



Report from the French Presidency Europeana Conference

Building the Common European Data Space for cultural heritage
together

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Executive summary

This report presents findings and outcomes of the discussions from the French Presidency Europeana Conference '[Building the Common European Data Space for cultural heritage together](https://pro.europeana.eu/project/europeana-dsi-4)' on 1 March 2022. This digital conference was delivered as part of Europeana DSI-4¹. It was held under the auspices of the French Presidency, in collaboration with the Ministry of Culture of France and the Mobilier National.²

The digital ambitions and priorities of the French Presidency include: laying the foundations for a European industrial data-sharing culture, supporting the creation of European data spaces; keeping up the momentum on the digital decade; accelerating the twin green and digital transitions; and reinforcing Europe's security in the digital age. France hopes to move forward two major pieces of EU legislation on digital protections - the Digital Services Act (DSA) and the Digital Markets Act (DMA) while Paris holds the EU chair.

The Europeana conference involved 330 participants from 43 countries across the sector. The event brought together policymakers from European ministries of culture, the CEDCHE Expert Group, representatives of the European Commission, aggregators, and professionals from cultural heritage institutions. The conference aimed to stimulate reflection and dialogue around the creation of the common European data space for cultural heritage - the needs, the key challenges and the aspirations for achieving it. It aimed to create a basis for collaborative ongoing dialogue among the stakeholders and actors in efforts towards the building of the data space.

The event explored the speakers' and participants' visions for the data space for cultural heritage, its building blocks and how they're interconnected, as well as its aims and desired features. It looked at some of the aspects of the European Commission's recommendation for the creation of the data space and Europe's support instruments and mechanisms. Participants also discussed the process of contributing to the creation of a data space for cultural heritage compared to the current process of contributing to the Europeana Initiative.

The data space aims to make digital content available for access, use and reuse, provide new services and products, and create data for SMEs and startups. For the data space to succeed, a robust infrastructure, high quality data, rules on access and engagement, governance, multilingualism and interoperability are required. The participants envision a

¹ <https://pro.europeana.eu/project/europeana-dsi-4>

² 311 cultural heritage professionals attended the conference. 77 attendees (36%) responded to the satisfaction survey with a satisfaction rate of 82%.

value-driven common European data space for cultural heritage: a safe, democratic, inclusive and reciprocal public digital space. Building a data space is an ambitious vision by definition, but the sector is not starting from scratch. It's building on what has been developed in the past decade by the Europeana Initiative. However, building on what exists does not imply that it will be an easy task; transforming the current infrastructure into a data space will be challenging. The participants acknowledged that the building of the data space will be a work in progress for some years before getting fully functional. The participants agreed all actors and stakeholders need to work collaboratively in the same direction for the success of the data space. It requires the entire sector to be both invested and active, and to embrace the contribution of other sectors and the public. The added value that the data space for cultural heritage can bring to other data spaces is in sharing best practices, models, standards and frameworks as well as sharing the data.

Some of the most important elements for the development of the data space were considered to be: a robust technical and technological infrastructure, interoperability, connection to other data spaces, multilingualism, 3D, long-term digital preservation, data quantity and quality, bridging gaps in capacity and funding, aggregation and aggregator communities.

Some of the challenges ahead were identified to be:

- Data quality constantly evolves and criteria become obsolete
- Standards and technologies around data aggregation and sharing evolve and impact infrastructures and data quality
- National strategies go in different directions, aren't harmonised and in some cases lack alignment with the vision for the data space
- Multilingualism
- Lack or shortage of resources

Some of the needs:

- Shared understanding and vision
 - A shared understanding of requirements and rules for participation and engagement
 - Motivation of cultural heritage institutions
- Policies
 - Harmonisation and alignment of approaches for European, national and local policies
- Collaboration and community
 - Synergies among stakeholders and actors
 - Cross-sector synergies
 - Community collaboration
 - Community-driven and human-centred approaches
 - Multi-country initiatives towards specific goals
 - Rules and principles for participation and engagement

- Support in access to funding streams
- Standards and frameworks
 - Higher compatibility in standards
 - Expanding the current frameworks
 - Definition of heritage at risk
- Technology and infrastructure
 - European cloud and edge services for cultural heritage
 - Technologies and automated approaches to scale
 - 3D
 - Interoperability
 - Long-term digital preservation
- Data governance and aggregation
 - Aggregators community
 - Ownership and copyright
 - Data quality

For this report, we summarised, condensed and simplified notes and transcripts of the keynote, roundtable and panel discussions held in March 2022. The summary stays loyal and honest to what emerged from the discussions, but some reorganisation and synthesis has been applied to encapsulate the ideas that stood out so that they become useful concepts for further discussion.

There are no ‘final conclusions’. We consider this report to be the basic findings that all stakeholders and actors can continue to work with to develop new insights and refine their thinking as the work on designing and building the data space progresses. This event was the first organised after the publication of the Recommendation by the European Commission related to the European Common data space for Cultural Heritage. This Presidency conference set the scene for the transformation of the Europeana Initiative and initiated the conversation with relevant stakeholders.

The Europeana Initiative will continue to facilitate conversations on a common European data space for cultural heritage, building on the outcomes of this meeting. Together with stakeholders and members of the Europeana Aggregators’ Forum and Europeana Network Association, the Europeana Foundation will explore what was missing from the conversation and where the Europeana Initiative can be most effective, and support the development of the data space.

The most important outcome of this conference was the call for unity and action. Only if all actors and stakeholders work together collaboratively, can we ensure the success of the common European data space for cultural heritage.

Background

The notion of data spaces is based on Europe's ambition for the digital decade and its data strategy supported by the Digital Europe Programme. The vision for the common data space for cultural heritage is outlined in *Digital Europe Work Programme 2021-2023* released in November 2021, and in the European Commission's *Recommendation of 10.11.2021 on a common European data space for cultural heritage*³.

Highlights from the conference

The conference addressed a variety of topics: the vision for creation of the common European data space for cultural heritage, and the aims, needs, challenges and aspirations for achieving it. It also looked at the building blocks and the desired features of the data space. The role of aggregation in the process of building the data space was also explored both at strategic level and operational level.

Below are some highlights from the discussions on the definition of the data space, the EC's *Recommendation of 10.11.2021 on a common European data space for cultural heritage*, aims of the data space, and its key players:

What is a common European data space?

Participants described a data space as a federated ecosystem that connects data owners to data users through intermediaries, facilitating data pooling and data sharing to foster reuse. A data space is a combination of infrastructure, high quality data, rules on access and engagement, governance, multilingualism and interoperability features. Data spaces aim to harness the value of data for the benefit of the European society and economy. In a data space, the data flows between different actors, translated and reused within and beyond the data space.

European Commission's Recommendation of 10.11.2021 on a common European data space for cultural heritage

In November 2021, the European Commission published the recommendation that set ambitious and specific targets for the data space for cultural heritage. The recommendation is a framework that gives direction and sets targets to accelerate

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<https://digital-strategy.ec.europa.eu/en/news/commission-proposes-common-european-data-space-cultural-heritage>

the digital transformation of the cultural sector. It addresses specific identified issues and sets specific measurable targets on digitisation, digital skills and content usability. It is up to the Member States and institutions to digitise, preserve and make their content accessible, usable and reusable. Culture and heritage are a competence of the Member States, therefore the set targets are encouraged but are not binding. To meet these targets, the sector needs to seize the opportunities brought by advanced technologies such as AI and immersive experiences to provide access to culture for today's citizens and to preserve our heritage for future generations. With the promising development of technologies and sophisticated automated digitisation systems in play, the set targets are hoped to be met by 2030. Member States are invited to define a national digital strategy that would contribute to engage all relevant stakeholders, facilitate and organise the data sharing to the data space and then meet the defined targets.

Aims of the data space for cultural heritage

- Making digital content available for access, use and reuse
- Providing new services and products
- Creation of data for SMEs and startups

To achieve these aims, the following is required:

- Interoperability within and between data spaces
- Connection to other sectors that use culture (tourism, education, media, creative industry)

Key stakeholders and actors come together to create the data space for cultural heritage

The Europeana Network Association and Europeana Aggregators' Forum, the cultural heritage sector as content providers, Member States, the European Commission, and users (specifically the small medium enterprises - SMEs) are the key actors and stakeholders.

The speakers and participants envisioned the data space for cultural heritage as being:

A value-driven common European data space for cultural heritage

The societal contribution of cultural heritage is unique. The key principles of solidarity, inclusion and participation are rooted in our shared values, common history and heritage. It is widely recognised - in many policy documents and in the very foundations of Europeana - that the value of our cultural heritage is realised in its use. The Recommendation highlights the key role of cultural heritage institutions to build European identity based on common values and shared history. The data space is a technological framework that still recognises the unique contribution of cultural heritage and the importance of a human-centric approach. It is not only digitising and preserving but also using and reusing culture and heritage.

A value-driven vision

The data space should be rich in data and values: welcoming, inclusive and sustainable. The data space should be a safe, democratic, diverse and reciprocal public digital space to which all actors can contribute and from which everyone can benefit.

The conference highlighted some of the EU support instruments and mechanisms:

Funding

- The Digital Europe Programme funds the building blocks that facilitate the deployment of the data space. DEP will support both the vertical architecture (data spaces by sector) and horizontal layers (machine translation, machine learning, AI, common tools and standards and smart solutions for all sectors)
- Recovery and Resilience Facility
- Funding programmes such as European Regional Development Fund, and funding opportunities in research innovation

Support mechanisms

- The Competence Centre for the Conservation of Cultural Heritage, run by 4CH⁴
- A Data Spaces Support Centre⁵ ensures development of data spaces in an efficient and coordinated manner

Policy framework

- *Recommendation of 10.11.2021 on a common European data space for cultural heritage* and guidelines⁶ for a harmonised approach and recommended categories for digitisation.

Bridging gaps in capacity and funding to support sector-wide progress

The Recovery and Resilience Facility is an unprecedented financial boost to the European economy and society. The Commission has encouraged the Member States to invest in cultural heritage in their national Recovery and Resilience plans including digitisation. The Member States decide where and how much to invest. The variety in national priorities influences the national targets and investment

⁴ <https://www.4ch-project.eu/>

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<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/digital-2021-cloud-ai-01-suppcentre>

⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021H1970>

plans. It's important to have a good overview and understanding of where the gaps are to address them.

Competence Centre

The Competence Centre for preservation and conservation of monuments and sites will be established in 2024. At European level, there are training, 3D, and risk assessment units within the competence centre. The national competence or coordination centre is an interface between the European competence centre and national institutions. Each country has a different approach to governance of the cultural heritage sector. This requires profiling of countries and institutions.

Other key highlights from the speeches and discussions:

Building a data space is no easy task, it's a work in progress

The data space is an ambitious vision and it is so by definition. For it to succeed it needs a vision, resources, dedication and commitment of all actors. It requires the sector to be invested and active. Only united can the sector build a truly common data space that benefits everyone. The creation of the data space will be an ongoing effort.

Building on Europeana: the cultural heritage data space is not starting from zero

Europeana provides a model for essential building blocks of a data space. It brings a robust infrastructure, well-developed tools and services, 51 million digital items, a data model and a quality tier system for its content and metadata, as well as licensing and publishing frameworks and standards, models for interoperability and APIs. Europeana has a network of 3,300+ cultural heritage professionals and institutions and 40 accredited national and domain aggregators and 8 new aggregators on the way, and not least a governance structure through which policy, politics and sectoral interests are woven into collaborative working processes. Innovative work is already happening in the sector in areas from participation and engagement to data management and semantics and 3, 4 and 5D.

The data space for cultural heritage builds on the Europeana Digital Service Infrastructure (DSI) taking advantage of 3D, AI, immersive reality and other technologies. Europeana already has many of the essential conditions for the data space which will be strengthened to handle the complexity of a data space that links to other data spaces. The data space will have more high quality data, more 3D that allows a variety of uses, and tools for reuse. As it expands towards other types of data, the current standards and frameworks need to be readapted. While Europeana works with open metadata, the data space will include content under copyright - allowing more institutions to share content. This transition from a digital service infrastructure to a common data space will induce an evolution of the existing frameworks regarding standards and licences.

The added value the data space for cultural heritage can bring to other data spaces

Data spaces for media, education, digital skills, creative industries and tourism which are less mature can learn and benefit from Europeana's model in their development. Likewise, the data space for cultural heritage can learn from the development of other data spaces. The European Commission is going to fund a data spaces support centre to ensure development of data spaces in an efficient and coordinated manner.

What's needed for the success of the data space

The speakers and participants discussed some of the key needs for the success of the data space. The sector should strengthen and expand on what already exists, but it also needs to adapt and evolve towards the data space.

Understanding and vision

A shared understanding on participation and engagement

Clarity and a shared understanding among all stakeholders and actors is needed on rules of participation and engagement, and on what is required in order to focus, direct and guide efforts.

Motivation of cultural heritage institutions

Ministries and policymakers make policies and encourage institutions to digitise and contribute to the data space and meet quality targets. It should be clear what digital means to the institutions, how they can participate in the data space and how the Member States can motivate and reward them for contributing to the data space.

Policies

Harmonisation of approaches to national digital strategies and policies

A harmonised approach to digital strategies and national policies is needed, as well as the integration of the data space into day-to-day operation of institutions.

Collaboration and community

Collaboration is key

The challenges cannot be addressed alone. Networks and communities need to be strengthened to support institutions and share expertise and best practices in aggregation, rights, automated technologies, multilinguality, interoperability, 3D, etc.

Synergies between Member States, cultural heritage institutions and aggregators

A good working model of synergies between various actors already exists in the context of Europeana.

Cross-sector collaboration

Likewise, cross-sector collaboration is needed to bridge the media, education, creative industries, tourism and cultural heritage data spaces.

Community collaboration

Networks and communities have to be expanded and nurtured. Europeana has many examples of community-led standards and initiatives.

Community-driven and human-centred approaches where content meets users

The data space should look beyond collections, to users of collections, and bring users into the collections to help foster their meaningful use. Community-driven approaches are needed to bring data together, to make it usable and to connect users to the data.

Multi-country initiatives towards specific goals

A network of infrastructures and institutions can work together despite different needs, capacity and institutional profiles, share expertise and best practices, creating interconnection and interoperability. The Competence Centre and national coordination centres could support multi-country networks.

Funding

Support in relation to funding streams

Funding streams are competitive and require knowledge of how they work. Smaller institutions need support to access these funding streams.

Standards and frameworks

Higher compatibility in standards

Standards for providing access to content and standards for preservation and reuse are not exactly the same. It takes a lot of effort to create a common framework of compatible standards. High compatibility in standards and common data models, specific standards for preservation, and compatible licensing frameworks in line with national policies are all essential for the success of the data space. The flexibility and ability of standards to adapt as technology evolves are very important.

Defining heritage at risk - from monuments to audiovisual

It is essential to define, categorise and prioritise heritage, monuments and sites at risk. The Competence Centre can support this process. Likewise, audiovisual - a very important asset for the creative industry - is heavily underrepresented and it is at risk.

Technology and infrastructure

European Edge and Cloud⁷ services for cultural heritage

A common cloud platform and edge services are essential not only for data storage but also for data processing (such as automatic structure of metadata and machine translation). This takes time to develop and deploy and the cultural heritage sector is behind in this area. A lot of building blocks of the cloud can be reused in other data spaces but the data spaces are not maturing at the same level.

Technologies and automated approaches to scale

There are few technologies specifically developed for the cultural heritage sector. The data space for cultural heritage needs to embrace technologies from other sectors if it is to make progress.

3D: if not ambitious, a vision is only a snapshot

The target for 3D (16 million 3D items by 2030) illustrate the high ambition of the data space, but is it correctly sized and realistically achievable? A multi-scale approach is needed to define the scope, the usage and desired quality of the 3D assets. A sophisticated 3D model is needed for the reconstruction of a monument but a simpler model can do for tourism or for video games. Many of the currently available 3D items are reusable and should be harvested and added to the data space. A public infrastructure is needed in addition to proprietary solutions to exploit 3D content. Clarity and shared understanding of what is needed can direct, optimise and guide 3D digitisation efforts.

Interoperability

The *Data Act Proposal* published by the European Commission in February 2022 underlines the importance of the development of interoperability standards for data reuse between sectors with the aim of removing barriers for data sharing across common data spaces. To meet the FAIR principles and then make data findable, accessible, interoperable and reusable across sectors and countries, semantic platforms are a viable solution.

Long-term digital preservation

Long-term digital preservation is a process, not a storage system. The complexity and challenges of long-term digital preservation are widely underestimated or there is

⁷ <https://digital-strategy.ec.europa.eu/en/policies/cloud-alliance>

little awareness around them. Europeana and the aggregators focus more on digital access and less on long-term digital preservation. Long-term digital preservation should be phased in the data space in a consistent and systematic way. The recommendation states that digital preservation has to go hand in hand with digitisation and the European Commission's e-archiving service provides some tools and standards for that.

Data governance and aggregation

The importance of aggregation and the aggregators' community to building the data space

Aggregation and the aggregators' community are vital to provide and improve data and to develop standards for that, but they will also bring forth the technological expertise to support the interoperable reuse of data with other data spaces. They share experience in building and working with communities and nurturing a sense of belonging, pride and ambition within the community. Aggregation connects collections, heritage and languages, providing narrative and context. Looking at data from the aggregation viewpoint brings new perspectives to the discussion.

Ownership and copyright in the data space

The data space is about access and reuse, not ownership. The Member States will identify the initiatives at local, regional and national levels that can be brought to the data space and make them available for sharing and reusing. However, institutions have concerns over ownership and copyright in the data space. Rules and conditions and ways to integrate in-copyright content in the data space are needed. For example, metadata records without images or high quality images do not fit in the data space. For such data, not having an online presence is as if they don't exist. The entire value chain has to be considered in the design and build of the data space.

Data quality

How data is going to be used has implications for the quality levels required. In order to know the type of quality needed, it is important to understand the types of use that are anticipated.

The challenges

Besides the needs noted above, a number of challenges emerged from the discussions:

Tier 4 of today is tier 0 of tomorrow

Data quality constantly evolves and criteria become obsolete. While there is still a lot to digitise, the quality of material digitised a decade ago is not good enough for the data space of today. The metadata can be enriched but the quality of the material cannot be improved.

Data aggregation and sharing

The quality of data and metadata is a big challenge. There is a huge amount of data to digitise, improve and aggregate, and there is a shortage of resources and lack of agility.

National strategies do not go always in the same direction

National strategies vary and are not easily brought in alignment with the European Commission's vision and approach for the data space. In some Member States (e.g. France), digitisation is decentralised i.e. the regions determine their priorities and allocate funding.

Multilingualism

If metadata and content is not multilingual, the data space cannot meet its full purpose. Without multilingualism, interoperability, discoverability and reusability would be limited.

Lack or shortage of resources

Implementing the recommendation and delivering towards the goals of an ambitious data space requires resources with huge commitment from the Member States. Only 14 Member States have reportedly included culture in their National Recovery and Resilience Plans with huge imbalances. Funds available at national and EU level need optimisation. The sustainability of these funding mechanisms is also key for the success of the data space.

Call for unity and action

Only if all actors and stakeholders work together, can we bring out the richness of our heritage so that it can be accessed and used. This should be our common goal, all moving in the same direction. A collective and collaborative effort is needed not only across the sector but also across all actors and stakeholders, embracing the contribution of other sectors and the public.

Next steps

This conference was conceived to be part of Europeana's efforts to support collective reflection on how the sector can work collaboratively to build and develop the data space for cultural heritage. In broad outlines, the Europeana Initiative will continue to facilitate conversations on a common European data space for cultural heritage, building on the

outcomes of this meeting. Together with stakeholders and members of the Europeana Aggregators' Forum and Europeana Network Association, the Europeana Foundation will explore what was missing from the conversations and where the Europeana Initiative can be most effective, and support the development of the data space.

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Europeana Foundation

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