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Deployment of a common European data space for cultural heritage

PM. Periodic report M18

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REVISION HISTORY AND STATEMENT OF ORIGINALITY

Revision History

Revision No.	Date	Author	Organisation	Description
1.0	29-02-2024	Valentine Charles, Jochen Vermeulen, Dasha Moskalenko, Antoine Isaac, Hugo Manguinhas, Sabine Mordini-Pound, Isabel Crespo, Jolan Wuyts, Henning Scholz, Julia Fallon, Ariadna Matas, Gina van der Linden, Sebastiaan ter Burg, Nicole McNeilly, Zuzana Malicherova, Alba Irollo, Nicholas Jarrett, Fiona Mowat, Ad Pollé, Shadi Ardalan, Christine Hveding, Albert Verhaar, Julia Schellenberg	Europeana Foundation	Final version

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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	EUN Partnership AISBL, Belgium
EuroClio	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

CHIs	Cultural Heritage Institutions
DS AGG	Data space aggregators
EAF	Europeana Aggregators' Forum
EDM	Europeana Data Model
ECBF	Europeana Capacity Building Framework
EIF	Europeana Impact Framework
ELF	Europeana Licensing Framework
ENA	Europeana Network Association
EPF	Europeana Publishing Framework
IIIF	International Image Interoperability Framework

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

Highlights

In the period, we made progress towards Persistent Identifiers (PIDs), we refined the action plan for PIDs, gathered and evaluated data on practices of aggregators towards PIDs, and completed a design for a solution for the long-term persistence of metadata records (often called Tombstone records).

We tested and fully integrated the Metis Sandbox validation and problem pattern API into the MINT based infrastructure which results in a more seamless experience for users to get feedback on quality and validity of data.

A first design for the new version of the Record API (V3) was done which will, besides others, make this API fully conformant to Linked Data. We also switched internal services using machine translation to use the new Translation API (developed Y1) which will give us some flexibility and optimise our use of translation services.

We gathered examples of new types of data and developed scenarios for their sharing in the data space to fulfil the ambition to increase the total amount of assets in the data space. An action plan was developed to translate the overarching principles outlined in the [Enrichments policy](#) for the data space into concrete tasks that will support consistent and harmonised enrichment efforts in the data space. We also implemented a separate metadata tier calculation for data enriched by Europeana Foundation as part of its workflow(s) allowing us to evaluate and assess the quality of enrichments added.

The model of cooperation (developed during Y1) was implemented to support the development and implementation of the data space, for example, via a joint thematic programme, community engagement and joint project and partnerships. In Jan 2024, the Country Groups pilot project kicked off with the members of the Bulgarian, Italian and Slovenian Country Groups. Between Nov - Dec 2023, we renewed the ENA governance which resulted in a (re)elected [ENA Members Council](#) and [ENA Management Board](#).

We are now [publicly displaying the view numbers for stories](#) so that people can see how many others have read a blog post or exhibition. Additionally, we introduced a new feature to the website '[Trending items](#)' and we hope that this feature will encourage people to return to the website more frequently to see which European cultural heritage items are trending today.

Introduction

The periodic report describes work carried out under the common European data space for cultural heritage from 1 Nov 2023 (M15) until 31 Jan 2024 (M17) based on the implementation plan (PM. Implementation plan M12).

The report is organised in five work packages (WP): WP1) Development and operation of the data space infrastructure; WP2) Integration of high-quality data; WP3) Capacity building and fostering reuse; WP4) Digital services for the public; and WP5) Programme management (including the balance of efforts as well as reporting on integrations of other EU-funded projects).

All outcomes to be completed in Y2 (Sep 2023 - Aug 2024, as stated in PM. Implementation plan M12) are included in this periodic report with % of completion and expected due date. For outcomes completed in the reporting period a description is added that highlights the objective and result of the outcome and its value for the data space. Additionally, the consortium will report on all outcomes marked as 'ongoing' bi-annually (Feb and Aug 2024).

Key Performance Indicators (KPIs) as well as other reporting metrics are provided and discussed in case of notable occurrences.

Annex: Risk log includes an assessment of foreseen and observed risks with risk responses and other relevant details. The Risk log will be updated periodically and an updated version is attached to this report.

Explanatory notes for tables reporting - colour codes

	Outcomes as stated in the implementation plan[1]
%	Progress until end of current reporting period

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[1] Outcomes as stated in the implementation plan are marked with light blue background to be able to refer back to the initial implementation plan. Additional outcomes we report on have a transparent background.

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 (Task 1.1.), as well as foster innovation, interoperability and compliance with other data spaces (Task 1.2.).

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

Partners: EF, AIT-Vienna, PSNC, DATO, and DS AGG

The data space 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 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.

Overview of outcomes: provide reliable data space infrastructure and quality of services

Partner	Outcomes	Progress	Due date
Activity 1.1.1. Extend and maintain platform infrastructure and services			
EF	Solution for the long-term persistence of metadata records designed	Completed	Nov 2023
EF	Implementation plan for the persistence and uniqueness of identifiers in the DS refined	Completed	Dec 2023
EF	Report on practices of aggregators towards persistent identifiers completed	Completed	Dec 2023
EF	First version of a failover environment in place	50%	Mar 2024
EF	Logging infrastructure upgraded to allow scaling of activities around search logs	30%	Mar 2024
EF	Report on practices of CHIs towards persistent identifiers completed	Not started	Jun 2024
EF	Implementation plan for the persistence and uniqueness of identifiers in the DS updated	Not started	Jun 2024
EF	Solution for the long-term persistence of metadata records implemented	10%	Jul 2024

EF, AIT Vienna	Post publication pipeline reviewed and made ready for production	Not started	Aug 2024
EF	Full disaster recovery test completed[2]	-	Ongoing
EF	Inventories of Europeana infrastructure and products (incl. servers, databases, licences) reviewed and maintained	-	Ongoing
EF	Europeana database reprocessing activities completed[3]	-	Ongoing
EF	Infrastructure supporting products and services are maintained - 60% in M15 - M17	-	Ongoing
EF	Compliance with data protection maintained[4]	-	Ongoing
Activity 1.1.2. Extend and maintain aggregation systems and services			
PSNC	New data processing framework for eCloud and the Metis Suite selected	50%	Mar 2024
DATO, DS AGG	Metis Sandbox validation and problem pattern API tested and integrated in MINT based infrastructure	Completed	Mar 2024
PSNC	MVP of new data processing library in combination with the Metis Sandbox implemented	Not started	Aug 2024
PSNC	IIIF image service consolidated and maintained	50%	Aug 2024
DATO, DS AGG	Metis Sandbox validation and problem pattern API tested by users of the MINT based infrastructure	Not started	Aug 2024
EF, PSNC	The Metis applications are maintained and kept up-to-date - 20% in M15 - M17	-	Ongoing
Activity 1.1.3. Extend and maintain Application Programming Interfaces (APIs)			
EF	V3.0 design of the Record API completed	Completed	Dec 2023
EF	Internal services using machine translation are integrated with the Translation API	Completed	Jan 2024
EF	Search by dates (API implementation) (M-F2)	90%	Feb 2024
EF	Testing of the Record API V3.0 with alpha users completed	Not started	Mar 2024
EF	Integration experiments and sharing requirements and data with the eTranslation service completed	70%	Jun 2024

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[2] This outcome will feed into DS. Stress test reports.
[3] Outcomes in other tasks might require a reprocessing activity. The planning will be aligned with those outcomes.
[4] According to the Regulation (EU) 2018/1725 concerning the processing of personal data by the EU institutions (IDPR)

EF	V3.0 of the Record API is released	Not started	Aug 2024
EF, AIT Vienna	Translation API is extended and optimised	90%	Aug 2024
EF	Solutions to extend Recommendation Service with personalised and content based recommendations investigated and requirements collected	10%	Aug 2024
EF, AIT Vienna	Europeana APIs are maintained and well performing - 25% in M15 - M17	-	Ongoing

Implementation plan for the persistence and uniqueness of identifiers in the DS refined - this report outlines the prioritisation, planning and requirements for improving the persistence of object references in the data space. The work on persistent identifiers will be carried out across three problem spaces: Problem space 1: Stability of object identifiers provided by data partners; Problem space 2: Stability of identifiers originated by the aggregation into the data space; Problem space 3: Stability of identifiers shared with (or reused by) our audiences.

Solution for the long-term persistence of metadata records designed - the implementation work planned this year addresses the Problem space 3. We will focus first on developing a solution that allows Europeana to keep records even after being deleted (often called Tombstone records) so that, potentially, no broken links will exist in the data space. This will also allow us to better monitor the lifecycle of the records as part of the Europeana infrastructure. This outcome reflects the functional requirements and technical implications to implement the solution this year.

Report on practices of aggregators towards persistent identifiers completed - this activity addresses Problem space 1 by gathering data on the level of maturity of aggregators in the adoption and management of persistent identifiers. Besides the level of maturity, we will also be understanding what could be the barriers for adoption whether they are financial, operational, organisational, etc. The report summarised the results of our survey activities on all Europeana accredited aggregators (in the last months of 2023) to understand their roles in managing the persistent identifiers (PIDs) coming from the data of the organisations that they work with, including understanding to what extent they could help cultural institutions with the persistence of their identifiers. We also asked if they minted identifiers on their side (in addition to those of the institutions) and whether these were considered persistent or not. The responses uncovered an interest in the topic, a desire to help CHIs with their PIDs, as well as a wide divergence between the practices of various aggregators - presenting an opportunity for Europeana to issue more prescriptive guidance around the managements of these identifiers to aggregators in order that their CHI PIDs can be preserved in the data when aggregated to Europeana.

Full disaster recovery test completed (bi-annual update) - the test(s) will feed into DS. Stress test reports (due Jul 2024). The work on setting-up a failover environment contributes directly to the disaster recovery tests we will perform (related to DS. Disaster recovery, Jul 2024). The failover

will provide us with a stable infrastructure that we can use in a more agile way to run disaster recovery tests.

Inventories of Europeana infrastructure and products (incl. servers, databases, licences) reviewed and maintained (bi-annual update) - We have an updated list of servers, databases and licences. We worked on reviewing the infrastructure to maintain the list in a more automated way.

Europeana database reprocessing activities completed (bi-annual update) - No (urgent) needs for database reprocessing existed in the first half of the contract year. We foresee that database reprocessing will be needed later this year or early in Y3 (autumn 2024).

Infrastructure supporting products and services are maintained (bi-annual update) - IT Infrastructure management activities are focused on optimising and maintaining Europeana's technological infrastructure. This includes troubleshooting Service desk issues, asset and licence management, and the continuous updating of documentation (internal documentation and Jira Confluence). It also involves creation, maintenance, tuning, configuration, and security of website domains such as Pro, Pro-beta, Matomo websites. Additionally, we also are involved with updating office technologies, decommissioning outdated hardware, and performing network maintenance. These activities are essential for maintaining the efficiency, security, and reliability of the organisation's IT infrastructure, ensuring smooth operations and support for all users. We will report in detail on developments and maintenance as part of DS. Infrastructure report M21 (May 2024).

Compliance with data protection maintained (bi-annual update) - we ensured compliance of our operations with the IDPR by maintaining and updating privacy statements and processes where relevant for our products and services.

Metis Sandbox validation and problem pattern API tested and integrated in MINT based infrastructure - the Metis Sandbox API is fully integrated with MINT and tested. It is deployed on all instances and made available to the users. With these features the users will experience a more seamless procedure to run the Sandbox analysis and preview on their data and to get feedback on quality and validity. In the coming period users will be able to use these features and we will report back on usage (see outcome 'Metis Sandbox validation and problem pattern API tested by users of the MINT based infrastructure', Activity 1.1.2.).

The Metis applications are maintained and kept up-to-date (bi-annual update) - a few improvements were made to the Metis suite applications. The most significant of these were done in conjunction with the other Metis suite applications - see the outcome 'Statistics Dashboard maintained and kept up-to-date' (Activity 2.2.1.). One update is a maintenance page for Metis and the Sandbox that can be displayed to the user in case the application is unavailable for any reason (e.g. server maintenance or deployment of a release). Another one is a usage tracking feature in the Sandbox that records the user's page visits and allows us to see (anonymized) usage statistics in our Matomo instance, which we hope will give us insights to help us improve

the application and the functionality it provides. This required adding a user consent functionality and a privacy and cookies policy. Furthermore we have worked on upgrading our servers, builders, compilers and code base to java 21 (from 11) and migrating the last few components to Kubernetes. Finally, there have been the usual bug fixes and dependency upgrades.

V3.0 design of the Record API completed - a first design for the new version of the Record API was done and will now go into a phase of internal and external review. Even though the redesign involved changes at all levels including database, parsing/serialisation solutions and codewise object model structures, the only noticeable change to external users will be the JSON output which will now be JSON-LD which will finally make this API fully conformant to Linked Data. Finally, the design and first implementation was made with the ambition to make it much more performant.

Internal services using machine translation are integrated with the Translation API - after the release of the Translation API, the next step was to upgrade the APIs that already use translation to switch to use the Translation API instead. This will give us some flexibility in terms of choices besides optimising our use of translation services. Finally, besides "upgrading", the logic that is applied on the APIs was reviewed and optimised to make smarter decisions for requesting translations, taking into account the translation work that was done for the Translate GS Project.

Europeana APIs are maintained and well performing (bi-annual update) - in particular for this period we continued to dedicate time to consolidate the infrastructure in Kubernetes by stabilising and improving the collection and publication of logs to our logging infrastructure and expanding it with relevant information that is part of the HTTP request and was not being covered in the logs such as external IP addresses when using Cloudflare, user agent, size of the response and we will continue to expand it with more information in the next months. We will report in detail on developments and maintenance as part of DS. Infrastructure report M21 (May 2024).

Reporting metrics: provide reliable data space infrastructure and quality of services

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 2024
KPI 1.1	Records with identifiers using a recognizable persistent identifier scheme	Total number of records in the data repository (incl. Tier 0)	Annually	**7 [5] million**	7,362,16 (Feb 2023)	-	-	Exp. Jul 2024

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[5] The latest calculation done in Sep 2023 includes identifiers for which we can not guarantee persistence. As the number of records might change significantly in future calculations (after further investigations and refinements) we set a realistic target for Y2. We aim at stabilising the method we developed to calculate this KPI.

KPI 1.2	Response time of Europeana website	Average time (seconds) for single record per month	Monthly	**1.0s**	0.89	1.1	1.2	1.2
KPI 1.3	Uptime of Europeana website	Average in % for single record per month	Monthly	**99.90%**	99.94	100%	100%	99.97%
KPI 1.4	Uptime of public APIs (all)	Average in % per month	Monthly	**99.90%**	100	100%	100%	99.97%
KPI 1.5	Uptime of Europeana Pro	Average in % per month	Monthly	**99.90%**	98.96	99.81%	99.76%	99.99%
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 (Aug 2023)	-	-	Exp. Jul 2024
RM 1.2	Response time of all public APIs[6]	Average response time (seconds) per month	Monthly	-	0.15	0.15	0.16	0.16
RM 1.3	Response time of Europeana Pro	Average response time (seconds) per month	Monthly	-	0.90	1.14	1.16	1.04
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	Annually	-	AA (Aug 2023)	-	-	Exp. Jul 2024

[6] 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.

		conformance level AA accessibility standard						
RM 1.5	Uptime of Metis	Average in % per month	Monthly	-	100	100%	100%	100%
RM 1.8	Environmental impact of data space	Total carbon footprint of Europeana's digital services per calendar year	Annually	-	NEW	-	-	Exp. 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[7] (Aug 2023)	-	-	Expected Feb 2024
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	>9	NEW	-	-	Exp. Aug 2024

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

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

Under this task, the Europeana DS consortium will continue to innovate the core service infrastructure to make it interoperable with the data spaces ecosystem. More specifically, the partners will review the aggregation operational model in light of the data governance model for

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[7] The time is related to an average dataset consisting of about 31,300 records.

the data space and the new technologies available to support the exchange of semantic data (Activity 1.2.1). The consortium will follow the developments of the Data Spaces Technical Framework and the Data Space Support Centre (DSSC) recommendations and communicate the needs and requirements of the data space to the DSSC (Activity 1.2.2). 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).

Overview of outcomes: foster innovation, interoperability and compliance with other data spaces

Partner	Outcomes	Progress	Due date
Activity 1.2.1. Investigate innovative scenarios for aggregation models			
EF, DS AGG	Examples of new types of data collected and scenarios for their sharing in the data space developed	Completed	Dec 2023
EF, DS AGG	Mapping of the current aggregators' role to data space roles according the DSSC completed	10%	Apr 2024[8] (Mar 2024)
EF, DS AGG	Centralised vs decentralised aggregation scenarios delivered	10%	Apr 2024[9] Mar 2024
EF	Identification of data governance strategy use cases on the basis of centralised and decentralised scenarios	Not started	Jul 2024
EF, NISV	MVPs for new data aggregation methods implemented	15%	Jul 2024
EF	Updated Aggregation Strategy delivered	10%	Aug 2024
Activity 1.2.2. Synergies with other European data spaces			
EF, AIT Vienna, NISV, CAPG	Mapping of the Europeana tools and services to the DSSC Blueprint V0.5	Completed	Dec 2023
EF, AIT Vienna, NISV, CAPG	Mapping of the Europeana tools and services to the DSSC Blueprint reviewed and updated	Not started	Jul 2024
EF	Collaboration with the Data Space Support Center (DSCC), other data spaces and related initiatives	-	Ongoing
Activity 1.2.3. Support interoperability and technological innovation for digital cultural heritage			
EF, NISV	EuropeanaTech community is supported	-	Ongoing
EF	EDM coordinated and documented	-	Ongoing

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[8] Adjusted due date confirmed with EC.
[9] Adjusted due date confirmed with EC.

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

Examples of new types of data collected and scenarios for their sharing in the data space developed - the new types of data listed in this report are a reflection of the feedback gathered throughout 15 years of developments of the Europeana frameworks. It lists data not considered by Europeana in the past, which may become part of the data space to fulfil the ambition to increase the total amount of assets in the data space (for example, metadata without content, collections as data, datasets of enrichments). In addition, identifying examples of types of data collected within the data space is laying the foundation for a definition of high-value datasets for the data space. Furthermore, it provides the basis for defining new data products for the data space.

Mapping of the Europeana tools and services to the DSSC Blueprint V0.5 - we developed a first version of a mapping of the Europeana tools and services to the DSSC Blueprint V0.5. Through this exercise we analysed the different main blocks of the blueprint and aligned our current tools and services to it. It allowed us to identify areas of the blueprint that are at the moment not clear enough, areas that are already well covered by the current activities of the Europeana Initiative (e.g. interoperability), areas where we do have gaps and last areas of work we do and are not mentioned at all in the blueprint (e.g capacity building).

Collaboration with the Data Space Support Center (DSCC), other data spaces and related initiatives (bi-annual update) - EF participated in meetings of the DSSC data governance expert and thematic groups, in particular to provide feedback to the development of the Data Spaces Blueprint in view of its version 1.

EuropeanaTech community is supported (bi-annual update) - the EuropeanaTech steering group contributed to the EuropeanaTech 2023 conference. The task force 'From shelf to Europeana' and the EuropeanaTech/Research working group on Datasheets for digital cultural heritage Working Group continued their work. A first version of a handbook on digitisation workflows and a paper explaining the approach and presenting a datasheet template have been published. The steering group also remained active in furthering the community's activity in heritage acoustics, 3D and videos with news posts and webinars on the topics.

EDM coordinated and documented (bi-annual update) - in this period, we have worked on identifying required updates on EDM for 3D (Task 2.1), updating the EDM profile for organisation against the latest needs, representing the EPF tier information that results from automatic enrichments, and trying to align the EDM profile for annotations with the requirements for annotations being produced in various projects. We have also continued to regularly update the EDM mappings guidelines on the Europeana Knowledge Base.

Data mapping and conversions with stakeholders is supported (bi-annual update) - changes that remained to be implemented on mappings of a couple of dereferenceable vocabularies worked on in the previous period (Getty's Thesaurus of Geographic Names and Union List of Artist Names) have now been pushed to production.

Continuous involvement in IIIF community (e.g. IIIF Executive Committee, Technical Review Committee) (bi-annual update) - the IIIF & Europeana Working Group ran a workshop on shared tooling at the EuropeanaTech conference, where ongoing development and training work has been presented. The DS Consortium continues to support adoption of IIIF in the data space via the outcome 'IIIF guidelines and training resources for image conversion and manifest creation delivered' (Task 3.5). EF is now involved in (co-chairing) the newly started IIIF A/V Motivations Technical Specification Group that is working on IIIF-shared data patterns for captions, subtitles and transcriptions. We have remained involved in the IIIF Technical Review Committee as well as in the programme committee of the IIIF Conference, and got re-elected (as one of the two top-voted candidates) in the IIIF Executive Committee.

Communication and dissemination activities

Partner	Name of event	Activity	Location	Date
EF	Journal of Open Humanities Data	[Paper 'Datasheets for Digital Cultural Heritage Datasets'](#)	Online	30/10/2023 (not in last report)
EF	International Conference on Dublin Core and Metadata Applications (DCMI 2023)	Presentations 'Towards a methodology for validation of metadata enrichments in Europeana' and 'Identifying and reporting data quality problems in Europeana'	Daegu, South Korea (hybrid)	06/11/2023
NISV	EuropeanaTech presents: The Video Library in the 21st Century. Metadata, Robots and Copyright Headaches	Organised webinar	Online	08/11/2023
NISV	EuropeanaTech presents: Open Knowledge Maps	Organised webinar	Online	14/11/2023
NISV	EuropeanaTech presents: Acoustics and sound in cultural heritage	Organised webinar	Online	22/11/2023
EF	EC seminar "Navigating the future of libraries with artificial intelligence"	Presentation "Machine Learning at Europeana"	Brussels, Belgium	29/11/2023
NISV	EuropeanaTech presents: Acoustics and sound in cultural heritage	Organised webinar	Online	4/12/2023

EF	Seminar for master on Muséologie des Sciences de la Nature et de l'Homme, Muséum national d'Histoire naturelle	Invited lecture	Paris, France	26/01/2024

Reporting metrics: foster innovation, interoperability and compliance with other data spaces

No.	Description	Measured by	Frequency	Oct 2023	Nov 2023	Dec 2023	Jan 2024
RM 1.7	Reach to EuropeanaTech community	Number of people reached per month (Mailing list, Twitter)	Quarterly	7,333	-	-	7,273

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. (Task 2.2.)

To achieve these objectives, the Europeana DS consortium will integrate the requirements needed to implement the EC recommendations and the Digital Europe programme and will collaborate closely with the cultural heritage community, the Member States (in the framework of the CEDCHE) and the European Commission. Data governance mechanisms developed in Y1 will be further researched and developed to support the provision and management of data within the data space. (Task 2.1.)

Finally, the Europeana DS consortium will work on automated approaches to address data quality issues at scale (Task 2.3.).

Task 2.1. Develop and manage data governance mechanisms
Partners: EF, CAPG, INCEPTION, DS AGG

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).

Overview of outcomes: develop and manage data governance mechanisms

Partner	Outcomes	Progress	Due date
Activity 2.1.1. Identify data governance requirements and objectives			
EF, CAPG, APEF	White paper outlining the conditions that govern metadata in the data space completed	80%	Feb 2024
EF, CAPG, APEF	Conditions for assigning accurate rights statements to 3D content outlined	15%	Apr 2024
EF	Requirements for the provision of persistent and unique identifiers to the data space v1.0 developed (internal)	5%	Apr 2024
EF	Types and characteristics of cooperation agreements required in the data space outlined (internal)	Not started	Jun 2024
EF, CAPG, APEF	Strategy for data governance maintained and updated	-	Ongoing
Activity 2.1.2. Develop and expand data governance frameworks and standards			
EF, Inception, TMO, Carare, Photocons	Extension of EDM to support 3D (V2) completed	15%	Feb 2024[10] (Aug 2024)
EF	Provenance mechanism in EDM are refined to accommodate new needs	Not started	May 2024
Inception, TMO, Carare, Photocons, EF	Overview of standards and fields used to describe 3D delivered	15%	Jun 2024
Inception, TMO,	Interoperability between EDM and models to describe 3D established	Not started	Jul 2024

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[10] The work on EDM will continue throughout the whole Y2 of the data space. Specifically, the two outcomes 'Mapping of national and sectoral repositories handling 3D data completed' (Apr 2024) and 'Overview of standards and fields used to describe 3D delivered' (Jun 2024) will contribute to the work on EDM. Therefore, we will report on this outcome additionally in Aug 2024.

Carare, Photocons, EF			

Activity 2.1.3. Manage data governance frameworks and standards

EF	Implementation plan for the enrichment policy established	Completed	Jan 2024
EF	Areas for development, gaps & opportunities of EPF services and products identified and specified using the Framework Management Template	Not started	Jul 2024
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

Strategy for data governance maintained and updated (bi-annual update) - no updates have been made to the data governance strategy. The actions foreseen continue to be undertaken, under the lead of the data governance stakeholder working group (such as analysing the conditions that govern metadata, and evaluating copyright in 3D).

Implementation plan for the enrichment policy established - an action plan was developed to translate the overarching principles outlined in the Enrichments policy for the data space into concrete tasks that will support the creation of vision-led, consistent and harmonised enrichment efforts in the data space. It addresses the key areas identified by the policy through a series of actions led by various stakeholders. They range from activities such as, for example, creating new reporting templates and providing guidelines, to development actions carried out by the EF together with relevant stakeholders. Through these undertakings we aim to empower data partners to adhere and integrate policy principles into their enrichment processes, as well as make sure our own activities are aligned with the policy.

List of metadata and content issues patterns is maintained (bi-annual update) - following the effort on refining the list of problem patterns in Y1, the data quality committee has cleaned and re-organised the public list of problem patterns as well as the private ones it maintains to

organise the work to come in the second part of Y2 ('Inventory of Europeana records impacted by selected problem patterns completed', Activity 2.2.1).

Data Quality Committee is supported (bi-annual update) - in this period, next to curating its lists of problem patterns (see above), the committee gave feedback on other activities' work on date normalisation and language detection, has prepared recommendations to providers about temporal metadata, and has established its roadmap for 2024.

Europeana Copyright Community is supported (bi-annual update) - the copyright community steering group has continued to organise office hours, which offer an informal opportunity to give capacity through networking and knowledge exchange across the members of the community. Its out of commerce works working group has created an overview of licences concluded, and continued to facilitate knowledge exchange on the evolution of the system across various countries. The article 14 task force has published blog posts with updates on the practical application of this important public domain provision.

Continuous support to the Rights Statements Consortium community (e.g. Steering Committee, Statements Working Group) (bi-annual update) - we have continued to maintain the rights statements, in particular by maintaining the technical infrastructure and identifying a sustainable solution for the hosting of the statements. We have engaged members and stakeholders in the consideration of future organisational priorities for the consortium.

Data governance stakeholder working group coordinated (bi-annual update) - the group has continued to meet once a month to work on the actions foreseen in the data governance strategy.

Europeana Licensing Framework (ELF) maintained (bi-annual update) - no updates have been made to the Europeana Licensing Framework. Actions are now focused on future developments in the area of data governance. The Europeana Licensing Framework continues to be operational and supports current data sharing activities.

Guidelines for CHIs and aggregators updated to reflect changes in EDM, EPF and ELF (bi-annual update) - the main focus for updating guidelines is the work on the 3D documentation, which is updated to accompany the efforts of MS to prepare 3D models as part of the Twin it! Campaign (e.g. publishing guide for 3D content). In addition we keep the EDM mapping guidelines and the Publishing Guide up to date.

Reporting metrics: develop and manage data governance mechanisms

No.	Description	Measured by	Frequency	Oct 2023	Nov 2023	Dec 2023	Jan 2024

RM 2.1	Reach to Europeana Copyright community	Number of people reached per month (Mailing list, Twitter)	Quarterly	3,076	-	-	3,081

Task 2.2. Data acquisition and data improvements

Partners: EF, DATO, INCEPTION, TMO, DS AGG

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 the communication about data quality issues can be more productive and directly contribute to a quality increase. (Activity 2.2.1.)

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, the 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. (Activity 2.2.2.)

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. (Activity 2.2.3. - Activity 2.2.4.)

Overview of outcomes: data acquisition and data improvements

Partner	Outcomes	Progress	Due date
Activity 2.2.1. Develop workflows and practices that support efficient data acquisitions and data improvements			
EF	Separate metadata tier calculation for data enriched by Europeana implemented	Completed	Jan 2024
EF	Inventory of Europeana records impacted by selected problem patterns completed	5%	Mar 2024

EF, DS AGG	Key elements of the prioritisation process for managing the data ingestion backlog reviewed and implemented	10%	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			
EF, DS AGG	Europeana DS AGG annual work plans including quality objectives and/or targets per aggregator (internal) completed	Completed	Oct 2023
EF, DS AGG	Europeana DS AGG annual progress report completed	15%	Aug 2024
EF	Report on the (multilingual) coverage of the entity collection	Not started	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
Activity 2.2.3. Engage with inactive and new data partners			
EF	Opportunities for the collaboration of national libraries and the Europeana Initiative in the data space explored (workshop)	30%	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 re-engage with inactive and new partners completed	-	Ongoing
Activity 2.2.4. Aggregate 3D content			
EF	Support for the provision of 3D media resources is added	40%	Mar 2024
TMO	Mapping of national and sectoral repositories handling 3D data completed	10%	Apr 2024

EF	Strategy for content embedding is designed and implemented as a MVP	Not started	Jul 2024
EF, CARARE, Inception, TMO, Photocons	Update on the availability of high quality 3D content available in the data space	Not started	Aug 2024
EF, CARARE, Inception, TMO, Photocons	Knowledge Base pages for 3D available and updated	-	Ongoing

Separate metadata tier calculation for data enriched by Europeana implemented - a separate metadata tier is calculated for the data added by Europeana Foundation as part of its workflow(s). This mechanism, implemented both in Metis and in the Metis Sandbox, consists of an extra step during the existing tier calculation phase (executed just before indexing and publishing). This value is added to the record as a quality annotation, just like the other tier values. This will allow evaluating and asserting the quality of enrichments added by the Europeana aggregation pipeline.

Prioritised problem patterns and data quality report improvements in the Metis Suite implemented (bi-annual update) - implementation activities regarding (new and existing) problem patterns were put on hold during the first half of Y2, awaiting the results of the outcome "*Inventory of Europeana records impacted by selected problem patterns completed*" (Activity 2.2.1.). Minor improvements were made to the quality reports in the Sandbox. For instance, the pie chart showing the distribution of tier values within a dataset was refined and made more intuitive. Additionally a feature was added that allows the user to see the parameters they entered when submitting their data for processing in the Sandbox. It is hoped this will help them diagnose any (quality) issues they may encounter. Finally, some minor bugs were fixed in the quality reports.

Status update on usage and engagement of DS AGG with the Metis Sandbox (bi-annual update) - Metis Sandbox is actively used by DS AGG and other accredited aggregators during the preparation of the datasets. The Metis Sandbox has proven to be a great help in preparing the 3D models for submission as part of the Twin it! campaign, allowing a quicker turnaround time to publish the 3D models. For many aggregators the Metis Sandbox is now part of their work routine and the overall feedback we receive is positive.

Statistics Dashboard maintained and kept up-to-date (bi-annual update) - a few improvements were made to the Statistics Dashboard during the first half of Y2[11]. One is a maintenance page that can be displayed to the user in case the application is unavailable for any reason (e.g. server maintenance or deployment of a release). Another one is a usage tracking feature that records

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[11] The most significant of these were done in conjunction with the other Metis suite applications - see the outcome '*The Metis applications are maintained and kept up-to-date*' (Activity 1.1.2.).

the user's page visits and allows us to see (anonymized) usage statistics in our Matomo instance, which we hope will give us insights to help us improve the application and the functionality it provides. This required adding a user consent functionality and a privacy and cookies policy. Furthermore we have worked on upgrading our servers, builders, compilers and code base to java 21 (from 11). Finally, there have been the usual bug fixes and dependency upgrades.

Materials with personal or sensitive data mitigated upon request (bi-annual update) - the accuracy of the rights information assigned to digital objects through the relevant metadata fields is checked on a regular basis by staff at the Europeana Foundation upon ingestion or reingestion of the data. Take down requests are also handled when they come in and we collaborate with aggregators to make sure that such requests are mitigated in a timely manner.

MINT based infrastructures supported (bi-annual update) - Mint support in the first half of Y2 involved updates of the live instances to support new features, bug fixes, regular machine backups, uploads of new schemas and thesaurus fixes. Additionally, work has been done on migrating to newer database and java versions. There has been an ongoing effort to gradually rewrite the code towards a more modern architecture.

Data quality improvements and new content delivered (bi-annual update) - Since Sep 2023, we updated in total 113 datasets and over 3.6 million records, including 54 newly published datasets (equal to 1,665,779 million records ingested). The updates as well as the depublication of low quality records led to an improvement of data quality available on the Europeana website (1 million records increase for Tier 2+/Tier A+; 1.09% increase for Tier 2+; 1.67% increase for Tier 3+; and 0.52% increase for Tier A+).

Data partners supported with data quality improvements and data publication (bi-annual update) - the ongoing support for data partners includes feedback about their data with concrete advice on how to improve data quality and solve data modelling problems. What helps a lot with providing feedback and supporting data partners is the Metis Sandbox and the Data Statistics Dashboard. Using these two products helps to improve data quality. Data partners can analyse their data in a more granular way using the Dashboard, and can test mappings and quality improvements using the Metis Sandbox. With the Metis Sandbox being used a lot more, our support for data partners is also more focussed on the Metis Sandbox. Aggregators are submitting questions and feedback via the Aggregation Systems Customer Helpdesk, reachable via the Feedback button in the Metis Sandbox (since Sep 2024 we got one request via the helpdesk, which was about a bug which can be an indication that people are happy with the sandbox and it runs stable). This also makes it easier for the DPS and Aggregation Systems team to work together to support data partners with the more technical aspects of the work.

Regular link resolution process is maintained (bi-annual update) - we have quarterly cycles in place for creating consolidated link reports to identify datasets that have broken links. Data partners are then asked to work on the identified datasets before we resolve the issues at the end of the quarter and before we start a new quarterly cycle. The number of broken links identified within a

quarter can vary a lot since datasets with broken links can occur at any time. Also the size of datasets has an impact. In Sep 2023 we reported 3% records with broken links, which was due to some large datasets being affected. This number has decreased to 2.2%, which is still high due to some big datasets with broken links.

CHIs signing up with the Europeana Initiative via the call to action in the welcome pack supported (bi-annual update) - in the period Sep 2023 - Jan 2024, 17 CHIs have received their usage dashboard after they have signed up via the call to action in the welcome pack (e.g. [British Library](#)). In addition, also a few new CHIs have signed up to indicate their interest to share their data with Europeana. This has led to the establishment of a few new relationships and work is underway with some of them to investigate their data and/or prepare their data for Europeana.

Actions taken and results achieved to re-engage with inactive and new partners completed (bi-annual update) - about 18 million records out of the total of 62 million records were identified in autumn 2020 as coming from data partners that are not active at the moment. In Y1 of the data space, the number of records that have not been updated since 1 Jan 2017 decreased to 8.8 million records in Aug 2023, and further decreased by 1 million records to 7.8 million records since Sep 2023. This strand of work helped to re-engage with inactive data partners and to improve the overall quality of the data published on the Europeana website. For the engagement with new partners we started to use the Welcome Pack as a way to get in touch with potential new partners. In addition, we use the momentum of the Twin it! campaign to engage with CHIs that have 3D models to explore how to make them available on Europeana.

Knowledge Base pages for 3D available and updated (bi-annual update) - the [Knowledge Base offers pages about the criteria for 3D content](#) to reach one of the 4 content tiers. This documentation is available and maintained. In addition, [a publishing guide specific for 3D content](#) is available that was developed as a collaborative effort of the 3D working group. It is the main guidance also shared with MS to support the Twin it! campaign.

Reporting metrics: data acquisition and data improvements

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 2024
KPI 2.1	High quality data	Number of Tier 2+ material in Tier A+ (excl. content Tier 0)	Monthly	**33.0 million**	31.4 million	30.9 million	31.4 million	32.2 million
KPI 2.2	High quality content	Percentage of Tier 2 + material (excl. content Tier 0)	Monthly	**>75%**	73.28	73.26%	73.49%	74.12%
KPI 2.3	High quality and reusable	Percentage of Tier 3+ material	Monthly	**>60%**	55.63	55.65%	56.04%	56.94%

	content	(excl. content Tier 0)						
KPI 2.4	High quality metadata (search, browse and explore)	Percentage of Tier A+ material (excl. content Tier 0)	Monthly	**>80%**	74.33	74.13%	74.34%	74.67%
KPI 2.5	Broken links in the repository	Number of broken links (out of total, incl. content Tier 0)	Quarterly [12]	**<1%**	3% (Sep 2023)	-	2.2%	-
KPI 2.6	Non-EPF compliant content (Tier 0)	Percentage of Tier 0 content	Quarterly	**<8%**	7.7%	-	-	7.18%
RM 2.2	Updates to datasets	Total number of newly created and updated datasets per month (out of total)	Monthly	-	21	38	12	17
RM 2.3	Updates to records	Total number of newly created and updated records per month (out of total)	Monthly	-	455,062	1,074,814	537,386	1,013,448
RM 2.4	New CHIs providing data to the data space	Total number of new CHIs (cumulative)	Annually	-	154 (Aug 2023	-	-	Exp. Aug 2024
RM 2.5	New content on the Europeana website	Total number of new datasets published (cumulative)	Quarterly	-	-	-	-	54 [13]

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[12] Number of broken links are measured quarterly (Sep, Dec, Mar, Jun).
[13] Note there was an error in reporting in PM. Periodic report M12, the number was stated as cumulative for Y1 and Y2. The metric is now updated to show progress for Y2 only.

RM 2.6	Records in the data repository	Total number of records (excl. content tier 0)	Quarterly	-	57.2 million	-	-	57.7 million
RM 2.7	Records in the data repository by accredited aggregators	Total number of records (excl. content tier 0)	Quarterly	-	43.1 million	-	-	43.7 million
RM 2.8	3D content available in Europeana (items)	Total number of 3D items published (Tier 2+ and Tier A+ material)	Quarterly	-	4,660	-	-	3,363[14]
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	-	50	-	-	50
RM 2.10	Coverage of entity collection (items)	Total number of items linked to (at least) one entity collection	Quarterly	-	33.7 million	-	-	33.7 million
RM 2.11	Coverage of entity collection (collections)	Total number of entity collections with items	Quarterly	-	27,211	-	-	27,211
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	-	-	-	17

[14] The decrease of 3D items is due to an issue updating a dataset that contains more than 1,000 3D items. In trying to update the dataset, a large part of the dataset was depublished, including the 3D items. Work is underway to fix it.

Between Nov 2023 - Jan 2024, we updated 67 datasets (newly created or updated) and over 2.6 million records. The updates contributed to an increase in data quality and new data (i.e. [Finnish National Gallery](#), [Philharmonie de Paris](#), [Museum of Applied Arts Budapest](#), [EUSKARIANA](#)).

2.2% broken links in the data repository is the result of a refined approach to identify datasets with broken links. We could incorporate the experience and feedback of users and aligned this better with the established more or less automatic process to identify broken links.

Task 2.3. Automated approaches towards data quality

Partners: EF, DATO

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.

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.

Overview of outcomes: automated approaches towards data quality

Partner	Outcomes	Progress	Due date
Activity 2.3.1. Use of AI to enrich metadata and content			
EF, EFHA, DATO	Plan for underlying infrastructure (hardware and services) to be employed for AI efforts in the data space completed	50%	Mar 2024[15] (Feb 2024)
EF	Evaluation methodology of (AI) enrichment results (V2) published	30%	Feb 2024
EF, DATO	Enrichment service is improved	Not started	Aug 2024
EFHA, EF	Improved titles and descriptions for EFHA records produced and evaluated	70%	Aug 2024
EFHA, EF	Enhancement of EFHA images completed	75%	Aug 2024
EF	Automated approaches to address data quality issues at scale, especially AI technologies, investigated and prepared for deployment	-	Ongoing

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[15] Adjusted due date confirmed with EC.

Automated approaches to address data quality issues at scale, especially AI technologies, investigated and prepared for deployment (bi-annual update) - we have continued the application of image resolution enhancement, completing a first batch (images for 1.1M items were enhanced out of 1.4M) and preparing for the second batch of approx 110K items. We have also resumed work on watermark detection, refining our approach to the issue, accessing images at scale and annotating more examples to perform training. Finally we are testing ChatGPT against some of the problems being worked on in other activities, such as language detection and date normalisation.

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, which, in turn, enables 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.

Working with the [Europeana Network Association (ENA)](#) and the [Europeana Aggregators' Forum (EAF)](#), we will develop training and event programmes that empower members, and cultural heritage professionals at large, to learn 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

Partners: EF, DFF, NISV

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 3.1.2)

EF, together with the Member State holding each presidency of the Council of the EU, will invite the CEDCHE Expert Group members, relevant experts and policy makers to discuss, align visions and expectations, or form a shared understanding of important, challenging, or new topics for the creation and development of the data space. (Activity 3.1.3)

Overview of outcomes: enhance cooperation throughout the data space

Partner	Outcomes	Progress	Due date
Activity 3.1.1. Develop methods of cooperation			
EF	Improved model of cooperation across Europeana Initiative implemented	Completed	Jan 2024
EF	Model of cooperation (including thematic programme of activity) published (V2)	85%	Feb 2024

EF	Mapping of products and services offered to CHIs and their professionals (V1) completed	Not started	Jun 2024
EF	Evaluation of model of cooperation (V2) completed	Not started	Jul 2024
EF, APEF, BL	Country Group activities pilot coordinated across Europeana Initiative	25%	Aug 2024
EF	Thematic programme of activity developed and maintained	-	Ongoing

Activity 3.1.2. Provide secretariat for Europeana Aggregators' Forum (EAF) and Europeana Network Association (ENA)

EF	ENA General Assembly organised	Completed	Nov 2023
EF	ENA Governance renewed (MC election and MB appointment)	Completed	Jan 2024
EF	Annual reporting for ENA and EAF activities published	70%	Feb 2024
EF, APEF, BL	Recommendations for enhanced accreditation scheme completed	Not started	Jun 2024
EF, APEF, BL	Two EAF outreach events organised	50%	Jul 2024
EF	Metrics framework for reporting on community engagement extended	5%	Jul 2024
EF	Recommendations for an enhanced community management scheme completed	5%	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	-	Ongoing

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

EF	Swedish Presidency Europeana activity evaluated and reported	Completed	Sep 2023
EF	Spanish Presidency Europeana activity organised	Completed	Oct 2023
EF	Requirements for a policy-making dashboard/enumerate observatory delivered	50%	Feb 2024
EF	Spanish Presidency Europeana activity evaluated and reported	30%	Mar 2024
EF	Belgian Presidency Europeana activity organised	15%	Jun 2024

EF	Member States targets page implemented in the Statistics Dashboard	Not started	Jun 2024
EF	Member States engagement strategy completed	5%	Aug 2024
EF	Mechanisms to engage and inform Member States developed and implemented	-	Ongoing

Improved model of cooperation across Europeana Initiative implemented - the model of cooperation developed during Y1 (described in PM. Periodic Report M12) is implemented through use. The Initiative continues to plan and host regular meetings to discuss actions that are planned to enhance the cooperation of the Initiative to support the development and implementation of the data space. The identified mechanisms for cooperation; a joint thematic programme, community engagement and joint project and partnerships, shape the content of activity and discussion, for example the progress of the country group pilot is regularly discussed. The documentation of the model of cooperation will be published in Feb 2024.

Country Group activities pilot coordinated across Europeana Initiative (intermediate update) - in Jan 2024 the Country Groups pilot project kicked off with the members of the Bulgarian, Italian and Slovenian Country Groups. A bi-monthly meeting calendar has been installed (with weekly check-ins), a Slack channel for internal communication as well as a project page on Pro. Work started on the Activity Plans for each Country Group.

Thematic programme of activity developed and maintained (bi-annual update) - over the past 6 months the thematic programme (TP) has been discussed internally within the Foundation with various members of teams for which the TP is considered most relevant. Based on the outcomes of these conversations an updated version will be delivered by the end of May 2024. This will include a review of the TwinIt campaign as an example of thematic work in practice.

ENA General Assembly organised - the meeting took place online on 29 Nov 2023 with an aim to engage more than 150 attending ENA members in interactive discussions around the strategic interests of ENA, Europeana Initiative, and the data space. The programme included the Europeana Initiative 'country groups' pilot action; a discussion of culture versus cultural heritage in the data space; approval of formal ENA documents; and launch of the 2023 Members Council elections and voting.

ENA Governance renewed (MC election and MB appointment) - ENA Members Council elections took place between 29 Nov and 12 Dec 2023. The following members were (re)elected: Nicola Barbuti, Carola Carlino, Jason Evans, Raul Gomez Hernandez, Juha Henriksson, Luis Ramos Pinto, Vassiliki Yiannou, Milena Dobreva and Georgia Manolopoulou. About 12% of the eligible voters participated in the elections. In Jan 2024, three candidates from among Councillors came forward and were appointed to fill three open seats on the ENA Management Board: Milena Dobreva, Ines Vodopivec, and Juha Henriksson.

Two EAF outreach events organised (intermediate update) - the first EAF Outreach event in Y2 was held on 23 Nov 2023, with discussions focused on the steps involved in publishing data on Europeana's infrastructure and the tools provided by Europeana Foundation to aggregators and cultural heritage institutions, such as the Metis Sandbox. Additionally, it explored similar tools and processes made available by aggregators in their own workflows and how this will all work together in the data space. The event had 105 registrations across all stakeholders from a total of 27 countries (including 20 EU Member States).

ENA and EAF policy and process managed and updated (bi-annual update) - throughout this period, we have continued efforts to align the communication and decision making processes, and have achieved a more frequent and efficient collaboration between representatives of the ENA and EAF by facilitating their joint meetings around joint interest (e.g. country groups pilot), regular information exchange and overall partnership building. Between Nov 2023 and Jan 2024, we have also continued facilitating electoral and onboarding processes of the ENA Councillors and Board members, as well as EAF aggregators' Steering Group members to help them perform their roles effectively.

New aggregators reviewed for accreditation (bi-annual update) - in Nov 2023 we concluded the accreditation process for two new aggregators: Slovakiana (national aggregator Slovakia) and Catalònica (Catalan aggregator). The accreditation for both aggregators was approved by the EAF General Assembly at the meeting on 2 Nov 2023.

General management support for ENA and EAF (incl. ENA MB and MC, EAF Steering Group, Task Forces, Working Groups and communities) provided (bi-annual update) - in this period, we continued supporting the ENA and EAF operational activities and organisation of monthly meetings of the ENA MB and the EAF Steering Group, as well as the MC meeting (Nov 2023), EAF meeting (Nov 2023), and EAF Outreach event (Nov 2023). We continued supporting all the existing ENA, EAF and Europeana Initiative wide Task Forces and Working Groups and provided overall management and guidance to the seven ENA communities. In Dec 2023, the Innovative Operating Models Working Group was launched; and in Jan 2024 we launched the Country Group pilot project.

Mechanisms to engage and inform Member States developed and implemented (bi-annual update) - we informed the Member States of the relevant news, updates, and activities via our dedicated Member States newsletter. Country specific reports were updated and published. We held two Twin it! cafés on 3D Material Ingestion and Licensing and legal issues (Jan 2024). We also contributed to the European Commission's ad hoc CEDCHE meetings dedicated to the Twin it! (Sep 2023 and Jan 2024).

Communication and dissemination activities

Partner	Name of event	Activity	Location	Date
EF	EUscreen Symposium 2023	European ecosystem of Data	Online	4-5/12/

		Spaces - deep dive		2023

Reporting metrics: enhance cooperation throughout the data space

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 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	**75%**	66.80% (Jul 2023)	-	-	Exp. Jun 2024
KPI 3.2	Growth of Europeana Network Association members	Number of members in the ENA	Quarterly	**5,000**	4,478	-	-	4,548
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	-	414	-	-	450
RM 3.2	Task forces in the Europeana Initiative	Number of active task forces per month (ENA, EAF, Initiative)	Quarterly	-	6	-	-	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	-	88%	-	-	Exp. Jun 2024

Task 3.2. Identify needs of user groups

Partners: EF

Under this task, EF will continuously explore the needs of professional audiences in the cultural heritage sector (Activity 3.2.1) as well as the needs of potential groups interested in reuse of cultural heritage data, such as education, research and the creative industries. EF will also 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 (Activity 3.2.2). User research will guide the development of tools and services and will identify which data, tools, and services should be offered as a priority.

Overview of outcomes: identify needs of user groups

Partner	Outcomes	Progress	Due date
Activity 3.2.1. Conduct user research among professional audiences			
EF	Report on 3D (including usage scenarios and best practices)	40%	Mar 2024
EF	Report on user needs and requirements of cultural heritage professionals to inform product and service development completed	Not started	Jun 2024
EF	Qualitative and quantitative (primary and secondary/desk) research among cultural heritage professionals undertaken and/or supported	-	Ongoing
Activity 3.2.2. Perform user and market research to foster reuse			
EF	Two new areas with reuse potential identified	30%	Mar 2024
EF	Audience profiles created (for identified two new audiences)	10%	Mar 2024
EF	Audience profiles validated (for identified two new audiences)	Not started	May 2024
EF	Pilot application in one new identified area of reuse potential completed	10%	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)	10%	Aug 2024
EF	Audiences interested in reuse identified and reached	-	Ongoing

Qualitative and quantitative (primary and secondary/desk) research among cultural heritage professionals undertaken and/or supported (bi-annual update) - in this period we supported various quantitative data gathering activities across the Foundation and Initiative including the analysis of the Environmental Sustainability Practice survey undertaken by the Task Force, where our

responses (108) represented library professionals (one third of respondents), academics (23% of respondents) and other cultural professionals - from 18 Member States and a further 12 countries from Europe and beyond. The responses indicate that these individuals are passionate about climate action and digital preservation in the cultural sector with 40% of the respondents reporting an interest in events and training/or standards specifically focusing on green ICT. In addition to this, we surveyed and reported on practices of aggregators towards persistent identifiers (results summarised earlier in this report) increasing our understanding of aggregator (and CHI) needs, especially around products and services.

With these activities in mind we also supported the planning of the next iteration of the Europeana Pro satisfaction survey with questions aimed at understanding more about the professional audiences we serve via this platform. Furthermore, we have been working towards establishing practices at the Europeana Foundation for gathering data about our professional audiences, including standardising questions across various teams, products and services, in our organisation and aligning with the Europeana Impact playbook methodology.

Audiences interested in reuse identified and reached (bi-annual update) - in this period we created a new template for audience profiles which aims to connect with and reach audiences with relevant solutions, in a team-agnostic manner. We hope this will foster closer collaboration within both technical and audience-facing teams to answer audiences' reuse needs. We conducted desk research and interviews with Gaming audiences, using our new Participate / Lead / Enable framework. Our findings will be incorporated in the upcoming 'Report on potential areas of reuse […]' due in August 2024, and have opened up interesting options to lead on the effort to archive gaming material in the data space. We also started researching several audiences of interest for our pilot application in one new identified area of reuse potential, due in July 2024.

Reporting metrics: identify needs of user groups

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 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	**75%**	79.5% (Aug 2023)	-	-	Exp. Aug 2024
KPI 3.5	CHI satisfaction with data space products and services	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	**75%**	76% (Aug 2023)	-	-	Exp. Aug 2024

Task 3.3. Build awareness and engagement

Partners: EF

Under this task, EF will build awareness and engagement of data space activities among 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).

Overview of outcomes: build awareness and engagement

Partner	Outcomes	Progress	Due date
Activity 3.3.1. Ensure strategic approach to marketing and communications			
EF	Landing page for the common European data space for cultural heritage published	70%	Feb 2024[16] (Jan 2024)
EF	Approaches to social media revised (internal)	50%	Feb 2024
EF	Start of promotional campaign around the landing page for the data space	30%	Mar 2024
EF	Second iteration of the welcome pack, onboarding for new providing institutions improved	Not started	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			
EF	Europeana Annual Conference organised - Europeana Tech	Completed	Oct 2023
EF	Learnings and recommendations from Impact Assessment implemented - Annually	40%	Jun 2024
EF	Events programme delivered and improved	-	Ongoing
EF	Activities of the international Events Manager Group coordinated	-	Ongoing
Activity 3.3.3. Engage professional audiences			
EF	Strategy for platforms for professional audiences completed (internal)	90%	Feb 2024
EF	Europeana Pro strategy delivered (internal)	60%	Feb 2024

[16] Adjusted due date confirmed with EC.

EF	Europeana Pro user survey completed	30%	Mar 2024
EF	CRM workflows extended	Not started	Jun 2024
EF	Tools to enhance community collaboration implemented	Not started	Aug 2024
EF	Platforms for professional audiences maintained (technical infrastructure, user journeys, accessibility)	-	Ongoing

Pro editorials published (e.g. Pro News and themes) (bi-annual update) - between Sep 2023 and Jan 2024, we have continued to publish Europeana Pro news posts highlighting and sharing developments from across the data space and the Europeana Initiative. This has included two month long themes focusing on Black History Month and the Impact Playbook (to promote its availability in a new online iteration). We also continued to publish posts as part of longer running series, including: updates from the Copyright Community's office and policy hours; the EuropeanaTech conference 2023; 3D and the Twin it! Campaign; and the data space.

Activities promoted (Newsletters, Twitter, LinkedIn) (bi-annual update) - in this period, we continued to amplify our Pro editorial work and also promoted calls relevant to professional audiences via relevant channels. The most popular activities in this period in terms of traffic driven to Europeana Pro were the EuropeanaTech conference programme, the new call for proposals to enhance 3D and XR heritage in the data space, and news and updates around the Europeana Network Association Members Councils Elections. More detailed information will be documented in DS. Communication and dissemination plan M23 (Jul 2024).

Events programme delivered and improved (bi-annual update) - in this period, we continued to improve our events programme and integrated hybrid meetings where possible. The work on the events calendar and the events toolkit continues.

Activities of the international Events Manager Group coordinated (bi-annual update) - the Events Managers Group has grown to be a very valuable group who shares experiences and supports each other in the challenges when organising (hybrid) events. It is of great value learning from other organisations what formats, style or tools they use, sharing good practices, as well as coordinating the timing of major conferences. It started as a small group of 4-5 people in 2020 and counts about 15 people today. Informal discussions and when possible visiting each other's events has proven to be a great way to get a better understanding of the different ways we all work. In addition, we share our lessons learned and successes to continue learning from each other.

Platforms for professional audiences maintained (technical infrastructure, user journeys, accessibility) (bi-annual update) - following the upgrade of the CMS from bolt 3 to bolt 5, development work on Europeana Pro has focused on resolving bugs and improving the speed and performance of Pro, on both the front and back end. Work on user journeys on Pro and in relation to other platforms has been influenced by ongoing work to develop the 'Strategy for platforms for professional

audiences', particularly in ensuring clear user journeys between Pro and the Knowledge Base. Accessibility is monitored on a six month basis, and Pro performs high in this regard as of Jan 2024.

Reporting metrics: build awareness and engagement

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 2024
KPI 3.3	Satisfaction rate for Europeana Pro	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale	Annually	**75%**	78% (Jul 2023)	-	-	Exp. Jul 2023
RM 3.9	Europeana Initiative events	Number of events held by Europeana DS consortium, EAF, and ENA (cumulative)	Quarterly	-	5	-	-	20
RM 3.10	Reach of Europeana Initiative events	Number of participants (cumulative)	Quarterly	-	1,088	-	-	1,781
RM 3.11	Satisfaction rate for Europeana Initiative events	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	-	88%	-	-	90
RM 3.7	Traffic to Europeana Pro	Number of visits per month	Monthly	-	29,527	25,637	19,153	22,169
RM 3.8	Traffic to Confluence	Total number of views to key landing pages (Knowledge Base and Impact Playbook) (cumulative)	Annually	-	8,832 (Aug 2023)	-	-	Exp. Aug 2024

In the period between Nov 2023 - Jan 2024, we organised in total 15 events reaching 693 people with a very high user satisfaction for events of 90%.

Overview of events

Partner	Name of event	Activity	Location	Date
Events organised				
EF	EAF Fall - Hungary	Event	Online and Budapest	2/3-11-2023
EF, NISV	EuropeanaTech presents: The Video Library in the 21st Century. Metadata, Robots and Copyright Headaches	Event	Online	8-11-2023
EF	Impact café phase one - impact design	Event	Online	8-11-2023
EF, NISV	EuropeanaTech presents: Open Knowledge Maps	Event	Online	14-11-2023
EF	Copyright office hours on matters affecting the audiovisual industry, documentary filmmakers, film educators	Event	Online	14-11-2023
EF, NISV	EuropeanaTech presents: Acoustics and sound in cultural heritage	Event	Online	22-11-2023
EF	EAF Outreach Event #2	Event	Online	23-11-2023
EFHA	EFHA 2023 international conference	Event	Utrecht	26/27-11-2023
EF	ENA AGM	Event	Online	29-11-2023
EF	Impact café phase three - impact narration	Event	Online	29-11-2023
EF, NISV	EuropeanaTech presents: Acoustics and sound in cultural heritage	Event	Online	4-12-2023
EF	Impact café phase four - evaluation	Event	Online	6-12-2023
EF	Copyright office hours on cross-border uses of copyright-protected materials	Event	Online	12-12-2023
EF	Twin it! café on 3D Material Ingestion	Event	Online	11-01-2024
EF	Twin it! café on Licensing and Legal Issues	Event	Online	12-01-2024

Task 3.4. Develop capacity building as a service

Partners: EF, CAPG

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).

Overview of outcomes: develop capacity building as a service

Partner	Outcomes	Progress	Due date
Activity 3.4.1. Develop capacity building tools and services			
EF	Europeana Capacity Building Framework (V4) developed (internal)	90%	Feb 2024
EF	Impact pathway for Training Programme revised	Not started	Jun 2024
EF	Impact Model V1 for the Europeana Initiative developed	15%	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
Activity 3.4.2. Manage and develop mechanisms for the training programme			
EF	Training Platform piloted and evaluated	90%	Feb 2024
EF, CAPG	A pilot Academy completed and evaluated	10%	Jun 2024
EF, CAPG, DS AGG	Training programme developed and prioritised	-	Ongoing

Capacity Building Working Group supported (bi-annual update) - the Capacity Building Working Group (CBWG) has been involved in the development of several core components of the Europeana Capacity Building Framework. In the period from Sep 2023 to Jan 2024 the group was involved in the pilot of the Europeana Training Platform and approach for the train the trainer programme. The group consists of six ENA Members, four EAF Members and two EF Members.

Europeana Impact community supported (bi-annual update) - two new Impact Community SG members were recruited, drawing from the wider ENA community and previous Impact Lite Task Force. A series of network information events (Impact Community Cafés) were held to publicise and improve the uptake of the new online Impact Playbook (see below). We held a steering group meeting on the fringes of EuropeanaTech 2023 (Oct 2023). This allowed members to meet in person for the first time and resulted in recommendations for future task forces and activities. We ended 2023 with a clear vision of what we want to deliver for members in 2024.

Europeana Impact Framework (EIF) and Europeana Capacity Building Framework (ECBF) maintained and improved (bi-annual update) - the main update to the EIF was the revision and publication of the [online Europeana Impact Playbook](#). This has received good feedback to date. Training materials were developed based on the new Playbook and piloted with EF colleagues and DS supporting-project partners. For the ECBF, minor work for a planned update in Feb 2024 was done. Components of the ECBF, developed in Q1/Q2 2023 have been instrumental for the development of new training resources.

Training programme developed and prioritised (bi-annual update) - progress has been made on developing new training resources which will become available in Q2 of 2024 and on developing an approach for the delivery of instructor-led training, e.g. creating a training agenda. The Training Platform (formerly described as Learning Management System) has been piloted successfully internally and with members of the Capacity Building Working Group. Work on a plan for a promotional campaign of the training platform has started and will be combined with the release of the new training resources.

The process of prioritising development and delivery of training is still taking shape. Currently the prioritisation is done (1) thematic (based on current topics and needs identified in earlier work, such as the "Priorities and primary focus areas for train-the trainer programme for the provision of high quality data") and (2) based on the availability of subject matter experts needed for the training development and delivery. Holistic development of training resources is gaining momentum as more teams are including the development and delivery of training in their planning cycles for the development of products and services.

Reporting metrics: develop capacity building as a service

No.	Description	Measured by	Frequency	Oct 2023	Nov 2023	Dec 2023	Jan 2024
RM 3.12	Reach to Europeana Impact community	Number of people reached per month (Newsletter, mailing list, LinkedIn)	Quarterly	2,877	-	-	2,923

Task 3.5. Facilitate the provision of high quality data

Partners: EF, DS AGG

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 the building of necessary capacity. 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 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 to increase the quality of data available for reuse (Activity 3.5.2).

Overview of outcomes: facilitate the provision of high quality data

Partner	Outcomes	Progress	Due date
Activity 3.5.1. Deliver training programme for aggregators and data partners			
EF, AIT Graz	IIIF guidelines and training resources for image conversion and manifest creation delivered	60%	Jun 2024
EF, DEN	DEN Leadership programme Cohort completed and evaluated	Not started	Jul 2024
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
Activity 3.5.2. Support the transfer of knowledge between professionals			
EF	Technical conference to train and inform Spanish CHIs on the flow of data from them to Hispana, and from Hispana to Europeana	30%	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

In the period between Nov 2023 - Jan 2024, we organised in total three training sessions reaching 123 people which resulted in a cumulative high user satisfaction for training of 87%.

Overview of training

Partner	Name of event	Activity	Location	Date
Training organised				
EF	[4CH twin it webinar: Workshop 3: 3D modelling techniques](#)	Training	Online	07/11/2023
EF	[4CH twin it webinar: Workshop 4: A practical example](#)	Training	Online	15/11/2023
EF	[4CH twin it webinar: Workshop 5: Storing, managing and visualising the 3D models](#)	Training	Online	28/11/2023

Training for the provision and reuse of high quality data delivered and published online (bi-annual update) - in the period, we organised in total eight training sessions which reached in total 350 participants with a high average satisfaction rate of 87%. The training was on the theme of 3D and GIF-making.

Inventory of existing training (and other capacity building resources) maintained and updated (bi-annual update) - several training resources were moved from Pro to the Training Platform for the pilot of this platform. Training under development was added to this inventory. Conversations took place with partners providing training that connects to our training needs, for example IIIF, to explore how connections between existing and our own training resources could be made.

Partnership with European Students Association for Cultural Heritage (ESACH) developed (bi-annual update) - for Y2 a grant was offered to ESACH members to support attendance at EuropeanaTech, supporting five new professionals with travel and accommodations costs. The grantees organised networking activity during and after the conference. ESACH provides periodic support for the promotion of internships offered by EF, and actively supported the elections process for the ENA Members Council elections in 2023. EF supported ESACH by reviewing and disseminating the position paper ['Youth for the future of cultural heritage in Europe'](#).

Activities that promote the value of participating in training and knowledge transfer by ENA and EAF delivered (bi-annual update) - continuing the activity from Y1, we delivered EuropeanaTech as a core knowledge sharing activity for the Initiative, the promotion of events and activities through social media. And further explore opportunities to facilitate knowledge transfer between ENA and EAF through coordination of meetings and planning a joint meeting in Mar 2024.

Knowledge transfer supported (incl. one-to-one support and helpdesk for CHIs, peer-to-peer support between aggregators and experts) (bi-annual update) - in Y2 of the data space so far, DS AGG supported in total 72 CHIs from 20 countries (including 17 new CHIs collaborating with DS AGG).

Europeana Communicators Community supported (bi-annual update) - in this period, the Europeana Communicators Community has supported the translation of the [Seven Tips for Digital Storytelling](#) into four more languages - Albanian, Catalan, Dutch and Romanian. This brings the total number of languages available up to 14. The Community created and paid for stickers and postcards at EuropeanaTech 2023 to promote the Seven Tips for Digital Storytelling. We will assess the success of these in the coming month. The SG of the Community started developing actions to help communicate about the data space more widely. The Community also reached out to the Copyright Community to explore how we could support their Task Force on Article 14.

Europeana Climate Action Community supported (bi-annual update) - in this period, the Community gathered and analysed 105 contributions from 30 countries received via the Environmental Sustainability Practice [survey](#). The aim of the survey is to explore sustainable practices in digital preservation, challenges and needs for support. The community is finalising the data analysis and an interim report will be delivered in Mar 2024. At EuropeanaTech 2023, the community raised awareness on the need for digital sobriety across the data space through an intervention on the environmental impact of AI and 3D technologies. In this period, the community also prepared and published its [2024 annual work plan](#).

Reporting metrics: facilitate the provision of high quality data

No.	Description	Measured by	Frequency	Oct 2023	Nov 2023	Dec 2023	Jan 2024
RM 3.29	Europeana Initiative training	Number of training held by Europeana DS consortium, EAF, and ENA (cumulative)	Quarterly	5	-	-	8
RM 3.13	Reach of Europeana Initiative training	Number of participants (cumulative)	Quarterly	227	-	-	350
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	-	-	87
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	-	-	Exp. Feb 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	-	-	Exp. Feb 2024
RM 3.15	Reach to Europeana Communicators community	Number of people reached per month (Newsletter, LinkedIn, mailing list)	Quarterly	3,181	-	-	3,199
RM 3.16	Reach to Europeana Climate Action community	Number of people reached per month (Basecamp, mailing list)	Quarterly	464	-	-	491
RM 3.17	CHIs supported by DS AGG	Total number of CHIs supported by individual consultation (cumulative)	Quarterly	47	-	-	72
RM 3.18	Coverage of CHIs supported by DS AGG	Total number of countries that received support by individual consultation (cumulative)	Quarterly	21	-	-	20
RM 3.19	Outreach to CHIs	Total number of new CHIs collaborating with DS AGG (cumulative)	Quarterly	13	-	-	17

Task 3.6. Facilitate the reuse of high quality data

Partners: EF, EUN, EuroClio, F&F, DARIAH

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).

Specific efforts will be done to engage with educational communities (Activity 3.6.1.), academic and research communities (Activity 3.6.2.), as well as developer communities and API customers (Activity 3.6.3.).

Overview of outcomes: facilitate the reuse of high quality data

Partner	Outcomes	Progress	Due date
Activity 3.6.1. Engage with educational communities			
EuroClio	Historiana online self-paced course launched	Completed	Nov 2023
EF	Annual Open Education Week: contribution added	50%	Mar 2024
EF	Built with Bits 3 organised	50%	Mar 2024
EuroClio	'Train the trainer event' organised	25%	Apr 2024
EF	All Digital Week campaign: contribution added	15%	May 2024
EUN	Europeana Education competition organised	40%	May 2024
EUN	Third and fourth language version (tbc) of the updated Digital Education with Cultural Heritage MOOC completed	35%	Jun 2024
EUN	EUN national training/outreach activities organised (10 activities)	25%	Aug 2024
EuroClio DS AGG	10 New learning materials and 15 new translations of existent content published on Historiana	Not started	Aug 2024
EUN	100 stories of implementation to upload on the Teaching with Europeana blog and 500 microstories of reuse	25%	Aug 2024
EuroClio	National trainings organised (3 trainings)	Not started	Aug 2024
EF	Blogs and social media posts (LinkedIn, Facebook, Twitter) published	-	Ongoing
EF	[Europeana Education community](#) supported	-	Ongoing
Activity 3.6.2. Engage with academic and research communities			
DARIAH	Training resources for academic and research data users published on the SSHOC Marketplace v.2	20%	Aug 2024
DARIAH	Training course on 'Using Europeana APIs in Research and Higher Education' for DARIAH Campus developed	20%	Aug 2024
EF	Research on digital cultural heritage as an emerging university subject published	20%	Aug 2024
EF	Update on use of "Collection as data" workflow	Not started	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
Activity 3.6.3. Engage with the developer communities and API customers			
EF	API outreach strategy updated	60%	Feb 2024
EF	Landing page for onboarding API users completed	50%	Jun 2024
EF	Capacity building resources for API users developed	60%	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

Historiana online self-paced course launched - this [online course](#) will assist educators to create and share e-Learning Activities on Historiana using the data space content. These activities are online tools that have been developed to allow students to improve their historical thinking skills in a variety of ways. Participants will learn what Historiana is, how to create e-Learning Activities that promote quality history or citizenship education, and develop an E-Learning Activity on a relevant topic of one's own choosing with a trainer's guidance and approval.

Blogs and social media posts (LinkedIn, Facebook, Twitter) published (bi-annual update) - during the reporting period we published 10 posts on the education LinkedIn group with a total of 3,893 views. On the Facebook group we published 174 posts with 475 reactions.

Europeana Education community supported (bi-annual update) - the community work plan was finalised and submitted to the ENA board. One of the highlights of this work plan is the celebration of the third edition of the Low-code Fest. The capacity building phase will take place in Foligno during the C.R.E.A Cultura Festival 2024.

Europeana Research community and Research Advisory Board supported (bi-annual update) - The [datasheets for digital cultural heritage Working Group](#) hosted by this community and EuropeanaTech [published a template for datasheets on Zenodo](#) to collect input for a more refined version. The WG also published a paper in the *[Journal of Open Humanities Data](#)*. In line with the efforts in Y1, the community fostered exchanges on AI-related topics, supporting the organisation of the seminar *[AI solutions in libraries](#),* in cooperation with the National and University Library of Slovenia and IFLA Section for Information Technology. In addition, the

community [launched a call for interest](#) to facilitate participation in the 'Collections as Data' event at the Royal Library of Belgium, making available some travel stipends. Before delivering the work plan for 2024, the SG organised a brainstorming session with the community.

Liaison with other academic research and cultural communities developed and maintained (LIBER, GLAMLabs) (bi-annual update) - the LIBER WG on digital scholarship and digital cultural heritage organised a session at the [*LIBER Winter Event: Come together! Enabling Collaboration and Inclusivity in Research Libraries*](#), in collaboration with the LIBER WG on data science. The collaboration with the GLAM Labs community led to the publication of a scientific article on [Global Knowledge, Memory and Communication](#), to share experiences at GLAMs in line with the Collections as Data approach.

Outreach events for academic and research communities (co)organised or contributed to (bi-annual update) - highlights are the organisation and delivery of a session on the data space for cultural heritage at the [EOSC Symposium 2023](#), and the organisation of the ['Collections as Data' event](#) in Brussels, in collaboration with the Royal Library of Belgium (Feb2024). The workflow to publish Collections as Data was used as training material at the [University of Alicante](#) (Degree in Multimedia Engineering, subject: Structuring Contents, Sep - Dec 2023), within the testing of the workflow conducted in collaboration with DARIAH.

API documentation maintained and updated (bi-annual update) - all API documentation has been migrated from pro.europeana.eu to [Confluence](#), and has been refreshed and updated in preparation for public release before the end of Y2. New FAQ pages and tutorial pages have been put in place to support the user journey of developers using our new documentation. This work is being coordinated together with our capacity building and platform services colleagues who are developing new capacity building resources and tutorials to get people started with Europeana's API suite quickly and effectively. The new capacity building resources are set to launch and be promoted publicly before the end of Y2, in conjunction with the release of the new API documentation.

API related developments promoted and communicated to users (incl. changes to Europeana API products and services, new or updated reuse projects) (bi-annual update) - new API developments are being embedded in the updated documentation, which will, as stated above, be launched before the end of Y2.

Europeana API services and capacity building resources presented at relevant events (bi-annual update) - Europeana's API suite has been promoted at the Rotterdam University Immersive Tech Week in Nov 2023. [Two teams of six students each accepted Europeana's challenge to develop a new immersive project](#) using digitised cultural heritage from Europeana by using the APIs. Both teams created a standout project, and both teams won prizes at the hackathon for their work. Mentoring was provided to the teams through capacity building resources developed by Europeana and presented by Europeana's technical staff.

Communication and dissemination activities

Partner	Name of event	Activity	Location	Date
EF	Rotterdam University, Immersive Tech Week Hackathon	Mentor and guide students answering the ITW Hackathon Challenge	Rotterdam	27-30/11/ 2023
DARIAH	CLARIN and Libraries 2023: Large Language Models and Libraries	Presentation on Collections as Data, also with reference to the data space for cultural heritage	Oslo	06/12/ 2023
DARIAH	EUscreen Symposium 2023: Reimagining the Future of Data Flows	Participation in the round table on the European ecosystem of data spaces, focussing on cultural heritage data as research data.	Athens	04-05/12/ 2023

Reporting metrics: facilitate the reuse of high quality data

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 2024
KPI 3.6	Educators reached in national training events [17]	Total number of educators (cumulative)	Bi-annually	**1,000**	1,638 (Aug 2023)	-	54	Exp. Aug 2024
KPI 3.7	Satisfaction rate of educational communities	Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	Quarterly	**75%**	88% (Aug 2023)	-	-	Exp. May 2024
KPI 3.8	API users (external)	Total number of (external) API users per month	Monthly	**200**	191	137	145	140
RM 3.20	New learning resources for education [18]	Total number of new resources created with data shared through Europeana.eu (cumulative)	Quarterly	-	261 (Aug 2023)	-	77	Exp. Apr 2024

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[17] Y2 will include both educational partners (EUN and EuroClio).
[18] This includes new Stories of Implementation (SoI).

RM 3.21	Language variations of existing learning resources	Total number of new translations of learning resources (cumulative)	Bi-annually	-	34 (Aug 2023)	-	-	Exp. Apr 2024
RM 3.22	Participants completing the Europeana Education online courses	Total number of participants (cumulative)	Bi-annually	-	367 (Aug 2023)	-	-	Exp. Jul 2024
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 (Aug 2023)	-	42,966	Exp. Aug 2024
RM 3.24	Reach to Europeana Education community	Number of people reached per month (mailing list, LinkedIn, Facebook)	Quarterly	-	11,569	-	-	11,648
RM 3.25	Outreach events to academic and research communities	Total number of events contributed to or (co)organised (cumulative)	Quarterly	-	4	-	-	6
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	-	-	100

RM 3.26	Reach to Europeana Research community	Number of people reached per month (Discussion list, Twitter)	Quarterly	-	7,333	-	-	7,356
RM 3.27	API usage (REST API)	Total number of requests per month (external traffic)	Monthly	-	14.8 million	7.4 million	15.4 million	16.9 million
RM 3.28	API sign-ups (REST API)	Total number of API sign-ups (cumulative)	Monthly	-	148	241	284	335

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
Partners: EF

Europeana.eu offers pan-European content to anyone with an interest in cultural heritage. We will ensure the website is easy to access, 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.)

EF aims to turn new visitors into returning visitors by improving the findability of content (Activity 4.1.2. - 4.1.4., Activity 4.1.6.), by extending user participation features (Activity 4.1.5) and optimising the user feedback mechanism (Activity 4.1.7).

Overview of outcomes: deliver high-performing Europeana website

Partner	Outcomes	Progress	Due date
Activity 4.1.1. Optimise the responsiveness of the website			
EF	Website is fully responsive and 5G-ready (implementation)	-	Ongoing
Activity 4.1.2. Optimise search experience, prioritising relevance and data quality			
EF	Compute log-based evaluation metrics and prioritise requirements for second iteration of user search logs (EVAL-5, EVAL-6, EVAL-7)	20%	May 2024
EF	Search relevance and performance maintained	-	Ongoing
Activity 4.1.3. Optimise browse experience to improve content discovery			

EF	Public display of monthly view numbers on stories and trending item pages available	Completed	Nov 2023
EF	Redesign the organisations' page to highlight the providing institutions further	20%	Mar 2024[19] (Feb 2024)
EF	Curated and visually engaging browse experience implemented	Not started	May 2024[20] (Aug 2024)
Activity 4.1.4. Expand multilingual coverage to include all EU official languages			
EF	Definition of an approach to automatic language tagging of metadata, based on investigation of existing automatic solutions	70%	Feb 2024
EF	Process for systematically validating translations established	15%	Jun 2024
EF	Consistent approach to sourcing translations of editorial content developed	10%	Jun 2024
EF	Consistent approach to sourcing translations of editorial content piloted	10%	Jul 2024
EF	Multilingual coverage of editorial content increased	-	Ongoing
EF	Maintain user interface translations in supported languages	-	Ongoing
Activity 4.1.5. Extend user participation features			
EF	Feature request page	Not started	Aug 2024[21] (May 2024)
Activity 4.1.6. Optimise user interaction and display of content			
EF	Consistent user experience and optimal performance of all media playouts (video and audio) improved	10%	Aug 2024
Activity 4.1.7. Optimise user feedback mechanism			
EF	Admin area of user feedback mechanism consolidated	Completed	Jan 2024
EF	User satisfaction with the feedback response tracked and evaluated	-	Ongoing

Website is fully responsive and 5G-ready (implementation) (bi-annual update) - we ensure that the website is fully responsive and looks good on small screens like mobile phones, and also tablets and desktops and very large screens like a television. We are also continuously ensuring that our website performs well i.e. is accessible at any time and loads quickly.

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[19] Adjusted due date confirmed with EC.
[20] Adjusted due date confirmed with EC.
[21] Adjusted due date confirmed with EC.

Search relevance and performance maintained (bi-annual update) - in this period there was no novel search function or change to the existing ones that was deployed in production. Instead, we have made significant effort towards future deployments. A first Minimum Viable Product (MVP) has been delivered for adding date-focused features to our Solr search engine. Proposals have been made for redesigning the Solr schema and in other areas for improving the performance of the search engine (and preventing some timeouts). We have begun the work on computing search evaluation metrics based on the logging that have been deployed in the portal. Finally, we have proposed some improvements in user documentation.

Public display of monthly view numbers on stories and trending item pages available - we are [publicly displaying the view numbers for stories](#) so that people can see how many others have read a blog post or exhibition. It also allows us to accurately track which stories perform best overtime since the numbers shown are cumulative gathered from across all the analytics platforms we have used. Additionally, we introduced a new feature to the website '[Trending items](#).' It takes into consideration the number of times an item was viewed, downloaded, liked, added to a users gallery in the last 24 hours. This is the most dynamic feature on the website since it shows items trending in real-time. We hope that this feature will encourage people to return to the website more frequently to see which European cultural heritage items are trending today. Currently, it's located on the collections hub page, in the future we will move it to a more prominent location.

Multilingual coverage of editorial content increased (bi-annual update) - editorial stories on the Europeana website are available in all 24 EU languages. In Y2 so far, 23 stories have been published in at least two EU languages, including 2 stories in all 24 EU languages. This amounts to 70% of 'Year 2' stories published in more than one language, and 6% of stories published in all EU languages. In this period in total, 275 new translations were added to editorial on europeana.eu, counting individual language versions on new as well as legacy content.

In this period, we started consolidating guidelines and workflows for translation, covering several areas including user interface (europeana.eu and its static pages), as well as editorial. We are still translating stories in the same three ways we did in Y1:
- internally, inviting colleagues to validate machine translation via eTranslation
- externally, inviting authors with multilingual skills to provide their stories in English and their own languages, as well as working with some aggregators to validate machine translation via eTranslation
- Paid translations from professional translators, using the Translated.com agency.

We have been formalising our approach and processes with the aim of creating an engaged pool of volunteers made of internal colleagues, partners, aggregators, as well as ENA members. We will be piloting the first iteration of our new processes with members from the ENA Communicators Community in Q2 2024. In March 2024, we will also begin to pilot a dedicated internship focusing on translation from students of Translation studies.

Maintain user interface translations in supported languages (bi-annual update) - the website is available in 25 European languages (the 24 official EU languages and Basque). We translate all new functionalities in all languages to ensure that the website is fully multilingual.

Admin area of user feedback mechanism consolidated - we consolidated the jira service desk admin area for europeana.eu and pro.europeana.eu so that we have a good overview of all the feedback coming from the two products. We also introduced a new feedback widget for pro.europeana.eu which is similar to the one we have on europeana.eu ensuring that people who visit both websites can easily find it and interact with it.

User satisfaction with the feedback response tracked and evaluated (bi-annual update) - between Sep 2023 and Jan 2024, on average the initial response time to user feedback was 5.4 hours and it took on average 10 hours to resolve user feedback (excl. user feedback where the responsibility lies outside of Europeana DS consortium). We will start reporting on user satisfaction with the feedback process in Mar 2024. A detailed analysis on user feedback (including number and type of user feedback) is available in the DS. Users and usage report M14 (Oct 2023).

Reporting metrics: deliver high-performing Europeana website

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 2024
KPI 4.1	Traffic to the Europeana website	Number of visits per year (cumulative)	Monthly	**6.6 million**	829,482	1.2 million	1.6 million	2.0 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	**75%**	71% (May 2023)	-	-	Exp. Feb 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	**80%**	NEW	-	-	Exp. Mar 2024
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% (Aug 2023)	-	-	Exp. Aug 2024

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% (Aug 2023)	-	-	Exp. Aug 2024
RM 4.3	User participation: account holders	Total number of account holders	Quarterly	-	29,306	-	-	32,258
RM 4.4	User participation: liked items	Total number of items liked by users	Quarterly	-	34,168	-	-	38,210
RM 4.5	User participation: galleries	Total number of user-created galleries	Quarterly	-	7,666	-	-	8,472
RM 4.6	Downloads of digital items on the Europeana website	Total number of downloads (cumulative)	Quarterly	-	27,341	-	-	144,100
RM 4.7	Average of initial response time to user feedback	Average number of hours per month	Monthly	-	5.23	7.88	5.60	2.76
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	-	7.73	12.57	12.58	7.75

Task 4.2. Engage audiences with digital cultural heritage

Partners: EF, DS AGG

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).

Overview of outcomes: engage audiences with digital cultural heritage

Partner	Outcomes	Progress	Due date
Activity 4.2.1. Drive participation with cultural heritage			
EF	GIF IT UP organised	Completed	Oct 2023
EF	Digital Storytelling Festival organised	30%	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	-	Ongoing
F&F	Transcribathon platform maintained	-	Ongoing
Activity 4.2.2. Broaden impact of cultural heritage by expanding pan-European themes and perspectives			
EF, DS AGG	Multilingual editorial content (exhibitions, blogs, and galleries)[22] 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
Activity 4.2.3. Communicate the data space for cultural heritage activities			
EF	Newsletter and social media posts (Facebook, Twitter, Instagram, Medium, Pinterest) published[23]	-	Ongoing

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[22] Editorials from data space supporting projects contribute to this outcome.
[23] Editorial outcomes of data space supporting projects are promoted.

Europeana website (incl. account functionality, user-created galleries) promoted (bi-annual update) - in this period, we promoted the new Trending Items website feature with a blog post, a dedicated social media campaign and in the Jan 2024 newsletter. The [blog post](#) featuring seven trending items has received more than 2,600 views at the time of writing this report. We now more systematically include a call to action to subscribe to the newsletter in blog posts, in an effort to grow our email audience and show them examples of galleries and editorial to encourage returning visits to the website. Editorial translation efforts were supported with multilingual promotion. A blog about the European Capitals of Culture for 2024 was published in all 24 languages, and a dedicated multilingual social media campaign promoted this editorial. Additionally, a blog featuring 8 female botanical artists and another blog featuring a Botanical Illustration colouring book were promoted multilingually. Individual editorial pieces in more than one EU language were promoted through social media campaigns, including the blogs on Trending Items, the Black Lives in Europe exhibition during Black History Month, and the Fashion and Performance exhibition. Promotion of the account and the gallery curation functionality has become embedded in our various activities. We featured galleries created by users in our monthly newsletter alongside a call to action to create your own. We also added a call to action to create galleries while promoting galleries on social media.

High-quality open access data promoted, including 3D, to established and new audiences (bi-annual update) - the 2023 edition of our GIF IT UP contest was run in Oct 2023 with 9 partners including Goethe-Institut. We hosted a GIF-making workshop, as did Goethe-Institut at their location in Amsterdam. We created a screen capture of our search function, to guide participants in finding high quality open access data. This screen capture can be reused in future editorials, for example in one we planned around the significance of Public Domain Day, to encourage and guide users year round to search our Europeana collections and find and reuse high-quality open access data. Our [2023 Advent calendar](#) enjoyed its characteristic popularity (over 19,000 views at the time of writing this report), promoting activities created with open access data every day in Dec 2023 until the 24th. In Jan 2024 we kicked off [the first interview of a new series](#) that showcases creative reusers who use Europeana items in their creative work. The blog post displays Europeana items and their creative reimagining side-by-side, acting as inspiration for visitors. We created a form to invite website visitors to get in touch about their own creative reuse activities using Europeana items, so we can potentially feature them in an upcoming interview. Preparations for online coverage of the 3D Twin It! campaign started in early Jan 2024. We are connecting Twin It! and its 3D submissions to our annual Digital Storytelling Festival residency and to the 14 May 2024 event that will mark the end of the Twin it! campaign. We are exploring which online formats and which narrative structures can best showcase the models submitted by each Member State.

Transcribathon events, online runs and workshops organised and promoted in partnership with CHIs (bi-annual update) - in Dec 2023 the [History In Your Hands Run](#) was started, a project set up by Dublin City University Library, Ireland. The project is structured around teaching second level students from local secondary schools around Dublin how to plan, research and write their

research study as part of the Irish Leaving Certificate in History. From Sep 2023 to Feb 2024 four [Stories of the Month](#) runs were held around the following themes: letter writing (Sep 2023), education (Oct 2023), end to war (Nov 2023) and winter greetings (Dec 2023 & Jan 2024).

Transcribathon platform maintained (bi-annual update) - there has been no exceptional activity for maintenance during the reporting period.

Multilingual editorial content (exhibitions, blogs, and galleries) published and promoted (bi-annual update) - editorial content was published during this period connecting history and culture across borders to contemporary themes and events, such as social issues, historical anniversaries and current events. In total so far, 33 new editorials have been published in Y2. For example, [European Capitals of Culture 2024: Bad Ischl, Bodø and Tartu](#), [Optical views: a way to travel through Europe](#) and [What was the impact of the Great Lisbon Earthquake in 1755?](#) In addition to EF, the editorials were created by nine different organisations and individuals across Europe and editorial was contributed by one data space supporting project (EUreka3D). The editorials published so far showcase 265 collection items from around 120 cultural heritage institutions in 23 countries.

Pan-European themes organised (e.g. Black History Month, Women's History Month and Pride Month) (bi-annual update) - for Black History month (Oct 2023), we invited consortium partners to direct us to their collections on the Europeana website related to Black Heritage, as well as submit new or update existing collections on europeana.eu related to Black Heritage, or write an editorial. Four consortium partners responded to the call, resulting in new galleries and multilingual editorial pieces. This result led to us building on the successful call to action to develop a pilot to improve our collaboration for Women's History Month in Mar 2024. At the end of Nov 2023 we started preparations and discussions for Women's History Month 2024 using our lessons from Black History Month, working on the list of women's organisations to reach out to, developing the data demand for aggregators and started discussions around a GIF making workshop for Women's Day (8 March 2024).

Collaborations with European Union initiatives sharing cultural heritage promoted (bi-annual update) - [Built with Bits](#) contributes to the New European Bauhaus movement by inviting students and educators to design spaces with Mozilla Hubs (reported under Activity 3.6.1. Engage with educational communities).

Newsletter and social media posts (Facebook, Twitter, Instagram, Medium, Pinterest) published (bi-annual update) - during the reporting period, we saw initial results of the multilingual tagging of the animated GIFs on our GIPHY profile. This included an animated [Christmas card](#), which went viral in Dec 2023, receiving almost 60 million views. It was most engaged using the search phrase 'Felices Fiestas'. On Instagram, we continued Story Takeovers during Black History Month (Oct 2023). We tested a new format - a collaborative grid post, which shows on the grids and feeds of both accounts posting together - with three partners: Art UK, Eureka3D and Burg Posterstein. With promising results, we decided to scale up this effort and partner with more

institutions during Women's History Month in 2024. On Instagram Stories, we used interactive features to engage with users such as Cultural Heritage Collections gift guide. We brightened Blue Monday with art, asking people to send an emoji and selecting an artwork from Europeana especially for them. We continued promoting events (Europeana Tech, Women's History GIF-making workshop, Online Creative Residency Info Session) using Facebook events and Instagram Calendar Sticker. We also sent a pilot edition of a new newsletter to users interested specifically in our events, updating interested subscribers about our event offer.

Reuse: in Y2, we have begun to track and compile social media profiles and other websites using collections items from Europeana.eu. 147 examples have been identified in Y2 so far. Social media profiles (primarily on X / Twitter and Instagram) regularly feature items sourced from Europeana, placing them in a new subject-led context. Examples include Airport Architecture, Worn On This Day and Cats in Art. We are aware of this because they follow best practice in tagging Europeana as the source of the images. Other social media profiles and websites also feature collections items from Europeana.eu. A significant number of these examples use collections items which have been shared via the Unsplash website. Other examples of creative reuse in this period include:

- UraniaBerlin, an event venue in Berlin, advertised a lecture with a Caravaggio painting sourced from Europeana
- PZPIC, an image to video app, demonstrated how to use their app using artworks sourced from Europeana
- London Graphic Centre, an art supply store in London, promoted their products by featuring artworks sourced from Europeana

Reporting metrics: engage audiences with digital cultural heritage

No.	Description	Measured by	Frequency	Target Y2	Oct 2023	Nov 2023	Dec 2023	Jan 2024
KPI 4.3	Audience satisfaction with editorial (exhibitions, blogs)	Total % of 'satisfied' and 'completely satisfied' responses on 5-point Likert scale (cumulative)	Quarterly	**80%**	72	-	-	73%
KPI 4.4	Social media reach	Total number of impressions on social media (Facebook, Pinterest, GIPHY, Instagram, Twitter, Medium, LinkedIn) (cumulative)	Monthly	**450 million**	78.4 million	-	-	274.3 million
RM 4.13	Reach of activities that	Number of participants taking part in activities (incl.	Quarterly	-	139	-	-	310

	promote the use/reuse of cultural heritage	DSF, GIF IT UP, Transcribathon events and others)[24]						
RM 4.14	Audience creations made with digital cultural heritage	Total number of submitted reuse/remix cases (incl. but not limited to GIFs, social media posts, transcribed items)[25]	Quarterly	-	152	-	-	2,497
RM 4.11	Traffic to exhibitions and blogs	Number of visits to all exhibitions and blogs (cumulative)	Quarterly	-	256,950	-	-	583,463
RM 4.12	Social media engagement	Total number of likes, shares, comments per month (Facebook, Twitter, Pinterest, Instagram, Medium, LinkedIn)	Monthly	-	199,409	212,947	282,649	298,579

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[24] Counted here: GIF IT UP participants and workshop attendees, attendees at talks relating to reuse, Immersive Tech Week Hackathon participants and Transcribathon event participants.
[25] Counted here: GIFs entered into GIF IT UP 2023, audience creations made with digital cultural heritage shared on social media or other websites, apps created by participants in Immersive Tech Week Hackathon and transcribed items on Transcribathon.eu

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.).

Task 5.1. Ensure continuous progress monitoring and reporting
Partners: EF

Under this task, EF will manage and coordinate the programme as described in the tender and in the work package sections of this implementation plan. Annex: Progress on deliverables provides an overview of completed and upcoming deliverables.

Major changes in staff
No changes in M15 - M17.

Risk management
Risk management is an essential part of the data space programme management. EF has a risk management approach in place for managing risks throughout the contract that nominates relevant people responsible[26]. Annex: Risk log includes an assessment of risks with risk responses and other relevant details. The Risk log will be updated periodically and an updated version will be provided to the EC via the PM. Periodic reports and/or ad hoc via direct communication (for example, via email, if needed).

Balance of efforts
The table below provides an overview over the balance of efforts for Y2 (Sep 2023 - Oct 2023) of the data space. It states the foreseen and actual percentages of resources allocated to each of the five work packages and its related tasks.

Work packages & tasks	Foreseen % of the full contract value	Actual Jan 2024
WP 1: Development and operation of the data space infrastructure	**25.4%**	**23.4%**
Task 1.1 Provide reliable data space infrastructure and quality of services	22.7%	20.7%
Task 1.2 Foster innovation, interoperability & compliance with other data	2.7%	2.7%

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[26] A RACI (Responsible, Accountable, Consulted, Informed) approach will be used for this purpose.

spaces		
WP 2: Integration of high-quality data	**17.8%**	**18.2%**
Task 2.1 Develop and manage data governance mechanisms	3.6%	4.6%
Task 2.2 Data acquisition and data improvements	10.9%	9.8%
Task 2.3 Automated approaches towards data quality	3.3%	3.8%
WP 3: Capacity building and fostering reuse	**30.6%**	**31.9%**
Task 3.1 Enhance cooperation throughout the Data Space	4.4%	5.6%
Task 3.2 Identify needs of user groups	1.7%	1.3%
Task 3.3 Build awareness and engagement	6.9%	7.7%
Task 3.4 Develop capacity building as a service	3.9%	4.1%
Task 3.5 Facilitate the provision of high quality data	4.4%	4.3%
Task 3.6 Facilitating the reuse of high quality data	9.3%	8.9%
WP 4: Digital services for the public	**18.7%**	**19.5%**
Task 4.1 Deliver high-performing Europeana websites	11.8%	12.7%
Task 4.2 Engage audiences with digital cultural heritage	6.9%	6.8%
WP 5: Programme management	**7.5%**	**7.0%**
Task 5.1 Ensure continuous progress monitoring and reporting	6.0%	5.4%
Task 5.2 Governance	0.6%	0.4%
Task 5.3 Manage relations with other EU-funded projects	0.7%	1.2%
Task 5.4 Phasing-in and phasing-out periods	0.2%	0.04%
TOTAL	**100%**	**100%**

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.

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.

EF attended a CEDCHE meeting which was held on 14-15 Nov 2023.

Task 5.3. Manage relations with other EU-funded projects

Partners: EF

EF maintains regular contact with projects supporting the data space (e.g. via Basecamp groups) and assists them with ingestion of content and metadata (if applicable), consultation on the Europeana frameworks, policy and development guidelines, tool integration into the data space and dissemination of the project results. The table below shows the progress against Annex 4 of PM. Implementation plan M12 for all project outcomes that contribute to the data space for cultural heritage between 1 November 2023 and 31 January 2024.

 DS Overview of progress: Projects against Annex 4 (project start - end of the current reporting period)

Note that this table only reports on actions/outcomes/milestones of the projects funded within Y2 of the data space for cultural heritage contract (as outlined in Annex 4 of PM. Implementation plan M12).

Data Space - supporting projects (DIGITAL-2022-CULTURAL-02) call						
Partner	**Outcomes**	**DS contribution**	**Due Date**	**Progress**	**Status**	**Comment**
5DCulture						
DS	Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	52%	Ongoing	4 entries have been published on Pro (project page and three Pro news pieces

						[27])
DS 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	100%	Complete	First prototype delivered
DS project	2nd 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	20%	Ongoing	Implementation of APIs and fine tuning taking place
DS project	2nd version of 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	0%	Not Started	
DS project	Curation and storytelling (extension of WEAVEx) - 2 prototype - Initial integration via Europeana APIs for retrieving	Task 1.1. Provide reliable data space infrastructure and quality of services	Dec 23	100%	Done	The integration for WEAVEx is active and successfully using Europeana APIs as stated

[27] https://pro.europeana.eu/project/5dculture-deploying-and-demonstrating-a-3d-cultural-heritage-space , https://pro.europeana.eu/post/over-4-4-million-granted-to-four-new-projects-to-enhance-the-common-european-data-space-for-cultural-heritage , https://pro.europeana.eu/post/how-the-5dculture-project-is-exploring-3d-heritage , https://pro.europeana.eu/post/how-the-5dculture-project-supports-the-reuse-of-archaeological-content-in-3d

	content and metadata					
DS	1st iteration "Share to WEAVEx" button on Collection subpages	Task 1.1. Provide reliable data space infrastructure and quality of services	Mar 24	100%	Complet ed	

De-Bias

DS	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	100%	Done	First version of the tool developed
DS	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	0%	Not Started	Work will start once the second version of the vocabulary is ready March 24).
DS Project	Knowledge co-creation methodology and DE-BiAS typology published	Task 3.5. Facilitate the provision of high-quality data	Dec 23	100%	Complete d	DE-BiAS typology published in D.2.1 *Report on research into bias types and patterns, including a typology applied to Europeana use cases and a vocabulary co-created with communities*
DS Project	Knowledge co-creation	Task 4.2 Engage audiences with	Aug 24	83%	Ongoing	Five knowledge co-creation

	activities At least 6 crowdsourcing campaigns with communities for the validation and fine-tuning of automatically detected bias.	cultural heritage				events have taken place since the start of the project.
DS Project	First capacity-building event for CHIs was organised	Task 3.4 Develop capacity building as a service	Jan 24	100%	Ongoing	Introduction to training requirements, development and delivery support has taken place. An initial Learning Pathway has been developed.
DS Project	Recommendations to represent diversity in metadata.	Task 3.5. Facilitate the provision of high-quality data	Aug 24	10%	Ongoing	Deliverable 2.1.: "Report on research into bias types and patterns, including a typology applied to Europeana use cases and a vocabulary co-created with communities" has been submitted, which will be the basis of these recommendations to be developed.
DS	First version of the Impact Assessment	Task 3.4 Develop capacity building as a service	Jun 24	15%	Ongoing	Partners met to agree on priority audiences and build a change pathway. Data collection plan developed and shared with project partners.

| DS | Project editorial on Europeana Pro and Europeana.eu

More than 20 blog posts across Europeana.eu and Europeana Pro. | Task 3.3 Build awareness and engagement | Aug 24 | 30% | Ongoing | To date, six editorial pieces have been published on Europeana Pro - the project page, three news posts and two event pages. |
|---|---|---|---|---|---|---|
| DS | Galleries on Europeana website | Task 4.2 Engage audiences with cultural heritage | August 24 | 0% | Not Started | At least 10 galleries showcasing the diversity of content. |
| **Eureka3D** | | | | | | |
| DS | Integration of the Eureka 3D viewer on Europeana item page | Task 1.1. Provide reliable data space infrastructure and quality of services | Aug 24 | 15% | Ongoing | The Eureka3D project is currently in the state of deciding on and developing a 3D viewer for the Eureka3D platform. |
| DS | Project entries on Pro

A minimum of 4 project entries are foreseen to be published on Europeana Pro. | Task 3.3 Build awareness and engagement | Aug 24 | 65% | Ongoing | To date, a project page and two Pro news posts related to the project have been published, along with four event pages promoting events from the project.[28] |

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[28] https://pro.europeana.eu/project/eureka3d-european-union-s-rekonstructed-content-in-3d ,
https://pro.europeana.eu/post/over-4-4-million-granted-to-four-new-projects-to-enhance-the-common-european-data-space-for-cultural-heritage ,
https://pro.europeana.eu/post/discover-how-the-eureka3d-project-supports-3d-in-the-data-space-for-cultural-heritage ,
https://pro.europeana.eu/event/eureka3d-implementing-a-data-hub-and-services-in-the-data-space-for-cultural-heritage , https://pro.europeana.eu/event/3d-innovation-and-creativity-in-the-cultural-heritage-secto ,
https://pro.europeana.eu/event/boosting-3d-digitisation-for-research-and-reuse-of-cultural-heritage-collections ,
https://pro.europeana.eu/event/being-digital-being-standard-guidelines-for-digitisation-of-cultural-heritage

DS	Editorials on Europeana.eu 5 editorials are expected to be published on Europeana.eu	Task 4.2 Engage audiences with cultural heritage	Aug 24	80%	Ongoing	3 blogs have been published so far[29], as well as 4 galleries[30]. At least two more blogs will be written by project partners in 2024. All Eureka3D blogs have been translated into at least one other language than English.
AI4Culture[31]						
DS	Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	30%	Ongoing	Project page published on Europeana Pro
DS Project	Guidelines for tools and datasets publications	Task 3.5. Facilitate the provision of high-quality data	Apr 24	40%	Ongoing	The work of EuropeanaTech FLOSS inventory has been included in the recommendation for describing tools. Work continues on dataset descriptions.
Supporting other EU funded projects						
WATCHLIKEAHIST - Watching videos like historian (Erasmus+)						
DS	Project entries on Pro	Task 3.3 Build awareness and engagement	Aug 24	40%	Ongoing	At least 10 project entries in Europeana Pro.

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[29] https://www.europeana.eu/en/blog/3d-digitisation-its-history-and-future, https://www.europeana.eu/en/blog/optical-views-a-way-to-travel-through-europe , and https://www.europeana.eu/en/blog/bibracte-a-2000-year-old-town-under-a-forest

[30] https://www.europeana.eu/en/galleries/13502-bibracte , https://www.europeana.eu/en/galleries/11994-3-d-wonders, https://www.europeana.eu/en/galleries/11995-3-d-archaeological-treasures , and https://www.europeana.eu/en/galleries/11992-famous-monuments-in-3-d

[31] The project name was changed from "AI4Europeana" to "AI4Culture" to reflect a strategic decision made by the consortium to streamline communication and better align with the project's overarching goals. This change was enacted through the amendment AMD-101100683-2 to avoid ambiguity and reinforce the project's mission.

						Two news posts, an event page and a project page about the project have been published; more are foreseen in the coming months
DS Project	Practitioner guide for AV collections holder available on Europeana Pro	Task 3.5. Facilitate the provision of high quality data	Sep 23	100%	Done	The guide was launched on 27 October, the World AV heritage day
DS	Launch of Watchlikeahist toolkit	Task 3.3 Build awareness and engagement	Jul 24	10%	Ongoing	
DS	Contribution of Europeana education community to the toolkit	T3.3 Design, development and refining of the Toolkit	Jul 24	10%	Ongoing	
DS	Editorials on Europeana.eu	Task 4.2 Engage audiences with cultural heritage	Aug 24	0%	Not Started	410 AV galleries/datasets from the toolkit for educational use in the Europeana Classroom.
European Heritage Hub (EU pilot project)						
DS Partner	Launch of the digital interactive hub	Task 3.1. Enhance cooperation throughout the data space Task 3.3 Build awareness and engagement Task 4.2 Engage	Jan 24 [32]	50%	Ongoing	Concept for the digital interactive hub was completed and delivered to EC on 7 Nov. The digital interactive hub is to be built and

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[32] Initial deadline for the MS1 - Launch of the digital interactive hub was set to 30 September and was Postponed to January 2024.

		audiences with cultural heritage				launched at the end of February.

Task 5.4. Phasing-in and phasing-out periods

Partners: EF

As EF was the current Europeana DSI operator, no phasing-in period was required. The work related to the phasing-out and transfer processes to a successor contractor (i.e. a third party contractor awarded by the EC to continue the operation, in full or in part, of the data space) will start in the second contractual year if a contract takeover is required from 1 July 2024.

No activities in M15 - M17.

Annex: Progress on deliverables

This table states progress on deliverables for Y2 (1 Sep 2023 - 31 Aug 2024).

Type	Name	Due	Completed
PM.	Implementation plan	M24 (Aug 2024)	
PM.	Periodic report	M21 (May 2024), M24 (Aug 2024)	M15 (Nov 2023), M18 (Feb 2024)
PM.	Annual report	M24 (Aug 2024)	
PM.	Final report	M24 (Aug 2024) (if no renewal)	
PM.	Phase-out report	M24 (Aug 2024) (if no renewal)	
DS.	Infrastructure report	M21(May 2024)	
DS.	Technical documentation	M22 (Jun 2024)	
DS.	Stress test reports	M23 (Jul 2024)	
DS.	Disaster recovery	M23 (Jul 2024)	
DS.	Data supply and reuse report	-	M17 (Jan 2024)
DS.	Users and usage report	M22 (Jun 2024)	M14 (Oct 2023)
DS.	Communication and dissemination plan	M23 (Jul 2024)	

Annex: Risk log

WP1: Development and operation of the data space infrastructure

	Identify			Assess					Plan for and Control			Governance		
ID	Risk description	Activity	Date	Response	Type	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. 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	2024-02-27	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	2024-02-27	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	2024-02-27	Reduce	Threat	5	1	Low	Acceptable	Disaster recovery and failover procedures are available to limit the impact on the public services		N/A	N/A	N/A
Task 1.2. Foster innovation, interoperability and compliance with 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	Activity 1.2.2. Synergies with other European data spaces	2024-02-27	Exploit	Opportunity	2	1	Low	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**	**Type**	**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 use cases and architecture for data-sharing 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	2024-02-27	Reduce	Threat	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	Lack of common definition (or vision) for high value data sets, and changing/controversial stakes in this discussion beyond Europeana. This can lead to inconsistent approach to working with high value datasets internally.	Activity 2.1.2. Develop and expand data governance frameworks and standards	2024-02-27	Accept	Threat	3	3	Medium	Tolerable and Monitor	Agree to a preliminary definition for high value datasets with the EC, based on in-depth research and an understanding of our collections, followed by regular updating based on interactions with the Data Space Support Center	N/A	N/A	N/A
R.WP2.3	Insufficient resources are allocated by aggregators and supporting stakeholders to support the successful implementation of the Cooperation Agreement	Activity 2.1.1. Identify data governance requirements and objectives	2024-02-27	Reduce	Threat	3	3	Medium	Tolerable and Monitor	Stakeholders are consulted in the development and iterations of the 'Strategy and plan for the development of the DGM' as it describes, makes transparent timeframes and efforts needed for appropriate planning and resource allocation	N/A	N/A	N/A
R.WP2.4	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	2024-02-27	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 of the capabilities of stakeholders relevant to the DGM	N/A	N/A	N/A
Task 2.2. Data acquisition and data improvements													
R.WP2.5	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	2024-02-27	Reduce	Threat	2	3	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
Task 2.3. Automated approaches towards data quality													
R.WP2.6	The chosen AI 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	2024-02-27	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.WP2.7	AI 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	2024-02-27	Reduce	Threat	2	2	Low	Acceptable	Limitations for AI 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 AI 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 ok)	EAF	N/A	EAF aware of the risk (informed at the EAF meeting, Apr 2023)

WP3: Capacity building and fostering reuse

	Identify			Assess					Plan for and Control		Governance		
ID	Risk description	Activity	Date updated	Response	Type	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 3.1. Enhance cooperation throughout the data space													
R.WP3.1	The cooperation of stakeholders in the data space is slow and impacts progress. We rely on ENA/EAF members to support the development of the data space (incl. support for implementation plan outcomes). Stakeholders are acting in a volunteer capacity and we might see a lack or delays in their contributions. This can negatively impact the quality and sustainability of outcomes as stakeholders' support, contribution, and validation are critical.	Activity 3.1.1. Develop methods of cooperation	2024-02-27	Reduce	Threat	2	2	Low	Acceptable	We placed a provisional time limit for contributions and limit the scope of contributions to the activities undertaken during Y2 of the data space. We collaboratively prioritise developments that need cooperation and regularly meet and evaluate progress. We are also working on an improved model of cooperation across the data space that aims to support identifying and managing collective actions.	ENA & EAF	ENA & EAF	ENA & EAF discussions are ongoing
R.WP3.2	The enhanced accreditation scheme does not lead to a positive change in the engagement and participation of aggregators in the EAF.	Activity 3.1.2. Provide secretariat for Europeana Aggregators' Forum (EAF) and Europeana Network Association (ENA)	2024-02-27	Reduce	Threat	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 are ongoing
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)	2024-02-27	Reduce	Threat	3	3	Medium	Tolerable and Monitor	Engagement of ENA members is being further stimulated through the Country group pilot in Y2. In addition, more Network-wide events are being scheduled, to break down the barriers to participation (fewer long meetings) and introduce a variety of topics and opportunities for engagement. The launch of the training academy will further satisfy network members and complement the informal knowledge-sharing activities of the communities which continue through Y2.	ENA & EAF	ENA & EAF	Discussed with ENA & EAF
R.WP3.4	Not all 27 Member States contribute to the Twin It! campaign	Activity 3.1.3. Support national digital strategies to increase high quality data	2024-02-27	Reduce	Threat	3	3	Medium	Tolerable and Monitor	If due to 1) lack of buy-in (mitigation: focused persuasive strategies supported by the EC towards such MS); or 2) logistical/process/timing/technical issues (mitigation: hand holding and specific support for the MS struggling)	CEDCHE	CEDCHE	N/A
R.WP3.5	The 3D models and metadata collected during the Twin it! campaign are of low-quality.	Activity 3.1.3. Support national digital strategies to increase high quality data	2024-02-27	Reduce	Threat	2	2	Low	Acceptable	We have prepared and sent a participation pack to every Member State and organised webinars with guidelines and best practices. As a next step, we will organise dedicated open cafe sessions to respond in a more timely and ad hoc basis to the questions Members States might have.	CEDCHE	CEDCHE	N/A
R.WP3.6	The 3D models and metadata collected for the Twin it! campaign are not obtained in time.	Activity 3.1.3. Support national digital strategies to increase high quality data	2024-02-27	Reduce	Threat	3	3	Medium	Tolerable and Monitor	National and domain aggregators will support Member States in their efforts as they are familiar with the data publication process. The Twin it! campaign will explore ways to showcase the efforts of the Member States in case they don't result in a 3D model.	CEDCHE	CEDCHE	N/A
Task 3.2. Identify needs of user groups													
Task 3.3. Build awareness and engagement													
R.WP3.7	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	2024-02-27	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 Feb 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.	ENA & EAF	N/A	ENA & EAF stakeholders informed via periodic reports to the entities
Task 3.4. Develop capacity building as a service													
R.WP3.8	Low uptake for participation of professional audience in training programme realised.	Activity 3.4.2. Manage and develop mechanisms for the training programme	2024-02-27	Reduce	Threat	3	1	Low	Acceptable	User and impact research is undertaken to define and validate stakeholders' needs and inform the motivation and engagement model to increase the product/market fit of the training programme.	N/A	N/A	N/A
Task 3.5. Facilitate the provision of high quality data													
R.WP3.9	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	2024-02-27	Reduce	Threat	3	2	Medium	Tolerable and Monitor	Outreach and engagement plans for ENA/EAF consider methods to catalogue and connect with expertise within networks to ensure a repository of potential expertise is identified. Also, the priorities and primary focus areas for the train-the-trainer programme for the provision of high-quality data will contribute to managing the expertise needed.	ENA & EAF	ENA & EAF	ENA/EAF were involved in defining priority areas through the Capacity Building Working Group.

WP3: Capacity building and fostering reuse

	Identify			Assess					Plan for and Control		Governance		
ID	Risk description	Activity	Date updated	Response	Type	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
R.WP3.10	To reach more professionals across Europe working on the digital transformation of the cultural heritage sector, there is a need for multilingual training offers, but currently, multilingual coverage of tools and resources is not available (only in English). This limits accessibility and the potential impact of training.	Activity 3.5.1. Deliver training programme for aggregators and data partners	2024-02-27	Reduce	Threat	3	2	Medium	Tolerable and Monitor	In 2023 a Training platform has been selected and the first courses will be offered through this. Multilingualism is one of the requirements, both the interface and the automatic translation of the training content. In this way, the platform will support multilingualism better than the current situation. Apart from the technical solutions, there is also a need for contributions from native speakers (possibly ENA and EAF members) to translate and localise offers.	ENA & EAF	ENA & EAF	This is discussed as part of the Capacity Building Working Group.

Task 3.6. Facilitate the reuse of high quality data

WP4: Digital services for the public

	Identify			Assess					Plan for and Control		Governance		
ID	**Risk description**	**Activity**	**Date updated**	**Response**	**Type**	**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. Deliver high-performing Europeana website													
R.WP4.1	Expectations regarding the deployment of multilingual services are higher than what available technology and resources enable the Europeana DS consortium to implement.	Activity 4.1.4. Expand multilingual coverage to include all EU official languages	2024-02-27	Reduce	Threat	3	2	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	The eTranslation service is unable to support internationalisation and localisation in all EU official languages.	Activity 4.1.4. Expand multilingual coverage to include all EU official languages	2024-02-27	Accept	Threat	3	3	Medium	Tolerable and Monitor	Europeana DS will diversify its sources to obtain translations. The new Translation API will allow for the data space to be more flexible and more efficient towards the use of translation services.	N/A	N/A	N/A
Task 4.2. Engage audiences with digital cultural heritage													
R.WP4.3	Technological, structural and policy changes on social media platforms negatively impact the reach of, and engagement with, our communications.	Activity 4.2.3. Communicate the data space for cultural heritage activities	2024-02-27	Reduce	Threat	2	3	Medium	Tolerable and Monitor	Review performance indicators throughout the reporting cycle and adjust approach as needed. Continuously review social media outlets and explore options as needed.	N/A	N/A	N/A
R.WP4.4	Expectations for multilingual editorial are higher than what available technology and resources enable the Europeana DS consortium to implement.	Activity 4.2.2. Broaden impact of cultural heritage by expanding pan-European themes and perspectives	2024-02-27	Reduce	Threat	3	3	Medium	Tolerable and Monitor	We are making efforts towards creating a sustainable and more reliable translation validation pipeline (for example we are piloting involving the ENA Communicators Community). If we have a standardised and usable process as well as a pool of volunteers we hope to increase the multilingual editorial offers.	ENA	ENA	Pilot with ENA communicators community ongoing

WP5: Programme management

		Identify			Assess				Plan for and Control			Governance	
ID	Risk description	Date updated	Response	Type	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. Ensure continuous progress monitoring and reporting													
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.	2024-02-27	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	2024-02-27	Reduce	Threat	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. Governance													
Task 5.3. 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	2024-02-27	Reduce	Threat	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	
Task 5.4. Phasing-in and phasing-out periods													