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**Deployment of a common European data space for
cultural heritage**

DS. Data supply and reuse report M08

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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

AI	Artificial Intelligence
CHIs	Cultural Heritage Institutions
CEDCHE	Common European Data Space for Cultural Heritage Expert Group
DS AGG	DS aggregators
EAF	Europeana Aggregators' Forum
EDM	Europeana Data Model
EIF	Europeana Impact Framework
ELF	Europeana Licensing Framework
ENA	Europeana Network Association
EPF	Europeana Publishing Framework
GS	Generic Services
IIIF	International Image Interoperability Framework

1. Introduction

The common European data space for cultural heritage accelerates the digital transformation of Europe’s cultural sector and fosters the creation and reuse of content in the cultural and creative sectors.

This deliverable reports on activities and results achieved towards data supply and data improvements (chapter 3) as well as on activities and results towards data reuse by relevant user groups (chapter 4). The document also provides insights into user groups and user research and suggestions and recommendations for product and service development. The report focuses on the period between 1 Sep 2022 - 31 Mar 2023.

1.1 Data collection methods

Chapter 3 on data supply draws from data available via the Europeana API and the Europeana Data Statistics Dashboard¹ as well as from data collected from Europeana DS AGG.

Data for Chapter 4 was collected from EF, Europeana DS educational and academia and research partners. For the API usage metrics, we rely on our logging service which aggregates logs from all APIs.

Data collection methods are in line with our privacy policy² that describes what and how we collect data from users.

1.2 Related documentation³

Professional audiences	Specifically for our professional audiences in the cultural heritage sector we offer the Europeana Pro ⁴ website. More information on professional audiences and usage of Europeana Pro can be found in DS. Communication and dissemination plans.
General audiences	The general public can engage with the data space via the Europeana website, and via various outreach and engagement efforts (e.g. on social media). More information can be found in the DS. Users and usage report.
Data space deployment	The deployment of the data space architecture, products and services and its main performance are described in the DS. Infrastructure report.

¹ <https://metis-statistics.europeana.eu/en/>

² <https://www.europeana.eu//rights/privacy-policy>

³ Related documentation is available on request.

⁴ <https://pro.europeana.eu/>

2. Data supply

Data is supplied and data quality improvements in the data space are delivered through the Europeana products and services. Data quality is supported by the adoption of standards and frameworks (incl. Europeana Publishing Framework⁵, Europeana Licensing Framework⁶ and the Europeana Data Model⁷). Data is supplied through the Metis suite, including the Metis aggregation infrastructure and the Metis Sandbox.

We engage national and domain aggregators⁸ and Cultural Heritage Institutions (CHIs) in capacity building efforts to facilitate the provision of high quality data. The infrastructures developed by aggregators facilitate the supply of data to the Europeana data repository.

2.1 Performance indicators

The Europeana repository currently offers access to almost 57 million items (excluding items that are not compliant with the Europeana Publishing Framework, tier 0). The graph below shows the division of data in the Europeana repository by country.

Countries with the highest contributions in the Europeana repository, Mar 2023



Note: More details on country related data can be explored in the Data Statistics Dashboard⁹.

During the first months of the data space for cultural heritage, data quality updates (including contributions from data space supporting projects) eventually affected almost 8.9 million records in 233 datasets (including newly created and updated data). The updates as well as the depublication of low quality records led to an improvement of data quality available on the Europeana website. Updates included 74 newly published datasets (equal to 2,164,682 records).

⁵ <https://pro.europeana.eu/post/publishing-framework>

⁶ <https://pro.europeana.eu/page/europeana-licensing-framework>

⁷ <https://pro.europeana.eu/page/edm-documentation>

⁸ <https://pro.europeana.eu/page/aggregators>

⁹ <https://metis-statistics.europeana.eu/data/country>

- 3.8 million records increase for Tier 2+/Tier A+;
- 1.34% increase for Tier 2+;
- 3.45% increase for Tier 3+;
- 3.1% increase for Tier A+;

Ongoing support to data partners included feedback about their data, with concrete advice on how to improve data quality and solve data modelling problems (with support of the Metis Sandbox and the Data Statistics Dashboard).

During the first months of the data space for cultural heritage, Europeana DS AGG partners worked with 71 different institutions from 24 countries providing individual consultation and support for data quality improvements and data ingestion. Europeana DS AGG partners also started to collaborate with 14 new CHIs.¹⁰

Data quality in the data repository (Mar 2023)¹¹

No.	Description	End Aug 2022	End Mar 2023	Target Aug 2023
KPI 2.1	High quality data (Number of Tier 2+ material in Tier A+, excl. content Tier 0)	26.6 million	30.4 million	27.15 million
KPI 2.2	High quality content (Percentage of Tier 2 + material, excl. content Tier 0)	70.69%	72.03%	>75%
KPI 2.3	High quality and reusable content (Percentage of Tier 3+ material, excl. content Tier 0)	50.82%	54.27%	>55%
KPI 2.4	High quality metadata (Percentage of Tier A+ material, excl. content Tier 0)	70.75%	73.85%	>75%
KPI 2.5	Broken links in the repository (Percentage of broken links, out of total, incl. content Tier 0)	-	Expected May 2023	<1%
KPI 2.6	Non-EPF compliant content (Percentage of Tier 0 content)	12.34%	11.21%	<10%

In the data space, special attention is given to support the ingestion of 3D content. In the past months, we saw a small increase in 3D content.

¹⁰ Status of DS AGG indicators: 31 Jan 2023 (latest available data).

¹¹ Data quality is defined by the Europeana Publishing Framework (data excludes content Tier 0). <https://pro.europeana.eu/post/publishing-framework>

3D content in the data repository (Mar 2023)

No.	Description	Oct 2022	Mar 2023
RM 2.8	Total number of 3D items published (Tier 2+ and Tier A+ material)	3,761	4,612
RM 2.9	Total number of CHIs sharing 3D content with Europeana (Tier 2+ and Tier A+ material)	45	47

Examples of data updates (including newly created and updated data)

Providing institution	Country	Type
Ινστιτούτο Πληροφορικής - Ίδρυμα Τεχνολογίας και Έρευνας ¹²	Europe	3D
National Gallery of Denmark ¹³	Denmark	Image
Muzeul Național al Satului Dimitrie Gusti - București ¹⁴	Romania	Image

2.2 Product and service development

The following section reports on activities completed for the period Sep 2022 - Mar 2023 in support of the integration of high-quality data (and based on the tender requirements). It also provides suggested follow-ups for product and service development.

A detailed overview of outcomes completed, progress update on running outcomes, and ongoing work is available in PM. Periodic reports.¹⁵ Progress updates on technical developments will be provided in detail in the DS. Infrastructure report (due May 2023).

Extension and maintenance of aggregation systems

Data supply to the Europeana repository and the data space is facilitated through the main Metis aggregation infrastructure. In the past months, efforts focused on the developments of the Metis Sandbox which facilitates the adoption and integration of the Europeana standards and frameworks. More specifically, the performance of the Sandbox was improved as well as the methods for contributing data to the service. Methods to select and view data were reviewed so the users get better and more comprehensive feedback on their data (for instance through the report automatically provided by the Sandbox). The main Metis aggregation infrastructure continues to be maintained and improved iteratively.

¹²

https://www.europeana.eu/en/search?page=1&qf=TYPE%3A%223D%22&query=edm_datasetName%3A911_%2A&view=grid

¹³ https://www.europeana.eu/en/search?query=edm_datasetName%3A2020903_%2A

¹⁴ https://www.europeana.eu/en/search?query=edm_datasetName%3A936_%2A

¹⁵ Available in the document section here: <https://pro.europeana.eu/page/data-space-deployment>

In Dec 2022, a new mechanism to prevent the publication of content tier 0 records in Metis was implemented.

Additionally, work is ongoing to improve the overall design and usability of the Sandbox. For this purpose, a series of individual user experience sessions were conducted to collect the needed feedback.

The increased use of the Metis Suite and more specifically the Metis Sandbox by aggregators will support the increase of high-quality data in the data space. A prioritisation process for managing the data ingestion backlog was developed to increase our capacity in terms of publishing high quality data in line with the Commission Recommendation on a common European data space for cultural heritage. With this new process we can also improve the service for our customers, e.g. to have clearer indications on the timeline of data publication for datasets submitted for publication.

In the coming months, activities for the Sandbox will continue to focus on the improvements of the readability and usability of the data quality reports provided by the service (e.g. for instance the implementation of new problems patterns identified in the data.). In addition, work will be done to provide a way for the DS AGG to better integrate the Sandbox in their own workflow using a specific API.

Adoption of frameworks and standardisation

We progressed with the review of the Europeana Data Model (EDM) for the support of 3D. We are reviewing the 3D data published so far on the Europeana website in order to identify recommendations for an improved mapping. We will also collect a list of terms recommended to be used in some specific fields (e.g. types of 3D).

The consortium is continuously working on improving and upgrading the Europeana Publishing Framework (EPF). The guide will be extended with more recommendations to support 3D content. In addition, we also work on acknowledging the efforts across the aggregation chain to enrich metadata. We have developed a proposal to use the EPF as a tool to measure the impact of data enrichments. We are in the process of validating this proposal with real data to inform the implementation of this new approach.

The Data Quality Committee (DQC) has continued its work on identifying and refining the next batch of data quality problem patterns to work on. A first selection was made, which includes both metadata quality issues like "incomplete values" and content issues, like "duplicate views within the same object". Identified problems have been prioritised and a first selection was implemented in the Metis suite to help and encourage Europeana Initiative partners to enhance the quality of the data submitted to the data space.

In the reporting period, we have updated the EDM Mapping Guidelines to reflect the current operational model and to clarify aspects that have triggered questions of our aggregators. These updated and improved mapping guidelines have been migrated to the Europeana Knowledge Base¹⁶, now sitting next to the Europeana Publishing Guide and forming the foundation for our growing corpus of guidelines that we make available to our partners.

The Knowledge Base currently offers pages about the criteria for 3D content to reach one of the 4 content tiers.¹⁷ This documentation is available and maintained. The Europeana DS consortium will further develop specifications and guidelines for the provision of 3D content (expected Aug 2023).

In the past months, the Europeana DS consortium enhanced its understanding of the persistent identifiers ecosystem and its use by CHIs and aggregators. We made an inventory of the current identification schemes used in the metadata submitted to the data space. This assessment provided a baseline for a metric reporting on the amount of records in the data repository that contain identifiers using a recognizable persistent identifier scheme (13.0%, 7,387,012 records in total, including tier 0).

As next steps, we will continue our assessment of the persistent identifiers through a survey to be sent to CHIs and aggregators. We will continue to specify the requirement for the data space around persistent identifiers with the objective to increase the use of persistent identifiers (e.g. requirements developed at a policy level which will then be implemented as part of the Europeana Publishing Framework). We will also develop an implementation plan to guide the adaptation of the current infrastructure to make use of the persistent identifiers and make our data processes more accurate and efficient (e.g. deduplication, broken links). A report delivered in July 2023 will provide an update on the developments.

Contribution by aggregators to raise quality and access to existing content and metadata

EF and the Europeana DS AGG worked with other aggregators from the Europeana Aggregators' Forum and the data partners to improve their data and to publish new high quality data (i.e. aggregators updated metadata and content to reach tier 2+ and tier A+). More specifically, in the past months work focused on:

- Provide language information for metadata to fill the gaps identified in the Europeana Publishing Framework.
- Increase the contextual relations between items by the addition of contextual resources (as new entities) that can help link more items together. This effort will be made in alignment with the new experience for Theme pages to maximise the entry

¹⁶ <https://europeana.atlassian.net/wiki/spaces/EF/pages/987791389/EDM+-+Mapping+guidelines>

¹⁷ <https://europeana.atlassian.net/wiki/spaces/EF/pages/2059796518/ContentTier+1+3D+type>

points to our Collections. EF will take the lead. AIT-Graz will work more specifically on this issue; other DS aggregators interested will be also invited to contribute.

- Address legacy data quality issues, e.g. as identified during past projects. DFF, NISV, PhotoCons, EFHA will work more specifically on those issues. This work will also happen in close collaboration with the Europeana Aggregators' Forum.
- Raise the quality of media links in the repository (i.e. address broken links, update media links to have https URLs).
 - Addressing broken links is an activity requiring continuous communication from all aggregators to their data partners and is organised in quarterly cycles.
 - The update of links to web resources to have https URLs instead of http URLs is needed for secured data exchange. EF will pilot with AIT Graz and EFHA to explore solutions to support data partners making the transition. Other Europeana DS AGG may be involved where possible.
- Address invalid rights statements in metadata with the aim to have 100% of the metadata records to include a technically valid rights statement (i.e. rights statements conforming to the URI patterns as specified by Creative Commons and RightsStatements.org).
- Contribute to increase the quality and completeness of the organisation pages (e.g. adding descriptions, logos). Part of this activity is also to use the entity curation flow mechanism to curate the content shown on the organisation pages. The objective of this activity is to transition progressively to the management of data provider and provider information as entities throughout the core platform.
- Continue the development of the guidance and workflow supporting the entity curation flow (Activity 4.1.3). The Europeana DS consortium will - via the Europeana Aggregators' Forum - invite other thematic and national aggregators to contribute to this activity.
- Continue to promote the use of controlled vocabularies and terms from multilingual thesauri and encourage aggregators and CHIs to provide a mapping of their vocabularies so that the core platform can benefit from the rich semantic and multilingual labels.

DATO supported the MINT services¹⁸, a web based platform that was designed and developed to facilitate aggregation initiatives for cultural heritage content and metadata in Europe (e.g. schema and mapping related user support and enrichment support). The platform is in use by most DS AGG (EUscreen, eSounds, eFashion, Museu, Photocons, Carare)

¹⁸ http://mint.image.ece.ntua.gr/redmine/projects/mint/wiki/Introduction_to_MINT

Engage with inactive and new data partners

In the past months, the consortium reviewed dormant collaborations with inactive data partners to make new and updated content and metadata available to the data space or depublish data when collaborations could not be revived.

The focus in the last few months has been on large collections of low quality data. We completed the work on an update of the various collections of the Deutscher Porträtindex, previously published via AthenaPlus and now published via DDB (~200,000 records). We also fixed big collections with broken links from Sweden and the UK (>1 million records). We are in the final stages of completing an update of a long neglected collection of more than 1 million records currently published as content tier 0. A more detailed report on actions taken and results achieved to re-engage with inactive partners will be provided in August 2023.

The data quality increase is also supported by bringing in new CHIs. We will report on new CHIs published on the Europeana website in Aug 2023.

Aggregate 3D content

The Europeana DS consortium is developing a wider 3D campaign as part of the three upcoming presidencies under the Council of the EU. For example, EF will organise the Europeana conference 'Accelerating 3D in the common European data space for cultural heritage: Why 3D matters'¹⁹ under the Swedish Presidency (18 April 2023). Building awareness about the importance of digitising and making 3D content available in the data space will be the main theme of the events.

Other events that covered the theme of 3D were: 1) Session at Europeana 2022 conference - 3D content in Europeana²⁰ (Sep 2022); and 2) 3D reconstructions for storytelling and understanding - a webinar²¹, organised by CARARE (Jan 2023). Carare is also developing a series of webinars on different topics around 3D, the first one planned for Apr 2023²².

TMO and CARARE together with the 4CH network are working on a smaller campaign to encourage CHIs to add new 3D content to the data space. The activities involve the preparation of a package of information (incl. dataset examples) that will help institutions prepare their data. Interviews and surveys are planned to learn more about the expectations of CHIs with 3D towards the data space.

¹⁹

<https://pro.europeana.eu/event/the-europeana-conference-under-the-swedish-presidency-of-the-council-of-the-eu>

²⁰ https://www.youtube.com/watch?v=NAupUJUo9XY&list=PLqmcH-mOIMLxPjNDlvkl_GOmsv8IFrs8D&index=34

²¹ <https://pro.europeana.eu/event/3d-reconstructions-for-story-telling-and-understanding>

²²

<https://www.carare.eu/en/events/cultural-heritage-in-3d-a-guided-walkthrough-to-publishing-3d-content-on-europeana/>

Facilitate the provision of high quality data

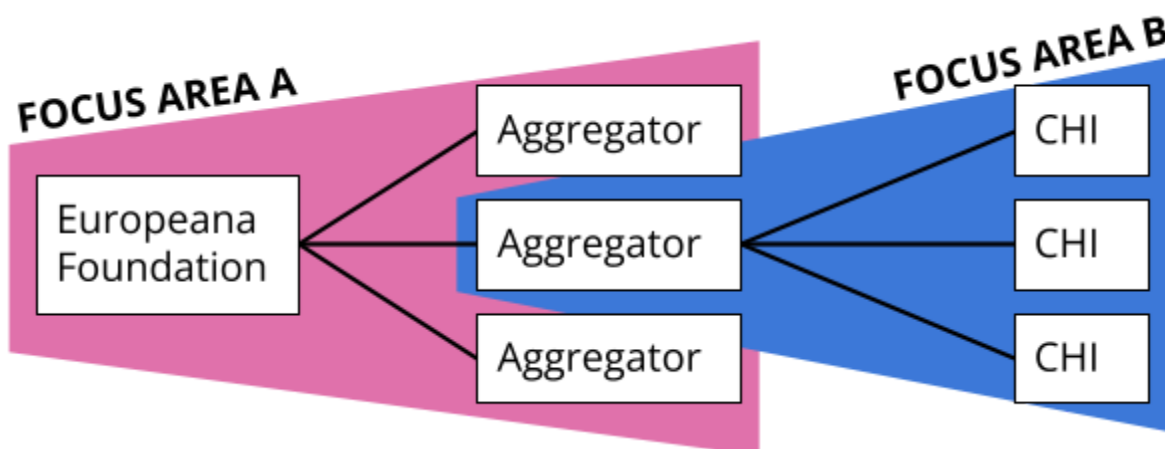
The aggregation infrastructure of the data space is an essential enabler for the contribution of high quality data, together with the frameworks that govern how data is created, enriched and shared and the building of necessary capacity. EF and Europeana DS AGG supported data providers in making use of the infrastructure and of framework requirements through capacity building efforts.

Since Sep 2022, EF and DS AGG have organised several training sessions. EF, for example, delivered live training events for the Metis Sandbox, the Data Statistics Dashboard and IIF. EF also organised a workshop to inform DS AGG and data space supporting project partners about the guidelines and delivery of events.

A capacity building working group²³ has been set up with representatives from EF, EAF and ENA. This working group has worked on several strategic documents concerning the development and delivery of training, also from the perspective of facilitating the provision of high quality data.

For example, EF and DS AGG of the capacity building working group worked on identifying priorities and primary focus areas for the train-the-trainer programme for the provision of high quality data. The focus areas have been described on two levels:

- A. Training that aggregators need from the Europeana Foundation
- B. Training resources supplied by the Europeana Foundation and used/adapted by aggregators to offer to their data providers.

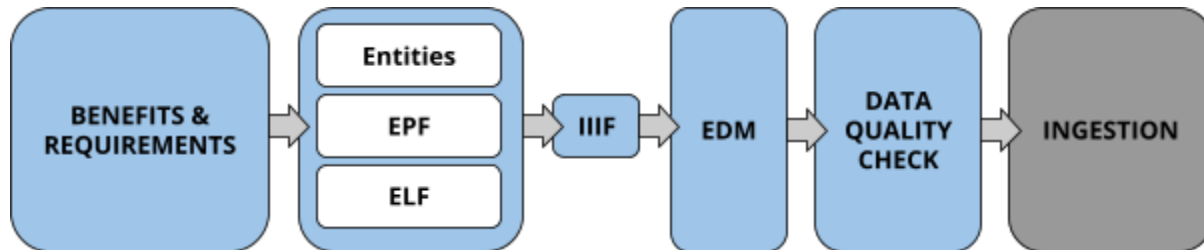


Focus areas for the train-the-trainer programme

²³ <https://pro.europeana.eu/project/capacity-building-working-group>

Focus Area A

The learning pathway below describes the incremental learning process for new and existing aggregators that want to or are already offering their data for ingestion into the Europeana website. The topics in this learning pathway are visualised in the image below.

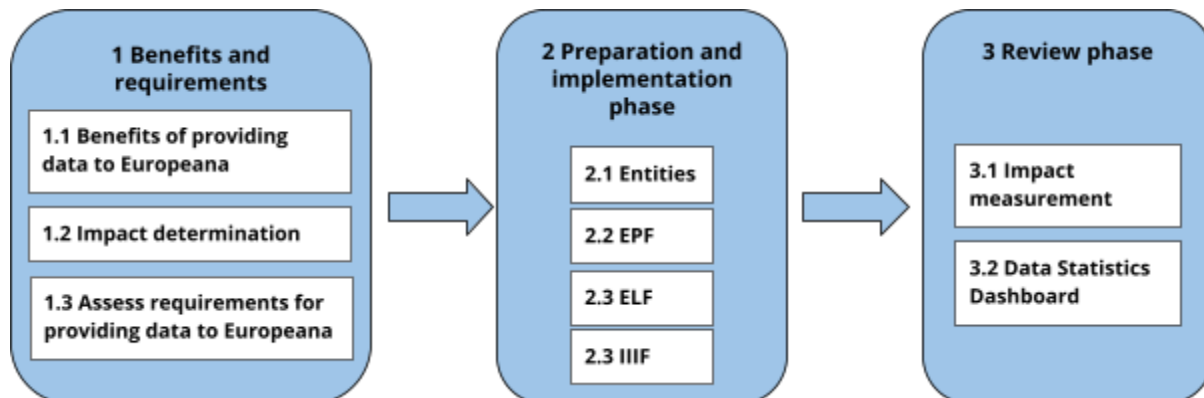


Learning pathway for aggregators

Focus Area B

The learning pathway below shows how the topics have been divided into three phases. These correspond to the moment when CHIs need information:

1. Benefits and requirements: when CHIs are considering to start sharing data with Europeana
2. Preparation and implementation phase: when CHIs have decided to start sharing data with Europeana
3. Review phase: when CHIs have been sharing data with Europeana for some time



Learning pathway for CHIs

The focus areas of the train-the-trainer programme will be used for the development and delivery of training in the near and long term future. The goal is to gain insight into the impact of these training activities on the availability of high quality data.

EF, ENA and EAF evaluated the approach to creating a rewarding experience for CHIs. The exercise was undertaken to create and document a common perspective on where value adding services for CHIs could be refined and improved to aid planning and preparation for future activities.

To support the transfer of knowledge between professionals, we supported two large knowledge transfer events - the ENA AGM in Nov 2022²⁴ and EAF outreach event²⁵ in Dec 2022. The ENA AGM supports networking and sharing good practices amongst aggregators. The EAF outreach event facilitates networking between aggregators and cultural heritage institutions. These events have made it possible for people, who are relatively new to the Europeana Initiative, to get to know others and gain insight in where and how to find relevant information. In addition, during this period we promoted other ENA and EAF knowledge transfer activities such as copyright hour and community events such as webinars and cafes.²⁶

We are in the process of developing an approach to identifying, cataloguing and sharing professional expertise with EAF and ENA (Apr 2023) and we are going to develop a model for enhancing knowledge transfer of professional expertise (i.e. fellowships, mentoring) (Jul 2023).

2.3 User research

Annually, EF will survey aggregator satisfaction with data space products and services related to the aggregation process (accredited aggregators) (KPI 3.4, expected Aug 2023). The survey will also collect feedback from aggregators on how they use products and services (e.g. the Metis Sandbox) and collect suggestions from aggregators on areas of improvement to offer a better customer experience and support.

Additionally, we plan to undertake a survey (KPI 3.5, expected Jul 2023) among cultural heritage professionals within cultural heritage institutions, with a mixed method approach to finding respondents. In this way, we hope to garner adequate numbers of respondents for a survey that has, in the past, not gained enough participation to properly report findings.

²⁴ <https://pro.europeana.eu/event/ena-general-assembly-2022>

²⁵ <https://pro.europeana.eu/event/eaf-outreach-event-december2022>

²⁶ <https://pro.europeana.eu/about-us/events>

3. Data reuse

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 (e.g., professionals in aggregation and cultural heritage - both those who do and do not yet share data; education (primary and secondary) professionals; and researchers, academics, and students at the tertiary level of education).

Our overarching objective is to strengthen the capacity for use and reuse of high quality data in specified communities such as education, research and the developer communities and to investigate possibilities for closer collaboration with other audiences (media, tourism, cultural/creative industries).

Efforts are underpinned by a solid user and market research programme, a further development of our tools and services for collaboration that enable the communities to thrive, and an outreach and dissemination strategy to strengthen the position of the data space with key identified professional audiences.

3.1 Educational user groups

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

3.1.1 Performance indicators

Together with EUN and EuroClio, EF raised awareness of the educational value of digital cultural content, and encouraged the use of digital cultural heritage in formal and non-formal education. We focused on reusability, curation, creation of new resources and translation of existing resources, and regularly published the best examples for formal and non-formal professionals to use.

Educational metrics (Sep 2022 - Mar 2023)

No.	Description	End Aug 2022	End Mar 2023 ²⁷
RM 3.20	New learning resources for education using Europeana data	155	16

²⁷ The creation and translation of new learning resources are in progress (expected to be completed Aug 2023).

RM 3.21	Language variations of existing learning resources	NEW	20
RM 3.23	Number of visits to educational resources (TwE blog and Historiana)	NEW	78,560

EUN published learning scenarios, stories of implementation and other educational resources on the Teaching with Europeana blog²⁸.

Most visited content on Teaching with Europeana blog (EUN) (Sep 2022 - Mar 2023)

Type	Date of publication	Visits
LEARNING SCENARIOS		
Why are Fossils Important? ²⁹	08/04/2020	1,180
A Soldier's Perspective of War ³⁰	12/03/2020	654
Let's compare old and new newspapers! ³¹	08/08/2019	466
Stories of implementation		
Implementation of 'Let's make green decisions' ³²	15/12/2022	197
Implementation of 'Water is Life: Give Life to The Future' ³³	12/12/2022	184
Implementation of 'Anne Frank Diary' ³⁴	18/11/2022	157

Top 5 countries on Teaching with Europeana blog (EUN) (Sep 2022 - Mar 2023)

Country	Users	% Users
United States	2,472	12.09%
Greece	2,048	10.01%
Italy	1,497	7.32%
Spain	1,307	6.39%

²⁸ <https://teachwittheuropeana.eun.org/>

²⁹ <https://teachwittheuropeana.eun.org/learning-scenarios/why-are-fossils-important-ls-mk-289/>

³⁰ <https://teachwittheuropeana.eun.org/learning-scenarios/a-soldiers-perspective-of-war-ls-mt-272/>

³¹ <https://teachwittheuropeana.eun.org/learning-scenarios/lets-compare-old-and-new-newspaper-ls-fi-106/>

³²

<https://teachwittheuropeana.eun.org/stories-of-implementation/implementation-of-lets-make-green-decisions-soi-ro-260/>

³³

<https://teachwittheuropeana.eun.org/stories-of-implementation/implementation-of-water-is-life-give-life-to-the-future-soi-tr-259/>

³⁴

<https://teachwittheuropeana.eun.org/stories-of-implementation/implementation-of-anne-frank-diary-soi-ro-255/>

Portugal	1,126	5.51%
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EuroClio publishes on its platform Historiana³⁵ source collections and eLearning activities with Europeana content for history teachers across Europe.

Most visited content on Historiana (Sep 2022 - Mar 2023)

Type	Date of publication	Visits
SOURCE COLLECTION		
Colonial Contributions to WW1 ³⁶	30/04/2021	803
Paintings of everyday life ³⁷	31/08/2021	387
Bologna and the Rise of Medieval Universities ³⁸	28/02/2022	337
ELEARNING ACTIVITIES³⁹		
Coffee's consequences ⁴⁰	31/08/2021	10
Setting a map in its historical context to explain consequences ⁴¹	31/08/2020	10
Why did Europeans migrate to the United States of America? ⁴²	31/08/2020	9

Top 5 countries on Historiana (Sep 2022 - Mar 2023)

Country	Users	% Users
United States	2,325	25.12%
Greece	1,243	13.43%
Netherlands	553	5.97%
Czechia	552	5.97%
United Kingdom	419	4.53%

³⁵ <https://historiana.eu/#/>

³⁶ <https://historiana.eu/historical-content/source-collections/colonial-contributions-to-ww1>

³⁷ <https://historiana.eu/historical-content/source-collections/paintings-of-everyday-life>

³⁸ <https://historiana.eu/historical-content/source-collections/bologna-and-the-rise-of-medieval-universities>

³⁹ The visits are a conservative estimate. Most schools all over Europe cannot provide children's emails to a platform for privacy reasons when using digital tools. Thus we receive the number of visits by teachers, but most probably the content is accessed by many more users/children.

⁴⁰ https://historiana.eu/ea/view/aed7d273-e6d1-4417-a654-22fd28abb6be/text/bb_0

⁴¹ https://historiana.eu/ea/view/758b2ebe-c190-4789-8682-57f21470562e/text/bb_0

⁴² https://historiana.eu/ea/view/fe31ec93-6c77-42b3-8a0f-c92e8a2a6d10/sorting/bb_1

With both partners, we followed up using the 'train the trainer' methodology⁴³ to increase our national communities' outreach. In total, EUN and EuroClio have run 57 national trainings and reached 1,638 educators in those events. EuroClio national trainings are delivered by the Europeana Educators Ambassadors in their countries for their own community. The aim is to explain, in one/two hours workshops and in their own language, what Europeana does in education, how to use the Teaching with Europeana resource, and finally invite them to implement our existing Learning Scenarios - to increase reuse - by writing a Story of Implementation. EuroClio's national trainings are also run by educators, mostly teacher trainers and historians, in short workshops - again for their national educational communities and in their own language - to increase capacity using the Historiana platform and develop eLearning activities while getting content from the Europeana search tool within the platform, based on our Search API.

In Mar 2023, EuroClio organised an in-person train the trainer and networking event⁴⁴. The event brought together practising teachers and cultural heritage professionals, to discuss the potential of digitised collections and their use in the classroom. In total seven cultural heritage professionals and three teachers from different countries in Europe participated and were trained in the use of Historiana to develop learning activities. The three teachers that were trained will develop at least one national training in their countries next year.

Educational metrics for capacity building (Sep 2022 - Mar 2023)

No.	Description	End Aug 2022	End Mar 2023	Target Aug 2023
KPI 3.6	Educators reached in national training events	NEW	1,638	TBC ⁴⁵
KPI 3.7 ⁴⁶	Satisfaction rate of educational communities: Total % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale (cumulative)	N/A ⁴⁷	Expected Apr 2023 ⁴⁸	75%
RM 3.22	Participants completing the online courses	NEW	Expected Apr 2023	-

⁴³

<https://pro.europeana.eu/post/euroclio-s-new-training-programme-brings-historiana-to-educators-across-europe>

⁴⁴ <https://euroclio.eu/event/bringing-digitised-heritage-closer-to-the-classroom/>

⁴⁵ EF will use the first measurements to identify targets.

⁴⁶ Y1 includes educators participating in the MOOC run by EUN; Y2 will include both educational partners (EUN and EuroClio). Euroclio will run in 2024 for the first time an online course to help educators to design eLearning activities with Historiana.

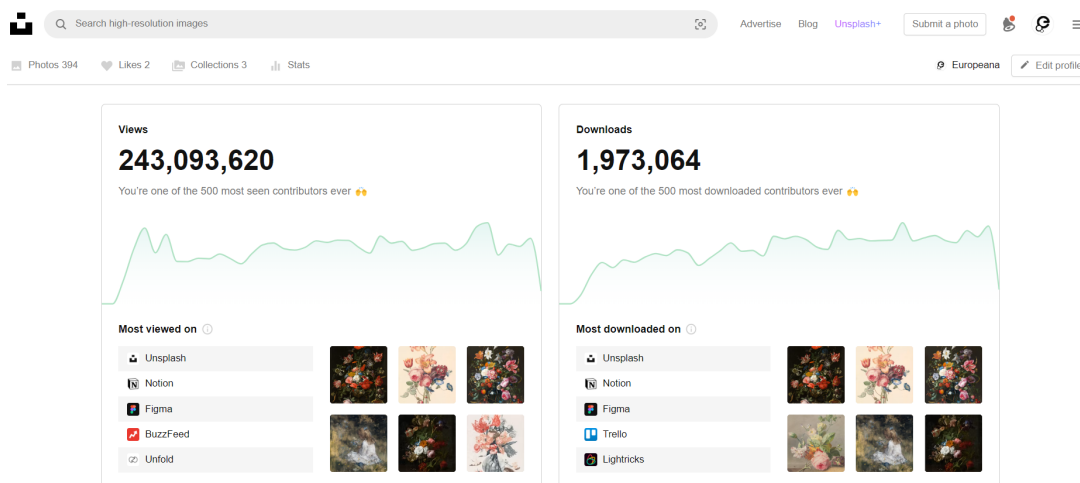
⁴⁷ The method of measuring the satisfaction rate (compared to Europeana DSI-4) changed from reporting on the average satisfaction to reporting on the % of 'satisfied' and 'completely satisfied' responses on a 5-point Likert scale.

⁴⁸ The metric refers to participants completing the MOOC (expected end of Apr 2023).

Other platforms

In the past, the Europeana Initiative integrated content in several educational learning platforms from Ministries of Education in Europe, and cultural heritage institutions or edtechs (e.g. Portugal⁴⁹, Greece⁵⁰, Lucian Blaga Central University⁵¹, The Moldavian National Digital Library⁵², Unsplash⁵³, Canva⁵⁴ or EUScreen⁵⁵ among others). This content has been evolving over years - and may evolve in the future - as interest and needs of users in each platform change. Europeana will try to keep in touch with the most engaged contact people of these institutions to update or explore new ways of collaboration. In Mar 2023, for example, the contact people of INTEF (Ministry of Education in Spain) agreed on publishing an update of the new Europeana developments for educators⁵⁶ and invited us to participate in their next EDUcharlas⁵⁷ in May 2023.

For the online space Unsplash (US)⁵⁸ we are able to access usage data. The platform currently integrates 394 Europeana items in their platform. The usage is very high with over 243+ million views and circa 2 million downloads.



⁴⁹ <https://erte.dge.mec.pt/europeana>

⁵⁰ <http://iep.edu.gr/el/deltia-typou-genika/europeana>

⁵¹ <https://www.bcuculj.ro/en/library-resources/access-to-web-resources>

⁵² <http://www.moldavica.bnrm.md/>

⁵³ <https://unsplash.com/@europeana>

⁵⁴ <https://www.canva.com/p/europeanaimages/>

⁵⁵ https://blog.euscreen.eu/euscreen_education/

⁵⁶ <https://intef.es/Noticias/europeana-algunas-iniciativas-educativas-destacadas/>

⁵⁷ <https://intef.es/formacion-y-colaboracion/educharlas/>

⁵⁸ <https://unsplash.com/@europeana>

3.1.2 Product and service development

A detailed overview of outcomes completed, progress update on running outcomes, and ongoing work is available in PM. Periodic reports.⁵⁹ Planned outcomes are detailed in the PM. Implementation plan M01.

This section gives an overview of sectoral and policy developments that can influence the design of educational offers provided by the Europeana Initiative and educational partners.

Over the last few years, the efforts to find opportunities for use and reuse in education have relied heavily on:

1. the work of our network of Europeana Ambassadors⁶⁰ (for national outreach) but also,
2. the constant search and exploration for new alliances⁶¹ (e.g. ALL DIGITAL, NEMO) to extend our educational audience groups at European level, like lifelong learners or museum educators,
3. programme development with partners (Europeana MOOC, Built with Bits⁶² and Low-Code Fest⁶³) to build capacity among educators, but also to engage more closely with students and test our content and products in line with pedagogical trends.

Our involvement in the Stakeholder Consultation Group (SCG), set up in the context of a *Study on policy options for digital education content in the EU* run by Ecorys, has also given us substantial information to further develop, and if necessary to improve, this approach. The study was commissioned to guide DG EAC in its decision-making regarding the European Digital Education Content Framework as set in the Digital Education Action Plan (2021-27)⁶⁴, whose main aim is to establish key definitions and guiding principles to frame and assess digital education content, understand the factors influencing supply and demand, and explore how existing bottlenecks might be addressed.

According to the evidence paper they shared with participants in the consultation group, the education content marketplace is rapidly growing, in parallel with an increased trend of user generated content and reuse of free open materials, meaning there is a great opportunity to expand the outreach of our content.

⁵⁹ Available in the document section here: <https://pro.europeana.eu/page/data-space-deployment>

⁶⁰ <https://pro.europeana.eu/page/europeana-education-ambassadors-network>

⁶¹ <https://pro.europeana.eu/page/education#partners>

⁶² <https://pro.europeana.eu/page/built-with-bits-designing-virtual-spaces-for-the-future>

⁶³ <https://pro.europeana.eu/page/europeana-low-code-fest-2022>

⁶⁴ <https://education.ec.europa.eu/focus-topics/digital-education/action-plan>

During one of the last meetings, most participants agreed there is concern around demonstrating the educational value of digital content. The products and services we are building for our educational audiences are co-created with pedagogical experts like EUN or EuroClio and educators from all over Europe, who test them and give us regular feedback. We can comfortably say they are research-based and practice-oriented, but also curricula and competence based. *Teaching with Europeana* is a good example. Learning scenarios are produced and categorised with the EU Key Competence Framework⁶⁵ in mind.

Finally the evidence report of Ecorys categorises the relevant stakeholders on the demand side of digital content, being mostly educational institutions and their associations and networks, and end users and their associations and networks, including individual school leaders, teachers, and other education professionals. This confirms again the approach Europeana is taking to promote its content and encourage use and reuse among educational audiences.

The research is heading to its second phase including two more workshops where new results and discussions by Ecorys will be shared with participants. The coming events will offer us new insights for future product development.

3.1.3 User research

We have further developed internal processes to discuss user needs of educational audiences and potential product developments to fulfil those. Currently we are looking at the Europeana Classroom⁶⁶ offer and how to improve visibility and discoverability of the content offered in this space. The objective is to define different educational audiences and product target groups, to make it easier for them to find (e.g., as an educator with certain expertise and teaching an specific age group) the content they are looking for.

3.2 Academia and research user groups

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

⁶⁵

<https://op.europa.eu/en/publication-detail/-/publication/297a33c8-a1f3-11e9-9d01-01aa75ed71a1/language-en>

⁶⁶ <https://www.europeana.eu/en/europeana-classroom>

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

3.2.1 Performance indicators

EF organised events that continue to foster collaboration and capacity building between the cultural heritage, academic and research sectors.

The Research Community continued hosting its Research Community Cafes⁶⁷, organising one on olfactory heritage and the outcomes of the Odeuropa project.⁶⁸ In 2023, a new event format was designed to build capacity in this area: an instructor is invited to give a public lecture followed by a workshop limited to a predetermined number of community members. The first event was ‘Planning crowdsourcing in cultural heritage’, with Dr Mia Ridge, British Library, as an instructor.⁶⁹

Academia and Research metrics (Sep 2022 - Mar 2023)

No.	Description	End Aug 2022	End Mar 2023
RM 3.25	Outreach events to academic and research communities organised	5	3

3.2.2 Product and service development

A detailed overview of outcomes completed, progress update on running outcomes, and ongoing work is available in PM. Periodic reports.⁷⁰ Planned outcomes are detailed in the PM. Implementation plan M01.

EF organised events that continue to foster collaboration between the cultural heritage, academic and research sectors (see 3.2.1).

EF nurtured collaborations with research infrastructures and projects. For example, EF worked with DARIAH and the GLAM Labs Community to refine a ‘Collections as Data’ approach within the data space for cultural heritage. An outcome of this collaboration was the paper ‘A Checklist to publish Collection as Data in GLAM Institutions’⁷¹.

⁶⁷ <https://pro.europeana.eu/search?q=Europeana+Research+Community+Caf%C3%A9>

⁶⁸ <https://pro.europeana.eu/event/europeana-research-community-cafe-odeuropa-new-approaches-to-olfactory-heritage>

⁶⁹ <https://pro.europeana.eu/event/planning-crowdsourcing-projects-in-cultural-heritage>

⁷⁰ Available in the document section here: <https://pro.europeana.eu/page/data-space-deployment>

⁷¹ <https://glamlabs.io/checklist/>

EF contributes to the scientific committee of the DARIAH Annual Event 2023: Cultural Heritage Data as Humanities Research Data?⁷² and ensures the visibility of the Europeana Initiative in academic and research contexts, by serving as peer-reviewer for the DH 2023: Collaboration as an Opportunity⁷³, which is one of the biggest conferences in the field of Digital Humanities.

EF continued to contribute to the LIBER Digital Scholarship and Digital Cultural Heritage Collections Working Group⁷⁴, which started prototyping a collaborative and sustainable training hub for supporting skills development in digital scholarship, digital cultural heritage and data science (session organised at the LIBER event, Dec 2022). EF also contributed to reviewing the LIBER Strategy 2023-2027⁷⁵ that was presented at the event.

The Europeana Research Community established an expert group to work on the definition of Datasheets for cultural heritage, in collaboration with the EuropeanaTech community.

EF continued leveraging the support of the Europeana Research Advisory Board⁷⁶, composed of internationally known university professors of Digital Humanities and Information Science, in analysing users' interests and motivations, tailoring the data space offering.

3.2.3 User research

EF is currently conducting user and market research about academia and research communities, with the collaboration of the Europeana DS consortium partner DARIAH and the Europeana Research Advisory Board.

We began with a meta analysis of previous research conducted over the past several years. Analysis highlighted that academic and research communities of potential reusers of Europeana are:

- University teaching staff members as the main reusers and multipliers of the Europeana offer, both for teaching and research purposes, especially in the fields of Arts, Humanities and Social Sciences.
- Students in higher education and researchers not engaged in teaching activities, such as early-career scholars or researchers working at cultural heritage institutions.

⁷² <https://www.clarin.eu/event/2023/dariah-annual-event-cultural-heritage-data-humanities-research-data>

⁷³ <https://dh2023.adho.org/>

⁷⁴ <https://libereurope.eu/working-group/digital-scholarship-and-digital-cultural-heritage-collections-working-group/>

⁷⁵ <https://libereurope.eu/article/liber-strategy-2023-2027-now-online/>

⁷⁶ <https://pro.europeana.eu/page/research-advisory-board>

- Research supporting staff (or domain experts), such as digital librarians and data stewards, e.g. those working at Digital Humanities Labs.
- Cultural heritage professionals involved with GLAM Labs or similar activities
- Non-professional researchers (e.g. those interested in the so-called Citizen Science).

Academics and researchers engaged in digital research infrastructures in executive roles can be the strongest advocates of the reuse of Europeana resources and sustain Europeana at the policy level. Their potential to reach others and offer an understanding of the existence and usefulness of the data space increases when they directly manage platforms for the sharing of data, tools and resources. Also, digital research infrastructures are usually built on a network of national nodes, which can intensify the outreach at the national levels, and run a number of working groups. Finally, these academics and researchers lead or take part in a high number of European-funded projects.

From Sep to Dec 2022, EF designed a research plan to investigate needs and behaviours in academia and research where it comes to the reuse of digital cultural heritage, with the goal to inform product development (data, metadata, APIs, additional features on the platform).⁷⁷ In Jan to Apr 2023, EF focused on the meta-analysis, taking into consideration and tying together the learnings from all pieces of research conducted in the past five years.⁷⁸

EF is currently focusing on the details for qualitative analysis based on interviews. The Europeana Research Advisory Board has contributed to the research plan both in terms of design and long-term objectives. Based on our findings there, we will continue to identify products and services for these academic and research communities that already exist and that we can promote more assertively to these audiences, or identify products and services we offer that do not confer substantial benefit, and tweak or discontinue those.

3.3 API consumers

EF offers and further develops multiple API endpoints for software clients to interact with the data space. Europeana APIs allow users to build applications that use the wealth of cultural heritage objects available on the Europeana website in supporting the development of new products, services and creations.

⁷⁷ Available on request.

⁷⁸ Available on request.

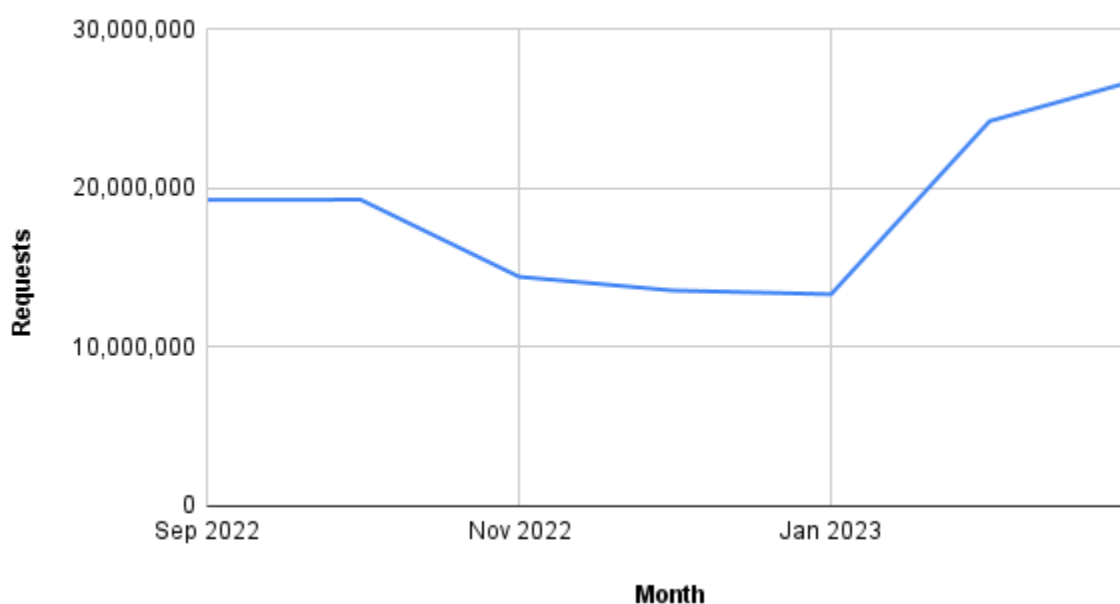
3.3.1 Performance indicators

In the period between Sep 2022 - Mar 2023, the Europeana REST API⁷⁹ received on average about 18.7 million external API requests per month and the REST API had in total 430 new sign ups. The REST API also had on average 61 users/month that exceeded the average of 5 calls a day and 55 users/month that were active for more than 5 days in each month.

Usage statistics for APIs (Mar 2023)

No.	Description	End Mar 2023
RM 3.27	Total number of REST API requests per month (external traffic)	26.7 million
RM 3.28	Number of API sign-ups (cumulative)	430

REST API requests per month (external traffic) (Sep 2022 - Mar 2023)



The graph above shows that there is some fluctuation in the REST API usage. The reasons for the fluctuations result primarily from the active API users and how usage is performed in their platforms. Additionally, there were changes in the number of APIs that we were reporting traffic for and the Kubernetes migration also had an impact on data collection.

⁷⁹ <https://pro.europeana.eu/page/intro>

3.3.2 Product and service development

A detailed overview of outcomes completed, progress update on running outcomes, and ongoing work is available in PM. Periodic reports.⁸⁰ Progress updates on technical developments will be provided in detail in the DS. Infrastructure report (due May 2023). Planned outcomes are detailed in the PM. Implementation plan M01.

In the past months, the API team focused on updating the Europeana API suite to their next versions with new and improved feature sets, as well as on improving API documentation. Our documentation platform is currently being ported to JIRA Confluence, which gives more options for flexible learning and capacity building for different audiences, and has a richer featureset for providing API documentation than is currently possible on Europeana Pro. EF is currently developing a platform strategy, which will include guidelines for where and how documentation for APIs can best be presented. Once completed, the API outreach will be aligned to meet the recommendations.

In the past months, API outreach was closely aligned with education and research outreach to identify opportunities for presenting Europeana's APIs to interested audiences. The Europeana Low-Code Fest⁸¹, held in Oct and Nov 2022, is a great example of how to cater capacity building towards education. To this end, we plan to focus on developing easy to follow tutorials to acquaint people with low technical literacy with our APIs.

In the past months, we developed learning pathways that give deeper insight into how different audiences can use API and capacity building resources for their own digital transformation (e.g., we developed Learning Pathways for both the education and academia and research sectors), and we are planning to expand this work towards new audiences in the coming months. EF is currently also investigating a Learning Management System for capacity building resources. Were this system in place, API documentation and capacity building resources would be migrated to create a more holistic entry point for everyone wanting to learn about our API offer.

3.3.3 User research

In the past months, we have investigated decision-makers and opportunities for re-use in relation to API usage. As we have seen in the past, identifying a few people - experts, decision-makers - who can lead us to larger groups of people, a one-to-many approach, is an efficient way to make contact with the large groups of people who can potentially benefit from the work conducted by the Europeana Initiative and the resources available in the data space.

⁸⁰ Available in the document section here: <https://pro.europeana.eu/page/data-space-deployment>

⁸¹ <https://pro.europeana.eu/page/europeana-low-code-fest-2022>

While API consumers are not a specific audience per se, the APIs we create reach many of our audiences and are another product, like the Europeana.eu website, which provides services to them. These audiences represent an overlap between the academic and research communities, education communities, creative reuse communities and developer communities. In this section, we focus on the key stakeholders, organisations and initiatives that aren't comprised by the education or academic and research communities.

After researching potential decision-makers in this space, we identified two main groups:

1. a group of highly digitally literate developers that aim to use Europeana products and resources and other digital cultural heritage sources as a service
2. A group of moderately literate creative users that are passionate about cultural heritage and want to use digital cultural heritage in their reuse projects.

Independent of these two groups, there are clear individual actors in the space of machine-readable digital cultural heritage that the Europeana Initiative could collaborate with to increase API visibility and reuse, more specifically:

- Digital Curators, Directors of Digital Services and Heads of Digital within cultural heritage institutions
- Cultural Heritage Leads at startups and digital companies
- Digital Cultural Heritage Leads at regional and national government agencies
- Researchers, Teaching Assistants and Professors that lead research centres or give classes on API development, library studies and IT courses.
- Strategists at leading cultural heritage institutions and digital startups
- Editors of cultural heritage publications focusing on digital transformation
- Community advocates at Cultural Heritage organisations
- Open Data managers

Digitally literate developers

The main decision-makers in this space come from varied backgrounds and specialties, making them hard to clearly define. Luckily, these actors come together at events, conferences, hackathons, and forums to discuss and collaboratively work using digital cultural heritage. The main overlap between the Europeana Initiatives' interest and these actors' interests is that they care about free, open-source data, privacy, decentralised networks, digital equity, and innovation. These actors often identify themselves as being open-source, FLOSS, interoperable, (Creative) Commons. They are also often linked to the open library movements and often have backgrounds in library studies, as well as Linked Data. The main spaces that we identified where we see opportunities for re-use are:

- Free culture advocates, Open Data enthusiasts
- Open Commons, Open Science and Citizen Science researchers and practitioners
- Mozfest⁸² and the Mozilla Foundation

⁸² <https://www.mozillafestival.org/en/>

- The 'Wikiverse': wikimedians, wikidatans
- 'LD4'⁸³: Linked Data for Libraries
- AI4LAM⁸⁴: AI for libraries, archives and museums
- The Open Preservation Foundation⁸⁵
- The Internet Archive⁸⁶
- Code4lib⁸⁷ (Coding for librarians)
- The Open Repositories⁸⁸ foundation
- MCN⁸⁹: Advancing digital transformation in Museums
- WikidataCon⁹⁰

The events, organisations and spaces listed above provide great opportunities to expand the reach of Europeana API services. These spaces are taken into consideration when thinking about where to extend our offers for collaboration and support. This collaboration can happen in different ways: links to Europeana's API offer can be embedded in tutorials and capacity building resources on other platforms such as Code4lib. EF is experimenting with such an offer for the Programming Historian platform⁹¹. More involved support can include presenting Europeana's APIs at events such as WikidataCon or Mozfest, and being active contributors to hackathons organised by institutions like the Internet Archive or the Open Repositories Foundation.

Digitally creative reusers

This group of important actors in the creative reuse space are more well-known to the Europeana Initiative since they operate in mainly the same GLAM space. As a result Europeana has often collaborated with these actors in the past, and these actors are also good at marketing themselves and promoting their work, making them more visible and approachable. These actors are more often associated with museums and musetech, and often have a background in digital humanities studies, humanities studies or Human-Computer Interaction. There are great opportunities for EF in forging more lasting collaborative connections with these actors. Examples include:

- We Are Museums⁹²
- Museumnext⁹³
- Museum hack⁹⁴

⁸³ <https://sites.google.com/stanford.edu/ld4-community-site/home?pli=1>

⁸⁴ <https://sites.google.com/view/ai4lam>

⁸⁵ <https://openpreservation.org/>

⁸⁶ <https://archive.org/>

⁸⁷ <https://code4lib.org/>

⁸⁸ <https://www.openrepositories.org/about/>

⁸⁹ <https://mcn.edu/>

⁹⁰ https://www.wikidata.org/wiki/Wikidata:WikidataCon_2023

⁹¹ <https://programminghistorian.org/>

⁹² <https://www.weare museums.com/>

⁹³ <https://www.museumnext.com/>

⁹⁴ <https://museumhack.com/>

- Museweb⁹⁵ (museums and the web)
- GLAMWiki⁹⁶
- Culture24⁹⁷
- Museum Crush⁹⁸

Since these actors often have their own event calendars, and are eager for organisations in the GLAM sector to join them in their activities, EF will focus on being present at these events to raise visibility of Europeana services.

3.4 Tourism, media, and the cultural/creative sectors

In the past months, we started to investigate further cases of reuse, collaboration and capacity building, more specifically in the areas of tourism, media, and the cultural/creative sectors.

Fashion/design audiences

Together with Europeana DS consortium partner European Fashion Heritage Association (EFHA), we explored potential decision-makers among fashion/design audiences. Their extensive experience has shown that fashion designers are reluctant to acknowledge sources of inspiration (e.g. they prefer not to identify resources that inspired them in their designs). From the standpoint of reuse, then, identifying and assessing reuse promises to be difficult or impossible.

Nevertheless, the opportunities to offer digital cultural heritage as inspiration still exist. One potential approach is to offer digital cultural heritage data to fashion design user groups by reaching them where they seek inspiration, for example, specialty fashion libraries and archives across Europe.

A possible first step to understand what the data space can offer fashion design user groups, can be to conduct qualitative research among fashion librarians and fashion archives personnel to learn:

1. How can we best approach these staff?
2. What resources do they recommend as useful for their user groups?
3. What are effective communication methods?

We will investigate the feasibility of this research in the coming months. We will also continue to work closely together with the European Fashion Heritage Association, which

⁹⁵ <https://www.museweb.net/>

⁹⁶ <https://en.wikipedia.org/wiki/Wikipedia:GLAM>

⁹⁷ <https://www.culture24.org.uk/>

⁹⁸ <https://museumcrush.org/>

brings together more than 45 institutions from 14 European countries⁹⁹, and explore collaborations.

Creative Industries

To learn more about the area of creative industries, we conducted several interviews with representatives of various industries, including an illustrator/author, artist, animator, video and motion designer, photographer, and podcaster, most of whom have participated in our online festivals.

We learned that they all use similar software—chiefly Adobe products, and appreciate and want more of a sense of community and connection between creators. They are interested in a wide range of topics and have a wide range of influences. Museums/online archives are important to them as a source of inspiration, and social media is important to them as this is how they showcase their work, and maintain contact with others in the creative industries.

How they originally discovered the Europeana Initiative and where they find inspiration for their work overlap. They originally learned about the Europeana Initiative via social media channels, via a university course (which confirms that the work we're already doing via academics and researchers is effective and should continue), local events at local cultural heritage institutions (e.g., the British Library), Unsplash, or serendipitously while searching for information about cultural heritage online.

Museums and libraries - both online and offline - play a central role in offering inspiration, as do social media from the arts and creative sectors - although many like to log in and scroll rather than chase down particular accounts.

Individuals have specific interests (from the environment and politics, to Dadaism and Doctor Who) but all are broadly interested in accessing historical material, including images, literature and music, and following what is popular in film, photography, books, and music.

All mentioned an element of serendipity. Some visit museum websites for digitised collections but there wasn't any specific order or list. They browse and see what inspires them.

We will further investigate reuse examples, how creatives work with the Europeana website, what challenges they encounter and their needs (e.g. as part of the Digital Storytelling Festival 2023 and the GIF IT UP 2023). We also aim to submit presentation ideas to be part of the programme of additional events relevant to creatives.

⁹⁹ <https://fashionheritage.eu/partners/>

Tourism

With the advent of the Tourism data space and the obvious links between tourism and cultural heritage, we anticipate additional opportunities to explore reuse. Two consortia are currently working on that data space, and we will explore possible cooperation and collaboration with each. Further, we continue to explore Cultural Routes of Europe collaboration, which is developing and deeply related to tourism. In the coming months, we will work to boost that.