

# CNECT/LUX/2021/OP/0070 Deployment of a common European data space for cultural heritage

#### PM. Implementation plan M12

Revision	1.4
Date of submission	31 August 2023
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Dissemination Level	Public

#### REVISION HISTORY AND STATEMENT OF ORIGINALITY

#### **Revision History**

No.	Date	Author	Organisation	Description
1.0	31-08-2023	Management team and Julia Schellenberg	Europeana Foundation	Final draft
1.1	07-11-2023	Management team, other contributors, and Julia Schellenberg	Europeana Foundation	Updates based on comments after annual review meeting
1.2	30-11-2023	Management team, other contributors, and Julia Schellenberg	Europeana Foundation	Updates based on EC comments
1.3	06-12-2023	Management team and Julia Schellenberg	Europeana Foundation	Updates based on EC comments
1.4	07-12-2023	Management team and Julia Schellenberg	Europeana Foundation	Updates based on EC comments

The common European data space for cultural heritage is an initiative of the European Union, funded by the European Union's Digital Europe Programme. It is deployed by a consortium led by the Europeana Foundation, under a service contract with the European Commission, contract number LC-01901432.

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#### **TABLE OF CONTENTS**

Abbreviations	4
Introduction	5
Work package 1: Development and operation of the data space infrastructure	7
Task 1.1. Provide reliable data space infrastructure and quality of services	7
Task 1.2. Foster innovation, interoperability and compliance with other data spaces	15
Work package 2: Integration of high-quality data	20
Task 2.1. Develop and manage data governance mechanisms	20
Task 2.2. Data acquisition and data improvements	24
Task 2.3. Automated approaches towards data quality	32
Work package 3: Capacity building and fostering reuse	34
Task 3.1. Enhance cooperation throughout the data space	34
Task 3.2. Identify needs of user groups	41
Task 3.3. Build awareness and engagement	45
Task 3.4. Develop capacity building as a service	51
Task 3.5. Facilitate the provision of high quality data	53
Task 3.6. Facilitate the reuse of high quality data	59
Work package 4: Digital services for the public	67
Task 4.1. Deliver high-performing Europeana website	67
Task 4.2. Engage audiences with digital cultural heritage	75
Work package 5: Programme management	81
Task 5.1. Ensure continuous progress monitoring and reporting	81
Task 5.2. Governance	82
Task 5.3. Manage relations with other EU-funded projects	83
Task 5.4. Phasing-in and phasing-out periods	84
Annex 1: Overview of performance indicators	85
Annex 2: Overview of deliverables	96
Annex 3: Balance of efforts	99
Annex 4: EU-funded projects' integration overview	100
Annex 5: Risk log	105

#### **Abbreviations**

#### **Consortium participants**

EF Europeana Foundation, The Netherlands (Coordinator)

AIT Graz AIT Angewandte Informationstechnik Forschungsgesellschaft mbH, Austria

AIT Vienna AIT Austrian Institute of Technology GmbH, Austria
APEF Archives Portal Europe Foundation, The Netherlands

CAPG Capgemini Nederland BV, The Netherlands

CARARE Connecting Archaeology and Architecture in Europe, Ireland

DARIAH Digital Research Infrastructure for the Arts and Humanities, France

DATO Datoptron P.C., Greece

DFF Deutsches Filminstitut & Filmmuseum e.V., Germany

EFHA European Fashion Heritage Association, Italy

EUN Partnership AISBL, Belgium

EuroClio European Association of History Educators, The Netherlands

F&F Facts & Files Digital Services GmbH, Germany

INCEPTION Inception s.r.l, Italy

MCA Michael Culture AISBL, Belgium

NISV Stichting Nederlands Instituut voor Beeld en Geluid, The Netherlands
Photocons International Consortium for Photographic Heritage Photoconsortium, Italy
PSNC Instytut Chemii Bioorganicznej Polskiej Akademii Nauk - Poznańskie Centrum

Superkomputerowo-Sieciowe, Poland

TMO Time Machine Organisation, Austria

#### Other

Al Artificial Intelligence

CHIs Cultural Heritage Institutions

CEDCHE Common European Data Space for Cultural Heritage Expert Group

DS AGG Data space aggregators

EAF Europeana Aggregators' Forum

EDM Europeana Data Model

EIF Europeana Impact Framework
ELF Europeana Licensing Framework
ENA Europeana Network Association
EPF Europeana Publishing Framework

GS Generic Services

IIIF International Image Interoperability Framework

Please see <u>glossary available on Europeana Pro</u> for more formal definitions of terms used frequently.

#### Introduction

The common European data space for cultural heritage is an initiative of the European Union and funded under the <u>European Union's Digital Europe programme</u>. The service is provided by a consortium of 19 partners (Europeana DS Consortium), coordinated by the Europeana Foundation (EF). This plan contains implementation outcomes for Y2 (1 Sep 2023 - 31 Aug 2024) of the service based on the awarded tender (Deployment of a common European data space for cultural heritage - CNECT/LUX/2021/OP/0070). The tender was developed in line with the tender specifications and the <u>Europeana 2020-2025 strategy</u>. As we enter the second year of deployment, we will continue to evolve from a digital service infrastructure to a thriving data space for cultural heritage that will benefit a wider variety of participants and communities.

Most efforts will ultimately benefit cultural heritage institutions (CHIs) and their professionals. The Europeana DS consortium will collaborate with the wider sector to innovate products and services and offer new and existing partners guidance and training to learn about data sharing and data quality (WP2 and WP3), supported by a solid technical infrastructure for data sharing (WP1). Finally, we will provide attractive products and activities for reuse audiences while putting increased effort on engaging and supporting CHIs to showcase their data to wider audiences (WP4).

We will extend products and services supporting the data space for cultural heritage. More specifically, we will focus on reviewing and extending our data sharing and data governance strategies as part of a more decentralised and sovereign data ecosystem. Specific activities will involve the development of scenarios for more decentralised aggregations and the collection of examples of new types of data that could be shared with the data space (Task 1.2). We will also continue to develop a data space brand which is consistent with the well-established Europeana Initiative brand (Task 3.3.)

In this envisioned expansion of the data space, we will support technical innovation and will put 3D and multilingualism at centre stage across our activities. We will streamline 3D in our core products and service offering (Task 2.2), supported by the Twin it! campaign in order to accelerate 3D digitisation across the sector (Task 3.1). To facilitate multilingualism in our service offering, we will focus on the technical foundations of multilingual search, i.e. the Translation 'broker' API, which will be extended and optimised, as one of the building blocks preparing the multilingual search for application in other portals than the Spanish one going forward (Task 1.3).

We will integrate different kinds of data and in higher quality. To support this activity, we continue to work towards making data provision more easy and rewarding for CHIs PM. Implementation plan M12

by further developing and extending the Metis Sandbox, its API and its different data quality reporting features as well as the Welcome Pack (Task 2.2). We will promote these valuable tools to our professional audiences and we will build training around this offer to increase its use (Task 3.5).

While we continue to engage audiences and users so they can access and reuse digital cultural heritage items from across Europe, we will reinforce understanding around the data space, and opportunities to contribute to and benefit from it. For instance, we will further develop and diversify our user engagement activities in education and research and explore XR/VR opportunities, for example as part of Built with Bits 3 (Task 3.6)

We will continue enhancing cooperation and alignment both within the common European data space for cultural heritage and with other data spaces (Task 3.4 and Task 3.5). For instance, we will develop a strategy, with the involvement of the CEDCHE representatives, to actively engage EU Member States in the development of the data space, in line with the Commission's Recommendations of 2021, and start Country Group activities coordinated through the Europeana Initiative (Task 3.1). Ultimately, we will aim to make the data space broader and more inclusive. We will also continue to develop the data space brand, consistently with the well-established brand of the Europeana Initiative that is in charge of its deployment (Task 3.3.)

A detailed description of the work performed can be found under each Work Package (WP). Each WP will be led by a member of EF staff who is responsible for the resources assigned to the tasks and the delivery of the outcomes as described. All WPs will be coordinated by the EF Programme team, under the jurisdiction of the EF General Director. The Programme team assures proper governance and cohesion of the consortium and its work. All activities are planned in a detailed (product) roadmap, and are reviewed through our change development process. The identified outcomes are indicative of the types of interventions we will take over the next year to add value for stakeholders, partners and audiences. Work is expected to evolve based on how well each of our efforts is contributing to activities and performance indicators.

Performance metrics are listed in <u>Annex 1: Overview of performance indicators</u>. EF will report to the European Commission (EC) on progress and performance via various deliverables listed in <u>Annex 2: Overview of deliverables</u>, and will also report frequently on risks (<u>Annex 5: Risk log</u>). <u>Annex 3: Balance of efforts</u> shows the distribution of efforts foreseen per work package. <u>Annex 4: EU-funded projects' outcomes integration overview</u> lists the outcomes from data space supporting projects that are expected to be delivered and integrated by the end of Y2 (up until August 2024).

# Work package 1: Development and operation of the data space infrastructure

This work package aims to provide a reliable data space infrastructure and quality of service, as well as foster innovation, interoperability and compliance with other data spaces. For this purpose, it will deliver the data space infrastructure according to the tender requirements and to a high level of quality; moreover, it will expand the aggregation infrastructure and services to support the growth of the underlying data repository. The WP will also improve Europeana identifiers towards a persistent and reliable unique identification system for the data space to increase the accessibility, security and resilience of the data repository.

The Europeana DS consortium will continue the further development of the API suite in response to identified users' needs. It will manage and facilitate change development to address changing user needs and strategic priority changes. Finally, the WP will prepare the data space infrastructure to further connect with the overall data space ecosystem and more specifically with the common data space underlying infrastructure.

### Task 1.1. Provide reliable data space infrastructure and quality of services

The infrastructure consists of four digital products: the Europeana website, Europeana Pro website, APIs, and aggregation systems. Underlying all of these products is the infrastructure to host, monitor, and recover systems.

Under this task, the Europeana DS consortium will extend and maintain the overarching platform infrastructure and services (Activity 1.1.1), aggregation systems (Activity 1.1.2), and APIs (Activity 1.1.3). The Europeana website will be further developed as part of WP4: Digital services for the public and the Europeana Pro website as part of WP3: Capacity building and fostering reuse.

EF will deliver the DS. Infrastructure report containing a detailed overview of the infrastructure of the data space, the evolution of its architecture and services as well as quality and use of services.

#### Activity 1.1.1. Extend and maintain platform infrastructure and services

Partner: EF, AIT Vienna

This task will cover work in the following three areas:

- Improve persistent and common identification system for the data space
- Establish new enrichment post-publication pipeline
- Maintain quality of service, data security and disaster recovery

#### <u>Improve persistent and common identification system for the data space</u>

Based on the investigations and the developed implementation in Y1, the Europeana DS consortium will start improving its support for persistent identifiers across three problem spaces:

- Problem space 1: Stability of object identifiers provided by data partners: We will continue our analysis of aggregators and CHIs' practices and level of maturity towards the adoption and management of persistent identifiers. This work will support the development of a first version of a policy on persistent identifiers (Activity 2.1.1.).
  - Problem space 2: Stability of identifiers originated by the aggregation into the data space

We will review the internal mechanisms used at Europeana to generate and maintain persistent identifiers. The activities to be followed will be developed as part of the implementation plan for persistent identifiers <u>developed in Y1</u> which outlines the directions of work planned towards PIDs. The outcome due for Dec 2023 will provide an updated and refined implementation plan based on the outcome delivered in Aug 2023.

• Problem space 3: Stability of identifiers shared with (or reused by) our audiences Reuse activities are currently impacted by records being depublished for a series of valid reasons. We will implement a solution to persistently preserve and publish a version of metadata records even after they have been removed from the main repository.

We will also continue developing the overall implementation plan towards persistent identifiers which will lead to further actions for the coming years.

#### Establish new post publication enrichment pipeline

In Y1, EF developed a first proof of concept focusing on translation of metadata as a use case. Millions of records were translated as a post publication activity. In Y2, we will make the proof of concept ready to be deployed as a production service and continue

to use it to apply translations as a post-publication activity to newly published and updated metadata records. In parallel, we will investigate and implement options for improving the performance and scalability of enrichment services for mass processing so that a high number of enrichments can be considered for post publication.

#### Maintain quality of service, data security and disaster recovery

The Europeana DS consortium will maintain the infrastructure underlying the data space and develop the mechanisms to ensure its high performance and reliability. EF will upgrade the logging infrastructure so it allows the scaling of activities around search logs.

The migration of the core infrastructure to a new hosting environment being completed, EF will establish a permanent failover environment to ensure continuous platform reliability. EF will continue to perform routine and ongoing tasks, such as the regular reindexing of Solr (search index) and Mongo (metadata storage), as well as patching and upgrading components of the platform and supporting infrastructure. Specific attention will be given to the environmental impact of the infrastructure and a regular inventory of servers and databases will be performed to make sure all resources are used in an efficient manner.

EF, PSNC and AIT Vienna will improve the performance and security tests procedures and maintain the current hosting infrastructure. Technical documentation will be updated to cover the set-up, configuration and monitoring of the platform (DS. Technical documentation). EF will also improve disaster recovery procedures (DS. Disaster recovery) and report on stress testing (DS. Stress test reports).

EF will maintain the accessibility to its websites, specifically the Europeana website and Europeana Pro in compliance with terms from the <u>Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies.</u>

We will ensure compliance of our operations with the IDPR by maintaining and updating privacy statements and processes where relevant for our products and services as well as ensuring that the third party tools we rely on are compliant.

Partners	Outcomes	Expected
		due date

EF	Solution for the long-term persistence of metadata records designed	Nov 2023
EF	Implementation plan for the persistence and uniqueness of identifiers in the DS refined	
EF	Report on practices of aggregators towards persistent identifiers completed	Dec 2023
EF	First version of a failover environment in place	Mar 2024
EF	Logging infrastructure upgraded to allow scaling of activities around search logs	Mar 2024
EF	Report on practices of CHIs towards persistent identifiers completed	Jun 2024
EF	Implementation plan for the persistence and uniqueness of identifiers in the DS updated	
EF	Solution for the long-term persistence of metadata records implemented	Jul 2024
EF, AIT Vienna	Post publication pipeline reviewed and made ready for production	Aug 2024
EF	Full disaster recovery test completed <sup>1</sup>	Ongoing
EF	Inventories of Europeana infrastructure and products (incl. servers, databases, licences) reviewed and maintained	Ongoing
EF	Europeana database reprocessing activities completed <sup>2</sup>	Ongoing
EF	Infrastructure supporting products and services are maintained	Ongoing
EF	Compliance with data protection maintained <sup>3</sup>	Ongoing

#### Overview of indicators

KEY PERFORMANCE INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024	

<sup>&</sup>lt;sup>1</sup> This outcome will feed into DS. Stress test reports. <sup>2</sup> Outcomes in other tasks might require a reprocessing activity. The planning will be aligned with those

<sup>&</sup>lt;sup>3</sup> According to the Regulation (EU) 2018/1725 concerning the processing of personal data by the EU institutions (IDPR)

KPI 1.1	Records with identifiers using a recognizable persistent identifier scheme	Total number of records in the data repository (incl. Tier 0)	Annually	11,086,12 1 <sup>4</sup> (Sep 2023)	7 million
KPI 1.2	Response time of Europeana website	Average time (seconds) for single record per month	Monthly	0.94s	1.0s
KPI 1.3	Uptime of Europeana website	Average in % for single record per month	Monthly	99.95%	99.90%
KPI 1.4	Uptime of public APIs (all)	Average in % per month	Monthly	99.98%	99.90%
KPI 1.5	Uptime of Europeana Pro	Average in % per month	Monthly	99.73%	99.90%

#### **REPORTING INDICATORS**

ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 1.1	Europeana website meets the WCAG 2.1 conformance level AA	Homepage and item pages (except for the media) meet the WCAG 2.1 conformance level AA accessibility standard	Annually	AA	-
RM 1.2	Response time of all public APIs <sup>5</sup>	Average response time (seconds) per month	Monthly	0.15	-
RM 1.3	Response time of Europeana Pro	Average response time (seconds) per month	Monthly	0.9	-
RM 1.4	Europeana Pro meets the WCAG 2.1 conformance level AA	Homepage and main landing pages in IA meet the WCAG 2.1 conformance level AA accessibility standard	Annually	AA	-
RM 1.5	Uptime of Metis	Average in % per month	Monthly	100%	-

<sup>&</sup>lt;sup>4</sup> The calculation done in Sep 2023 includes identifiers for which persistence can not be guaranteed. The number of records might change significantly in future calculations (after further investigations and refinements). A more realistic target is set for Y2. During Y2, we aim to stabilise the method to calculate this KPI.

<sup>&</sup>lt;sup>5</sup> Public APIs are the APIs serving external users requests: the Search and Record APIs, the Annotation, User sets and Entity APIs and the IIIF dedicated APIs.

RM 1.8	Environmental impact of data space	Total carbon footprint of Europeana's digital services per calendar year	Annually	NEW	-
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#### **Activity 1.1.2. Extend and maintain aggregation systems and services**

Partners: EF, PSNC, DATO, and DS AGG

EF, PSNC and DATO will continue the developments outlined by the Aggregation strategy to make data aggregation easier and assist providers in increasing the quality of their data. This task will continue to focus on the consolidation of the Metis Sandbox and its integration with aggregators' aggregation infrastructures. These integrations will improve the data publication journey of CHIs and aggregators. More specifically, EF will work with DATO to integrate the Sandbox validation and problem pattern API that was developed in Y1 into the MINT based aggregators' infrastructures. Lessons learned through this activity will be shared with the wider Europeana Aggregators' Forum so aggregators can replicate these efforts within their own infrastructures.

The Europeana DS consortium will continue optimising the core service aggregation infrastructure to increase its availability, performance and scalability. EF and PSNC will focus on making eCloud, the core Metis data storage and processing application, sustainable for the future. For that purpose the data processing framework behind eCloud will be replaced with an adaptable library, based on a more modern alternative framework, that can be used throughout the Metis suite (e.g. in the Sandbox) and beyond. PSNC will work on consolidating the IIIF image service and making it more robust.

Partners	Outcomes	Expected due date
PSNC	New data processing framework for eCloud and the Metis Suite selected	Mar 2024
DATO. DS AGG	Metis Sandbox validation and problem pattern API tested and integrated in MINT based infrastructure	Mar 2024
PSNC	MVP of new data processing library in combination with the Metis Sandbox implemented	Aug 2024
PSNC	IIIF image service consolidated and maintained	Aug 2024

DATO, DS AGG	Metis Sandbox validation and problem pattern API tested by users of the MINT based infrastructure	Aug 2024
EF, PSNC	The Metis applications are maintained and kept up-to-date	Ongoing

#### Overview of indicators

REPO	RTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024	
RM 1.6	Data publication in Metis (full workflow from harvest to successful indexing/publication)	Average time required for data publication (incl. full and incremental processing) (cumulative)	Bi-annually	22.07h <sup>6</sup>	-	
RM 1.9	Integration of the Metis Sandbox API(s) in Aggregator's infrastructures	Total number of aggregators who tested and/or implemented an integration of the Metis Sandbox API(s)	Annually	NEW	>9	

### <u>Activity 1.1.3. Extend and maintain Application Programming Interfaces</u> (APIs)

Partners: EF, AIT Vienna

EF and AIT-Vienna will continue to maintain and support the Europeana APIs. New activities will contribute to an improved and extended experience for API users and consequently to an improved user experience within the Europeana website, more specifically, towards a better and fully multilingual search and exploration experience (Search & Record APIs, translation broker API), personalisation (Recommendations API) and participation (User Set API, Annotations API).

#### Redesign Search & Record APIs

EF will continue to redesign and implement version 3.0 of the Record API to reduce the learning curve for new API customers and thus foster reuse and address the user feedback collected over the years to better align with users' expectations. The redesign is also taking into account performance and usability improvements.

13

<sup>&</sup>lt;sup>6</sup> The time is related to an average dataset consisting of about 31,300 records.

EF will perform a test for the new version of the redesigned Record API with alpha users. The feedback obtained will be taken into account to further improve and refine the new design before its public release.

An initial design of the Search API v3 will be developed focusing solely on searching by dates. This design will be implemented and integrated into v2.

#### Improve recommendation service

Building on a first redesign and reimplementation of the recommendation service, Y2 will focus on investigating solutions for extending the engine to take into account user's preferences (personalisation) and recommendations based on the content (in addition to the metadata). This work will provide the foundations for future improvements to recommendations offered by the Recommendations API.

#### Develop a broker API to external translation services

In Y2, our work will focus on the Translation API as one of the technical foundations for multilingual search which will act as a broker between European products and external translation services. All the optimisations work planned in this activity supports the multilingual search to be applicable to other portals than the Spanish one as well as other digital services (e.g. item metadata translation) (currently in Activity 4.1.4).

At the end of Y2, multilingual features powered by the Search & Record APIs and the Post Publication pipeline will be supported by both Google Cloud Translation and Pangeanic APIs (which were integrated as plugins in Y1). For this purpose, we will focus on the integration of the Translation API into the internal services that already apply automatic translation such as the Search & Record APIs and the Post Publication pipeline.

Additionally, the Tika library and eTranslation DSI will be investigated for language detection and translation respectively, and if successful, will be integrated and made available as alternatives on the Translation API. Finally, other internal services that can benefit from automatic translation will be assessed for integration with the Translation API.

Partners	Outcomes	Expected due date
EF	V3.0 design of the Record API completed	Dec 2023

EF	Internal services using machine translation are integrated with the Translation API	Jan 2024
EF	Search by dates (API implementation) (M-F2)	Feb 2024
EF	Testing of the Record API V3.0 with alpha users completed	Mar 2024
EF	Integration experiments and sharing requirements and data with the eTranslation service completed	Jun 2024
EF	V3.0 of the Record API is released	Aug 2024
EF, AIT Vienna	Translation API is extended and optimised	Aug 2024
EF	Solutions to extend Recommendation Service with personalised and content based recommendations investigated and requirements collected	Aug 2024
EF, AIT Vienna	Europeana APIs are maintained and well performing	Ongoing

### Task 1.2. Foster innovation, interoperability and compliance with other data spaces

Under this task, the Europeana DS consortium will continue to shape the function and purpose of the data space infrastructure to innovate some components of it and to make it interoperable with the data space ecosystem. More specifically, the partners will focus on reviewing the data sharing and exchange mechanisms with a view to expanding the aggregation operational model. We will also identify use cases for the data governance strategy, so that they result in new rules for new operations. Data governance requirements can in turn be articulated and implemented through infrastructure developments if necessary.

Next to further investigations, we will also work on practical implementations using new technologies available to support the exchange of semantic data (Activity 1.2.1). The consortium will map its developments to the Data Space Support Centre (DSSC) blueprint (Activity 1.2.2). The consortium will continue to gather and communicate the needs and requirements of the data space to the DSSC and, reciprocally, follow the Centre's procedures and requirements to ensure seamless and sustainable operation of the data space.

The consortium will keep supporting the EuropeanaTech community as a space for technological innovation, development and sharing of best practices (notably about interoperability) for digital cultural heritage (Activity 1.2.3).

#### Activity 1.2.1. Investigate innovative scenarios for aggregation models

Partners: EF, NISV, DATO, AIT Vienna, DS AGG

In Y2, we will refine and deepen the analysis of the use cases collected in Y1 by the <u>Solid based decentralised aggregation Task Force</u>. The main objectives of this work will be to 1) expand and test the use cases with other stakeholders and 2) to build different aggregation scenarios where services are either centralised or decentralised. We will also look at the role of aggregators as part of these different scenarios using the terminology and definitions provided by the DSSC. This work will support the review of the accreditation scheme (Activity 3.1.2). Lastly, we will collect examples of and develop scenarios for new types of data currently available and not yet shared with the data space. These different outcomes will support the update of the Aggregation Strategy.

These activities will be supported by a new cross Initiative working group on Innovative Operating models which, as a follow-up on the EAF's <u>Decentralised Aggregation Task</u> <u>Force</u>, will continue to investigate the question on how centralised or decentralised the data space should be in order to thrive.

In addition, we will work on two Minimum Viable Product (MVP) solutions looking at broadening the data aggregation methods supported in the Metis Suite - one based on Linked data aggregation and another one on the IIIF Change Discovery API. The recommendations of the ongoing <u>Task Force on Linked Data</u> aggregation will be delivered in the course of Y2 and will be reflected in the activities of this task.

Partners	Outcomes	Expected due date
EF, DS AGG	Examples of new types of data collected and scenarios for their sharing in the data space developed	Dec 2023
EF, DS AGG	Mapping of the current aggregators' role to data space roles according the DSSC completed	Mar 2024
EF, DS AGG Centralised vs decentralised aggregation scenarios delivered		Mar 2024

EF	Identification of data governance strategy use cases on the basis of centralised and decentralised scenarios	Jul 2024
EF, NISV	MVPs for new data aggregation methods implemented	
EF	Updated Aggregation Strategy delivered	Aug 2024

#### **Activity 1.2.2. Synergies with other European data spaces**

Partners: EF, AIT Vienna, NISV, CAPG

The Europeana DS consortium will establish and maintain close collaboration with relevant European, national and regional initiatives and platforms to ensure interoperability within and outside the data space for cultural heritage.

In particular, the consortium will liaise with the Data Space Support Centre (DSSC) to achieve higher levels of standardisation and interoperability with other European data spaces in a progressive, evolutionary manner. The DS consortium will align with the blueprint v0.5 by the Data Spaces Support Center (DSSC) published in October 2023 in order to position all current Europeana data aggregation and data governance approaches against data space 'requirements' or directions, and support the identification of gaps and opportunities for development.

The consortium will follow the developments of other data spaces relevant to the activities developed in this implementation plan namely the Data Space for Tourism, Media and Language (via the eTranslation DSI). The consortium will also follow the development of Simpl – Smart Middleware Platform for Cloud-to-edge Federations and Data Spaces. Lastly, we will investigate collaboration paths with the European Collaborative Cloud for Cultural Heritage.

Partners	Partners Outcomes	
EF, AIT Vienna, NISV, CAPG	Mapping of the Europeana tools and services to the DSSC Blueprint V0.5	Dec 2023
EF, AIT Vienna, NISV, CAPG	Mapping of the Europeana tools and services to the DSSC Blueprint reviewed and updated	Jul 2024

EF	Collaboration with the Data Space Support Center (DSCC), other	Ongoing
	data spaces and related initiatives	

### <u>Activity 1.2.3. Support interoperability and technological innovation for digital cultural heritage</u>

Partners: EF, NISV

The Europeana DS consortium will continue to steer the data spaces' interoperability and innovation agenda, leveraging the established EuropeanaTech community as well as various Working Groups, Committees and Task Forces, contributing to innovation areas across the data space (incl. AI, 3D/VR, IIIF, Linked Data, aggregation and data quality, and datasheets - cf Activity 3.6.2).

We will also maintain the Europeana Data Model (EDM) to the level of coverage and quality that is needed to keep it positioned as a cornerstone for semantic interoperability within the data space for cultural heritage and with other EU data spaces. Under this activity, the consortium will continue its general coordination and support activities contributing to other activities in this plan, from multilingual support to improvement of the EDM to interoperability for 3D content.

The standing Data Quality Committee (established 2017) will support addressing key data quality issues with a particular focus on reuse and discovery of cultural heritage objects (see Activity 2.1.3.).

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF, NISV	EuropeanaTech community is supported	Ongoing
EF	EDM coordinated and documented	Ongoing
EF	Data mapping and conversions with stakeholders is supported	Ongoing
EF	Continuous involvement in IIIF community (e.g. IIIF Executive Committee, Technical Review Committee)	Ongoing

#### Overview of indicators

#### REPORTING INDICATORS

ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 1.7	Reach to EuropeanaTech community	Number of people reached per month (Mailing list, Twitter)	Quarterly	6,685	-

## Work package 2: Integration of high-quality data

This work package aims to contribute to a significant and sustained increase of high quality, usable and accessible data in the data space, with a special focus on 3D. The efforts will contribute to an increase in high quality tiers by at least 10% each year. The consortium aims, to the best of its capacity, for all new data to be in tier 2 for content and tier A for metadata, as defined by the current Europeana Publishing Framework. EF will also work with the cultural heritage community to source high quality data with particular attention to 3D data, and to support their availability through the data space.

To achieve these objectives, the Europeana DS consortium will integrate the requirements needed to implement the <u>EC recommendations and the Digital Europe programme</u> and will collaborate closely with the cultural heritage community, the Member States (in the framework of the CEDCHE) and the European Commission.

The <u>data governance strategy</u> developed in Y1 will be further developed to complement the scenarios and use cases developed in Task 1.2, for example when researching the conditions that govern metadata.

#### Task 2.1. Develop and manage data governance mechanisms

Data in the data space is governed through various organisational tools, principles, processes and standards that are harmonised so that the data is interoperable, manageable, reliable and remains useful in the future. These will progressively evolve to enable new objectives of the data space, stronger safeguards for privacy and data protection, more and varied partners, more decentralised data systems, and opportunities for cooperation with other data spaces (Activity 2.1.1.).

The Europeana Publishing Framework (EPF), the Europeana Data Model (EDM) and the Europeana Licensing Framework (ELF) will be reviewed to accommodate new activities and areas with a focus for better representing 3D (Activity 2.1.2. and Activity 2.1.3).

#### Activity 2.1.1. Identify data governance requirements and objectives

Partners: EF, CAPG and APEF

The <u>data governance strategy</u> developed in Y1 will be further developed to complement the scenarios and use cases developed in Task 1.2, for example when researching the conditions that govern metadata.

EF, with support from CAPG, and noting specifications by the Data Space Support Center (DSSC), will research and identify data governance requirements stemming from legal obligations, from opportunities for cooperation with other data spaces, or from organisational objectives of the data space requiring a shift in data governance.

This work will also encompass reviewing particular elements of the Europeana frameworks, in particular the <u>Europeana Licensing Framework</u> (ELF), through specific use cases identified across work packages, in particular Task 1.2. We will investigate, report on and propose conditions and requirements on how data is governed in the data space, for example in the area of metadata, 3D and persistent and unique identifiers. Those requirements will be progressively articulated in the data governance mechanism going forward. This will ensure a progressively expanding and efficient approach to data governance.

Based on the new conditions and requirements collected in Y2 under Activity 2.1.1, we will outline the types and characteristics of the contracts or other measures through which these requirements can become binding in future cooperation agreements.

Partners	Outcomes	
EF, CAPG, APEF	space completed	
EF, CAPG, APEF		
EF		
EF		
EF, CAPG, APEF	Strategy for data governance maintained and updated	Ongoing

### Activity 2.1.2. Develop and expand data governance frameworks and standards

**Partners:** EF, CARARE, INCEPTION, Photocons

This year the development of frameworks and standards will focus on 3D. In this task, the 3D Working group will continue to review EDM to address requirements raised by the publication of 3D content. In addition, the Working group will continue to survey the existing standards used to describe 3D and ensure interoperability with EDM. EPF aspects towards 3D will be further developed under Activity 2.2.4 and Activity 3.2.1.

EF will continue to extend the EDM data provenance mechanisms to cover needs raised by data governance and data enrichment activities (especially, to handle requirements that may arise from the enrichment policy and projects like De-Bias).

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF, Inception, TMO, Carare, Photocons	Extension of EDM to support 3D (V2) completed	Feb 2024
EF	Provenance mechanism in EDM are refined to accommodate new needs	May 2024
Inception, TMO, Carare, Photocons, EF	Overview of standards and fields used to describe 3D delivered	Jun 2024
Inception, TMO, Carare, Photocons, EF	Interoperability between EDM and models to describe 3D established	Jul 2024

#### Activity 2.1.3. Manage data governance frameworks and standards

Partners: EF, DS AGG

This activity will ensure a coordinated management of the EPF and ELF in line with the management of other Europeana frameworks and standards. EF will continuously review the EPF to identify new areas of development that improve its usefulness and address data quality issues currently not captured in the EPF, for example, related to EDM developments (Activity 2.1.2), 3D usage scenarios (Activity 3.2.1), or problem patterns (Activity 2.2.1). Updated versions of the framework will be published when relevant. An implementation plan for the enrichment policy will be developed to support the operationalisation and implementation of the policy delivered during the

first year of the contract. This work will inform future actions contributing to the further developments of the Europeana frameworks (Activity 2.1.2).

Various working groups bringing together experts and stakeholders will continue to be coordinated or facilitated in order to maintain the ELF and make progress in efforts to define approaches to data governance. For example, EF will coordinate the <u>Data governance stakeholder working group</u> with members from all pillars of the Europeana Initiative and of the DSSC to ensure inclusive decision-making within the data space operations. EF will also contribute to the DSSC's own groups focused on data governance.

Guidelines will be refined to reflect the updates of EDM and the EPF. In this context we will also review the language of our guidelines to make them more accessible for non-technical audiences and promote the benefits of adopting good practices in order to provide high quality data. We will also add guidance on how aggregators and data partners can contribute to the improvement of the Entity Collection, the backbone of the browsing experience within the Europeana website. The transfer of data and publishing knowledge will also be part of training and events for professionals and aggregators (Activity 3.5.1).

Partners	Outcomes	Expected due date
EF	Implementation plan for the enrichment policy established	Jan 2024
EF	Areas for development, gaps & opportunities of EPF services and products identified and specified using the Framework Management Template	
EF, DS AGG	List of metadata and content issues patterns is maintained	Ongoing
EF	Data Quality Committee is supported	Ongoing
EF	Europeana Copyright Community is supported	Ongoing
EF	Continuous support to the Rights Statements Consortium community (e.g. Steering Committee, Statements Working Group)	Ongoing
EF	Data governance stakeholder working group coordinated	Ongoing
EF	Europeana Licensing Framework (ELF) maintained	Ongoing
EF	Guidelines for CHIs and aggregators updated to reflect changes in EDM, EPF and ELF	Ongoing

#### Overview of indicators

REPO	REPORTING INDICATORS				
ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 2.1	Reach to Europeana Copyright community	Number of people reached per month (Mailing list, Twitter)	Quarterly	3,075	-

#### Task 2.2. Data acquisition and data improvements

This task will aim to develop processes and practices to support efficient data acquisitions and data improvements. The Europeana DS consortium will improve the communication mechanism around data quality. Reports and feedback about data quality will be better integrated in the data producers' workflows so that communication about data quality issues can be more productive and directly contribute to a quality increase.

EF and the Europeana DS aggregators will work together to improve the quality of data in key areas directly impacting the digital services made available in the data space, for instance, multilingual accessibility across all services. The consortium will identify opportunities for data cleaning, data conversion or general data quality improvements through clear data quality reports provided by the Metis Suite throughout the data aggregation workflow. EF will proactively contact data aggregators to make sure data issues are solved at source as much as possible.

The data quality increase will be supported by bringing new CHIs into the data space. The consortium will reactivate dormant collaborations with existing aggregators to make new and updated content and metadata available to the data space. Alongside the Twin it! campaign, where Member States are invited to submit one 3D digitised heritage asset to the data space (Activity 3.1.3.), the Europeana DS consortium together with the Europeana Aggregators' Forum will actively seek CHIs which own 3D content to contribute data to the data space.

### <u>Activity 2.2.1. Develop workflows and practices that support efficient data acquisitions and data improvements</u>

Partners: EF, DS AGG

In this activity, EF will improve the mechanisms to communicate and report about data to CHIs and aggregators. The objective is to support them in their digital transformation, equip them to recognise issues in their data and make them clear owners of their data.

EF will review the prioritisation <u>process for managing the data ingestion backlog</u> developed in Y1 with the Europeana Aggregators' Forum and implement key elements into the workflow. As part of this work we expect to make adjustments to how we work with Jira to manage the data ingestion process with all aggregators.

EF will also continue to improve the clarity and usefulness of the different data quality reports provided to aggregators and CHIs about their data during the data aggregation process (e.g. EDM validation, problem patterns, media related issues, broken links). The Metis Sandbox in particular has seen increased usage during Y1 and ongoing work will be done to improve its reporting mechanisms, thus making the use of this application ever more rewarding for a growing group of aggregators and CHIs and providing them with the support they need. The ongoing work on the Metis Sandbox will be promoted to the aggregators during the biannual EAF meetings and particularly during the EAF outreach event in Nov 2023 that is focussed on data aggregation for Europeana (see also activity 3.1.2). Improvements in the reporting mechanism of the broken link detection tool Clio will also be considered.

EF will also continue working together with the Data Quality Committee on the identification and flagging of new content and metadata problem patterns as well as measuring the impact of these patterns on the quality of all data published on the Europeana website. As a follow up to the work on proposing the EPF as a tool to measure enrichment improvements, we will implement a separate metadata tier calculation mechanism for data enriched by Europeana.

EF will keep mitigating requests for materials with personal or sensitive data. Furthermore, EF will continue to maintain and promote the Data Statistics Dashboard.

EF	Separate metadata tier calculation for data enriched by Europeana implemented	Jan 2024
EF	Inventory of Europeana records impacted by selected problem patterns completed	Mar 2024
EF, DS AGG	Key elements of the prioritisation process for managing the data ingestion backlog reviewed and implemented	Apr 2024
EF	Prioritised problem patterns and data quality report improvements in the Metis Suite implemented	Ongoing
EF, DS AGG	Status update on usage and engagement of DS AGG with the Metis Sandbox	Ongoing
EF	Statistics Dashboard maintained and kept up-to-date	Ongoing
EF	Materials with personal or sensitive data mitigated upon request	Ongoing

### Activity 2.2.2. Raise the quality and access to existing content and metadata

Partners: EF, DATO, DS AGG

A list of data quality issues common or specific to each Europeana DS aggregator and a selection of issues will be defined as part of the aggregators' work plans. The plans indicate how each aggregator plans to contribute to data quality goals and tier improvements. The plans are reviewed, refined and updated at least once per year to reflect progress made and new opportunities for quality improvements. EF and the DS aggregators will work with other aggregators from the Europeana Aggregators' Forum and data partners (including as part of other projects) to improve their data, publish new high quality data and source high-value datasets. More specifically, this activity will include work to:

- Improve metadata and content to reach tier 2+ and tier A+. This includes the provision of language information for metadata to fill the gaps identified in the Europeana Publishing Framework and other metrics on multilingual data (Activity 4.1.4). This work will be done by EF and all Europeana DS aggregators in close collaboration with the Europeana Aggregators' Forum.
- Raise the quality of media links in the repository (i.e. address broken links, update media links to have https URLs).
  - Addressing broken links is an activity requiring continuous communication from all aggregators to their data partners and is organised in quarterly cycles.

- The update of links to web resources to have https URLs instead of http URLs is needed for secured data exchange.
- Contribute to quality and completeness of organisation entities (e.g. transition from providing literals to providing URIs) and organisation pages (e.g. adding descriptions, logos). Part of this activity is also to use the entity curation flow mechanism to curate the content shown on the organisation pages.
- Contribute to the extension of the multilingual coverage of entities from the Entity Collection. This activity would be seen as a proof of concept, working with the expertise on subjects across the domain and thematic aggregators present in the consortium. When translating entities, a curation of the entity pages using the entity curation flow mechanism will be performed.
- We will continue to promote the use of controlled vocabularies and terms from multilingual thesauri and encourage aggregators and CHIs to provide a mapping of their vocabularies so that the core platform can benefit from the rich semantic and multilingual labels.

In addition, EF will continue its activities towards the increase of quality and accuracy of rights information.

The results from this activity will contribute to the deliverable DS. Data supply and reuse report M17 (Jan 2024). This year, the DS. Data supply and reuse report M17 will be refined to better demonstrate the articulation between data demand and data supply and how those two activities complement each other. This synergy will be highlighted using examples of activities happening in different areas of this implementation plan.

Partners	Outcomes	Expected due date
EF, DS AGG	Europeana DS AGG annual work plans including quality objectives and/or targets per aggregator (internal) completed	Oct 2023
EF, DS AGG	Europeana DS AGG annual progress report completed	Aug 2024
EF	Report on the (multilingual) coverage of the entity collection	Aug 2024
DATO	MINT based infrastructures supported	Ongoing
EF	Data quality improvements and new content delivered	Ongoing
EF	Data partners supported with data quality improvements and data publication	Ongoing

EF	Regular link resolution process is maintained	Ongoing

#### Overview of indicators

KEY P	KEY PERFORMANCE INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024	
KPI 2.1	High quality data	Number of Tier 2+ material in Tier A+ (excl. content Tier 0)	Monthly	31.2 million	33.0 million	
KPI 2.2	High quality content	Percentage of Tier 2 + material (excl. content Tier 0)	Monthly	73.03%	>75%	
KPI 2.3	High quality and reusable content	Percentage of Tier 3+ material (excl. content Tier 0)	Monthly	55.27%	>60%	
KPI 2.4	High quality metadata (search, browse and explore)	Percentage of Tier A+ material (excl. content Tier 0)	Monthly	74.15%	>80%	
KPI 2.5	Broken links in the repository	Number of broken links (out of total, incl. content Tier 0)	Quarterly	2.04% (Jun 2023)	<1%	
KPI 2.6	Non-EPF compliant content (Tier 0)	Percentage of Tier 0 content	Quarterly	8.27%	<8%	
REPO	RTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	-	
RM 2.2	Updates to datasets	Total number of newly created and updated datasets per month (out of total)	Monthly	22	-	
RM 2.3	Updates to records	Total number of newly created and updated records per month (out of total)	Monthly	640,242	-	
RM 2.4	New CHIs providing data to the data space	Total number of new CHIs (cumulative)	Annually	154	-	

RM 2.5	New content on the Europeana website	Total number of new datasets published (cumulative)	Quarterly	114	-
RM 2.6	Records in the data repository	Total number of records (excl. content tier 0)	Quarterly	57,229,406	-
RM 2.7	Records in the data repository by accredited aggregators	Total number of records (excl. content tier 0)	Quarterly	42,210,294	-
RM 2.8	3D content available in Europeana (items)	Total number of 3D items published (Tier 2+ and Tier A+ material)	Quarterly	4,635	-
RM 2.9	3D content available in Europeana (CHIs)	Total number of CHIs sharing 3D content with Europeana (Tier 2+ and Tier A+ material)	Quarterly	49	-
RM 2.10	Coverage of entity collection (items)	Total number of items linked to (at least) one entity collection	Quarterly	33,779,963	-
RM 2.11	Coverage of entity collection (collections)	Total number of entity collections with items	Quarterly	27,210	-

#### **Activity 2.2.3. Engage with inactive and new data partners**

Partners: EF, DS AGG

In this activity, the Europeana DS consortium will continue activities under this strand of work as specified in the strategy to re-engage with inactive data partners in 2020. A particular focus will be put on the relationships with national libraries (CENL members) that have either provided data directly or via The European Library to the Europeana Initiative. We are planning a one day event with and for national libraries where we also invite CENL representatives to have clear prospects for the collaboration of national libraries and the Europeana Initiative in the data space.

The quarterly review of collections with broken links are also an opportunity to review the relationships with data partners and approach those that are inactive. In addition, the welcome pack completed in Y1, is another way to engage with inactive and new data partners that we can capitalise on. It is now available on <a href="Europeana.eu">Europeana.eu</a> so that existing institutions that provide data can register through the form on the welcome pack page to receive their usage dashboard, and we, in turn, obtain their contact information<sup>7</sup>. To encourage more institutions to register, we will coordinate an outreach activity with the aggregators. We will ask the aggregators to email all their providing institutions, requesting that they register. After we approve their registration and send them their usage dashboard, we will follow up with a few emails that highlight which data quality improvements they can make together with their aggregator and the features and services we offer that can help them promote their data on and off <a href="Europeana.eu">Europeana.eu</a>.
Additionally, over time, we will promote more services, such as the network association and training platform. Now that we have established a direct communication line with the providing institutions, we can use it to survey them directly to understand their needs and wishes, which will help us establish a more rewarding relationship with them.

Some Europeana DS aggregators will support rerouting activities to find a suitable aggregator for CHIs which worked with an aggregator that is no longer in operation. MCA has the most significant contribution to this task among the Europeana DS aggregators, working with the former partners of the Athena and LinkedHeritage projects to merge their collections under the MUSEU aggregator and thus establish a fresh connection with the data space. CARARE also started the process to reroute partners of the 3DICONS and LoCloud projects.

#### *Overview of outcomes*

Partners	Outcomes	Expected due date
EF	Opportunities for the collaboration of national libraries and the Europeana Initiative in the data space explored (workshop)	Jul 2024
EF, DS AGG	CHIs signing up with the Europeana Initiative via the call to action in the welcome pack supported	Ongoing
EF, DS AGG	Actions taken and results achieved to engage with inactive and new partners completed	Ongoing

#### Overview of indicators

REPO	RTING INDICATORS				
ID	Description	Measured by	Frequency	Baseline	-

<sup>&</sup>lt;sup>7</sup> In compliance with personal data protection rules.

				Aug 2023	
RM 2.12	Number of CHIs that signed up to receive their usage dashboard as part of the Welcome Pack	Total number of providing institutions	Quarterly	NEW	-

#### **Activity 2.2.4. Aggregate 3D content**

Partners: EF, CARARE, INCEPTION, TMO, Photocons, DS AGG

In this activity, the Europeana DS consortium members (EF, CARARE, INCEPTION, Photocons and TMO) will work together as the 3D Working Group and will continue to increase the support of 3D in our core products and services on the back of the Twin it! campaign.

The 3D Working Group will continue to support other aggregators and CHIs throughout the workflow leading to the publication of 3D content into the data space. These activities include:

- the sourcing of new 3D content and improving the quality of the already published 3D collections
- the improvement and documentation of the tools used by the 3D Working Group members for digitising, documenting and publishing 3D. TMO will develop a mapping of national and sectoral repositories handling 3D data
- the publication of updated documentation and guidelines as part of the Knowledge Base

All these activities will be included as part of the report 'Availability of high quality 3D content available in the data space' (Aug 2024). This report will also include data regarding the status of 3D digitisation collected as part of Enumerate (Activity 3.2.1).

Supporting the 3D Working Group, the DS AGG will also contribute to the sourcing and ingestion of 2D content in relation to the 3D content selected as part of the Twin it! campaign. Having thematically related 2D items will enrich the user experience and open new avenues for interaction with the 3D collections.

EF will work on improving the technical support of 3D content within the Europeana products and services (including the support of the 3D (embedded or not) and media resources). These activities together with the research on 3D usage scenarios (in Activity 3.2.1) will provide recommendations for 3D content providers that will be iteratively

developed and updated in the Knowledge Base; and that in the medium term will support the development of the EPF for 3D.

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF	Support for the provision of 3D media resources is added	Mar 2024
ТМО	Mapping of national and sectoral repositories handling 3D data completed	Apr 2024
EF	Strategy for content embedding is designed and implemented as a MVP	Jul 2024
EF, CARARE, Inception, TMO, Photocons	Update on the availability of high quality 3D content available in the data space	Aug 2024
EF, CARARE, Inception, TMO, Photocons	Knowledge Base pages for 3D available and updated	Ongoing

#### Task 2.3. Automated approaches towards data quality

Partners: EF, DATO and EFHA

In this task, EF, DATO and EFHA will continue work on automated approaches to address data quality issues at scale, especially employing AI technologies. EF and DATO will continue to improve the data enrichment process to create accurate links between cultural heritage item descriptions and contextual resources, especially addressing issues caused by ambiguous metadata values. EFHA and EF will work on solutions that can be applied to create more complete metadata and enhance the quality of content.

In Y1, synthetic descriptions were created by EFHA using a language model. In Y2 these synthetic descriptions will be evaluated and - when satisfactory - added as enrichments to the published EFHA records. EFHA will also apply the automatic image upscaling (tested and evaluated in Y1) to images that are just below the Tier 2 threshold. This work will align with wrapping up and learning the lessons from the work on image resolution enhancement done by EF in Y1. In Y2, EF will also work on automatic language detection (Activity 4.1.4). All these efforts will be accompanied by refining methods (progressed in Y1) to better validate and evaluate the results from automated approaches to data

quality across data space enrichment efforts, and relating to the enrichment policy (Activity 2.1.1).8

The work planned in this task also allows the Europeana DS consortium to prepare for deployments of AI after Y2 - as experience shows that going through a full cycle of development within one year is often not feasible. This will notably include:

- investigate using AI to detect and quantify quality problem patterns that are not currently prioritised in Activity 2.2.1
- launching a reflection based on last year's experience on AI deployment in order to assess what is needed to better run AI-based projects, especially at the infrastructure level (also looking at other developments across data spaces)
- Explore whether some of the automatic quality improvement processes in place (or being developed) can exploit (third party) services based on large language models (ChatGPT).

We will continue to promote usage of AI across the data space, sharing the outcome of the efforts in this activity (dataset, software) on relevant platforms, including the AI4Culture one whenever appropriate.

Partners	Outcomes	Expected due date
EF, EFHA, DATO	Plan for underlying infrastructure (hardware and services) to be employed for AI efforts in the data space completed	Feb 2024
EF	Evaluation methodology of (AI) enrichment results (V2) published	Feb 2024
EF, DATO	Enrichment service is improved	Aug 2024
EFHA, EF	Improved titles and descriptions for EFHA records produced and evaluated	Aug 2024
EFHA, EF	Enhancement of EFHA images completed	Aug 2024
EF	Automated approaches to address data quality issues at scale, especially AI technologies, investigated and prepared for deployment	Ongoing

<sup>&</sup>lt;sup>8</sup> For the moment, EF does not see packaging these solutions for re-use across the data space (beyond the partners working on it). If there is interest (and especially if performances allow for it), we will consider it. PM. Implementation plan M12

# Work package 3: Capacity building and fostering reuse

The overarching objectives of WP3 are to build capacity and increase collaboration among professionals working with digital cultural heritage. Supporting these professionals will enable more high quality digital cultural heritage to be available in the data space. Another main objective is to enable reuse in a wide range of scenarios including education, research and developer communities, while we continue to explore closer collaboration with the media and tourism data spaces (which are under development).

Working with the <u>Europeana Network Association (ENA)</u> and the <u>Europeana Aggregators' Forum (EAF)</u>, we will develop training and event programmes that empower members, and cultural heritage professionals, to learn, to share and use the tools and services offered in the data space, and become agents of change in their organisations and in the sector.

These efforts will be underpinned by a solid user and market research programme, continued secretariat support that enables the ENA communities to thrive, and an outreach and dissemination strategy to strengthen the position of the data space.

#### Task 3.1. Enhance cooperation throughout the data space

Under this task the Europeana DS consortium aims to fulfil the promise of the data space to enable cross border cooperation and collaboration by supporting and developing activities of the data space, especially by leveraging synergies of the Europeana Network Association (ENA) and the Europeana Aggregators' Forum (EAF) (Activity 3.1.1 - Activity 3.1.3).

#### **Activity 3.1.1. Develop methods of cooperation**

Partners: EF, APEF, BL

EF will continue to enhance cooperation and alignment between the actors in the data space. Building on work undertaken in Y1, and the work to align the positioning of the Europeana Initiative with the requirements of the data space, we will refine models and take up activities that facilitate sharing and alignment on shared priorities. We will explore new areas of activity and enhance partnerships relevant to the data space. In

Y2, EF, together with ENA and EAF, will continue to implement, evaluate and refine actions that reflect the improved model of cooperation, for example, piloting an Europeana Initiative coordinated programme of Country Group activities, further developing the thematic programme to enable connections across strands of work, and working more closely with Member States through campaigns such as Twin it!. As a starting point for the Country Groups, pilots will be asked to consider actions that support the TwinIt! Campaign, or opportunities to increase the number of multilingual capacity building resources available through Europeana services). Based on feedback during the year, we will encourage further actions to be undertaken that support clearly defined priorities of the data space. CEDCHE members will be informed when the development of a Country Group in their country is being planned.

A new cross Initiative working group on Innovative Operating models will investigate the impact of centralised versus decentralised approaches on organisational aspects, in addition to aggregation and technical aspects as covered in WP1 (Activity 1.2.1.). Additionally, we will explore collaboration with stakeholders that enable connections with other data spaces such as Media and Tourism (which are under development), and with stakeholders such as the <u>DATES project</u>.

In Y2, we will outline how Europeana products and services deliver value for CHIs and cultural heritage professionals. We will create documentation that will map products and services (current and under development) against the identified value those add for the audience, also adding information on expressed/anticipated need(s). We aim for this to facilitate us in more clearly articulating what value or benefits our products and services deliver and it will provide a framework to evaluate them, which in turn can inform product and service development. The mapping will include an overview of metrics that are already part of the current metrics framework to showcase how engagement can be monitored for products and services with the option to extend the metrics framework going forward. V1 of the mapping will be limited to products and services developed by or with the Europeana DS consortium. Once documented the mapping will be validated with the Europeana Initiative and other stakeholders collaborating with the data space to complement the existing mapping with additional information and also to identify complementary products and services that serve the data space (Y3).

We will update operational policies and processes, further develop the EAF accreditation scheme (Activity 3.1.2) and develop an impact model for the Europeana Initiative (Activity 3.4.1). Representatives of EF, ENA, and EAF will continue to meet regularly to discuss and align common areas of work, develop and manage priorities,

and progress towards them. Areas of cross initiative collaboration are listed below, with a reference to the activity in this plan where further work will be undertaken:

- Persistent Identifiers (Activity 1.1.1)
- Developing a shared vision for a decentralised data sharing mechanism (Activity 1.2.1)
- Data governance mechanisms that drive data quality and facilitate reuse (Task 2.1)
- Aggregation of 3D content in the data space (Activity 2.2.4)
- Engaging cultural heritage professionals with the data space and motivating the exchange of knowledge (Task 3.4)

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF	Improved model of cooperation across Europeana Initiative implemented	Jan 2024
EF	Model of cooperation (including thematic programme of activity) published (V2)	Feb 2024
EF	Mapping of products and services offered to CHIs and their professionals (V1) completed	Jun 2024
EF	Evaluation of model of cooperation (V2) completed	Jul 2024
EF, APEF, BL	Country Group activities pilot coordinated across Europeana Initiative	Aug 2024
EF	Thematic programme of activity developed and maintained	Ongoing

### <u>Activity 3.1.2. Provide secretariat for Europeana Aggregators' Forum (EAF) and Europeana Network Association (ENA)</u>

Partners: EF, APEF, BL

EF will continue to provide secretariat functions for the ENA (including community management, Task Forces, and Working Groups) and EAF so they can engage their members and contribute towards the development of the data space.

EF will work with ENA and EAF to support their implementation of the model of cooperation (Activity 3.1.1) through refinements and development that align and enhance processes and policies, in particular those that increase engagement and

deliver a rewarding experience for professionals. For example, testing how our Customer Relationship Management (CRM) systems (Activity 3.3.3) can automate the process of membership renewal or amendment such as language communication preferences, and taking the next steps to enhance the EAF accreditation scheme for aggregators in the data space. We will also continue to review new aggregators for accreditation to be welcomed as accredited aggregators after approval by the EAF.

We will review methods for managing communities (including ENA communities) across the Europeana Initiative. We will develop recommendations to enhance the community management practice with an impact model for communities that is developed in conjunction with the Impact Model for the Europeana Initiative (Activity 3.4.1). Additionally, we will investigate and extend the current metrics framework for reporting on community engagement, including metrics that apply to all communities and/or metrics that are specific to a community (where feasible).

We will continue to organise and coordinate a schedule of governance meetings (incl. ENA Management Board (MB) and Members Council (MC), and EAF Steering Group and EAF meetings), conclude the series of EAF outreach events, manage memberships of ENA (and communities) and EAF, and provide financial and administrative support. Throughout the year we will support renewing the governance of ENA and EAF (MC election in Nov 2023, MB appointment in Jan 2024, EAF election in spring 2024).

Partners	Outcomes	Expected due date
EF	ENA General Assembly organised	Nov 2023
EF	ENA Governance renewed (MC election and MB appointment)	Jan 2024
EF	Annual reporting for ENA and EAF activities published	Feb 2024
EF, APEF, BL	Recommendations for enhanced accreditation scheme completed	Jun 2024
EF, APEF, BL	Two EAF outreach events organised	Jul 2024
EF	Metrics framework for reporting on community engagement extended	Jul 2024
EF	Recommendations for an enhanced community management scheme completed	Aug 2024
EF	ENA and EAF policy and process managed and updated	Ongoing
EF	New aggregators reviewed for accreditation	Ongoing

EF General management support for ENA and EAF (incl. ENA MB and MC, EAF Steering Group, Task Forces, Working Groups and communities) provided	g
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KEY P	KEY PERFORMANCE INDICATORS				
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024
KPI 3.1	Satisfaction of the Europeana Network Association members with the ENA	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	66.8%	75%
KPI 3.2	Growth of Europeana Network Association members	Number of members in the ENA	Quarterly	4,396	5,000
REPO	RTING INDICATORS				
ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 3.1	Participants engaged in Europeana Initiative activities	Number of participants contributing time and expertise to activities (such as governance, TFs, WGs and CTAs) (cumulative)	Quarterly	407	-
RM 3.2	Task forces in the Europeana Initiative	Number of active task forces per month (ENA, EAF, Initiative)	Quarterly	6	-

# Activity 3.1.3. Support national digital strategies to increase high quality data

**Partners: EF** 

To achieve a thriving data space, the active engagement and support of the Member States is crucial. We will develop a Member States engagement strategy to proactively nurture mutually supportive relations with the Member States. The strategy will involve organising various communication, interaction and activity channels in a streamlined plan to support the Member States' active commitment and contribution to the data space. We will support the Member States, with the involvement of the CEDCHE

representatives, to progress their national digital strategies in line with the requirements and ambitions of the data space and help enable their implementation. This will support Member States' advancement towards the targets set out in the EC's Recommendation of 2021 for new high-quality content contribution to the data space with a focus on 3D content.

We will continue to implement the 'Twin it! 3D for Europe's culture' campaign, launched in June 2023, in collaboration with the European Commission, with the support of the Swedish and Spanish Presidencies of the Council of the EU, culminating during the Belgian Presidency. Under the campaign, the Ministries of Culture of the EU Member States have been invited to liaise with their national cultural institutions to submit one 3D digitised heritage asset to the data space. Ultimately, the campaign will contribute to a shared understanding of the need and potential for 3D in the sector, raising awareness of its opportunities and benefits and building capacity among EU Member States and their cultural heritage institutions.

The 3D Working Group (see Activity 2.2.4) will support the campaign by developing the technical and framework mechanisms needed for the digitisation, documentation and publication of 3D models. The group will also develop the accompanying guidelines and recommendations.

We will partner with the <u>Competence Centre for the Conservation of Cultural Heritage</u> (4CH) to deliver a series of webinars to contribute to building the capacities of Member States and their cultural institutions around 3D digitisation. These will focus on practical aspects, challenges, tools and standards of 3D digitisation and will target specifically Member States' representatives involved in the campaign. We will also team up with 4CH to develop a short and user-friendly 'Playbook' outlining 3D basic principles and operational tips for 3D digitisation of cultural heritage to support Member States participation in Twin it!. Lastly, 4CH will also assist Member States, at an adhoc basis, in their 3D digitisation process for the campaign.

As part of our EU presidency linked activities, we will hold two conferences on accelerating 3D in the common European data space for cultural heritage—under the Spanish Presidency and during the Belgian Presidency. These conferences will build on the outcomes of Europeana conference in Stockholm 'Why 3D matters' in April 2023. The upcoming presidency conferences will enhance and support the Twin it! campaign and will help build capacity for the 3D selection, digitisation, storage, and access processes. We will bring the CEDCHE Expert Group members, relevant experts and policy makers together to discuss, align visions and form a better understanding of 3D processes. Furthermore, these conferences reinforce the value of collaboration,

partnership-working and dialogue. We will develop the concept and format of the presidency activity together with the sitting presidency, in consultation with the European Commission, and in line with the ambitions and priorities of the data space around 3D.

To keep the Member States informed about their contribution of content to the data space, we will extend the Europeana data statistics dashboard with a new page showing the progress of Member States against the targets set in the Recommendation. We will also investigate requirements for a dashboard aimed at policy makers and Member States representatives which will include the ENUMERATE data and can act as a replacement for the former ENUMERATE observatory, combining features of the data statistics dashboard with new requirements identified in the course of the work and broader data sources (acquired in Activity 3.2.1). The proposed dashboard would allow progress to be tracked regarding the targets in the recommendation alongside highlighting the status of digitisation and digital transformation across various countries and domains.

As specified under task 5.2, we will report to the European Commission's Expert Group on the common European data space for cultural heritage (CEDCHE) on the status of the data space activities and developments relevant to the Member States.

Through our ongoing communication and knowledge sharing mechanisms (newsletters, country reports, capacity building programmes, meetings, conferences and webinars), we will engage with the Member States and CEDCHE representatives on relevant topics. We will collaborate with the Country Groups as accelerators/multipliers of our outreach and communication to support the Member States.

Partners	Outcomes	Expected due date
EF	Swedish Presidency Europeana activity evaluated and reported	Sep 2023
EF	Spanish Presidency Europeana activity organised	Oct 2023
EF	Requirements for a policy-making dashboard/enumerate observatory delivered	Feb 2024
EF	Spanish Presidency Europeana activity evaluated and reported	Mar 2024
EF	Belgian Presidency Europeana activity organised	Jun 2024

EF	Member States targets page implemented in the Statistics Dashboard	Jun 2024
EF	Member States engagement strategy completed	Aug 2024
EF	Mechanisms to engage and inform Member States developed and implemented	Ongoing

REPO	REPORTING INDICATORS				
ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 3.6	Satisfaction with the Europeana EU presidency activities	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Bi-annually	86%	-

# Task 3.2. Identify needs of user groups

Under this task, EF will continuously explore the status of the cultural sector, both with regard to digital transformation/digitisation, and the needs of professional data-providing audiences in the cultural heritage sector (Activity 3.2.1). Further, we will investigate the reusability of the data in combination with the needs of potential groups interested in reuse of cultural heritage data, like those in education, research and the creative industries (Activity 3.2.2). We will also explore how cultural heritage institutions are working with audiences in both their outreach and digitisation strategies. EF will collaborate with other European data spaces, including those of tourism and media, to better understand the needs of these user groups in relation to the data space. User research will guide the development of tools and services and will identify which data, tools, and services should be offered as a priority.

## Activity 3.2.1. Conduct user research among cultural heritage professionals

**Partners: EF** 

EF will combine its various survey efforts to understand the cultural sector better, both to clarify the status of thinking about digital strategy, and digital transformation in cultural heritage organisations, and to explore what professionals in the cultural heritage sector want and need from the data space especially in relation to data sharing. We will evaluate needs both within our core group, e.g. ENA, EAF, and within the wider cohort of cultural heritage professionals, particularly with a view to

understanding what motivates digitisation and digital curation practices in the European sector, as well as where there may be untapped potential to explore for our data acquisition work and user demand (3.2.2).

We will expand our knowledge about the usage of 3D by cultural heritage institutions and users of 3D content. We will collect usage scenarios with the aim to define requirements for the further development of the EPF (Activity 2.1.2) and we will also identify requirements raised by some specific digital experiences such as VR, AR and XR which will support future work in europeana.eu.

By undertaking qualitative and quantitative (primary and secondary/desk) research among these audiences and institutions, EF will develop a baseline of the size and potential of the sector, and needs of segments within it - which could vary demographically (e.g., size of institution, location), or attitudinally or circumstantially (for example, needs in digital transformation, or community support). ENUMERATE data, now encompassing all EF efforts in data collection pertaining to cultural institutions, in addition to relevant EI survey data, will provide a further baseline of data from which to design additional research.

We will complete a satisfaction survey with aggregators (KPI PI 3.4) that will ask about satisfaction with support and feedback offered by Europeana staff, speed of publication, error reporting mechanisms, quality of the data, quality of enrichments, media processing, Metis Sandbox (including documentation), Data Statistics dashboard, Working groups and related activities and also capacity building activities provided by EF. This will help us to further refine our products and services for aggregators.

We will also completevarious satisfaction survey/data collection activities with cultural heritage professionals (i.e. KPI 3.5) to ask for their satisfaction with data space products and services which will include aspects of asking for satisfaction with data sharing mechanisms and aggregation. We will review the results towards the end of Y2 and use this data to inform requirements and prioritisation for products and services.

The annual report on user needs and requirements of cultural heritage professionals will include an analysis of primary data collected throughout the year, including findings of the aggregator (KPI 3.4) and CHI satisfaction survey (KPI 3.5), of ENUMERATE activities, Persistent Identifiers survey, and any other surveys for the CHI audience, in addition to secondary research and other marketing data analysis (with a target of a minimum of 500 responses to our various survey activities aimed at either CHIs or cultural data professionals). In addition to this, we will include user satisfaction feedback received via the Europeana website, Europeana Pro and other Europeana products aimed at cultural PM. Implementation plan M12

data professionals which will also help us understand usability of both of those and feed into our desk research. The report will also draw on secondary research, bringing together general research undertaken by others in the sector with lessons learned from analysing our communication and dissemination activities in addition to marketing analytics data (such as the Matomo user data coming from Europeana Pro). The annual report on user needs will enable us to understand more about cultural heritage professionals, including potential digital cultural collection holders, and what they need, to engage more with the Europeana ecosystem and the data space - so that we can also benefit from increased and better quality data.

This audience-led, market research approach will result in recommendations and requirements for product and service development (incl. training needs) for professionals working in digital cultural heritage and their prioritisation, based on the scope of the market, and targeted case studies around the reuse of digital collections, highlighting best practices in the field.

#### Overview of outcomes

Partner	Outcomes	Expected due date
EF	Report on 3D (including usage scenarios and best practices)	Mar 2024
EF	Report on user needs and requirements of cultural heritage professionals to inform product and service development completed	Jun 2024
EF	Qualitative and quantitative (primary and secondary/desk) research among cultural heritage professionals undertaken and/or supported	Ongoing

#### Overview of indicators

KEY F	KEY PERFORMANCE INDICATORS				
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024
KPI 3.4	Aggregator satisfaction with data space products and services (accredited aggregators)	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	79.5%	75%
KPI 3.5	CHI satisfaction with data space products and services	Total % of 'satisfied' and 'completely	Annually	76% <sup>9</sup>	75%

<sup>&</sup>lt;sup>9</sup> The survey had a low response rate (nine respondents).

	satisfied' responses on a 5-point Likert scale		

#### Activity 3.2.2. Perform user and market research to foster reuse

**Partners:** EF

Through our efforts in outreach in education, research and academia, and among lesser known potential reuse audiences (people who participate in the GIF IT UP and Digital Storytelling Festivals), we have begun to gain knowledge about audiences outside our core professional audience of cultural heritage professionals. Combined with knowledge gained about our various audiences over the past years, and with an understanding of how cultural heritage institutions target and work with audiences (Activity 3.2.1), EF is now able to focus its efforts, offer, and approaches towards these audiences via an aligned, consolidated, cross-organisation effort.

EF will continue to learn more about audiences within education (Activity 3.5.1), research and academia (Activity 3.5.2), and begin to explore the needs of those in tourism, media, and the cultural/creative sectors. Learning about needs and behaviours, tools and resources they use and/or seek, as well as understanding better which organisations and people they currently look to for support and leadership (the influencers) will be key to determining how we communicate with and pursue relationships with people in these areas. Combined with the knowledge of how cultural institutions themselves target these audiences (Activity 3.2.1) we can focus our offer more efficiently to target these groups.

Understanding current needs and current reuse, combining with the best practices from the sector, will help us to identify data that meets the needs of these users and allow us to source similar items to include in the data space. EF will regularly communicate 'in demand' data topics (learned from user feedback and research) to the EAF, and potentially seek new partners that have such data.

Moving forward, EF will set priorities about which segments to approach (based on size, potential, etc.), determine networks to use to familiarise ourselves with and learn more about how to reach people in those segments, and, ultimately we hope, collaborate, as possible, with those who influence decisions and actual decision makers to bring high quality, openly licensed, pan-European cultural heritage items to these audiences.

As part of this work, EF will target associations and organisations that can make use of Europeana's resources, including the API suite to connect to Europeana's database, and

thus bring Europeana's data to new audiences through new platforms, and other areas as those emerge. Identifying associations and organisations who represent potential reusers of digital cultural heritage, whose members and affiliates may not be aware of the availability of the same, will be a crucial first step toward making contact with and then understanding the needs of those audiences.

In Y2, we will identify two new areas with reuse potential. As part of this effort, we will create two new untested audience profiles. The profiles will act as a framework for collecting and organising information, including sector challenges and trends, audience needs and behaviours, preferred tools and information sources they use. The profiles will help inform how we communicate with and pursue relationships with people in these areas. We will validate the audience profiles by sharing them within EF internally as well as with the ENA for feedback (this has already been announced to the Members Council). Finally, we will reach out to one new identified audience to conduct a pilot to validate and show reuse potential.

#### Overview of outcomes

Partner	Outcomes	Expected due date
EF	Two new areas with reuse potential identified	Mar 2024
EF	Audience profiles created (for identified two new audiences)	Mar 2024
EF	Audience profiles validated (for identified two new audiences)	May 2024
EF	Pilot application in one new identified area of reuse potential completed	Jul 2024
EF	Report on areas of potential reuse, research and results achieved towards new and established audiences (incl. recommendations for product and service developments)	Aug 2024
EF	Audiences interested in reuse identified and reached	Ongoing

# Task 3.3. Build awareness and engagement

Under this task, EF will build awareness and engagement of data space activities among all of our professional audiences. We will position the data space more prominently in our communications and marketing activities, as we develop and strengthen a new data space brand.

We will deliver a strategic approach to marketing and communications (Activity 3.3.1), offer event programming (Activity 3.3.2), and ensure that audiences engage with our activities (Activity 3.3.3).

#### Activity 3.3.1. Ensure strategic approach to marketing and communications

**Partners: EF** 

The data space approach to communications will be based on a strategic and joined-up approach for key channels, supported by clear and consistent organisational narratives and messaging (as fully detailed in DS. Communication and dissemination plan M11). The activities will be informed by insights gathered from user and market research (Activity 3.2.2) and ongoing evaluation of marketing and communications activities.

We will develop and strengthen a new data space brand consisting of both visual branding and strong and clear messaging. While distinctive, the data space brand will be consistent with the well-established Europeana Initiative brand. We will review and refine the Europeana Initiative key messages to better position and promote the data space.

The branding work will develop concurrently alongside activities to better understand, conceptualise and actualise the data space, particularly around the topics of data governance (Activities 1.2.1, 1.2.2, 2.1.1, 2.1.2 and 2.1.3) and decentralisation (Activities 1.2.1 and 3.1.1) Meanwhile, a new dedicated landing page will be released which will present the benefits and opportunities of the data space to other data spaces; foster participation and better understanding of the potential new target markets served by these data spaces; and in time, promote related developments and activities. This page will reflect positioning of the data space and communication around it. The release of the landing page will be paired with a dedicated promotional campaign including editorial and corporate communication content as well as outreach to other data spaces and relevant audiences.

With the introduction of another webpage through which audiences will be able to explore the data space and its products, we will review the customer journeys of our main audiences to define a strategic approach through the 'Platform for professional audiences' strategy and the 'Europeana Pro strategy,' which will propose how to strengthen the connection between Europeana.eu and Europeana Pro (Activity 3.3.3).

EF will continue to communicate and disseminate Europeana's wide-ranging activities in relation to the data space to professionals and partners by delivering high quality and

engaging editorial content on Europeana Pro (e.g. Pro News and themes) and by sharing content on other key communication channels (e.g. social media). Activities will be aligned across EF, ENA and its communities, and the EAF. Country Group activities will play a multiplying role for our communications at national level.

EF will report on the strategic approach toward communication and dissemination, achievements and lessons learned in the DS. Communication and dissemination plan.

#### Overview of outcomes

Partner	Outcomes	Expected due date
EF	Landing page for the common European data space for cultural heritage published	Jan 2024
EF	Approaches to social media revised (internal)	Feb 2024
EF	Start of promotional campaign around the landing page for the data space	Mar 2024
EF	Second iteration of the welcome pack, onboarding for new providing institutions improved	Jul 2024
EF	Pro editorials published (e.g. Pro News and themes)	Ongoing
EF	Activities promoted (Newsletters, Twitter, LinkedIn)	Ongoing

#### **Activity 3.3.2. Develop event programming**

**Partners: EF** 

EF works collaboratively with professionals, ENA and EAF to develop and deliver good quality event management and programming. Europeana's flagship event, the hybrid annual conference, will in 2023 draw on the success of previous conferences. It will provide the Initiative with the opportunity to engage current and new audiences, and offer attendees opportunities to build connections, learn, share and engage with peers. In 2023, the event theme - EuropeanaTech - addresses the technical aspects of operating within and around the data space for cultural heritage, anticipating addressing topics such as AI, 3D and VR.

The program development for EuropeanaTech is overseen by a committee of representatives from across the Initiative, who collaboratively built a program largely drawn from workshops, presentations and moderated sessions submitted through a sector-wide call for proposals. A marketing campaign raises awareness of the

conference and contributes to strong attendance. The learnings and post-event survey data will be used to refine events practices throughout the year.

We continue to coordinate, develop and run the online events programme, supporting occasional in-person events. Events are promoted through social media to attract a diverse audience and raise awareness of opportunities to engage with participants of the data space.

Event data is gathered and periodically analysed as part of an established feedback loop to continuously monitor and refine the events offered to our audiences (measuring variables such as format, tools, engagement, satisfaction). We will continue to collect data to validate the impact we create by convening the sector through our annual conferences and evaluate the satisfaction of events with a focus on capacity building activities.

Learnings from this are shared with the Events Managers Group<sup>10</sup>, which provides an opportunity for peers to share good practices, and discuss issues and success with sector peers. Experiences and lessons learned are documented and periodically shared through articles and resources on Europeana Pro.

#### *Overview of outcomes*

Partner	Outcomes	Expected due date
EF	Europeana Annual Conference organised - Europeana Tech	Oct 2023
EF	Learnings and recommendations from Impact Assessment implemented - Annually	Jun 2024
EF	Events programme delivered and improved	Ongoing
EF	Activities of the international Events Manager Group coordinated	Ongoing

#### Overview of indicators

REPO	REPORTING INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	-		

<sup>&</sup>lt;sup>10</sup> The Events Managers Group includes several partner organisations including: Liber, OpenAire, Creative Commons, RightsConn, NEMO, Museum Computer Network, Accessnow, IFLA, EuropaNostra and Wikimedia Foundation.

RM 3.9	Europeana Initiative events	Number of events held by Europeana DS consortium, EAF, and ENA (cumulative)	Quarterly	41	-
RM 3.10	Reach of Europeana Initiative events	Number of participants (cumulative)	Quarterly	5,204	-
RM 3.11	Satisfaction rate for Europeana Initiative events	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	82%	-

## Activity 3.3.3. Engage professional audiences

**Partners:** EF

In this activity, EF will reinforce and refine the tools and platforms used to engage with professional audiences, including cultural heritage professionals, academics/ researchers, aggregators, creatives, developers, educators, and other stakeholders (e.g Member States).

EF will continue to identify target audience needs and map those against existing platforms to identify gaps and opportunities for alignment (Task 3.2). The insights from these activities will support the development of a strategic approach to our platforms for professional audiences. The strategy for platforms (Feb 2023) will deliver an overview of existing platforms (including established platforms like Europeana website and Europeana Pro, and various other communication platforms used for the specific audiences mentioned above). This will help inform consistent user journeys between platforms, the content that they offer, and how we develop and maintain them. The continuing development of Customer Relationship Management (CRM) capabilities aims to complement this, providing improved workflows so audiences can be signposted to relevant activities of interest to them more easily.

Work to target and reach cultural heritage professionals working in CHIs will build on products, services and activities developed to foster a rewarding experience for these audiences, including (but not limited to) the Welcome Pack (Activity 2.2.3), the Training Platform (Activity 3.4.2), activities to connect collections from different CHIs within a Pan-European context and drive participation with cultural heritage (Activity 4.2.1.) and support efforts into providing a rewarding experience for CHIs as documented in Activity 3.1.1, particularly around CRM.

We will also investigate and pilot tools for increased community collaboration to enhance the cooperation between memberships of EAF and ENA. This effort builds on the work undertaken to enhance cooperation in the Initiative (Activity 3.1.1).

#### Overview of outcomes

Partner	Outcomes	Expected due date
EF	Strategy for platforms for professional audiences completed (internal)	Feb 2024
EF	Europeana Pro strategy delivered (internal)	Feb 2024
EF	Europeana Pro user survey completed	Mar 2024
EF	CRM workflows extended	Jun 2024
EF	Tools to enhance community collaboration implemented	Aug 2024
EF	Platforms for professional audiences maintained (technical infrastructure, user journeys, accessibility)	Ongoing

# Overview of indicators

KEY P	KEY PERFORMANCE INDICATORS							
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024			
KPI 3.3	Satisfaction rate for Europeana Pro	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	78%	75%			
REPO	RTING INDICATORS		REPORTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	-			
RM 3.7	<b>Description</b> Traffic to Europeana Pro	Measured by  Number of visits per month	<b>Frequency</b> Monthly		-			

# Task 3.4. Develop capacity building as a service

Under this task we will develop capacity building tools and services (Activity 3.4.1) and manage and develop mechanisms for the Training Programme (Activity 3.4.2).

#### **Activity 3.4.1. Develop capacity building tools and services**

Partners: EF, CAPG, DS AGG

In collaboration with the ENA and EAF, EF will continue to develop and manage the implementation of the Europeana Impact Framework (EIF) and the Europeana Capacity Building Frameworks (ECBF) and implement their components across the data space. We will identify and respond to user needs to further develop services and tools of the EIF and ECBF. Implementation will be supported by offering training opportunities and resources on the use of the core elements of the EIF and ECBF.

A <u>Capacity Building Working Group</u> brings together representatives of EF, ENA and EAF in the development and oversight of capacity building activities. It will maintain oversight of the development of the ECBF, further refine the impact pathway for training, and oversee and advise on the requirements and content of a Training Programme and its implementation (Activity 3.4.2).

In collaboration with the Europeana Impact community we will further support the implementation of the Impact Framework, developing training resources and sharing good practices, case studies and information and assessment of the impact of capacity building and collaboration around digital heritage.

In collaboration with ENA and EAF, we will develop an impact model to articulate our shared ambition for impact. This model will incorporate specific areas of work, for example the development of a change pathway for the impact of ENA communities, including identifying community metrics common to all communities. Each community can then be supported to identify specific metrics relevant to its remit. We will test and validate the overarching model and report on results and any data gathered during this process.

Finally, we will reinforce capacity building as a service for the data space by understanding sectoral-wide approaches to digital transformation. EF will make connections with other initiatives developing skills and capabilities for professionals in the cultural heritage sector (for example, <a href="Charter Alliance">Charter Alliance</a>, <a href="Pact4Skills">Pact4Skills</a>) and explore possibilities for inclusion of or connection with each other's training through the

Training Platform (formerly referred to as Learning Management System or LMS) (Activity 3.4.2).

#### Overview of outcomes

Partner	Outcomes	Expected due date
EF	Europeana Capacity Building Framework (V4) developed (internal)	Feb 2024
EF	Impact pathway for Training Programme revised	Jun 2024
EF	Impact Model V1 for the Europeana Initiative developed	Jul 2024
EF, DS AGG	Capacity Building Working Group supported	Ongoing
EF	Europeana Impact community supported	Ongoing
EF	Europeana Impact Framework (EIF) and Europeana Capacity Building Framework (ECBF) maintained and improved	Ongoing

#### Overview of indicators

REPO	REPORTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	-	
RM 3.12	Reach to Europeana Impact community	Number of people reached per month (Newsletter, mailing list, LinkedIn)	Quarterly	2,810	-	

# Activity 3.4.2. Manage and develop mechanisms for the training programme

Partners: EF, CAPG and DS AGG

EF together with CAPG and DS AGG will further develop the content, delivery and engagement mechanisms for offering training to our audiences in a systematic way. We will launch a Training Platform, initially as a pilot, to test the technical capabilities and workflows suitable for the Europeana ecosystem. We will also pilot and evaluate the Europeana Academy, which includes delivering the training programme (including running events, or promoting self paced learning), and using the resources available in the Training Platform.

The Training Platform will bring together the Training Programme and its training resources in a dedicated online training space where ENA and EAF members, and other interested users can explore and undertake training. The Training Platform can act as a content host and discovery platform for training resources, and provides an end-to-end user experience. A user will be able to follow self-paced training, and trainers can use the Training Platform content to host a trainer-led workshop or course. In both cases, upon completion the user can receive a certificate for eligible training.

We will conduct a soft launch of the Academy, or field test, so we can gather and act on user feedback. Based on that feedback, and upon completion of the pilot, and any subsequent refinements, the Training Platform will be populated with resources from the Training Programme, from DS AGG, and training developed independently such as through projects complementary to the development of the data space.

CAPG and EF will continue to develop a Training Programme, and in collaboration with the Capacity Building Working Group identify areas of focus to prioritise in the development of training (Activity 3.4.1).

The Academy will be updated to reflect the Training Programme and with resources developed or made available to support the provision of high quality data (Activity 3.5.1.). The Training Programme will include a train-the-trainer programme to enable professionals to train others using the training resources developed by EF and stakeholders in the data space (Activity 3.5.1) and draw from existing and relevant training (such as training on data.europe.eu).

#### Overview of outcomes

Partner	Outcomes	Expected due date
EF	Training Platform piloted and evaluated	Feb 2024
EF, CAPG	A pilot Academy completed and evaluated	Jun 2024
EF, CAPG, DS AGG	Training programme developed and prioritised	Ongoing

# Task 3.5. Facilitate the provision of high quality data

The aggregation infrastructure of the data space is an essential enabler for the contribution of high quality data, together with the frameworks that govern how data is created, enriched and shared and how capacity is built. EF will support data providers in

making use of the infrastructure and of framework requirements through capacity building efforts, including training solutions, dynamic knowledge transfer (such as through Working Groups), events and knowledge repositories.

The Europeana DS consortium will manage and implement a Training Programme that supports the provision of high quality data. Aggregators and data partners will benefit from the Training Programme by receiving and sharing knowledge on the use of products and tools available in the data space for the provision of high quality data. (Activity 3.5.1) The consortium, together with EAF and ENA, will also support peer to peer knowledge exchange with the aim of increasing the quality of data available for reuse (Activity 3.5.2).

# <u>Activity 3.5.1. Deliver training programme for aggregators and data</u> <u>partners</u>

Partners: EF, TMO, INCEPTION, DS AGG

Under this activity, the consortium will expand, manage and deliver the Training Programme developed (Activity 3.4.2) with a focus on aggregators and data providers. Training (i.e. video, documentation, courses) will be developed and delivered in line with the Training Programme using the skills and expertise of the Europeana DS consortium, ENA and EAF. CAPG will advise and contribute to the quality control as the activity unfolds. We see the Training Programme as contributing to the holistic approach central to the Europeana Initiative to engage professionals, including gathering input from learners to enhance the training, and interactions with other professionals.

In Y2 we will focus on developing training for products and services that are already in use and that do not have training resources yet or that which needs updating. The priorities and focus areas for <u>train-the-trainer programme for the provision of high quality data</u> (developed in Y1) sets out potential training topics (new or updated training) for areas such as increasing the amount of high quality data (EPF, ELF, EDM, entities, IIIF, enrichments and more), digital services to the public (Europeana website, APIs, rights of reuse and more), and digital transformation of the cultural heritage sector (e.g. Impact Framework). We expect to deliver 3-4 new training resources that can be used both self paced and instructor-led, these will include API's and the Europeana website. Existing training resources will be reviewed and updated where needed (Sandbox, Data Statistics Dashboard, rights when sharing data with Europeana).

A principal outcome of this activity will be the creation, publication and delivery of training resources which facilitate the provision of high quality data of all types of digital

cultural heritage using the tools and services available in the data space . It will draw from the expertise within the consortium to develop training on how to create, enrich and make data available in the data space, as well as how to improve the quality of existing data (structurally as well as expanding content) (Activity 4.2.2). We will place particular attention on how to create, capture, process, describe and share high quality 3D content and identify the skills associated with these tasks. Also the support of more aggregators to manage and provide IIIF resources to the data space is a continuous effort. This year we will extend the IIIF guides for image conversion and manifest creation into training resources.

The train-the-trainer programme described earlier (Activity 3.4.2) will offer training to underpin the digital skills needed for digital transformation and knowledge transfer through communities, networks and stakeholders operating in the data space (Activity 3.5.2). The DEN Leadership programme will run, and be evaluated, again this year to continue to provide current and future sector leaders with the skills and insights to support their professional growth in the data space.

Additionally, we will support training on digital curation, including reaching and involving audiences e.g. in science and in education (for example via partner pages on Historiana) and establish connections with the training developed to support enhanced use and reuse (Task 3.6) and digital services to the public (Task 4.2).<sup>11</sup>

Training will be available through the Training Platform (Activity 3.4.2), and we will identify opportunities to drive participation through online, hybrid and in person events (Activity 3.3.2). The impact approach outlined (Activity 3.4.1) will ensure that the Training Programme is designed to contribute to achieving higher quality data and increased reuse.

Partner	Outcomes	Expected due date
EF, AIT Graz	IIIF guidelines and training resources for image conversion and manifest creation delivered	Jun 2024
EF, DEN	DEN Leadership programme Cohort completed and evaluated	Jul 2024

<sup>&</sup>lt;sup>11</sup> Training development for relatively new products and services, such as image enhancement with Al and 3D, can potentially be started in the upcoming year. The maturity of these products and services and the potential overlap with other projects (for example Al4Culture, 5DCulture) will determine how much progress can be made with this.

EF, TMO, INCEPTION, DS AGG	Training for the provision and reuse of high quality data delivered and published online	Ongoing
EF	Inventory of existing training (and other capacity building resources) maintained and updated	Ongoing

REPO	REPORTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	-	
RM 3.29	Europeana Initiative training	Number of training held by Europeana DS consortium, EAF, and ENA (cumulative)	Quarterly	24	-	
RM 3.13	Reach of Europeana Initiative training	Number of participants (cumulative)	Quarterly	1,100	-	
RM 3.14	Satisfaction rate for Europeana Initiative training	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	86%	-	
RM 3.30	Europeana Initiative enables knowledge transfer	% of surveyed participants reporting that the activity helps them stay up to date with best practices and new trends	Bi-annually	NEW	-	
RM 3.31	Europeana Initiative delivers practical knowledge	% of surveyed participants reporting that the activity enables them to learn knowledge, skills and information they can use in their job	Bi-annually	NEW	-	

# Activity 3.5.2. Support the transfer of knowledge between professionals

Partners: EF, DS AGG

EF, ENA and EAF will build on their role in convening professionals from across the sector to further enhance and develop knowledge transfer. We will build on our efforts to strengthen national infrastructures and facilitate the sharing of challenges, solutions

and expertise across borders and cultural heritage domains (Task 3.1). The investment in country specific workshops is one element of it. Our contribution to national workshops will be based on or lead to the development or improvement of scalable and reusable training resources, starting from a national conference in Madrid with the Spanish ministry of culture.

We will strengthen our collaboration with the <u>European Students Association for Cultural Heritage</u> (ESACH) to enhance the support we provide to emerging professionals, and undertake further activities that contribute to our collective goals to cultivate an inclusive, diverse and equitable data space. For example, we will explore internships, mentoring and ambassador programmes, dedicated matchmaking or networking events that provide opportunities for the establishment of new connections and partnerships.

We will undertake activities that advocate the wide-scale uptake of training offered through the online academy. We will identify opportunities to contribute to thematic or strategic areas of the data space (Activity 3.1.1) and those which support the implementation of national strategies (Activity 3.1.3). These activities will further strengthen the value of EAF and ENA membership and contribute to the successful growth of the data space.

EF, together with ENA and DS AGG, will complement the Training Programme (Activity 3.4.1) with developing and delivering further opportunities and activities that exchange knowledge in topics related to the experiences and insights gained as accredited aggregators. Complementing the enhanced accreditation scheme (Activity 3.1.2), opportunities for peer-to-peer support between aggregators, one-to-one support between EF and aggregators, and between aggregators and CHIs will be developed and implemented.

EF, together with ENA and EAF will disseminate community and network-building opportunities through Europeana Pro, the Europeana LinkedIn group and a monthly newsletter (see Activity 3.3.1). Exploring platforms, mechanisms and opportunities to support both the interaction between professionals and the growth of membership and collaboration between Network members (see Activity 3.3.3), will contribute to the development of target audiences for increasing data quality and reuse.

|--|

EF	Technical conference to train and inform Spanish CHIs on the flow of data from them to Hispana, and from Hispana to Europeana	Mar 2024
EF	Partnership with European Students Association for Cultural Heritage (ESACH) developed	Ongoing
EF	Activities that promote the value of participating in training and knowledge transfer by ENA and EAF delivered	Ongoing
EF, DS AGG	Knowledge transfer supported (incl. one-to-one support and helpdesk for CHIs, peer-to-peer support between aggregators and experts)	Ongoing
EF	Europeana Communicators Community supported	Ongoing
EF	Europeana Climate Action Community supported	Ongoing

REPO	REPORTING INDICATORS				
ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 3.15	Reach to Europeana Communicators community	Number of people reached per month (Newsletter, LinkedIn, mailing list)	Quarterly	3,143	-
RM 3.16	Reach to Europeana Climate Action community	Number of people reached per month (Basecamp, mailing list)	Quarterly	445	-
RM 3.17	CHIs supported by DS AGG	Total number of CHIs supported by individual consultation (cumulative)	Quarterly	109	-
RM 3.18	Coverage of CHIs supported by DS AGG	Total number of countries that received support by individual consultation (cumulative)	Quarterly	27	-
RM 3.19	Outreach to CHIs	Total number of new CHIs collaborating with DS AGG (cumulative)	Quarterly	27	-

# Task 3.6. Facilitate the reuse of high quality data

Based on preliminary user research and secondary data gleaned over the past years, we know there are audiences who consistently use and reuse digital cultural heritage, for example, professionals in cultural heritage; education (primary, secondary, and tertiary) professionals; researchers and students; and developer communities and API customers. We will also investigate potential new use cases for reuse in other sectors (Media, Tourism, Creative Industries) connected to other data spaces (Task 3.2).

EF will report on activities and results towards use and reuse by relevant user groups in the DS. Data supply and reuse reports.

#### **Activity 3.6.1. Engage with educational communities**

Partners: EF, EUN, EuroClio, DS AGG

The future citizens of Europe, individuals, students and educators in primary and secondary institutions across Europe, can benefit from the cultural heritage materials offered in the data space. While the materials themselves can be useful, we will also work together to raise their digital skills and capacity, and foster the use and reuse of existing learning resources as well as the creation of new resources with digital cultural heritage.

Through events, webinars, workshops and articles, EF will work together with the Europeana Education community to embed digital cultural heritage in education and foster innovation.

EF will nurture and design activities with other established partners like the School Education Platform (previously known as School Education Gateway and eTwinning), national communities of educators, and interested Ministries of Education. We will strengthen our collaboration with non-formal education organisations or initiatives like Centrum Cyfrowe, All Digital or the LEM Group of NEMO.

Together with EUN and EuroClio, EF will raise awareness of the educational value of digital cultural content, and encourage the use of digital cultural heritage in formal and non-formal education. We will mostly focus on reusability, curation and translation of existing resources (more than 1,000 educational resources so far) and regularly publish the best examples for formal and non-formal professionals to use while also creating new resources. With both partners, we will follow up using the 'train-the-trainer' methodology to increase our national communities' outreach.

In pursuit of making resources more accessible to speakers of different languages, EUN will revamp the *Europeana Educators Network* to focus more on reusability, running national trainings and providing multilingual learning materials to publish on the *Teaching with Europeana*. EUN will run the Europeana MOOC 'Digital Education with Cultural Heritage' in Polish and a second language to be determined. EUN will also organise the Europeana Education competition during the STEM Discovery Campaign 2024 to encourage the reuse of learning resources.

In Y2 a new run of Built with Bits will take place in collaboration with the <u>Macedonia Studio</u> experts. Considering the learnings of the previous runs in 2021 and 2022, this educational programme will go on exploring immersive technologies and the reuse of Europeana 3D content by students and educators, based on the New European Bauhaus and the Twin it! values and objectives.

EF will also collaborate with EuroClio to further develop their partner pages and encourage CHIs to create a partner page that uses Europeana APIs and profiles Europeana material. EuroClio will also develop training and co-creation sessions for CHIs with the involvement of the DS AGG and other educational organisations that want to have a partner page and create learning material. To build capacity among educators, in 2024 we will run the online self-paced course piloted in Y1 for potential users and organise a train-the-trainer event, bringing together teachers and cultural heritage professionals. The new EuroClio trainers from Y1 will organise three national trainings in 2024.

Partners	Outcomes	Expected due date
EuroClio	Historiana online self-paced course launched	Nov 2023
EF	Annual Open Education Week: contribution added	Mar 2024
EF	Built with Bits 3 organised	Mar 2024
EuroClio	'Train the trainer event' organised	Apr 2024
EF	All Digital Week campaign: contribution added	May 2024
EUN	Europeana Education competition organised	May 2024
EUN	Third and fourth language version (tbc) of the updated Digital Education with Cultural Heritage MOOC completed	Jun 2024

EUN	EUN national training/outreach activities organised (10 activities )	Aug 2024
EuroClio DS AGG	10 New learning materials and 15 new translations of existent content published on Historiana	Aug 2024
EUN	100 stories of implementation to upload on the Teaching with Europeana blog and 500 microstories of reuse	Aug 2024
EuroClio	National trainings organised (3 trainings)	Aug 2024
EF	Blogs and social media posts (LinkedIn, Facebook, Twitter) published	Ongoing
EF	Europeana Education community supported	Ongoing

### **KEY PERFORMANCE INDICATORS**

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024
KPI 3.6	Educators reached in national training events <sup>12</sup>	Total number of educators (cumulative)	Bi-annually	1,638	1,000
KPI 3.7	Satisfaction rate of educational communities	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	88%	75%

# REPORTING INDICATORS

ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 3.20	New learning resources for education <sup>13</sup>	Total number of new resources created with data shared through Europeana.eu (cumulative)	Quarterly	261	-
RM 3.21	Language variations of existing learning resources	Total number of new translations of learning resources (cumulative)	Bi-annually	34	-
RM 3.22	Participants completing the Europeana Education	Total number of participants (cumulative)	Bi-annually	367	-

 $<sup>^{\</sup>rm 12}$  Y2 will include both educational partners (EUN and EuroClio).  $^{\rm 13}$  This includes new Stories of Implementation (SoI).

	online courses				
RM 3.23	Traffic to educational platforms (TwE blog and Historiana)	Number of visits to educational resources created with data shared through Europeana.eu (cumulative)	Bi-annually	165,707	-
RM 3.24	Reach to Europeana Education community	Number of people reached per month (mailing list, LinkedIn, Facebook)	Quarterly	11,400	-

#### **Activity 3.6.2. Engage with academic and research communities**

**Partners:** EF and DARIAH

Higher education and research institutions are increasingly focused on digitally-enabled teaching, learning and research. University teaching staff members are engaged in educational and research activities, and are optimal intermediaries and guides for students in higher education, able to advise on using the data space and guiding use and reuse of digital cultural heritage. Other audiences include PhD students and early-career scholars, cultural heritage professionals engaged in research, and non-professional researchers (e.g. citizen scientists).

These higher education and research audiences already represent a large proportion of users of Europeana.eu and Europeana Pro, and are well-represented by participation in the ENA, especially in the Europeana Research Community.

We will engage academic and research professionals in developing products, like training materials, that can facilitate the use and reuse of digital cultural heritage in innovative ways, and we will promote the potential of the data space for academia and research. EF will continue nurturing collaborations with research infrastructures and projects. In particular, EF and DARIAH (European Digital Research Infrastructure for the Arts and Humanities) will continue ensuring Europeana's visibility on external platforms, especially through the planned training course on the Europeana APIs for the DARIAH Campus. We will continue gathering requirements from academic and research communities and conducting research on digital cultural heritage as an emerging subject in universities.

EF will organise and contribute to events that foster collaboration between the cultural heritage, academic and research sectors, and will continue acting as liaison between the Europeana Research Community and other cultural heritage communities, such as LIBER and the International GLAM Labs Community. In particular, EF will explore opportunities of involving community members in organising events at a national level.

EF will continue leveraging the support of the Europeana Research Advisory Board, composed of internationally known university professors of Digital Humanities and Information Science, in analysing users' interests and motivations, tailoring the Europeana offering of content and APIs and increasing the visibility and reliability of Europeana products. Research on uses cases and users' needs, including those relating to 3D, will contribute to task 3.2.

In Y2, EF and DARIAH will actively promote and test with users the <u>Collections as Data workflow</u> published on the SSH (Social Sciences and Humanities) Open Marketplace within the EOSC (European Open Science Cloud), encouraging data space actors to publish datasets reusable with computational methods. EF will continue supporting the Europeana Research Community, especially the expert group - set up in collaboration with EuropeanaTech - on <u>datasheets for digital cultural heritage</u>, as standardised publication format for documenting a dataset. EF will strengthen interchanges between the data space and the EOSC that is now in its transition towards a data space for research and innovation. The Data Space for Skills will also offer new opportunities to explore, for example within the European Year for Skills 2023.

Partners	Outcomes	Expected due date
DARIAH	Training resources for academic and research data users published on the SSHOC Marketplace v.2	Aug 2024
DARIAH	Training course on 'Using Europeana APIs in Research and Higher Education' for DARIAH Campus developed	Aug 2024
EF	Research on digital cultural heritage as an emerging university subject published	Aug 2024
EF	Update on use of 'Collection as data' workflow	Aug 2024
EF	Europeana Research community and Research Advisory Board supported	Ongoing

EF	Liaison with other academic research and cultural communities developed and maintained (LIBER, GLAMLabs)	Ongoing
EF, DARIAH	Outreach events for academic and research communities (co)organised or contributed to	Ongoing

REPOF	REPORTING INDICATORS				
ID	Description	Measured by	Frequency	Baseline Aug 2023	-
RM 3.25	Outreach events to academic and research communities	Total number of events contributed to or (co)organised (cumulative)	Quarterly	5 <sup>14</sup>	-
RM 3.32	Europeana Research and the data space contributions	Total number of cultural heritage domain experts, university teaching staff members, researchers, university students trained in using the data space's outputs as tools (cumulative)	Quarterly	NEW	-
RM 3.26	Reach to Europeana Research community	Number of people reached per month (Discussion list, Twitter)	Quarterly	7,272	-

# Activity 3.6.3. Engage with the developer communities and API customers Partners: EF

To engage with the developer and creative communities, we will focus on updating our API documentation in tandem with API development, while we continue to connect with the user community to understand needs, and explore new potential reuse communities (Activity 3.2.2.).

In tandem with development efforts in Activity 1.1.3, the Europeana API documentation pages will be updated to reflect the changes in the APIs, provide better support to existing API users and improve the onboarding of potential new API users. EF will follow

<sup>&</sup>lt;sup>14</sup> This number only reflects events organised by EF - from Y2 onwards this metric will also include external events co-organised and/or contributed to.

the recommendations provided in a platform strategy for professional audiences (Activity 3.3.3.) to ensure that the change of platform is in line with said strategy. New email templates will be developed to improve the onboarding process for new API users.

Further resources will be developed to support the capacity building work, leveraging the Training platform to house our API training resources. The goal of these capacity building resources is to provide multiple learning pathways for users to learn about and start using Europeana's APIs for the reuse of digital cultural heritage.

Once capacity building resources have been created and potential events and outreach activities have been identified, new API developments will be marketed towards developer communities, potential new users of the Europeana APIs, and data platforms for cultural and creative industries. New integrations from external users will be promoted on Europeana Pro.

Other new features and updates to Europeana's API suite will be promoted at relevant community events and with direct contact to existing Europeana API users. The learning pathways developed during Y1 will be used to hold capacity building events across different communities, also supporting the Education and Research engagement efforts, to increase the uptake of Europeana APIs in sectors related to or interested in digital cultural heritage. A 'for developers' landing page will be developed on europeana.eu as a starting point for user journeys involving API users and associated documentation.

We will monitor API usage and report on it in the DS. Data supply and reuse report (including segmentation of API usage in educational sector, research, creatives etc.).

Every two years we update our API outreach strategy to ensure it is in line with our organisational goals and mission. A new update to the API outreach strategy will be published in 2024, focusing on the changes of platforms for documentation and training and the new API versions.

Partners	Outcomes	Expected due date
EF	API outreach strategy updated	Feb 2024
EF	Landing page for onboarding API users completed	Jun 2024

EF	Capacity building resources for API users developed	Aug 2024
EF	API documentation maintained and updated	Ongoing
EF	API related developments promoted and communicated to users (incl. changes to Europeana API products and services, new or updated reuse projects)	Ongoing
EF	Europeana API services and capacity building resources presented at relevant events	Ongoing

KEY P	KEY PERFORMANCE INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024	
KPI 3.8	API users (external)	Total number of (external) API users per month	Monthly	117	200	
REPO	RTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline	-	
RM 3.27	API usage (REST API)	Total number of requests per month (external traffic)	Monthly	10.47 million	-	
RM 3.28	API sign-ups (REST API)	Total number of API sign-ups (cumulative)	Monthly	781	-	

# Work package 4: Digital services for the public

Experience shows that the primary audiences that the Europeana Initiative successfully reaches are overwhelmingly cultural heritage professionals, and, equally successfully, educators, researchers and students. The foundation of the data space is the well-established Europeana.eu. Specific attention will be given to better serve current audiences and position the data space as an attractive option to new audiences (media, tourism, cultural/creative industries). This will involve continued optimisation (and communication) of existing functionalities and exploring additional features, with input and feedback from audiences, determining where to focus our efforts (Task 4.1).

The consortium will also engage audiences with digital cultural heritage by expanding pan-European themes and perspectives, inspiring use, reuse, and participation, and communicating activities to audiences (Task 4.2).

# Task 4.1. Deliver high-performing Europeana website

Europeana.eu offers pan-European content to anyone with an interest in cultural heritage. People can search, browse and access the website's content in all 24 official languages of the EU. Most of the people visiting the website are new visitors coming from organic search. The website also has a steady flow of loyal visitors who come once a week or month to find and download items and curate galleries.

The ability to explore a vast range and volume of cultural heritage in one place, and make connections across European collections, is what makes Europeana.eu unique. We will ensure the website is easy to access, looks appealing, and functions well on all devices – and is ready to take advantage of 5G infrastructure as it continues to expand across Europe (Activity 4.1.1).

The majority of current visitors come to the website to search. EF will continue to improve search accuracy (Activity 4.1.2.) and browse experience (Activity 4.1.3.), and expand multilingual coverage including all EU official languages (Activity 4.1.4).

We aim to turn new visitors into returning visitors by improving the findability of content and turn returning visitors into brand ambassadors who help us improve the website by providing feedback and curating content. EF will do this by extending user participation features (Activity 4.1.5) and optimising the user feedback mechanism (Activity 4.1.7).

#### Activity 4.1.1. Optimise the responsiveness of the website

**Partners: EF** 

EF will ensure the website is fully responsive on all screen sizes, large and small. EF will follow a gridless design approach which ensures that the design adjusts itself to render well on any size screen. These activities include improving the mobile experience and optimising it to take advantage of the 5G infrastructure being deployed across Europe.

#### Overview of outcomes

Partners		Outcomes	
	EF	Website is fully responsive and 5G-ready (implementation)	Ongoing

#### Overview of indicators

KEY F	KEY PERFORMANCE INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024	
KPI 4.1	Traffic to the Europeana website	Number of visits per year (cumulative)	Monthly	5.7 million	6.6 million	
KPI 4.2	User satisfaction rate with Europeana website	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Bi-annually	71%	75%	

# Activity 4.1.2. Optimise search experience, prioritising relevance and data quality

Partners: EF

EF will continue to improve the search experience, building on and complementing the earlier progress made against the DSI Search Improvement Strategy<sup>15</sup>. EF will continue to work towards improving the ranking of search results. To this end, EF will explore employing the recently extended usage logging system, which collects data like the rank of specific items clicked on by users for specific queries and could be used to boost elements that bring the most relevant results. Collected data will also allow us to

<sup>&</sup>lt;sup>15</sup> Roadmap available at <u>Europeana Search Strategy</u>. Actions are flagged with their associated reference number for cross-reference purpose.

implement the performance metrics presented in the search strategy to assess the impact of the changes made to the search function.

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF	Compute log-based evaluation metrics and prioritise requirements for second iteration of user search logs (EVAL-5, EVAL-6, EVAL-7)	May 2024
EF	Search relevance and performance maintained	Ongoing

#### Activity 4.1.3. Optimise browse experience to improve content discovery

**Partners: EF** 

To attract more casual users to the website we want to improve the browsing experience. We will show publically how many times stories (blog posts and exhibitions) are viewed monthly thereby offering social proof that the website is popular. Additionally, we will highlight the items that are trending in real time on the website based on their engagement numbers such as views, downloads, likes and shares showing our users' interest and how it correlates to news events around the world. Since this component will update in real time we hope to see people coming back to the website more frequently to see the trending items. We will also update the design of the organisations' page to clarify our aggregation model and highlight our providing institutions further. Lastly, we will develop a curated, visually attractive browse experience similar to social media platforms such as Instagram or Pinterest that enable people to browse content easily and continuously.

Partners	Outcomes	Expected due date
EF	Public display of monthly view numbers on stories and trending item pages available	Nov 2023
EF	Redesign the organisations' page to highlight the providing institutions further	Feb 2024
EF	Curated and visually engaging browse experience implemented	Aug 2024

# Activity 4.1.4. Expand multilingual coverage to include all EU official languages

**Partners:** EF

EF will further progress the Europeana multilingual strategy both by efforts within this service contract and by integrating the data and services produced by Europeana partner projects, such as the <u>Europeana Translate</u> translation service. We will continue improving multilingual access to the Europeana website, recognising that different components of the website require different approaches to localisation in order to ensure the best possible experience for the users.

#### Increasing multilingual (meta) data

EF will continue to source more translations of the metadata, especially by integrating multilingual vocabularies (Activity 2.2.2). Progress will be measured as part of the outcome 'Report on the (multilingual) coverage of the entity collection' (Activity 2.2.2). In Y2, EF's work on automatically increasing the amount and the quality of multilingual metadata will chiefly focus on the identification of the language of metadata values. We will conduct investigations towards fitting automatic language detection during ingestion or post-publication processes, either to complete missing language identification or to fix incorrectly identified languages (one of the problem patterns identified for Activity 2.2.1).

#### Expanding multilingual search

In Y2 our work will focus on one of the technical foundations for multilingual search, i.e. the Translation 'broker' API, which will be extended and optimised in order for the multilingual search to be applicable to other portals than the Spanish one. This includes the following outcomes from Activity 1.1.3: internal services using machine translation are integrated with the Translation API, integration experiments and sharing requirements and data with the eTranslation service, Translation API is extended and optimised. We will also continue discussions with the eTranslation team to identify how we can integrate their services into our API.

#### Improving multilingual interface

We will continue to provide all static text elements in all 24 EU languages, in line with the <u>Europeana multilingual strategy</u>. We will improve the quality of machine translations by strengthening our quality-checking process, using native speakers who are familiar with the context and vocabulary of the cultural heritage sector.

In Y1, we experimented with leveraging the multilingual capabilities of professionals engaged through the Europeana Network Association (ENA) and the Europeana Aggregator Forum (EAF) (i.e. by engaging members with Call to Actions to collect feedback on machine translations in their native or spoken languages).

In Y2, with our experience of working with aggregators and project partners, we will establish the process through which we will gain systematic input from national heritage experts on localising the europeana.eu interface.

# Extending multilingual coverage of editorial

To expand the reach of our editorial content, EF will focus on improving multilingual accessibility to this material by increasing the number of languages in which editorial content is accessible – both within the data space and in our outreach (Activity 4.2.3). This effort will be reflected in building a solid and scalable translation validation process involving national heritage experts as much as possible, by asking them to either provide multilingual editorial or validating machine-translated text.

In Y2, building on learnings from Y1, we will pilot and develop a consistent approach to sourcing translations of editorial content (as part of Activity 4.2.2.), combining human and machine translations. Consequently, we will update Europeana editorial guidelines to further reflect and accommodate an expansion of multilingual editorial. To measure the effectiveness of the pilot, we will report the percentage of stories (blogs and exhibitions) published in more than one language during the contract year, and evaluate the process.

At the same time, we will continue to select high-quality, engaging editorials for translation into multiple languages based on their popularity, topicality and timeliness, especially in relation to pan-European themes and perspectives (Activity 4.2.2.).

Partners	Outcomes	Expected due date
EF	Definition of an approach to automatic language tagging of metadata, based on investigation of existing automatic solutions	Feb 2024
EF	Process for systematically validating translations established	Jun 2024
EF	Consistent approach to sourcing translations of editorial content developed	Jun 2024

EF	Consistent approach to sourcing translations of editorial content piloted	Jul 2024
EF	Multilingual coverage of editorial content increased	Ongoing
EF	Maintain user interface translations in supported languages	Ongoing

REPORTING INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	-	
RM 4.1	Multilingual coverage of editorial content	Percentage of stories (blogs and exhibitions) published in more than one language during contract year	Annually	38%	-	
RM 4.2	Multilingual coverage of editorial content	Percentage of stories (blogs and exhibitions) published in all 24 EU languages during contract year	Annually	7%	-	

# **Activity 4.1.5. Extend user participation features**

Partners: EF

We will develop a feature that will enable people to request and upvote new functionalities on the website. This feature request mechanism will make our feature prioritisation process more transparent and highlight the interest of other users. It will be behind login, so only available to our most engaged users. It will be an additional mechanism for people to engage with the website and decide as a community which features are most critical to prioritise.

#### *Overview of outcomes*

Partners	Outcomes	Expected due date
EF	Feature request page	May 2024

#### Overview of indicators

REPC	REPORTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline Aug 2023	-	
RM 4.3	User participation: account holders	Total number of account holders	Quarterly	27,549	-	
RM 4.4	User participation: liked items	Total number of items liked by users	Quarterly	31,760	-	
RM 4.5	User participation: galleries	Total number of user-created galleries	Quarterly	7,267	-	
RM 4.6	Downloads of digital items on the Europeana website	Total number of downloads (cumulative)	Quarterly	200,884	-	

## **Activity 4.1.6. Optimise user interaction and display of content**

**Partners:** EF

EF will continue promoting a more visual experience for its users. The website will ensure that all media including 3D can be viewed and interacted with on the website. EF will continue to consolidate the current experience supported by diverse media players into a more user-friendly experience using fewer media players for each media type. In Y1, we consolidated the image and text viewers to predominantly use the IIIF Mirador viewer to view these types of media. In Y2, we will focus on consolidating the video and audio viewers. This effort not only improves the user experience of the website, it also aids the maintenance of the website.

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF	Consistent user experience and optimal performance of all media playouts (video and audio) improved	Aug 2024

## Activity 4.1.7. Optimise user feedback mechanism

**Partners:** EF

After consolidating the backend infrastructure that supports the user feedback mechanism in Y1 to make it easier to streamline how we process, reply and analyse the

user feedback across the organisation, in Y2 we will streamline its operational workflow for responding to feedback for all user-facing products (such as Europeana Pro, the Data Statistics Dashboard). EF will consolidate its existing user feedback workflow and hub to manage user feedback in a more centralised manner across the data space.

Relevant user feedback will also be incorporated into the desk research we will conduct in Task 3.2. We will report on user feedback (including number and type of user feedback received as well as actions taken to address user feedback) as part of the DS. Users and usage reports. We will also start tracking user satisfaction with our feedback process including quality of reply and response time to gather information for further iterations.

#### *Overview of outcomes*

Partners	Outcomes	Expected due date
EF	Admin area of user feedback mechanism consolidated	Jan 2024
EF	User satisfaction with the feedback response tracked and evaluated	Ongoing

#### Overview of indicators

KEY P	KEY PERFORMANCE INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024		
KPI 4.5	User satisfaction rate with user feedback mechanism	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Monthly	NEW	80%		
REPO	RTING INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	-		
RM 4.7	Average of initial response time to user feedback	Average number of hours per month	Monthly	5.45h	-		
RM 4.8	Average of total resolution time to user feedback (excl. user feedback where the responsibility lies	Average number of hours per month	Monthly	11.7h	-		

outside of Europeana DS consortium)				
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# Task 4.2. Engage audiences with digital cultural heritage

Under this task, EF will expand digital opportunities for the public by driving participation with cultural heritage (Activity 4.2.1) in and around the data space. EF will work with consortium members, cultural heritage institutions and other partners to produce impactful content on pan-European themes and perspectives (Activity 4.2.2). EF will promote engaging, high-quality cultural heritage and editorial content on the Europeana website, via its social media channels, newsletters and on external platforms (Activity 4.2.3).

EF will report on activities engaging audiences with digital cultural heritage in the DS. Users and usage reports.

### **Activity 4.2.1. Drive participation with cultural heritage**

Partners: EF and F&F

To expand digital opportunities for the public to participate with and reuse cultural heritage, EF will showcase high-quality and open access data on the Europeana website, highlight user-created galleries and the Europeana account functionality, and promote the interactive features of the website. EF will use feedback received from users to expand on activities across the data space (e.g. on data quality and openness of data) as well as to further develop data space products and services.

To highlight 3D content on the Europeana website to audiences and encourage cultural heritage institutions to contribute more 3D items, EF will work with partners to showcase high-quality 3D content on the Europeana website. CARARE, INCEPTION, and TMO will provide feedback to this activity. Once the contributors to the Twin it! campaign provide 3D content to the Europeana website, we will create and publish related editorial.

EF will programme, host, and join online events and campaigns like the <u>Digital</u> Storytelling Festival and <u>GIF IT UP</u> to foster digital skills and participation with cultural heritage, teaching people how to find and use open access cultural heritage data. By showcasing inspiring examples of digital storytelling and content reuse, EF will

encourage audiences to reuse cultural heritage and promote the data space as a treasure trove of open access heritage data.

Partnerships hold great value in terms of enabling both EF and collaborating partners to reach identified core audiences as well as new audiences, increase participation and raise awareness of the Europeana Initiative, the data space and digital cultural heritage. EF will create new collaborations, for example, with the Goethe Institute, to develop new goal-oriented audience-focussed activities, and will strengthen existing initiatives like GIF IT UP and the Digital Storytelling Festival by inviting collaboration with new partners with diverse perspectives. Alongside nurturing existing collaborations, for example with <a href="Unsplash">Unsplash</a> and the Khalili Foundation, this will allow us to shape events and activities that deliver benefit to EF, to our collaborating partners and to our shared audiences (in a social, professional, or financial sense).

To raise awareness of digital cultural heritage available for use and reuse, EF will continue to participate in major online campaigns that include a geographic and thematic variety of cultural heritage institutions, such as #ColorOurCollections and social media campaigns (e.g. #museumweek).

Together with F&F, EF will continue to foster participation via the website Transcribathon.eu, which offers educators, their students, and European citizens more broadly, the chance to transcribe and edit a variety of historical documents in different languages. We will also maintain the connection between Transcribathon.eu and the Europeana website. This year, we strive to increase efforts towards communication and dissemination to multiply engagement of CHIs and participants. In addition, we will implement a website analytics procedure for Transcribathon.eu in alignment with Europeana products.

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF	GIF IT UP organised	Oct 2023
EF	Digital Storytelling Festival organised	May 2024
EF	Europeana website (incl. account functionality, user-created galleries) promoted	Ongoing
EF	High-quality open access data promoted, including 3D, to established and new audiences	Ongoing

EF, F&F	Transcribathon events, online runs and workshops organised and promoted in partnership with CHIs	
F&F	Transcribathon platform maintained	Ongoing

#### Overview of indicators

REPO	REPORTING INDICATORS					
ID	Description	Measured by	Frequency	Baseline	-	
RM 4.13	Reach of activities that promote the use/reuse of cultural heritage	Number of participants taking part in activities (incl. DSF, GIF IT UP, Transcribathon events and others)	Quarterly	NEW	-	
RM 4.14	Audience creations made with digital cultural heritage	Total number of submitted reuse/remix cases (including but not limited to gifs, social media posts, transcribed items)	Quarterly	NEW	-	

# Activity 4.2.2. Broaden impact of cultural heritage by expanding pan-European themes and perspectives

Partners: EF, DS AGG

To demonstrate the relevance of cultural heritage to our audiences, EF will develop and publish multilingual editorial content that connects history and culture across borders to contemporary themes and events that audiences care about, like climate change, social issues, historical anniversaries and current events.

EF will work with consortium members and external partners to curate, publish and promote content that discusses cultural heritage and history from a range of pan-European perspectives, with many efforts happening in partnership with cultural institutions across Europe. We will share with consortium members the editorial planning for Y2 so we can strengthen our existing collaborations. We will also expand the reach of our editorial content, by promoting multilingual editorial (written in a language other than English) in relevant languages.

Working collaboratively with the European Commission on initiatives like the <u>New European Bauhaus</u>, Twin it!, <u>Laptops for Ukraine</u> and <u>European Year of Skills</u> EF will

continue to develop and promote content that demonstrates the role of cultural heritage in these campaigns.

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF, DS AGG	Multilingual editorial content (exhibitions, blogs, and galleries) <sup>16</sup> published and promoted	Ongoing
EF	Pan-European themes organised (e.g. Black History Month, Women's History Month and Pride Month)	Ongoing
EF	Collaborations with European Union initiatives sharing cultural heritage promoted	Ongoing

#### Overview of indicators

KEY P	KEY PERFORMANCE INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024		
KPI 4.3	Audience satisfaction with editorial (exhibitions, blogs)	Total % of 'satisfied' and 'completely satisfied' responses on 5-point Likert scale (cumulative)	Quarterly	89%	80%		
REPO	RTING INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	-		
RM 4.11	Traffic to exhibitions and blogs	Number of visits to all exhibitions and blogs (cumulative)	Quarterly	1.43 million	-		

## Activity 4.2.3. Communicate the data space for cultural heritage activities

**Partners:** EF

Communicating the value and opportunities of the data space for cultural heritage to European citizens is critical for its success. Communicating directly across EF's own channels and those of cultural heritage organisations and other partners, EF will

 $<sup>^{\</sup>rm 16}$  Editorials from data space supporting projects contribute to this outcome.

promote the uniquely pan-European, high-quality and multilingual experience of the data space. This will be done in full compliance with data protection legislation.

In particular, our communication efforts will focus on building understanding around the data space, its distinctive features, the role the Europeana Initiative plays in it, as well as opportunities to contribute to and benefit from it. To achieve this, we will release a dedicated data space landing page - where all related information, developments and activities can be easily accessed (see Activity 3.3.1).

In collaboration with Activity 3.3.1, where the overall communication strategy and action plan will be developed, EF will promote high-quality collections and multilingual editorial content on the Europeana website, via its social media channels, newsletters, and on external platforms. In close collaboration with Activity 4.2.2., we will expand the reach of our editorial content, by promoting multilingual editorial (written in a language other than English) in relevant languages. We will also involve partners in the promotion of content where relevant.

Content promotion will be optimised to the characteristics of each platform and its possibilities, and EF will make use of platforms' interactive features, such as quizzes and polls, to create welcoming and accessible ways to interact with cultural heritage content.

To broaden its reach into audiences with limited knowledge of digital heritage and how to access it, EF will also pursue collaborations, such as social media account take-overs, with relevant organisations, with special focus on those working with the heritage of underrepresented/marginalised communities.

Europeana material and editorial provides opportunities for repromotion or reuse in a tourism setting as well as in the creative industries, journalism, gaming and broadcasting. EF will explore opportunities with the data spaces for tourism and media, as they develop.

#### Overview of outcomes

Partners	Outcomes	Expected due date
EF	Newsletter and social media posts (Facebook, Twitter, Instagram, Medium, Pinterest) published <sup>17</sup>	Ongoing

<sup>&</sup>lt;sup>17</sup> Editorial outcomes of data space supporting projects are promoted.

# Overview of indicators

KEY P	KEY PERFORMANCE INDICATORS						
ID	Description	Measured by	Frequency	Baseline Aug 2023	Target 2024		
KPI 4.4	Social media reach	Total number of impressions on social media (Facebook, Pinterest, GIPHY, Instagram, Twitter, Medium, LinkedIn) (cumulative)	Monthly	431.8 million	450 million		
REPO	RTING INDICATORS	S					
ID	Description	Measured by	Frequency	Baseline Aug 2023	-		
RM 4.12	Social media engagement	Total number of likes, shares, comments per month (Facebook, Twitter, Pinterest, Instagram, Medium, LinkedIn)	Monthly	302,981	-		

# Work package 5: Programme management

EF will provide high-quality programme management of the data space for cultural heritage, including continuous progress monitoring and reporting (task 5.1). We will work closely with the European Commission, the Commission Expert Group on the Common European Data Space for Cultural Heritage (CEDCHE) and its subgroups to review activities and developments of the data space (task 5.2.). We will manage the relations with the projects funded under the different EU programmes (e.g. Digital Europe Programme, Horizon Europe, Erasmus+) to ensure the smooth integration of their results into the data space (task 5.3.).

Progress on work planned in the PM. Implementation plan M12 will be reported on in the PM. Periodic reports and PM. Annual report M24.

# Task 5.1. Ensure continuous progress monitoring and reporting

**Partners: EF** 

EF will, as group leader of the Europeana DS consortium, continuously monitor the progress of the consortiums' work towards the set commitments and KPIs and provide regular reports to the European Commission on its performance. Furthermore, EF will ensure the quality and timely delivery of deliverables to the European Commission as set in the tender specifications.

PM. Implementation plan M12 provides an overview of the planned outcomes for Y2 of the data space (Sep 2023 - Aug 2024). EF will report back on progress and performance every three months in the PM. Periodic reports. In case an outcome is completed in the reporting period, a description will be added that highlights the objective and result of the outcome and its value for the data space.

Risk management is an essential part of the data space programme management. EF has a risk management plan in place that (a) describes the risk management strategy and the methodology followed<sup>18</sup> for managing risks throughout the contract duration and (b) nominates the relevant people responsible<sup>19</sup>. The accompanying risk log registers the assessment of risks following the rules of the plan, including risk responses

<sup>&</sup>lt;sup>18</sup> The methodology explains how to identify and classify risks, how to assess them (in terms of impact and likelihood, in five levels each), responses (incl. possible escalation plans) and control. It also indicates who and how often risks are reviewed and assessed, how risks are logged, and how risks are governed (e.g. by involving ENA, EAF, and CEDCHE).

<sup>&</sup>lt;sup>19</sup> A RACI (Responsible, Accountable, Consulted, Informed) approach is used for this purpose. PM. Implementation plan M12

(avoidance, mitigation, acceptance, transfer) and relevant details. It also shows the historic assessment of each risk. The risk log will be updated periodically and any changes will be communicated to the European Commission with the PM. Periodic reports and/or ad hoc via direct communication (for example, via email). The current list of assessed risks is provided in <a href="mailto:Annex 5: Risk log">Annex 5: Risk log</a>.

#### Task 5.2. Governance

**Partners: EF** 

Under this task, EF will report regularly to the European Commission and, by invitation, to the Commission Expert Group on the common European data space for cultural heritage (CEDCHE) on the status of the data space activities and developments, risks and performance indicators. Any strategic direction or advice shared by the European Commission and CEDCHE (subgroups) will be taken into account and will be reviewed for impact, relation to strategy and business planning. If the CEDCHE requests re-prioritisation, adjustment or redistribution of effort, EF, as group leader of the Europeana DS consortium, will aim to accommodate them.

The Commission and EF will meet monthly in Operational Management Board (OMB) meetings to review and discuss deliverables, operational matters, contractual matters, coordination and other implementation aspects. Additional ad-hoc meetings might be scheduled when necessary. Within five days following each meeting, EF will circulate minutes of the meeting to all participants, together with copies of presentations made during the meeting or other related documents. The minutes will be concise and concentrate on major decisions and will list the open action points for the next reporting period. In addition, the European Commission and the Europeana DS consortium will have an annual review meeting to evaluate overall performance at the end of Y2 of the data space and to make recommendations for the next project period.

The Europeana DS consortium will meet annually in a general assembly (planned for Nov 2023), which will be held online.

Furthermore, the Europeana DS consortium concluded a consortium agreement which describes the responsibilities and liabilities of the project partners as well as the governance and management of the tender commitments. Special attention was granted to the identification of pre-existing rights, as required by the tender specifications.

EF will make sure that all consortium partners (and subcontractors) declare pre-existing rights (if applicable) and EF will submit an updated list of pre-existing rights with each PM. Periodic report.

# Task 5.3. Manage relations with other EU-funded projects

**Partners: EF** 

As operator of the data space, EF will support projects funded under the European Union's Digital Europe Programme, Horizon Europe, Erasmus+ among other programmes that contribute to the further development of the data space for cultural heritage with the following:

- Advise on the correct implementation of Europeana frameworks and policies relevant and/or requested by the Digital Europe and Horizon Europe calls, e.g. Europeana Publishing Framework, Europeana Data Model, Editorial Guidelines, Impact Framework.
- Sustainable integration of the project results into the data space for cultural heritage, e.g. ingestion of content, enrichments, tools, services and editorials.
- Promotion of the project outcomes on Europeana Pro, mainly in the <u>Tools and Services section</u> and <u>Projects space</u>, as well as dissemination to the relevant audiences in cultural heritage, education, research, tourism and the creative industries.

Below an overview of the relevant EU-funded projects which run in Y2 (Sep 2023 - Aug 2024).

EU funding programme	Project Name	Project Duration
Erasmus+ call K2	'WATCHLIKEAHIST' - Watching videos like historian	36 months
DIGITAL-2022-CU LTURAL-02	'5Dculture' - Deploying and Demonstrating a 3D cultural heritage space	24 months
	'DE-BIAS' - Detecting and cur(at)ing harmful language in cultural heritage collections	24 months
	<u>'EUreka3D' - European Union's REKonstructed content</u> <u>in 3D</u>	24 months

	'Al4Europeana' - An Al platform for the cultural heritage data space	24 months
PPPA-CULT-2022 -EUHERITAGEHU B	<u>'EuHErHUB'-European Heritage Hub</u>	24 months
HORIZON-CL2-20 23-HERITAGE-01- 03	'DIGICHer' - Digitisation of cultural heritage of minority communities for equity and renewed engagement	36 months

"Annex 4: EU-funded projects outcomes integration overview" presents the project results expected to be delivered and integrated in the data space during that period. EF will provide a progress update against this overview as part of the PM. Periodic reports. Risks and issues related to the integration of the project results into the data space will be reported and addressed according to the PM. Risk management plan as described in Task 5.1.

# Task 5.4. Phasing-in and phasing-out periods

**Partners:** EF

The work related to the phasing-out and transfer processes to a successor contractor (i.e. a third party contractor awarded by the European Commission to continue the operation, in full or in part) will start in the second contractual year if a contract takeover is required from 1 July 2024 onwards.

# **Annex 1: Overview of performance indicators**

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
WP1	: Development and opera	ation of the data spa	ce infrastru	cture	
KPI 1.1	Records with identifiers using a recognizable persistent identifier scheme	Total number of records in the data repository (incl. Tier 0)	Annually	11,086,121 <sup>20</sup> (Sep 2023)	7 million
KPI 1.2	Response time of Europeana website	Average time (seconds) for single record per month	Monthly	0.94s	1.0s
KPI 1.3	Uptime of Europeana website	Average in % for single record per month	Monthly	99.95%	99.90%
KPI 1.4	Uptime of public APIs (all)	Average in % per month	Monthly	99.98%	99.90%
KPI 1.5	Uptime of Europeana Pro	Average in % per month	Monthly	99.73%	99.90%
RM 1.1	Europeana website meets the WCAG 2.1 conformance level AA	Homepage and item pages (except for the media) meet the WCAG 2.1 conformance level AA accessibility standard	Annually	AA	-
RM 1.2	Response time of all public APIs <sup>21</sup>	Average response time (seconds) per month	Monthly	0.15	-

<sup>&</sup>lt;sup>20</sup> The calculation done in Sep 2023 includes identifiers for which persistence can not be guaranteed. The number of records might change significantly in future calculations (after further investigations and refinements). A more realistic target is set for Y2. During Y2, we aim to stabilise the method to calculate this KPI.

<sup>&</sup>lt;sup>21</sup> Public APIs are the APIs serving external users requests: the Search and Record APIs, the Annotation, User sets and Entity APIs and the IIIF dedicated APIs.

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
RM 1.3	Response time of Europeana Pro	Average response time (seconds) per month	Monthly	0.9	-
RM 1.4	Europeana Pro meets the WCAG 2.1 conformance level AA	Homepage and main landing pages in IA meet the WCAG 2.1 conformance level AA accessibility standard	Annually	AA	-
RM 1.5	Uptime of Metis	Average in % per month	Monthly	100%	-
RM 1.8	Environmental impact of data space	Total carbon footprint of Europeana's digital services per calendar year	Annually	NEW	-
RM 1.6	Data publication in Metis (full workflow from harvest to successful indexing/publication)	Average time required for data publication (incl. full and incremental processing) (cumulative)	Bi-annually	22.07h <sup>22</sup>	-
RM 1.9	Integration of the Metis Sandbox API(s) in Aggregator's infrastructures	Total number of aggregators who tested and/or implemented an integration of the Metis Sandbox API(s)	Annually	NEW	>9
RM 1.7	Reach to EuropeanaTech community	Number of people reached per month (Mailing list, Twitter)	Quarterly	6,685	-
WP2	Integration of high-qual	lity data			
KPI 2.1	High quality data	Number of Tier 2+ material in Tier A+ (excl. content Tier 0)	Monthly	31.2 million	33.0 million

 $<sup>^{\</sup>rm 22}$  The time is related to an average dataset consisting of about 31,300 records. PM. Implementation plan M12

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
KPI 2.2	High quality content	Percentage of Tier 2 + material (excl. content Tier 0)	Monthly	73.03%	>75%
KPI 2.3	High quality and reusable content	Percentage of Tier 3+ material (excl. content Tier 0)	Monthly	55.27%	>60%
KPI 2.4	High quality metadata (search, browse and explore)	Percentage of Tier A+ material (excl. content Tier 0)	Monthly	74.15%	>80%
KPI 2.5	Broken links in the repository	Number of broken links (out of total, incl. content Tier 0)	Quarterly	2.04% (Jun 2023)	<1%
KPI 2.6	Non-EPF compliant content (Tier 0)	Percentage of Tier 0 content	Quarterly	8.27%	<8%
RM 2.1	Reach to Europeana Copyright community	Number of people reached per month (Mailing list, Twitter)	Quarterly	3,075	-
RM 2.2	Updates to datasets	Total number of newly created and updated datasets per month (out of total)	Monthly	22	-
RM 2.3	Updates to records	Total number of newly created and updated records per month (out of total)	Monthly	640,242	-
RM 2.4	New CHIs providing data to the data space	Total number of new CHIs (cumulative)	Annually	154	-
RM 2.5	New content on the Europeana website	Total number of new datasets published (cumulative)	Quarterly	114	-
RM 2.6	Records in the data repository	Total number of records (excl. content tier 0)	Quarterly	57,229,406	-
RM 2.7	Records in the data repository by accredited aggregators	Total number of records (excl. content tier 0)	Quarterly	42,210,294	-

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
RM 2.8	3D content available in Europeana (items)	Total number of 3D items published (Tier 2+ and Tier A+ material)	Quarterly	4,635	-
RM 2.9	3D content available in Europeana (CHIs)	Total number of CHIs sharing 3D content with Europeana (Tier 2+ and Tier A+ material)	Quarterly	49	-
RM 2.10	Coverage of entity collection (items)	Total number of items linked to (at least) one entity collection	Quarterly	33,779,963	-
RM 2.11	Coverage of entity collection (collections)	Total number of entity collections with items	Quarterly	27,210	-
RM 2.12	Number of CHIs that signed up to receive their usage dashboard as part of the Welcome Pack	Total number of providing institutions	Quarterly	NEW	-
WP3:	Capacity building and fo	ostering re-use			
KPI 3.1	Satisfaction of the Europeana Network Association members with the ENA	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	66.8%	75%
KPI 3.2	Growth of Europeana Network Association members	Number of members in the ENA	Quarterly	4,396	5,000
KPI 3.4	Aggregator satisfaction with data space products and services (accredited aggregators)	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	79.5%	75%
KPI 3.5	CHI satisfaction with data space products and services	Total % of 'satisfied' and 'completely satisfied' responses	Annually	76% <sup>23</sup>	75%

<sup>&</sup>lt;sup>23</sup> The survey had a low response rate (nine respondents). PM. Implementation plan M12

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
		on a 5-point Likert scale			
KPI 3.3	Satisfaction rate for Europeana Pro	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	78%	75%
KPI 3.6	Educators reached in national training events <sup>24</sup>	Total number of educators (cumulative)	Bi-annually	1,638	1,000
KPI 3.7	Satisfaction rate of educational communities	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	88%	75%
KPI 3.8	API users (external)	Total number of (external) API users per month	Monthly	117	200
RM 3.1	Participants engaged in Europeana Initiative activities	Number of participants contributing time and expertise to activities (such as governance, TFs, WGs and CTAs) (cumulative)	Quarterly	407	-
RM 3.2	Task forces in the Europeana Initiative	Number of active task forces per month (ENA, EAF, Initiative)	Quarterly	6	-
RM 3.6	Satisfaction with the Europeana EU presidency activities	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Bi-annually	86%	-
RM 3.9	Europeana Initiative events	Number of events held by Europeana	Quarterly	41	-

 $<sup>^{\</sup>rm 24}$  Y2 will include both educational partners (EUN and EuroClio). PM. Implementation plan M12

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
		DS consortium, EAF, and ENA (cumulative)			
RM 3.10	Reach of Europeana Initiative events	Number of participants (cumulative)	Quarterly	5,204	-
RM 3.11	Satisfaction rate for Europeana Initiative events	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	82%	-
RM 3.7	Traffic to Europeana Pro	Number of visits per month	Monthly	24,727	-
RM 3.8	Traffic to Confluence	Total number of views to key landing pages (Knowledge Base and Impact Playbook) (cumulative)	Annually	8,832	-
RM 3.12	Reach to Europeana Impact community	Number of people reached per month (Newsletter, mailing list, LinkedIn)	Quarterly	2,810	-
RM 3.29	Europeana Initiative training	Number of training held by Europeana DS consortium, EAF, and ENA (cumulative)	Quarterly	24	-
RM 3.13	Reach of Europeana Initiative training	Number of participants (cumulative)	Quarterly	1,100	-
RM 3.14	Satisfaction rate for Europeana Initiative training	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	86%	-
RM 3.30	Europeana Initiative enables knowledge transfer	% of surveyed participants reporting that the activity helps them stay up to date with	Bi-annually	NEW	-

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
		best practices and new trends			
RM 3.31	Europeana Initiative delivers practical knowledge	% of surveyed participants reporting that the activity enables them to learn knowledge, skills and information they can use in their job	Bi-annually	NEW	-
RM 3.15	Reach to Europeana Communicators community	Number of people reached per month (Newsletter, LinkedIn, mailing list)	Quarterly	3,143	-
RM 3.16	Reach to Europeana Climate Action community	Number of people reached per month (Basecamp, mailing list)	Quarterly	445	-
RM 3.17	CHIs supported by DS AGG	Total number of CHIs supported by individual consultation (cumulative)	Quarterly	109	-
RM 3.18	Coverage of CHIs supported by DS AGG	Total number of countries that received support by individual consultation (cumulative)	Quarterly	27	-
RM 3.19	Outreach to CHIs	Total number of new CHIs collaborating with DS AGG (cumulative)	Quarterly	27	-
RM 3.20	New learning resources for education <sup>25</sup>	Total number of new resources created with data shared through Europeana.eu (cumulative)	Quarterly	261	-

 $<sup>^{\</sup>rm 25}$  This includes new Stories of Implementation (SoI).

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
RM 3.21	Language variations of existing learning resources	Total number of new translations of learning resources (cumulative)	Bi-annually	34	-
RM 3.22	Participants completing the Europeana Education online courses	Total number of participants (cumulative)	Bi-annually	367	-
RM 3.23	Traffic to educational platforms (TwE blog and Historiana)	Number of visits to educational resources created with data shared through Europeana.eu (cumulative)	Bi-annually	165,707	-
RM 3.24	Reach to Europeana Education community	Number of people reached per month (mailing list, LinkedIn, Facebook)	Quarterly	11,400	-
RM 3.25	Outreach events to academic and research communities	Total number of events contributed to or (co)organised (cumulative)	Quarterly	5 <sup>26</sup>	-
RM 3.32	Europeana Research and the data space contributions	Total number of cultural heritage domain experts, university teaching staff members, researchers, university students trained in using the data space's outputs as tools (cumulative)	Quarterly	NEW	-
RM 3.26	Reach to Europeana Research community	Number of people reached per month (Discussion list, Twitter)	Quarterly	7,272	-

<sup>&</sup>lt;sup>26</sup> This number only reflects events organised by EF - from Y2 onwards this metric will also include external events co-organised and/or contributed to.

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
RM 3.27	API usage (REST API)	Total number of requests per month (external traffic)	Monthly	10.47 million	-
RM 3.28	API sign-ups (REST API)	Total number of API sign-ups (cumulative)	Monthly	781	-
WP4:	Digital services for the រុ	oublic			
KPI 4.1	Traffic to the Europeana website	Number of visits per year (cumulative)	Monthly	5.7 million	6.6 million
KPI 4.2	User satisfaction rate with Europeana website	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Bi-annually	71%	75%
KPI 4.5	User satisfaction rate with user feedback mechanism	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Monthly	NEW	80%
KPI 4.3	Audience satisfaction with editorial (exhibitions, blogs)	Total % of 'satisfied' and 'completely satisfied' responses on 5-point Likert scale (cumulative)	Quarterly	89%	80%
KPI 4.4	Social media reach	Total number of impressions on social media (Facebook, Pinterest, GIPHY, Instagram, Twitter, Medium, LinkedIn) (cumulative)	Monthly	431.8 million	450 million
RM 4.1	Multilingual coverage of editorial content	Percentage of stories (blogs and exhibitions) published in more than one language during contract year	Annually	38%	-
RM 4.2	Multilingual coverage of editorial content	Percentage of stories (blogs and exhibitions)	Annually	7%	-

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
		published in all 24 EU languages during contract year			
RM 4.3	User participation: account holders	Total number of account holders	Quarterly	27,549	-
RM 4.4	User participation: liked items	Total number of items liked by users	Quarterly	31,760	-
RM 4.5	User participation: galleries	Total number of user-created galleries	Quarterly	7,267	-
RM 4.6	Downloads of digital items on the Europeana website	Total number of downloads (cumulative)	Quarterly	200,884	-
RM 4.7	Average of initial response time to user feedback	Average number of hours per month	Monthly	5.45h	-
RM 4.8	Average of total resolution time to user feedback (excl. user feedback where the responsibility lies outside of Europeana DS consortium)	Average number of hours per month	Monthly	11.7h	-
RM 4.13	Reach of activities that promote the use/reuse of cultural heritage	Number of participants taking part in activities (incl. DSF, GIF IT UP, Transcribathon events and others)	Quarterly	NEW	-
RM 4.14	Audience creations made with digital cultural heritage	Total number of submitted reuse/remix cases (including but not limited to gifs, social media posts, transcribed items)	Quarterly	NEW	-
RM 4.11	Traffic to exhibitions and blogs	Number of visits to all exhibitions and blogs (cumulative)	Quarterly	1.43 million	-

ID	Description	Measured by	Frequency	Baseline Aug 2023	Target Aug 2024
RM 4.12	Social media engagement	Total number of likes, shares, comments per month (Facebook, Twitter, Pinterest, Instagram, Medium, LinkedIn)	Monthly	302,981	-

# **Annex 2: Overview of deliverables**

This table states the schedule of deliverables for Y2 (Sep 2023 - Aug 2024).

Service	Title	Description	Due Month
PM.	Implementation plan	The document will contain detailed implementation plans for the objectives and activities in the tender specifications. The report will include all tactical and operational activities planned for all strategic objectives throughout the year, as well as the proposed methodology. The plan will be updated based on input by the DS governance.	M24 (Aug 2024)
PM.	Periodic report	The report will describe the work carried out by the consortium over the past three-month period for the delivery of the services described in this tender. The report will include all information concerning the tasks planned in the annual Implementation plan for the respective three-month period. The reports will detail the progress made with respect to the activities carried out, the problems encountered, and any delay and remedial actions taken. They will also include results obtained and measured according to the indicators defined in the tender specifications and additional indicators defined in the tender. The reports will also identify any outstanding problems or risks for the contract and the consortium's plans for addressing them.	M15 (Nov 2023), M18 (Feb 2024), M21 (May 2024), M24 (Aug 2024)
PM.	Annual report	This report will contain an executive summary of the work performed by the Europeana DS consortium over the past contractual year. The summary will be fit for publication and will include a description of the content available in the data space, their distribution by provider, country of origin of the data, statistics on the access and usage of the platform and an analysis of its impact in the traditional news, web news and social media.	M24 (Aug 2024)
PM.	Final report	The report should contain an executive summary fit for publication including a description of the content available through the portal, their distribution by provider, country of origin of the data, statistics on the access and usage of the platform and an analysis of its impact in the traditional, web news and social media.	M24 (Aug 2024) (if no renewal)

PM.	Phase-out report	Phasing-out period report, at the end of the phasing-out period, in the case of a successor contractor.	M24 (Aug 2024) (if no renewal)
DS.	Infrastructure report	The document will contain a detailed overview of the infrastructure of the data space for cultural heritage, the evolution of its architecture and services and its main performance. It will also include indicators from the relevant requirements, reporting on development and maintenance activities, quality of service, as well as the evolution and use of services.	M21 (May 2024)
DS.	Technical documentation	The document will cover all technical aspects on how to set-up, configure, operate and monitor the data space.	M22 (Jun 2024)
DS.	Stress test reports	The report will detail the result of simulations in which the platform is exposed to extremely high levels of traffic, hacking of user data and any other thief or unwanted modification of data.	M23 (Jul 2024)
DS.	Disaster recovery	The report will detail the result of a simulation in which the platform runs a catastrophic failure and the results obtained (including time spent) in order to bring the platform's full functionality back online.	M23 (Jul 2024)
DS.	Data supply and reuse report	The document will cover the supply of new or updated datasets in the reporting period. It will include a definition of high-value datasets as well as an inventory of high-value datasets in the data space. It will also report on links providing interoperable access to other data spaces or platforms in Europe. The report will detail activities and results of data providers support, community engagement and the work done and results achieved in adoption of frameworks and standardisation. The report will also detail activities and results towards reuse by relevant user groups, the offered tools and services for data providers and data users, as well as the evolution in use of the data space. The document will also provide suggestions and comments on suggested follow-ups, showing evidence that the offered services are being systematically enriched and improved over time.	M17 (Jan 2024)
DS.	Users and usage report	The report will include overview and analysis of the activities to reach out to the public and their performance. The report will build on the interaction logs and analytics maintained by the	M14 (Oct 2023) M22 (Jun 2024)

		DS operator. The document will also include figures and an analysis on feedback received through user feedback mechanisms and on actions taken in response to the user feedback. The document will also provide suggestions and comments on suggested follow-ups, showing evidence that the offered services are being systematically enriched and improved over time.	
DS.	Communication and dissemination plan	The plan will outline the key target audiences and the planned actions to reach and engage with these audiences and the respective KPIs. All subsequent iterations of the plan after the initial version will also report back on results of the work undertaken towards user groups over the past reporting period.	M23 (Jul 2024)

# **Annex 3: Balance of efforts**

The table below provides an overview over the balance of efforts for Y2 (Sep 2023 - Aug 2024) of the common European data space for cultural heritage.

Work packages & tasks	Foreseen % of the full contract value
WP 1: Development and operation of the data space infrastructure	25.4%
Task 1.1 Provide reliable data space infrastructure and quality of services	22.7%
Task 1.2 Foster innovation, interoperability & compliance with other data spaces	2.7%
Work package 2: Integration of high-quality data	17.8%
Task 2.1 Develop and manage data governance mechanisms	3.6%
Task 2.2 Data acquisition and data improvements	10.9%
Task 2.3 Automated approaches towards data quality	3.3%
Work package 3: Capacity building and fostering reuse	30.6%
Task 3.1 Enhance cooperation throughout the Data Space	4.4%
Task 3.2 Identify needs of user groups	1.7%
Task 3.3 Build awareness and engagement	6.9%
Task 3.4 Develop capacity building as a service	3.9%
Task 3.5 Facilitate the provision of high quality data	4.4%
Task 3.6 Facilitating the reuse of high quality data	9.3%
Work package 4: Digital services for the public	18.7%
Task 4.1 Deliver high-performing Europeana websites	11.8%
Task 4.2 Engage audiences with digital cultural heritage	6.9%
Work package 5: Programme management	7.5%
Task 5.1 Ensure continuous progress monitoring and reporting	6.0%
Task 5.2 Governance	0.6%
Task 5.3 Manage relations with other EU-funded projects	0.7%
Task 5.4 Phasing-in and phasing-out periods	0.2%
TOTAL	100%

# Annex 4: EU-funded projects' integration overview

This annex showcases the outcomes from the projects funded under the Digital Europe Programme, Erasmus+ and Horizon Europe that are expected to be delivered and integrated in the data space for cultural heritage by the end of Y2 (Aug 2024). It also provides information on outcomes' integration timeline, the data space work area they contribute to and, if applicable, the division between Europeana DS consortium's and project's efforts needed to complete this outcome.

The table below will be updated once the final Grant Agreements for the new <u>Horizon</u> <u>Europe</u> project <u>DIGICher</u> are signed.

Data Space - supporting projects (DIGITAL-2022-CULTURAL-02) call										
Expected Outcome	DS contribution	Due Date	Comment							
5DCulture										
Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	This task started in Y1 and it will continue in Y3 until the end of the project.							
1st ICE technologies prototype integrated with Europeana APIs for retrieving of data using search APIs	Task 1.1. Provide reliable data space infrastructure and quality of services	Dec 23								
2st ICE technologies advance prototype integrated with Europeana APIs for retrieving data using Record and SPARQL APIs	Task 1.1. Provide reliable data space infrastructure and quality of services	Jun 24								
2st 3D effects on historical images version is integrated with Europeana Search and download APIs for data and metadata use	Task 1.1. Provide reliable data space infrastructure and quality of services	Jun 24								
Curation and storytelling	Task 1.1. Provide	Dec 23								

(extension of WEAVEx) - 2 prototype - Initial integration via Europeana APIs for retrieving content and metadata	reliable data space infrastructure and quality of services		
1st iteration "Share to WEAVEx" button on Collection subpages		Mar 23	
<u>De-Bias</u>			
First prototype integration via DE-BIAS API	Task 1.1. Provide reliable data space infrastructure and quality of services Task 4.1. Deliver high-performing Europeana website	Nov 23	
First version of the DE-BIAS tool integrated in the Metis Suite	Task 1.1. Provide reliable data space infrastructure and quality of services Task 4.1. Deliver high-performing Europeana website	Apr 24	
Knowledge co-creation methodology and DE-BiAS typology published	Task 3.5. Facilitate the provision of high quality data	Dec 23	A Pro news is foreseen to feature the methodology.
Knowledge co-creation activities	Task 4.2 Engage audiences with cultural heritage	Aug 24	At least 6 crowdsourcing campaigns with communities for the validation and fine-tuning of automatically detected bias.
First capacity-building event for CHIs was organised	Task 3.4 Develop capacity building as a service	Jan 24	
Recommendations to represent diversity in metadata.	Task 3.5. Facilitate the provision of high quality data	Aug 24	

First version of the Impact Assessment	Task 3.4 Develop capacity building as a service	Jun 24	
Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	More than 20 blog post on both Europeana.eu and Europeana Pro.
			This task started in Y1 and will continue to in Y3 until the end of the project.
Editorials on Europeana website	Task 4.2 Engage audiences with cultural heritage	August 24	At least 10 galleries showcasing the diversity of content.
			More than 20 blog posts on both Europeana.eu and Europeana Pro.
			This task started in Y1 and will continue in Y3 until the end of the project.
Eureka3D			
Eureka 3D viewer	Task 1.1. Provide reliable data space infrastructure and quality of services	Aug 24	Development of mechanisms to visualise 3D assets (as a pilot) and an oEmbed endpoint for embedding into Europeana
Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	4 project entries are foreseen to be published on Europeana Pro.
			This task started in Y1 and will continue to in Y3 until the end of the project.
Editorials on Europeana.eu	Task 4.2 Engage audiences with cultural heritage	Aug 24	9 editorials are expected to be published on Europeana.eu
			This task started in Y1 and will continue in Y3 until the end of the project.

<u>Al4Europeana</u>			
Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	
Guidelines for tools and datasets publications	Task 3.5. Facilitate the provision of high quality data	Apr 24	
Supporting other EU funded p	rojects		
WATCHLIKEAHIST - Watching v	rideos like historian		
Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	At least 10 project entries in Europeana Pro. This task started Y1 and will finalise Y3, at the end of the project.
Practitioner guide for AV collections holder available on Europeana Pro	Task 3.5. Facilitate the provision of high quality data	Sep 23	
Launch of Watchlikeahist toolkit	Task 3.3 Build awareness and engagement	Jul 24	
Contribution of Europeana education community to the toolkit	T3.3 Design, development and refining of the Toolkit	Jul 24	This task started Y1 and will finalise Y3, at the end of the project
Editorials on Europeana.eu	Task 4.2 Engage audiences with cultural heritage	Aug 24	10 AV galleries/datasets from the toolkit for educational use in the Europeana Classroom and promote them in the relevant social media channels. This task started Y1 and will finalise Y3, at the end of the project.
<u>European Heritage Hub</u>			
Launch of the digital interactive hub	Task 3.1. Enhance cooperation	Dec 23	Interactive digital hub with online resources. It will be connected with Europeana

throughout the data space Task 3.3 Build awareness and engagement Task 4.2 Engage audiences with cultural heritage	Pro via the project page and S&T.
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# **Annex 5: Risk log**

#### WP1: Development and operation of the data space infrastructure

Identify				Assess						Plan for and Control	Governance		
ID	Risk description	Activity	Date	Response	Туре	Impact	Probability	Priority	Proposed action	Mitigation & Contingent plan	Informed	Consulted	Risk history
	Brief summary of the risk cause, the risk event (either threat/opportunity), and the risk effect	Activity according to IP	Last reviewed/ updated	Overall risk response	Threat (negative impact) or Opportunity (positive impact)	Rate 1 (very low) to 5 (very high)	Rate 1 (very low) to 5 (very high)	Impact x probability (automatically filled)	(automatically filled)	Mitigation explanation and link to contingent plan (if needed)	Entity informed about the risk (if applicable)	Entity consulted about the risk (if applicable)	Information on risk history
Task 1.1. I	Provide reliable data space infrastructure and quality	of services											
R.WP1.1	High traffic in form of attacks can cause interruptions in the service	Activity 1.1.1. Extend and maintain platform infrastructure and services	2023-05-24	Reduce	Threat	4	:	2 Medium	Tolerable and Monitor	Anti-flooding mechanism are in place to limit the traffic to real users	N/A	N/A	N/A
R.WP1.2	The data space infrastructure is subject to cybersecurity attacks	Activity 1.1.1. Extend and maintain platform infrastructure and services	2023-05-24	Reduce	Threat	3		3 Medium	Tolerable and Monitor	The data space will deploy security mechanism to prevent Distributed denial-of-service DDOs attacks, security leaks at the level of user authentication/identity management system for internally developed software, code vulnerabilities etc	N/A	N/A	N/A
R.WP1.3	The data space services are unavailable to users due to infrastructure failure(s)	Activity 1.1.1. Extend and maintain platform infrastructure and services	2023-05-24	Reduce	Threat	5		1 Low	Acceptable	Disaster recovery and failvover procedures are available to limit the impact on the public services	N/A	N/A	N/A
Task 1.2. I	Foster innovation, interoperability and compliance w	ith other data spaces											
R.WP1.4	The recommendations and developments of the Data Space ecosystem services (Data Space support centre, Technical Framework, Simpl platform) will be developed during the contract and might impact the plans made as part of the tender offer		2023-05-24	Exploit	Opportunity	2		1 <b>Low</b>	Acceptable	The operator will use its agile development methodologies to seize opportunities and will align its infrastructure components to the recommendations. This means that some developments initially planned may have to be deprioritised.	N/A	N/A	N/A

#### WP2: Integration of high-quality data

	Identify			Assess						Plan for and Control	Governance		
ID	Risk description	Activity	Date updated	Response	Туре	Impact	Probability	Priority	Proposed action	Mitigation & Contingent plan	Informed	Consulted	Risk history
	Brief summary of the risk cause, the risk event (either threat/opportunity), and the risk effect	Activity according to IP	Last reviewed/ updated	Overall risk response	Threat (negative impact) or Opportunity (positive impact)	Rate 1 (very low) to 5 (very high)	Rate 1 (very low) to 5 (very high)	Impact x probability (automatically filled)	(automatically filled)	Mitigation explanation and link to contingent plan (if needed)	Entity informed about the risk (if applicable)	Entity consulted about the risk (if applicable)	Information on risk history
Task 2.1. [	Develop and manage data governance mechanisms												
R.WP2.1	The data space requests the development of data governance mechanisms starting Y1. There are multiple data governance outcomes (including the cooperation agreement) that are dependent on a clean long-term vision and architecture for data-haring in the data space. A lack of clarity in this area might lead to inadequate or incomplete rules for data governance.	Activity 2.1.1. Identify data governance requirements and objectives	2023-05-24	Reduce	Threat	3	3	2 Medium	Tolerable and Monitor	We develop the data governance mechanism (DGM) progressively, as we get more clarity on data sharing and architecture requirements, as described in the strategy and plan for the development of the DGM.	ENA/EAF & CEDCHE	ENA/EAF & CEDCHE	A data governance stakeholder working group (incl. Europeana DS Consortium partners, ENA, EAF) has been set up (Jan 2023). The data governance strategy was shared with CEDCHE and a subgroup was set-up.
R.WP2.2	Insufficient capability (skills and knowledge) are available in stakeholders on key topics addressed by the Data Governance Mechanism leading to ineffective stakeholder engagement and implementation	Activity 2.1.1. Identify data governance requirements and objectives	2023-05-24	Reduce	Threat	2	3	Medium	Tolerable and Monitor	Working with the Capacity Building Working Group to develop requirements for the training programme to deliver training and knowledge transfer activities that support the advancement the capabilities of stakeholders relevant to the DGM	N/A	N/A	N/A
	Data acquisition and data improvements												
R.WP2.3	The data provided by consortium aggregators and data improvements on the platform are not sufficient to reach an annual 10% increase in high-quality data	Activity 2.2.2. Raise the quality and access to existing content and metadata	2023-05-24	Reduce	Threat	2	2	Medium	Tolerable and Monitor	Active participation from National Aggregators is essential to meet the targets (in line with Recommendations). EC and Member States will be informed regularly about MS contributions so that remedial actions can be taken sufficiently in time to meet the targets.	N/A	N/A	N/A
	Automated approaches towards data quality												
R.WP2.4	The chosen Al solution, image resolution enhancement can't be deployed at scale because of the complexity of the technical implementation	Activity 2.3.1. Use of AI to enrich metadata and content	2023-05-24	Reduce	Threat	3	1	Low	Acceptable	Another experiment focusing on the enhancement of content will be proposed for deployment instead.	N/A	N/A	N/A
R.WP2.5	Al activities are limited by copyright and need to be balanced out with political and ethical concerns.	Activity 2.3.1. Use of AI to enrich metadata and content	2023-05-24	Reduce	Threat	2		2 Low	Acceptable	Limitations for Al activities linked to copyright and/or data protection laws will be taken into account and investigated as part of the development of Data Governance. For the "chosen Al solution" above, we have decided to focus on the images that are less subject to policy issues (as they are covered by DEA and come from legacy providers and the results of sample evaluations were obligations are of the providers and the results of sample evaluations were obligations are of the providers.	EAF	N/A	EAF aware of the risk (informed at the EAF meeting, Apr 2023)

WP3: Capacity building and	fostering reuse
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	Identify				Asse	is				Plan for and Control		Governanc	e
ID	Risk description	Activity	Date updated	Response	Туре	Impact	Probability	Priority	Proposed action	Mitigation & Contingent plan	Informed	Consulted	Risk history
	Brief summary of the risk cause, the risk event (either threat/opportunity), and the risk effect	Activity according to IP	Last reviewed/ updated	Overall risk response	Threat (negative impact) or Opportunity (positive impact)	Rate 1 (very low) to 5 (very high)	Rate 1 (very low) to 5 (very high)	Impact x probability (automatically filled)	(automatically filled)	Mitigation explanation and link to contingent plan (if needed)	Entity consulted about the risk (if applicable)	Entity consulted about the risk (if applicable)	Information on risk history
Task 3.1. E	nhance cooperation throughout the data space												
R.WP3.1	The coordination to enhance the cooperation of stakeholders in the data space is slow and impacts progress.	Activity 3.1.1. Develop methods of cooperation	2023-05-24	Reduce	Threat	2	2 3	Medium	Tolerable and Monitor	We collaboratively prioritise developments in cooperation based on the needs of the stakeholders and regularly meet and evaluate progress.	ENA & EAF	ENA & EAF	ENA & EAF discussions are underway (as part of monthly meetings). Full-day meeting on 17th March 2023 to develop models for cooperation. The next meeting is planned for 16th Jun 2023.
R.WP3.2	The enhanced accreditation scheme does not lead to a positive change in the engagement and participation of aggregators in the EAF.		2023-05-24	Reduce	Threat	2	2 3	Medium	Tolerable and Monitor	We will iteratively develop and test enhancements to the scheme, utilising user research and feedback gathered.	EAF	EAF	EAF discussions to be scheduled
R.WP3.3	Insufficient engagement of ENA members, results in low levels of knowledge transfer, and satisfaction.	Activity 3.1.2. Provide secretariat for Europeana Aggregators' Forum (EAF) and Europeana Network Association (ENA)	2023-05-24	Reduce	Threat	3	3	Medium	Tolerable and Monitor	Engagement of ENA members will be further developed as part of the outcome 'Strategy for ENA/EAF outreach and engagement developed' (Jun 2023). Improved CRM and user research functionalities will steadily enable a greater understanding of needs and the ability to respond to and measure the impact of the response.	ENA & EAF	ENA & EAF	ENA & EAF discussion to be scheduled
Tack 3.2 In	dentify needs of user groups												
103K J.Z. II	deficity freeds of user groups												
Task 3.3. B	Build awareness and engagement												
R.WP3.4	Development and implementation of increasing numbers of platforms for professional audience engagement complicates, reduces user satisfaction and drives down user visits to websites like Europeana Pro.	Activity 3.3.3. Engage professional audiences	2023-05-24	Reduce	Threat	3	3	Medium	Tolerable and Monitor	We will regularly evaluate the available data to assess the impact of changes made and the performance of platforms. We have started working on a platform strategy (expected Aug 2024) that aims to provide more clarity on ownership, aims and audience for each platform and provide simpler processes to follow to improve user journeys.		N/A	N/A
	Develop capacity building as a service												
R.WP3.6	Low uptake for participation of professional audience in training programme realised.	Activity 3.4.2. Manage and develop mechanisms for the training programme	2023-05-24	Reduce	Threat	3	3 1	Low	Acceptable	User and impact research is undertaken to define and validate stakeholders' needs and informs the motivation and engagement model to increase the product/market fit of the training programme (related IP outcome: Impact pathway for training programme developed, Feb 2023)	N/A	N/A	N/A
	acilitate the provision of high quality data	Les seases and	2022.07.7	D 1	T-1 .				T 1 11 114 "	0. 1 1	545	EAF	545 : 6 11
R.WP3.7	The demand for expertise to deliver training and engage in knowledge transfer activities is greater than the supply. External expertise is needed to create, maintain and improve training material and deliver training.	Activity 3.5.1. Deliver training programme for aggregators and data partners	2023-05-24	Reduce	Threat	=	3 2	Medium	Tolerable and Monitor	Outreach and engagement plans for ENAVEAF consider methods to catalogue and connect with expertise within networks to ensure a repository of potential expertise is identified.	EAF	EAF	EAF was informed about the proposed priority areas for training
R.WP3.8		Activity 3.5.1. Deliver training programme for aggregators and data partners	2023-05-24	Reduce	Threat	5	3 2	Medium	Tolerable and Monitor	In 2023 a Learning Management will be selected and the first courses will be offered through this LMS. Multilingualism is one of the requirements of an LMS, both the interface of the LMS and the automatic translation of the training content. In this way, the LMS will support multilingualism better than the current situation. Apart from the technical solutions, there is also a need for contributions from native speakers (possibly EVM and EAF members) to translate and localise offers.		ENA & EAF	This is discussed as part of the Capacity Building Working Group.

WP4: Digital services for the	public	
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	Identify			Asse	SS				Plan for and Control	Governance			
ID	Risk description	Activity	Date updated	Response	Туре	Impact	Probability	Priority	Proposed action	Mitigation & Contingent plan	Informed	Consulted	Risk history
	Brief summary of the risk cause, the risk event (either threat/opportunity), and the risk effect	Activity according to IP	Last reviewed/ updated	Overall risk response	Threat (negative impact) or Opportunity (positive impact)	Rate 1 (very low) to 5 (very high)	Rate 1 (very low) to 5 (very high)	Impact x probability (automatically filled)	(automatically filled)	Mitigation explanation and link to contingent plan (if needed)	Entity informed about the risk (if applicable)	Entity consulted about the risk (if applicable)	Information on risk history
Task 4.1. D	eliver high-performing Europeana website												
R.WP4.1		Activity 4.1.4. Expand multilingual coverage to include all EU official languages	2023-05-24	Reduce	Threat	3	3	Medium	Tolerable and Monitor	We regularly evaluate and communicate the results of evaluation to stakeholders. Adapt plans to the performance level of technology.	N/A	N/A	N/A
R.WP4.2	internationalisation and localisation in all EU official	Activity 4.1.4. Expand multilingual coverage to include all EU official languages	2023-05-24	Accept	Threat	3	3	Medium	Tolerable and Monitor	Europeana DS will diversify its sources to obtain translations. The new translation broker API will allow for the DS to be more flexible and more efficient towards the use of translation services (First version of a Translation API is established, Aug 2023).		N/A	N/A
	ngage audiences with digital cultural heritage												

WP5: Programme management	WP5:	<b>Programme</b>	management
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	Identify			Asse	SS				Plan for and Control	Governance		
ID	Risk description	Date updated	Response	Туре	Impact	Probability	Priority	Proposed action	Mitigation & Contingent plan	Informed	Consulted	Risk history
	Brief summary of the risk cause, the risk event (either threat/opportunity), and the risk effect	Last reviewed/ updated	Overall risk response	Threat (negative impact) or Opportunity (positive impact)	Rate 1 (very low) to 5 (very high)	Rate 1 (very low) to 5 (very high)	Impact x probability (automatically filled)	(automatically filled)	Mitigation explanation and link to contingent plan (if needed)	Entity informed about the risk (if applicable)	Entity consulted about the risk (if applicable)	Information on risk history
Task 5.1. I	nsure continuous progress monitoring and reporting	3										
R.WP5.1	A larger staff turnover and longer-term sickness of experts can affect the execution of tasks and the delivery of committed outcomes in time.	2023-05-24	Accept	Threat	3	3	Medium	Tolerable and Monitor	The Europeana DS consortium re-plans and reorganises the work internally; we keep EC up-to-date on any delays and impact on any other data space commitments.	N/A	N/A	N/A
R.WP5.2	A potential personal data breach that occurs, which will jeopardize the GDPR/IDPR compliance	2023-05-24	Reduce	Threat	5	5 2	Medium	Tolerable and Monitor	In case of a data breach EF will inform the EC DPA as soon as possible, but within 72 hours after the breach.	N/A	N/A	N/A
Task 5.2. (	overnance											
Task 5.3. I	Manage relations with other EU-funded projects											
R.WP5.3	Changes in the implementation of data space- supporting projects might affect the execution of the Europeana DS consortium tasks and activities	24/05/2023	Reduce	Threat	2	2 3	Medium	Tolerable and Monitor	Monthly internal team meeting for better coordination and risk mitigation. Continuous collaboration with project partners to flag and mitigate possible risks.	N/A	N/A	N/A