pdf>

⁷ Macri E, Morea V, Trimarchi M. (2020), Cultural Commons and Urban Dynamics, Springer Pp. 14-15 https://doi.org/10.1007/978-3-030-54418-8_2

⁸ Lessig, L. (2011). The Creative Commons. Routledge <https://doi.org/10.4324/9781315095400-11>

⁹ Creative Commons, Who we are, <https://creativecommons.org/mission/>

¹⁰ Wallace, A. (2020). Words Mean Things (A Glossary). Open GLAM. <https://doi.org/10.21428/74d826b1.51566976>

¹¹ EUR-Lex, Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (recast) <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1561563110433&uri=CELEX:32019L1024>

¹² Pro Europeana, The Europeana Public Domain Charter, p.2 <https://pro.europeana.eu/post/the-europeana-public-domain-charter>

interest governance, oversight, transparency, accountability, universal accessibility and the common good¹³.

1.1 Short history

The idea of the commons has traditionally referred to shared physical resources, such as grazing land, fishing grounds or forests, managed by communities for collective use¹⁴. While the "Tragedy of the Commons" frames shared resources as vulnerable to overuse¹⁵, Elinor Ostrom shows that commons can be successfully managed when communities develop effective governance structures¹⁶. In this sense, commons are not only shared resources, but also the rules, practices and forms of care that sustain them¹⁷.

Digital commons build on this tradition through knowledge, data, software and digital infrastructures¹⁸. **Unlike physical resources, knowledge and data are non-rival**: they are not depleted by use¹⁹. However, the infrastructures that host and circulate them are not cost-free. **Digital commons therefore depend on continued contribution, maintenance and governance**. They can be weakened by underuse, free-riding, lack of renewal or extractive use²⁰ that do not contribute to their long-term sustainability.

Historically, the **early internet provided fertile ground for the emergence of digital commons through open content, open-source software, open data and "copyleft"** instead of copyright²¹. Organisations and communities such as Creative Commons²², Wikipedia²³, the Internet Archive²⁴, GitHub²⁵ and Project Gutenberg²⁶ became central to a culture of access, sharing and reuse.

Cultural and creative commons form part of this wider ecosystem by enabling creators, institutions and communities to share works, metadata, archives and heritage materials for access, preservation, reuse and innovation. **Open GLAM** (Galleries, Libraries, Archives and Museums) **initiatives illustrate how digital commons operate in practice within the cultural and creative ecosystem**. Institutions such as museums, libraries, archives and galleries contribute digital collections, metadata, public domain works, audiovisual materials, 3D images and other cultural resources through databases, APIs and online platforms. **Europeana**²⁷ has played a central role in the EU by supporting open cultural heritage, public domain access and shared standards (See section 4.1). Smaller community archives also contribute

¹³ Mazzucato, M., Eaves, D., and Vasconcellos, B. (2024). Digital public infrastructure and public value: What is 'public' about DPI? UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2024-05). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2024-05>

¹⁴ Bollier, D. (2011, July 15). The Commons, Short and Sweet. <https://www.bollier.org/commons-short-and-sweet> and Ostrom, E. (1990). Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge University Press. <https://doi.org/10.1017/CBO9781316423936>

¹⁵ Hardin, G. (1968). The Tragedy of the Commons. Science, 162(3859), 1243–1248.

¹⁶ Ostrom, E. (1990). Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge University Press. <https://doi.org/10.1017/CBO9781316423936>

¹⁷ Bollier, D. (2011, July 15). The Commons, Short and Sweet. <https://www.bollier.org/commons-short-and-sweet>

¹⁸ Commons Network. (2025). Roadmap towards a sovereign and resilient digital ecosystem. <https://www.commonsnetwork.org/wp-content/uploads/2025/07/Roadmap-Towards-a-Sovereign-and-Resilient-Digital-Ecosystem.pdf>

¹⁹ Hess, C., & Ostrom, E. (2006). Understanding Knowledge As a Commons: From Theory to Practice. MIT Press. https://ed.primo.exlibrisgroup.com/permalink/44UOE_INST/1lk19of/alma9913386543502466

²⁰ Bertacchini, E., Bravo, G., Marrelli, M., & Santagata, W. (Eds). (2012). Cultural commons: A new perspective on the production and evolution of cultures. E. Elgar.

²¹ Copyright gives creators exclusive control over how their work is used, while copyleft promotes sharing and adaptation by allowing others to reuse and modify a work, provided the same freedoms are preserved in any derivatives. For more information see <https://legalvision.com.au/whats-the-difference-between-copyright-and-copyleft/>

²² <https://creativecommons.org/>

²³ <https://www.wikipedia.org/>

²⁴ <https://archive.org/>

²⁵ <https://github.com/?locale=fr-fr>

²⁶ <https://www.gutenberg.org/>

²⁷ <https://www.europeana.eu/en>

valuable material, although their fragility, cultural specificity and different attitudes to openness require careful engagement²⁸.

Over time, however, the governance conditions that enabled this open ecosystem have changed. Large platforms have enclosed and privatised significant parts of the internet²⁹ and increasingly mediate access to digital content and infrastructure, while generative AI has dramatically increased demand for large-scale cultural and knowledge resources. As a result, longstanding principles of openness, participation and collective governance are increasingly confronted with new forms of extraction, concentration and asymmetries of market power without clear consent, attribution, remuneration or return³⁰.

Digital commons organisations are increasingly adapting their governance models to these new conditions. Creative Commons is examining how to maintain sharing while protecting against extractive AI uses³¹. Wikimedia has called for stronger financial support from the AI industry and better attribution to contributors and sources³². Other actors, including Mozilla³³, Flickr Commons³⁴, the Digital Public Goods Alliance³⁵, Open Future³⁶, Communia³⁷ and Hugging Face³⁸, contribute to open data, public-interest digital infrastructures, ethical AI and digital commons governance.

2 Policy context and vision

The growing strategic importance of digital commons has shifted the policy debate from promoting openness alone towards ensuring their long-term sustainability. Within this context, **EU policy is increasingly shaped by a balancing act**; on one hand, access to high-quality data is seen as a condition for AI innovation, competitiveness and the development of European tech companies. On the other hand, the EU also recognises the need to ensure that the CCIs remain diverse, economically viable and capable of supporting creators, cultural institutions and creative SMEs.

AI - and in particular Generative AI - has developed rapidly over the last few years, supported by large-scale investment, increasing market adoption, and growing demand for enabling infrastructure. According to the Stanford AI Index, global private investment in generative AI totalled €29.45 billion in 2024, with €25.2 billion allocated to the US and €1.29 billion to Europe, roughly twenty times lower^{39,40}.

²⁸ Hughes, L., Alexander, M., Barker, H., Batista-Navarro, R., Nenadic, G., Sheridan, J., Hannaford, E., & Dierckx, K. (2025). Final Report - Our Heritage, Our Stories: Linking and searching Community-Generated Digital Content. Towards a National Collection. <https://doi.org/10.5281/ZENODO.14888428>

²⁹ Zuboff, S. (2019). The age of surveillance capitalism: The fight for a human future at the new frontier of power (Paperback edition). Profile Books.

³⁰ Keller, P., & Tarkowski, A. (n.d.). The Paradox of Open. Open Future Foundation. Retrieved 20 April 2026, from <https://paradox.openfuture.eu/>

³¹ Tumadóttir, A. (2026, May 13). From Signals to Infrastructure: Strengthening the Commons for the AI Era. Creative Commons. <https://creativecommons.org/2026/05/13/from-signals-to-infrastructure-strengthening-the-commons-for-the-ai-era/>

³² Wikimedia Foundation. (2025, November 10). In the AI era, Wikipedia has never been more valuable. Wikimedia Foundation. <https://wikimediafoundation.org/news/2025/11/10/in-the-ai-era-wikipedia-has-never-been-more-valuable/>

³³ <https://mozilladatacollective.com/>

³⁴ <https://www.flickr.com/commons>

³⁵ <https://www.digitalpublicgoods.net/>

³⁶ <https://openfuture.eu/>

³⁷ <https://communia-association.org/>

³⁸ <https://huggingface.co/>

³⁹ Maslej, N., et al. (2025). The AI Index 2025 Annual Report. *Institute for Human-Centered AI, Stanford University*. <https://doi.org/10.48550/arXiv.2504.07139>

⁴⁰ This figure includes the EU27, Norway, Switzerland, and the United Kingdom.

The EU has a growing AI ecosystem, with over 6,800 companies operating in the field⁴¹. AI also accounts for a growing share of European venture capital (27%)⁴², while adoption by EU companies is increasing⁴³.

In parallel, there is a clear policy push to strengthen the EU's AI, data-related capabilities, and competitiveness of the EU industry⁴⁴ from the European Commission. The **AI Continent Action Plan** aims to provide European firms with better conditions for innovation by scaling computing infrastructure, increasing access to high-quality data, supporting adoption in strategic sectors, strengthening AI skills, and facilitating compliance with the AI Act⁴⁵. The **Data Union Strategy** adds on this by reinforcing the EU data ecosystem through interoperability, data availability, data labs within AI factories, and Common European Data Spaces (see chapter 4.1)⁴⁶. Additionally, the **Apply AI Strategy**⁴⁷ seeks to enhance competitiveness across strategic sectors, including cultural, creative and media sector, where AI is seen relevant for video production, content personalisation and cultural heritage preservation⁴⁸.

For CCIs, this agenda has a dual meaning. AI can support innovation, productivity, and new forms of creative practice, including faster production processes, prototyping, content discovery, preservation and new models of human-AI co-creation^{49,50}. The **creative industries have historically been early adopters of frontier technologies, and AI is increasingly being integrated into sector-specific tools** for activities such as design, audiovisual production, post-production, game development and marketing. Emerging evidence suggests that these technologies can augment rather than replace creative work by improving productivity, supporting experimentation and enabling more complex creative outputs, while also creating opportunities for new firms, services and business models⁵¹. At the same time, European media and creative companies, many of which are small and medium enterprises (SMEs), also need support to develop, adopt and adapt innovative tools and business models.⁵² In line with this, the **AgoraEU proposal**⁵³ - set to consolidate the EU's cultural and education funding programmes from 2028 onwards - points to the need for larger-scale collaboration in innovation, especially for the creation, discoverability, marketing and monetisation of European content across media segments.

At the same time, **the large-scale use of cultural and creative data for AI model training raises significant concerns**⁵⁴. Generative AI models depend on access to large quantities of content, including

⁴¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. AI Continent Action Plan. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025DC0165>

⁴² European Commission. (2025, November 5). Funding the AI Economy: Strengthening Europe's Investment Capacity. <https://digital-strategy.ec.europa.eu/en/library/funding-ai-economy-strengthening-europes-investment-capacity>

⁴³ European Investment Bank. (2025, December 8). How are EU firms faring with AI, big data and other digital tools?. <https://www.eib.org/en/stories/eu-firms-ai-big-data>

⁴⁴ European Commission. (2025, June 13). Generative AI set to transform EU economy but requires further policy action. <https://digital-strategy.ec.europa.eu/en/news/generative-ai-set-transform-eu-economy-requires-further-policy-action>.

⁴⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. AI Continent Action Plan. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025DC0165>

⁴⁶ European Commission. European Data Union Strategy. <https://digital-strategy.ec.europa.eu/en/policies/data-union>.

⁴⁷ European Commission. Apply AI Strategy. <https://digital-strategy.ec.europa.eu/en/policies/apply-ai>

⁴⁸ Communication from the Commission to the European Parliament and the Council. Apply AI Strategy. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025DC0723>

⁴⁹ See e.g., Epstein, Z., Hertzmann, A., & the Investigators of Human Creativity. (2023). Art and the science of generative AI. *Science*, 380(6650), 1110–1111. <https://doi.org/10.1126/science.adh4451>; Oppenlaender, J. (2024). *The Cultivated Practices of Text-to-Image Generation*. arXiv. <https://doi.org/10.1007/978-3-031-66528-8>

⁵⁰ Kyi, L., Mahuli, A., Silberman, M. S., Binns, R., Zhao, J., & Biega, A. J. (2025). *Governance of Generative AI in Creative Work: Consent, Credit, Compensation, and Beyond* (arXiv:2501.11457). arXiv. <https://doi.org/10.48550/arXiv.2501.11457>; Mei, Y. (2024). *Prompting the E-Brushes: Users as Authors in Generative AI* (arXiv:2406.11844). arXiv. <https://doi.org/10.48550/arXiv.2406.11844>

⁵¹ LSE, Understanding the impact of AI in the creative industries <https://www.lse.ac.uk/school-of-public-policy/research/lse-growth-lab/understanding-the-impact-of-ai-in-the-creative-industries>

⁵² 2024 EU Industrial R&D Investment Scoreboard, <https://iri.jrc.ec.europa.eu/scoreboard/2024-eu-industrial-rd-investment-scoreboard>

⁵³ EUR-Lex, Commission Staff Working Document. Impact Assessment Report, Accompanying the documents, Proposal for a Regulation of the European Parliament and of the Council establishing the 'AgoraEU' programme for the period 2028-2034, and repealing Regulations (EU) 2021/692 and (EU) 2021/818 <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=SWD:2025:550:FIN>

⁵⁴ Keller, P. Open Future, Copyright, AI, and the Limits of Voluntary Licensing, 2026 <https://openfuture.eu/blog/copyright-ai-and-the-limits-of-voluntary-licensing/>

in some cases copyrighted works and cultural heritage material. This has created tensions around web scraping, text and data mining (TDM), licensing, transparency, attribution, remuneration and enforcement. The European Commission has recently indicated that it is considering applying changes to the EU copyright framework to strengthen the resilience and competitiveness of European CCIs while facilitating research and innovation. In particular, it is exploring ways to improve licensing and enforcement in the AI context, improve conditions for creators' remuneration, and make it easier for providers of generative AI to access copyright-protected content⁵⁵.

The EU's policy approach seeks to balance these objectives. The Culture Compass identifies a forward-looking regulatory environment as essential for European CCIs, with a focus on protecting creative content, supporting fair remuneration and setting standards for trustworthy and human-centric AI.⁵⁶ It also refers to the implementation of the AI Act's copyright-related aspects, transparency requirements for AI-generated content and the effective implementation of TDM exceptions. Meanwhile, **the EU's strategic framework for AI** recognises that access to high-quality data is necessary for AI innovation, competitiveness and the development of European AI capabilities, while also seeking to secure a sustainable creative ecosystem in which creators, rightsholders, cultural institutions and creative companies can continue to generate cultural and economic value. **The core policy challenge is therefore not only whether data should be made available for AI innovation, or whether cultural and creative works should be protected from AI use. The issue is how to create conditions under which data access, AI development and the economic viability of creative work and the commons which sustain them can coexist.** This includes improving rightsholders' access to information on the use of their content, facilitating licensing through mediation or arbitration, and considering measures that enable appropriate remuneration for creators.

Beyond copyright and remuneration, these debates increasingly intersect with broader questions of digital sovereignty. In fact, at present, the EU can be seen as dependent on non-European digital infrastructures. As stated previously, current digital infrastructures are often shaped by commercial and extractive business models, raising questions about resilience, autonomy and democratic control. In this context, digital commons offer an alternative vision: collectively governed digital resources managed through transparent decentralisation and shared ownership. For the CCIs, this is relevant because cultural and creative actors contribute diverse communities, data, practices and technologies that can strengthen the EU's digital commons.

To sum up, the **policy vision emerging from these debates evolves around three pillars:**

- First, the EU seeks to strengthen AI innovation and competitiveness, including in CCIs, by improving access to data, infrastructure, skills and adoption support.
- Second, it seeks to protect the CCIs from extraction, weak remuneration and loss of control over creative works and cultural resources.
- Third, it seeks to build a more resilient and sovereign digital ecosystem in which digital commons, cultural diversity and public-interest infrastructures contribute to the vision.

3 Challenges & opportunities

3.1 Opportunities

Digital commons create opportunities for new forms of collaboration between GLAM institutions, cultural organisations, grassroots communities, creative SMEs and individual creators. Indeed, these actors

⁵⁵ European Commission, Have Your Say portal, Call for evidence on the targeted initiative for a better copyright environment for European creativity and innovation https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/18173-Targeted-initiative-for-a-better-copyright-environment-for-European-creativity-and-innovation_en

⁵⁶ European Commission, A Culture Compass for Europe, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, https://culture.ec.europa.eu/sites/default/files/2025-11/Communication%20-%20Culture%20Compass%20with%20cover_0.pdf

contribute to the commons in different ways⁵⁷. GLAM institutions and organisations such as Europeana provide digitised collections, metadata, digital infrastructure, APIs, storage, GLAM labs and public access to cultural heritage. Their role is closely linked to democratic access to knowledge, cultural memory and heritage preservation⁵⁸. Smaller cultural organisations and community archives may operate closer to commons principles through collective decision-making, community ownership, and care for specific histories and identities.

An opportunity may lie in connecting these different capacities. Larger GLAM institutions may not always operate as bottom-up commons because of their public mandates, bureaucratic structures and state-linked governance⁵⁹. However, many already embrace elements of commoning through community engagement, accessibility work, co-creation, knowledge sharing⁶⁰ and collaboration with artists and creative industries⁶¹. At the same time, grassroots cultural organisations, co-operatives, activists and individual creators can contribute more agile and participatory forms of cultural production, including open software, art, music, theatre, journalism, public art and creative works shared through Creative Commons or public domain tools.

These contributions create scope for more circular cultural ecosystems. Archives, public domain works, digitised collections and community knowledge can support new creative production, while artists and communities can contribute new works, interpretations and traces back into the commons. Examples of these types of collaborations include the Library of Congress "Innovator in Residence Program"⁶², NFT's created by GLAM institutions⁶³, Interactive AI drawing experiences⁶⁴, Arts and Crafts creatives⁶⁵ and interactive tagging communities to enable reuse of photographs⁶⁶.

These opportunities also require careful governance. Open access should not be treated as automatically appropriate in all contexts. Smaller community archives may hold culturally specific or fragile materials, and some communities may have legitimate reasons to limit open data sharing, particularly where histories of extraction or marginalisation are present⁶⁷. A sustainable approach to cultural and creative commoning therefore needs to combine openness, reuse and innovation with community engagement, consent, attribution and respect for different forms of ownership and care.

3.2 Policy challenges

To organise and structure challenges related to the role of CCIs in open innovation, a series of building blocks are used in *ekip*. These can be described as critical elements in the transition of industrial ecosystems and are of central importance to functional and sustainable open innovation ecosystems⁶⁸. Table 2 presents the selected building blocks that are of relevance to digital commons and CCIs.

⁵⁷ Panneels, I., Lechelt, S., Schmidt, A., & Coşkun, A. (2024). Data-driven innovation for sustainable practice in the creative economy. In *Data-Driven Innovation in the Creative Industries* (1st edn). Routledge. <https://doi.org/10.4324/9781003365891>; Hardin, G. (1968). The Tragedy of the Commons. *Science*, 162(3859), 1243–1248. And Hazejager, K., Olivella, J. M. F., Nadimi, M., & Urb, K. (2025). Cultural heritage institutions within open innovation ecosystems (Ekip Policy Labs) [Scoping Paper]. ekip. https://ekipengine.eu/wp-content/uploads/2024/11/EKIP_Policy-lab-8_Scoping-Note.pdf

⁵⁸ Avdikos, V., Dragouni, M., Michailidou, M., & Pettas, D. (2024). Rethinking GLAMs as commons: A conceptual framework. *Open Research Europe*. <https://open-research-europe.ec.europa.eu/articles/3-157>

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Hazejager, K., Olivella, J. M. F., Nadimi, M., & Urb, K. (2025). Cultural heritage institutions within open innovation ecosystems (Ekip Policy Labs) [Scoping Paper]. ekip. https://ekipengine.eu/wp-content/uploads/2024/11/EKIP_Policy-lab-8_Scoping-Note.pdf

⁶² Innovator in Residence Program, 2026

⁶³ Belvedere Art Museum, 2022

⁶⁴ TCS and the Munch Museum Launch Interactive AI-Based Drawing Experience, 2025

⁶⁵ Space Travels with Sun Ra - Exploring Afrofuturism in Jazz and Collage, 2025

⁶⁶ Tag The Picture, acc. Jun 2026

⁶⁷ Ziku, M., & Fabos, B. (2022). Digital Community Heritage and Open Access (CC Open Culture Working Group Digital Community Heritage). Creative Commons. DOI (<https://doi.org/10.21428/9eb74dbf.0c46e6be>). <https://cc-digital-community-heritage.pubpub.org/pub/report>

⁶⁸ For a deeper discussion of the building blocks, see European Commission (2022) Blueprint for the development of transition pathways for industrial ecosystems. <https://ec.europa.eu/docsroom/documents/49407>

The analysis of these building blocks reveals several structural challenges for digital commons in the CCI. In terms of **sustainable competitiveness**, digital commons thrive on collaboration, reuse and innovation across CCIs, but the sector remains exposed to platform concentration, fragmented European markets and dependence on non-European digital and AI infrastructures. This creates difficulties for European creators, cultural organisations and creative SMEs to capture value from their work, particularly when cultural and creative data are reused in AI systems without clear or enforceable licensing or remuneration mechanisms. In relation to this, **regulatory and governance frameworks** are under pressure from the rapid development of generative AI, large-scale use of copyright-protected works, insufficient transparency over training data, and limited operationalisation of text-and-data mining opt-outs. This creates tensions between copyright protection and lawful access to data for innovation.

On the **social dimension**, digital commons support open access, cultural participation, reuse of archival information and the circulation of knowledge, but the extractive tendency of AI companies also raises questions about extraction, cultural diversity, media pluralism, legacy and the public domain. Commons governance must therefore address both institutional actors, such as GLAM organisations and archives, and grassroots communities that contribute to cultural and creative commons. Extractive practices can put the livelihood of creatives at risk – threatening the future of cultural diversity and cultural production.

The **research and innovation** dimension is at the centre of the perceived balancing act between AI innovation and safeguarding of Europe's creative ecosystem. Political decisions related to access and governance of digital commons may well impact the trajectory of Europe's digital innovators for the years to come. Besides these wide-ranging considerations, practical challenges include to the need for technical solutions such as provenance tools, watermarking, transparency mechanisms, automated licensing systems and interoperable data infrastructures, alongside support for responsible uses of AI, 3D digitisation, virtual reality and human-AI co-creation. Infrastructures remain unevenly distributed and require long-term maintenance, interoperability, governance and funding.

Skills-related challenges concern data literacy, AI literacy, legal awareness, digital preservation and the capacity of smaller cultural and creative actors to participate in shared digital infrastructures. Finally, the **investment and funding environment** needs to support more than short-term pilots, with sustained resources for digitisation, standards, maintenance, governance, skills and value-return mechanisms.

Table 2: Policy challenges related to digital commons and CCIs

Building blocks	Description of dimensions	Relation to digital commons and CCIs
Sustainable competitiveness	• Collaboration, networking & cross-sectorality • New business models • Support to start-up & SMEs (including IPR, internationalisation) • Innovation culture & mindset	• Limited collaboration, reuse and innovation across CCIs. • European actors face fragmented markets, platform concentration and dependence on non-European digital and AI infrastructures. • CCIs actors may struggle to capture value when cultural and creative data are reused by large platforms or AI providers. • New models are needed for fair value creation, lawful data access, licensing, remuneration and cross-sector collaboration.
Regulation & governance	• Regulatory barriers to transition & governance model (e.g. partnerships) • Directionality, vision & coordination of ecosystems (incl. multi-level & multi-actor coordination for co-creation & co-design of strategy) • Standardisation • Policy experimentation and reflexivity (including technology foresight)	• Digital commons raise governance challenges around openness, copyright, licensing, remuneration, transparency and enforcement. • Use of copyright-protected works in AI training creates tensions between copyright protection and accessibility of these works enabling further creative potential. • Limited transparency over training data and weak operationalisation of text-and-data mining opt-outs make enforcement difficult. • Fragmented copyright rules and bargaining power imbalances affect creators, rightholders, cultural institutions and AI developers. • Clearer frameworks are needed to support open access while preventing extractive use.

Social dimension	• Social implication of transition (e.g. digitalisation impacting jobs) • Human-centricity of innovation & ethical development • Involvement of end-users • Connection to Just Transition	• Limited access to cultural works, archives, knowledge and creative tools. • Gap in supporting cultural participation, education, reuse and public value. • Ongoing debates on public domain, creative legacy, archives, cultural memory and how artists leave traces for future reuse. • Human-centric governance is needed to support creators, citizens, communities and cultural institutions.
R&I, techniques & technological solutions	• New products, Tools, methods, processes • Interdisciplinary & trans- cross disciplinary • Valorisation of R&I results & uptake of technologies	• AI developers and users require access to data for AI training, RAG and other tasks • Digital commons require technical solutions that support reuse, trust and accountability. • Relevant tools include interoperable data infrastructures, provenance mechanisms, watermarking, transparency tools and automated licensing or contracting systems. • Standards are needed to operationalise text-and-data mining opt-outs. • R&I can support new creative practices through AI, 3D digitisation, virtual reality and human-AI co-creation. • R&I results need to be usable by CCI and smaller actors in real-world cultural and creative applications.
Infrastructures	• Availability & access to specific infrastructures • (Technical) services and support (tools, methods, space etc.)	• Limited or hindered access, preservation, interoperability and reuse of cultural and creative resources. • Infrastructures require long-term maintenance, governance, funding, data quality and technical support. • Uneven access to digital tools is a barrier for smaller and lower-capacity actors. • Dependence on non-European platforms and AI infrastructures remains a key challenge for CCIs.
Skills	• Adequacy of skills in the workforce • Adequacy of curricula and upskilling offer • Soft skills & cultural mindset	• Need for data literacy, AI literacy, legal awareness, digital preservation skills and technical capacity. • SMEs and self-employed workers may face barriers in using data spaces, understanding rights frameworks, applying standards or adopting AI tools. • Upskilling is needed across CCIs, GLAM institutions, archives, grassroots communities and technology actors. • Skills sharing can support more balanced participation in digital commons.
Investment & funding	• Access to funding & financing • Innovation procurement	• Digital commons require investment beyond short-term pilots. • Funding is needed for digitisation, interoperability, data quality, governance, maintenance, skills and technical support. • Actors may lack resources to participate in shared infrastructures or adopt relevant technologies. • Public funding, EU programmes and innovation procurement can support sustainable commons-based infrastructures. • Funding mechanisms can help ensure that public and creative value is not captured mainly by large platforms or AI providers.

Source: ekip

3.3 Stakeholder needs

The needs identified by different stakeholders largely reinforce the challenges previously described. Evidence from recent policy consultations, sectoral initiatives and stakeholder submissions suggests broad agreement **that digital commons require stronger governance, investment, and policy coordination if they are to continue supporting the EU's cultural and creative ecosystem in the context of AI.**

Recent sector initiatives point to the need to strengthen the innovation capacity of European cultural and creative industries while reducing structural dependencies on non-European technologies. The AgoraEU proposal highlights that most European media and creative companies are SMEs requiring support to

develop innovative tools, business models and collaborative innovation ecosystems⁶⁹. Similarly, the 2025 TEMS stakeholder survey identifies structural challenges including the erosion of traditional business models, fragmented digital infrastructures, regulatory asymmetries and financial constraints. Participants emphasise greater interoperability and standardisation, stronger trust and transparency in data governance, enhanced collaboration, stronger negotiating power vis-à-vis dominant global platforms and greater European digital sovereignty⁷⁰.

These priorities are echoed in discussions during the preparatory *ekip* Open Innovation Factory on AI and the Digital Commons⁷¹, where participants from cultural heritage institutions, civil society organisations, and research communities stressed **the need for sustainable digital commons infrastructures, greater institutional agency over cultural collections, clearer governance frameworks for AI and approaches that keep human creativity, cultural diversity and public value at the centre of technological development**.

Stakeholder submissions to the European Commission's consultation on the review of the 2019 Copyright in the Digital Single Market Directive⁷² reinforce these findings⁷³. Creative Commons, Wikimedia Sverige, and Open Knowledge Sweden all argue that **digital commons should be recognised as public-interest infrastructures requiring long-term stewardship, sustainable funding, interoperable standards and governance arrangements that enable continued contribution, maintenance and reuse**. They also warn against the growing enclosure of shared knowledge resources and increasing dependence on proprietary and non-European digital infrastructures, calling instead for stronger European digital sovereignty and more balanced governance of AI ecosystems.

A second recurring theme concerns **access to knowledge and the governance of AI**. The University of Ljubljana, Creative Commons, FESABID Intellectual Property Working Group⁷⁴ and an Italian citizen submission all support maintaining, and in some cases expanding, text and data mining (TDM) exceptions for research, education and cultural heritage institutions. FESABID additionally calls for greater harmonisation of copyright exceptions, while Open Knowledge Sweden advocates improved access to reusable datasets and knowledge resources. At the same time, Creative Commons and FESABID stress the importance of transparency, attribution and accountability throughout AI ecosystems, alongside mechanisms that strengthen creator agency through interoperable rights management tools and clearer governance arrangements.

Finally, **stakeholders identify a number of practical barriers limiting the effective functioning of digital commons**. The University of Ljubljana highlights contractual restrictions and technological protection measures that undermine lawful research, preservation and TDM activities, while FESABID points to restrictive licensing models and proposes stronger EU-level coordination for research and cultural heritage institutions. A somewhat different perspective is offered by Unicorns Lithuania, a business association which focuses on ensuring that governance frameworks remain interoperable, legally certain and proportionate for start-ups and SMEs, advocating common machine-readable rights reservation standards and protection against proprietary gatekeeping mechanisms.

⁶⁹ EUR-Lex, Commission Staff Working Document. Impact Assessment Report, Accompanying the documents, Proposal for a Regulation of the European Parliament and of the Council establishing the 'AgoraEU' programme for the period 2028-2034, and repealing Regulations (EU) 2021/692 and (EU) 2021/818 <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=SWD:2025:550:FIN>

⁷⁰ Trusted European Media Data Space, Survey Results: Understanding Media's Data Needs Across Europe, 2025 <https://tems-dataspaces.eu/survey-results-understanding-medias-data-needs-across-europe/>

⁷¹ Ekip, Open Innovation Factory, AI and the digital commons: perspectives from online collections and archives <https://ekipengine.eu/events/ai-and-the-digital-commons-perspectives-from-online-collections-archives/>

⁷² European Commission, Have Your Say portal, Call for evidence on the targeted initiative for a better copyright environment for European creativity and innovation https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/18173-Targeted-initiative-for-a-better-copyright-environment-for-European-creativity-and-innovation_en

⁷³ The total number of feedback received as part of this consultation was 432. In this paper, 8 were selected via the search engine tools on the Have your Say platform, with the keywords 'Europeana', 'Digital commons' and 'commons'. Out of which 4 selected feedback were submitted by NGOs and the remaining ones by a research institution, a European and a non-EU citizen. In terms of geographical location, 2 submissions came from Sweden, 2 from the United States of America and the remaining ones from Italy, Spain and Slovenia.

⁷⁴ Spanish Federation of Archival Societies - Federación Española de Sociedades de Archivística

Overall, stakeholder perspectives converge around a common set of priorities: **sustainable investment in commons-based infrastructures; fair and transparent governance of cultural data; open and legally certain access for research and innovation; stronger creator agency; interoperable governance frameworks; and reduced dependence on dominant proprietary platforms.**

4 Support measures

4.1 EU programmes

EU support for digital commons and the CCIs is spread across several policy and funding areas. The most relevant initiatives concern data spaces, cultural heritage infrastructures, collaborative research and innovation, digital infrastructure consortia, and sector-specific support for media and creative industries.

Common European Data spaces

A key area of EU action is the development of **Common European Data Spaces**⁷⁵, including for cultural heritage and media. The **2021 Commission Recommendation**⁷⁶ on a common European data space for cultural heritage aims to accelerate the digital transformation of the cultural heritage sector and support innovation, creativity and economic growth in the cultural and creative industries. The cultural heritage data space is intended to provide high-quality and standardised content that CCIs can reuse to develop new services and products, including in sectors such as video games and film. It also encourages the use of advanced technologies such as 3D, artificial intelligence and virtual reality to support new forms of artistic creation and more immersive digital engagement. 3D digitisation is highlighted as having strong potential for reuse in the creative sectors.

The recommendation also links this agenda to the economic role of CCIs, which, in 2021, contributed 3.95% of EU value added and employed over 8 million people. Advanced digitisation is presented as a way to support innovation, job creation and recovery after the COVID-19 pandemic. Member States are encouraged to promote partnerships between cultural heritage institutions and creative industries, including SMEs, to stimulate data-driven innovation and develop new applications.

Access and reuse are also addressed through copyright, standards and skills. The recommendation points to the need to modernise the copyright framework to facilitate the digitisation and dissemination of works. It also stresses interoperability, including through standardised frameworks such as those used by Europeana, so that data remains findable, accessible, interoperable and reusable. In parallel, it calls for upskilling and reskilling professionals in the sector, so that they can use advanced technologies and manage data effectively.

Additionally, other data spaces are relevant or linked to the CCIs⁷⁷. For example, the **Common European Data Space for Media** is intended to support media companies, including publishers, broadcasters, advertising companies and content creators, in sharing data and developing innovative solutions. It covers news media, audiovisual content, film production and gaming. This data space, also called the **Trusted European Media data Space (TEMS)** is a joint undertaking of 42 organisations representing stakeholders from 12 countries in the cultural and creative sectors. In parallel, the **Common European Data Space for Cultural Heritage** aims to accelerate the digital transformation of the cultural heritage sector and create high-value datasets that can support innovative applications in the cultural and creative sectors. One of its objectives is to support the innovative reuse of digital resources and create economic opportunities for CCIs.

⁷⁵ European Commission, Common European data spaces <https://digital-strategy.ec.europa.eu/en/policies/data-spaces>

⁷⁶ European Commission, Commission proposes a common European data space for cultural heritage, 2021 <https://digital-strategy.ec.europa.eu/en/news/commission-proposes-common-european-data-space-cultural-heritage>

⁷⁷ European Commission, Staff working document on data spaces, 2022 <https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces>

The **2024 Staff Working Document** further develops this approach⁷⁸. It presents the **Common European cultural heritage data space** as a way to create and reuse digital cultural heritage content, supported by grants to build the capacity of smaller cultural heritage institutions. It also highlights the need to connect the cultural heritage data space with stakeholders in other sectors, including CCIs, education and tourism. The **Common European media data space**, grounded in the Media and Audiovisual Action Plan⁷⁹, is designed to help audiovisual, publishing and journalism organisations benefit from data-driven collaboration. It aims to support these organisations in a market dominated by large online platforms and to encourage the adoption of technologies such as AI and virtual reality. The document also notes that most data spaces, including those for cultural heritage and media, include grants or support actions for SMEs.

The **2025 Data Union Strategy**⁸⁰ continues this direction. It identifies the Media Data Space as a mechanism to support creative industries through AI-driven cultural innovation. It also includes a flagship action to make more than 30 million digitised works from European cultural institutions available for AI development by Q4 2026, building on Europeana. The Strategy also foresees cooperation and licensing between public broadcasters and AI providers to make audiovisual archives accessible for AI training, while taking account of rightholder remuneration. Cultural datasets are described as critical enablers for robust AI models, research breakthroughs and European technological sovereignty. The Strategy also plans to expand data labs to domains such as cultural heritage and to explore a shared platform with international partners for selected high-value public data, including cultural heritage data.

Europeana⁸¹ is a key example of this policy direction. Established in 2010, it brings together digital cultural heritage in the public domain from across the EU to support knowledge sharing, creativity and innovation. It includes a network of GLAM aggregators, such as public museums and galleries, and a European common data space infrastructure that allows cultural heritage assets to be shared with the public. Europeana promotes **broad sharing in the public domain**, including by encouraging institutions not to claim copyright over digitised public domain works. It also supports reuse and remixing through high-quality digital content shared by GLAM institutions where no restrictions apply⁸².

Europeana also supports the digital transformation of the cultural heritage sector by developing expertise, tools and policies, and by encouraging partnerships that foster innovation. Its website gives cultural heritage professionals, teachers, researchers and the wider public access to millions of cultural heritage items from more than 2,000 European providing institutions, including artworks, books, music, videos, newspapers, archaeology, fashion, science and sport. A network of aggregators collects, checks and enriches these items and their related data, including through geo-location, links to associated people, places and topics, and connections to other material or datasets⁸³.

Between January and April 2025, the **TEMS consortium conducted a survey of media organisations** and stakeholders across the EU to ensure that the data space reflects the sector's needs, challenges and ambitions. The survey examined how stakeholders use data, what barriers they face and how they view future data-driven collaboration. The findings confirm the importance of data across the media sector, while also identifying gaps in strategy, resources and governance. Many organisations are experimenting with AI and exploring new data uses, but there are significant differences in technical maturity and readiness. The survey also shows strong interest in the potential value of a **secure European media data space**, particularly for trust, interoperability and collaboration. It also explored business models,

⁷⁸ European Commission, Second staff working document on data spaces, 2024 <https://digital-strategy.ec.europa.eu/en/library/second-staff-working-document-data-spaces>

⁷⁹ European Commission, European Media and Audiovisual Action Plan <https://digital-strategy.ec.europa.eu/en/policies/media-and-audiovisual-action-plan>

⁸⁰ European commission, Communication from the Commission to the European Parliament and the Council, Data Union Strategy, Unlocking Data for AI, 2025 <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52025DC0835>

⁸¹ Europeana, <https://www.europeana.eu/en>

⁸² Europeana pro, The Europeana Public Domain Charter <https://pro.europeana.eu/post/the-europeana-public-domain-charter>

⁸³ Europeana, About us, <https://www.europeana.eu/en/about-us>

compliance needs and governance expectations, inviting respondents to consider their future roles as both data providers and data users.

Horizon Europe

EU funding also supports digital commons and CCIs through research, innovation and digital infrastructure programmes. An ex-ante impact assessment for the European Collaborative Cloud for Cultural Heritage (ECCCH) was carried out between December 2021 and March 2022 by DG RTD⁸⁴. It examined the need for a digital European cultural heritage collaborative space from the perspective of future users, including cultural heritage institutions, researchers, cultural and creative industries and European societies.

The assessment concluded that the ECCCH is highly important for European cultural heritage institutions and societies. **It identified urgent and evolving needs for digital collaborative spaces adapted to the cultural heritage sector.** In response, the EU is increasing investment through the ECCCH and the Common European Data Space for Cultural Heritage, funded under the Digital Europe Programme. Horizon Europe calls in this area are based on the conclusions and recommendations of the expert assessment.

Several Horizon-funded projects show how this support is being put into practice:

- **AMPLIFY**⁸⁵ responds to the difficulty faced by creators and organisations in integrating new technologies while preserving the essence of their craft. The project develops two open-source tools: AMPLIFY PORTABLE for remote collaboration and AMPLIFY IMMERSIVE for enhancing live performances. Both tools are designed to be adaptable across creative sectors and accessible to diverse communities.
- **ELLIE**⁸⁶ brings together technologies such as AI, generative AI, Internet of Senses and digital twins in a virtual immersive environment. The project aims to create a universal platform for CCIs that supports new user experiences, simplifies the development of creative products and helps stakeholders better understand user needs. Its wider objective is to support advanced services and speed up the production of new products.
- **HAMLET**⁸⁷ aims to democratise access to generative AI in European CCIs and make its benefits available to organisations of different sizes. The project combines a digital collaboration platform, the HAMLET Collaborative Community Hub, with seven AI enablers for CCIs. It also explores new business models, including profit-sharing and more equitable distribution of benefits, to lower barriers to AI adoption and support sustainable collaboration and innovation.
- **EXCENTRIC**⁸⁸ supports the digital transition and responsible growth of the CCs and industries. It focuses on the underuse of data in live music, festivals, theatre and museums. The project develops and tests collaborative data practices through sector-specific and cross-sectoral pilots under real working conditions. It co-designs smart data infrastructure and tools with organisations in experience sectors, supporting data-driven innovation in programming, pricing, resource management and audience engagement. It also builds organisational capabilities, data literacy and skills, and will formulate evidence-based policy recommendations for digital transformation based on pilot results.

European Digital Infrastructure Consortia (EDIC)

Another relevant EU level action is the EDIC mechanism which is available to Member States under the Digital Decade Policy Programme 2030 with the aim to simplify and accelerate the setup and implementation of multi-country projects. EDICs allow Member States to jointly develop, deploy and operate **cross-border digital infrastructures** with dedicated governance and legal personality⁸⁹.

⁸⁴ Publications Office of the European Union, Report on a European collaborative cloud for cultural heritage, 2022
<https://data.europa.eu/doi/10.2777/64014>

⁸⁵ <https://amplifyproject.eu/the-project/>

⁸⁶ <https://www.ellieproject.eu/>

⁸⁷ <https://hamlet-project.eu/about/>

⁸⁸ <https://www.excentric-project.com/>

⁸⁹ European Commission, European Digital Infrastructure Consortium - EDIC <https://digital-strategy.ec.europa.eu/en/policies/edic>

The first EDIC established was the **Alliance for Language Technologies EDIC (ALT-EDIC)**. It addresses the scarcity of European language data available for training AI systems. It aims to develop a **common European infrastructure in language technologies**, including large language models for European regional and official languages. Its objectives are to support advanced AI models capable of understanding and generating human-like language, strengthen digital competitiveness, preserve linguistic diversity and promote cultural richness within the EU⁹⁰.

The **Digital Commons EDIC (DC-EDIC)** is also directly relevant⁹¹. Established by Commission decision late 2025, it aims to **build a European community around digital commons** by facilitating access to funding, supporting development and scale-up, enhancing public contributions and participating in digital commons projects. It will act as a one-stop shop for stakeholders such as open-source communities, public administrations and developers, serve as an incubator for strategic digital commons, and accelerate joint projects such as a European digital workplace. Its legal seat is located in Paris and brings together France, Germany, the Netherlands and Italy as founding members, with Belgium, Luxembourg, Slovenia and Poland as observers⁹².

4.2 International and national programmes

At national level, the **Netherlands** provides an example of how Member States are beginning to address the relationship between AI, cultural data and the sustainability of the cultural and creative ecosystem⁹³. In its 2025 advisory report to the Minister of Education, Culture, and Science titled *Advice Artistic over Artificial: Towards a value-driven application of AI for the cultural and creative sector*⁹⁴, the Dutch Council for Culture argues that **AI should be recognised as a cultural technology** because it is trained on cultural data created and curated by artists, cultural institutions and other creative actors. The report calls for a more **value-driven approach to AI development** that reduces dependence on commercial, predominantly non-European technology providers while strengthening public-interest digital infrastructures. Among its recommendations are:

- The **establishment of a national investment programme** "Towards a European AI Culture" to support public alternatives for AI in collaboration with the cultural sector, government and industry,
- The appointment of a **Government Commissioner for AI**,
- The creation of a **societal task force on AI and culture**.

The report also proposes new mechanisms to ensure that creators and the cultural and creative sector receive fair compensation for the use of cultural data in AI systems, including a **levy** on providers of generative AI.

The Netherlands hosts the **Godot Foundation**⁹⁵, the non-profit organisation that supports the development and long-term sustainability of **Godot Engine**, a free and open-source game development platform⁹⁶. Godot provides a complete environment for creating 2D and 3D interactive applications and games, and is used by independent developers, studios, educators and learners worldwide. Released under the permissive MIT licence, the engine can be **freely used, modified and redistributed, allowing users to build upon and contribute to its codebase**. As a community-governed digital commons, Godot combines shared technological infrastructure with an open model of collaboration, enabling broad access

⁹⁰ Ibid.

⁹¹ European Commission, Commission to launch Digital Commons EDIC to support sovereign European digital infrastructure and technology <https://digital-strategy.ec.europa.eu/en/news/commission-launch-digital-commons-edic-support-sovereign-european-digital-infrastructure-and>

⁹² European Commission, European Digital Infrastructure Consortium - EDIC <https://digital-strategy.ec.europa.eu/en/policies/edic>

⁹³ Raad voor Cultuur, *Advice: Harness the power of creativity for AI development*, <https://www.raadvoorcultuur.nl/actueel/nieuws/2026/06/29/advies-zet-de-kracht-van-creativiteit-in-voor-ontwikkeling-van-ai>

⁹⁴ Raad voor Cultuur, *Artistic over Artificial. Towards a value-driven application of AI in the cultural and creative sector*. <https://www.raadvoorcultuur.nl/documenten/2026/06/25/kunstzinnig-boven-kunstmatig>

⁹⁵ Godot Foundation, <https://godot.foundation/>

⁹⁶ Godot engine, <https://godotengine.org/fr/>

to game development tools without licensing fees or dependence on proprietary platforms. The Foundation supports the maintenance of the engine, technical infrastructure, educational resources and community activities that help sustain this ecosystem over time.

Another emerging example comes from the cultural heritage sector. Recently, the KB National Library of the Netherlands and the Europeana Foundation published a feasibility study for the **European Books Data Commons** (EBDC), a proposed shared infrastructure that would make millions of digitised public-domain books from European libraries available as high-quality, AI-ready datasets⁹⁷. The initiative is based on the idea that public institutions should play an active role in shaping the data infrastructures underpinning AI systems, rather than leaving access to cultural data to commercial actors alone. Governed by contributing libraries and designed around principles of openness, interoperability and public value, the EBDC would provide **shared processing, storage and distribution infrastructure for multilingual book collections**. The proposal explicitly connects cultural heritage, AI development and digital sovereignty, arguing that library-governed infrastructures can help ensure that European cultural resources remain accessible and reusable while supporting the development of European AI ecosystems.

Germany hosts **Codeberg**, a community-led and non-profit digital platform that **provides open infrastructure for collaborative software development**⁹⁸. Operated by the association Codeberg e.V. in Berlin, the platform offers freely accessible services including code hosting, collaborative project management, website hosting, translation tools and software development infrastructure for free and open-source projects since 2019⁹⁹. Unlike commercial platforms, Codeberg is governed as a community resource and funded through memberships and donations rather than advertising or data monetisation. By providing open, privacy-respecting and collectively governed digital infrastructure, Codeberg shows how digital commons can support innovation, collaboration and digital sovereignty while reducing dependence on proprietary platforms.

The **United Kingdom** provides another example of national investment in digital commons through the **Towards a National Collection (TaNC) programme**¹⁰⁰. Supported by UK Research and Innovation through the Arts and Humanities Research Council (AHRC), the five-year programme aims to create a unified virtual national collection by connecting the digital collections of museums, archives, libraries and galleries across the UK. Rather than focusing on individual institutions, the programme seeks to develop shared digital infrastructures, common technical standards and interoperable collections that enable cross-disciplinary research, wider public access and new forms of cultural engagement.

Alongside collaborative research and innovation projects, the programme has developed a set of policy recommendations for establishing a long-term UK digital collection as shared public infrastructure¹⁰¹. These include **adopting common standards and interoperable frameworks; applying the FAIR** (Findable, Accessible, Interoperable, Reusable) **and CARE** (Collective benefit, Authority to control, Responsibility, and Ethics) **principles for the creation and management of digital collections; investing in digital skills and national technological capacity; promoting open access and coherent rights management through consistent licensing frameworks; strengthening long-term digital preservation and cybersecurity; and supporting experimentation with emerging technologies**, including AI, within appropriate ethical and governance frameworks. The programme also emphasises that digital collections should be accessible to diverse audiences and designed to maximise their cultural, social and economic value.

By reducing fragmentation between collections and promoting shared infrastructures, standards and open reuse, these recommendations seek to improve access to high-quality cultural resources for

⁹⁷ KB National library of the Netherlands and Europeana. (2026). Feasibility study European Books Data Commons, <https://www.kb.nl/en/feasibility-study-european-books-data-commons>

⁹⁸ Codeberg, <https://codeberg.org/>

⁹⁹ EU Alternatives, Codeberg, <https://europealternative.com/product/codeberg/>

¹⁰⁰ Towards a national collection, <https://www.nationalcollection.org.uk/>

¹⁰¹ Bailey, R., Pereda, J., Michaels, C. & Callahan, T. (2024). Unlocking the Potential of Digital Collections. A call to action. Towards a National Collection. <https://doi.org/10.5281/zenodo.13838916>

research, education and creative production. At the same time, the programme recognises that well-curated and ethically governed cultural heritage data can contribute to trustworthy AI development, while supporting innovation, cross-sector collaboration and the long-term sustainability of digital cultural heritage as a shared public resource.

The **British Library** provides a further example of digital commons-oriented infrastructure¹⁰². As the United Kingdom's national library, it maintains one of the world's largest collections, comprising more than 170 million items across diverse formats, including books, newspapers, maps, manuscripts, sound recordings, photographs and digital publications. Through its digital collections and online catalogues, the Library makes a substantial share of these resources discoverable and accessible to researchers, educators, creative practitioners and the wider public. In addition to digitised manuscripts and archives, the Library hosts a range of openly accessible digital resources, including the Endangered Archives Programme and the British National Bibliography as linked open data. By investing in digitisation, long-term preservation, interoperable catalogues and open access to cultural and research materials, the British Library contributes to the development of **shared knowledge infrastructure that supports research, education, cultural participation and the reuse and safeguard of cultural heritage resources across sectors**.

Internationally, the **Cultural Memory Lab**, led by TechSoup in partnership with Gray Area and the Filecoin Foundation for the Decentralized Web (FFDW), provides an example of how decentralised web technologies can support the long-term sustainability of cultural and creative digital commons. The initiative brings together GLAM, artists, archivists and community organisations to explore how decentralised storage technologies, including IPFS and Filecoin, can strengthen the preservation, accessibility and governance of digital cultural heritage.

Through a combination of microgrants of up to \$5,000, technical assistance, community-controlled infrastructure and regional support networks focused on peer-learning, participating organisations developed practical prototypes for community-led digital preservation¹⁰³. Selected projects ranged from archives documenting Black queer history and Indigenous knowledge systems to repositories preserving accessibility technologies and records of democratic movements¹⁰⁴. Beyond technical experimentation, the initiative emphasises community ownership, digital sovereignty and ethical governance, enabling participating organisations to retain control over their cultural assets while making them more resilient to technological obsolescence, institutional fragility and censorship.

The experience of the Cultural Memory Lab also generated a number of practical recommendations for scaling the adoption of decentralised infrastructures within the cultural heritage sector¹⁰⁵. Rather than focusing solely on technology, the programme highlights the **importance of sustained capacity building through structured cohorts, peer learning and expert mentorship, recognising that successful implementation depends as much on communities of practice as on technical tools**. It also recommends **developing trusted support networks linking GLAM organisations with decentralised web experts, expanding guide-led learning cohorts, creating open libraries of reusable workflows, metadata standards and accessibility guidance, and sustaining long-term ecosystems of facilitators and practitioners**.

5 Future trends

As part of *ekip's* research on the scope of digital commons as civic infrastructure for the CCIs, a social listening exercise has been conducted to collect and analyse ongoing social media discussions and exchanges concerning the topic (on platforms including YouTube, Instagram, and Reddit). The future of

¹⁰² British Library, <https://www.bl.uk/collection>

¹⁰³ Bicket, B. Medium, Digital Preservation for All: Building Trust Networks for Cultural Memory, December 16, 2020, available at: <https://techsoup.medium.com/digital-preservation-for-all-building-trust-networks-for-cultural-memory-8d64f2dcdb58>

¹⁰⁴ Gray Area, Cultural Memory Lab with TechSoup and Filecoin Foundation for the Decentralized Web, available at <https://grayarea.org/initiative/cultural-memory-lab/>

¹⁰⁵ Accelerating Makers, Preserving Memory on the Decentralized Web: Stories from the Cultural Memory Lab, October 7, 2025 available at: <https://acceleratingmakers.publicgoodapthouse.org/blog/blog-posts/preserving-memory-on-the-decentralized-web-stories-from-the-cultural-memory-lab>

the commons as civic infrastructure is characterised by a shift from viewing digital resources as mere content repositories to seeing them as essential, community-governed assets. The key takeaways from this exercise are the following:

- **From open access to shared stewardship:** There is a growing signal that simple 'openness' is no longer sufficient. The future focuses on shared stewardship, where digital commons are created, used, and cared for by specific communities rather than belonging to a single person or company. This trend analysis reflects an increasing desire to protect open resources from being extracted by Big Tech or used as unpaid training data for generative AI without reciprocity.
- **Digital infrastructure as a power dynamic:** Digital power is moving from visible social platforms to the underlying infrastructure, such as cloud systems, data pipelines, and AI compute power. Creative actors are increasingly recognising that, to ensure their digital future, they must move beyond centralised systems and build sovereign public digital infrastructure. This includes the rise of 'Digital Public Goods' that reduce dependency on global platforms and prioritise European values and collective authorship.
- **Compute as the new divide:** In an AI-driven landscape, computing power is becoming a new form of land or wealth. A critical future trending skill for CCIIs will be navigating how communities can access high-level compute tools without becoming locked into extractive corporate infrastructures. This raises essential questions about who controls the systems that cultural and media visibility depend upon.
- **Translation of cultural value into data systems:** Cultural value is no longer just discussed as a creative output but as something that must be measured, preserved, and reused within digital systems. Digital commons are evolving to make cultural resources, from GLAM to creative platforms, more searchable, inclusive, and visible.
- **Active civic participation and urban innovation:** Participation is evolving from passive consultation to active, distributed governance. Digital tools are enabling citizens and creative communities to:
 - Shape research agendas and contribute to collective knowledge.
 - Influence how digital systems are used in resilient democratic contexts.
 - Community ownership models for local digital infrastructure.
- **The rise of 'small commons' and self-hosting:** Due to a deep mistrust in centralised data control, there is a rising trend toward digital autonomy. Rather than leaving centralised systems entirely, users are carving out "pockets of autonomy" through self-hosted tools, encrypted groups, and community-led servers (such as Mastodon.ART). These smaller, trusted spaces prioritise community norms and direct exchange over algorithmic visibility and ads.

6 Problem statements

Based on the challenges and opportunities identified above, the *ekip* Policy Lab will examine how cultural and creative digital commons can be sustained as civic infrastructure in the context of generative AI, large-scale web scraping, platform concentration and fragile governance models. The policy lab will focus on the conditions needed to preserve openness and reuse, ensure fair reciprocity for creators and institutions, and strengthen the contribution of digital commons to European cultural resilience, digital sovereignty and competitiveness.

Sustaining digital commons through fair governance, stewardship and value creation

Digital commons rely on continued contribution, governance, maintenance, and community stewardship. However, generative AI, large-scale web scraping and platform concentration have increased pressures on these shared resources by enabling the large-scale extraction of cultural and creative content without always ensuring transparency, attribution, reciprocity or fair value return. The challenge is to develop governance models that preserve openness and reuse while creating sustainable conditions for creators, cultural institutions and communities to continue contributing to and maintaining the commons.

Guiding question: How can cultural and creative digital commons remain open and reusable while ensuring fair governance, reciprocity and sustainable value creation for the communities that sustain them?

Strengthening the sustainability and resilience of cultural and creative digital commons as civic infrastructure

Digital commons can function as civic infrastructure that supports cultural participation, preservation, knowledge sharing, creative reuse, and innovation. However, many commons depend on fragmented infrastructures, project-based funding, uneven technical capacity and limited long-term institutional support. Strengthening their resilience requires investment not only in digital resources, but also in governance, maintenance, interoperability, skills and institutional capacity.

Guiding question: How can the EU strengthen the long-term sustainability and resilience of cultural and creative digital commons as civic infrastructure?

Balancing AI innovation with cultural diversity and the the sustainability of European cultural and creative ecosystem

AI innovation increasingly depends on access to high-quality cultural and creative data, while creators, cultural institutions and creative SMEs depend on viable economic models to continue producing, preserving and sharing cultural resources. At the same time, the quality and diversity of AI systems are influenced by the diversity, representativeness and governance of the data on which they are trained. Ensuring broad representation of European languages, cultures, heritage and creative expressions is therefore not only a cultural objective but also a strategic prerequisite for trustworthy and human-centric AI. Current debates around copyright, text and data mining, licensing, transparency and remuneration illustrate the need to balance innovation with the long-term sustainability of Europe's cultural and creative commons, while safeguarding cultural diversity, fair value distribution and public-interest access to cultural resources.

Guiding question: How can policy enable AI innovation while preserving cultural diversity, ensuring fair access to and governance of cultural data, and sustaining the digital commons that underpin the EU cultural and creative ecosystem?

Strengthening European digital sovereignty through cultural and creative digital commons

European cultural and creative sectors increasingly rely on digital infrastructures and AI technologies developed outside the EU. At the same time, digital commons offer opportunities to strengthen public-interest infrastructures, support cultural diversity and reduce dependence on dominant commercial platforms. Realising this potential requires stronger coordination across policies, infrastructures and innovation ecosystems.

Guiding question: How can cultural and creative digital commons contribute to a European digital sovereignty, cultural diversity and strategic resilience while supporting innovation and international competitiveness?