



**Deployment and Maintenance of
Europeana DSI core services -
SMART 2017/1136**

CONTRACT NUMBER - LC - 00822914

DELIVERABLE

B.2/B.3 Periodic report M30

Revision	1.0
Date of submission	28 February 2021
Author(s)	Julia Schellenberg, Europeana Foundation
Dissemination Level	Public



Funded by
the European Union

REVISION HISTORY AND STATEMENT OF ORIGINALITY

Revision History

Revision No.	Date	Author	Organisation	Description
0.1	19-02-2020	Dasha Moskalenko, Antoine Isaac, Hugo Manguinhas, Andrea Zandarin, Douglas McCarthy, Isabel Crespo, Jolan Wuyts, Henning Scholz, Fiona Mowat, Andy Neale, Julia Fallon, Gina van der Linden, Zuzana Malicherova, Ariadna Matas, Shadi Ardalan, Alba Irollo, Monique De Boer, Michelle Lewis, Milena Popova, Julia Schellenberg	Europeana Foundation	Draft
1.0	25-02-2020	Julia Schellenberg	Europeana Foundation	Final version

Periodic reports can be viewed and accessed online in the document section on the Europeana DSI-4 project page¹.

Europeana DSI-4 is funded by the European Union's Connecting Europe Facility. It is operated by a consortium led by the Europeana Foundation, under a service contract with the European Commission, contract number LC - 00822914.

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This deliverable contains original unpublished work except where clearly indicated. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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

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Highlights

In the reporting period, we completed an update to the Metis enrichment/dereferencing service and also released Metis and eCloud V3 which includes some major new features.

We saw an increase in traffic to the Europeana website, exceeding our target of 500,000 visits in January 2021 (514,200). We also saw an increase of user return rate with the highest return % recorded so far for Europeana DSI-4 year 3 (since 1 September 2020).

We completed the evaluation of the GIF IT UP challenge. Held each year in October, GIF IT UP challenges people to use openly licensed digitised cultural heritage material to produce unique GIFs and share them online. 2020's contest saw a record of 165 entries from 31 countries around the world. In addition to regular partners DPLA, Trove and DigitalNZ, this year we welcomed two new partners, Japan Search and DAG Museums, India.

From October until December 2020, we ran the educational challenge #reinventingBeethoven. This competition invited teachers to introduce Beethoven's life and work to students and to coordinate the creation of a group artwork. It aimed to encourage students' creativity with cultural heritage resources. 28 groups of students from 11 countries around the world took part.

Data quality updates lead to the achievement of our metadata quality target with 61% of metadata being in A + quality (3.06% increase in the period). In this period, we completed the strategy for reviving records from inactive data partners and also a document that outlines recommendations for how to improve the usefulness of guidance materials.

We implemented a framework for evaluation of digital events. This feeds into our programming efforts and will also help to shape the capacity building framework.

EF renewed both the ENA Members Council (November 2020) and Management Board (January 2021).

From September to December 2020, four webinars directed at aggregators and other heritage professionals interested in copyright took place. We also completed the translation of key documents (Public domain charter, Public domain guidelines) to make key guidelines and articles about the public domain available to more people in their native languages.

Introduction

The periodic report describes work carried out under Europeana DSI-4 from 1 December 2020 (M28) until 31 January 2021 (M29) based on the implementation plan (B.1 deliverable M24). The report is organised in four work packages (WP), one work package for each of the three priorities of the Europeana strategy 2020-2025². The three strategic priorities are: Priority #1: Strengthen the infrastructure; Priority #2: Improve data quality; and Priority #3: Build capacity. The fourth work package reports on programme management efforts and the balance of efforts.

All outcomes to be completed as stated in B.1 Implementation plan M24 are included in this periodic report. All outcomes will be completed latest by August 2021³. The periodic report might also include additional outcomes not mentioned in the implementation plan. Throughout the year, the consortium may start to work on new outcomes. Also included might be activities/outcomes that deserve to be highlighted along the way even though those feed into an outcome of the implementation plan. All outcomes the consortium worked on in the reporting period are stated in the overview of outcomes tables with completion rate and expected due date. In case an outcome ends in the reporting period a description is added that highlights the objective and result of the outcome and its value for Europeana DSI. Key Performance Indicators (KPIs) as well as other reporting metrics are also presented, and discussed in case of notable occurrences.

For each task associated risks are stated and assessed based on probability of occurrence and severity of impact.⁴ The risk assessment is reviewed and updated bi-monthly, in case changes occurred for a risk (updates or new risks) an explanation is added to the risk assessment.

Explanatory notes for tables reporting - colour codes

	Outcomes as stated in the implementation plan ⁵
	Colour blue indicates the expected timeframe of the outcome
	Colour black indicates that an outcome ended in the reporting period
%	Progress until end of current reporting period

² <https://pro.europeana.eu/page/strategy-2020-2025-summary>

³ Due dates of individual outcomes as stated in the implementation plan are indicative and timing might change based on current priorities.

⁴ Probability and impact are rated with 5 levels (very high (5), high (4), medium (3), low (2), or very low (1)). The risk rating is probability multiplied by impact. If probability is medium (3) and impact is high (4), then the rating would be 12 (3 x 4). The rating gives an understanding of the risk and its effects on the operations of the Europeana services. A risk rating above 15 can be seen as high risk while a rating of 25 is devastating.

⁵ 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 keep a transparent background.

Abbreviations

Consortium participants

EF	Europeana Foundation (Coordinator), The Netherlands
AIT-Graz	AIT Angewandte Informationstechnik Forschungsgesellschaft mbH, Austria
AIT-Vienna	AIT Austrian Institute of Technology GmbH, Austria
APEF	Archives Portal Europe Foundation, The Netherlands
BL	The British Library Board, United Kingdom
CARARE	Connecting Archaeology and Architecture in Europe, Ireland
CLARIN	CLARIN ERIC, The Netherlands
DEN	Stichting Digitaal Erfgoed Nederland, The Netherlands
DFF	Deutsches Filminstitut & Filmmuseum e.V., Germany
DNB	Deutsche Nationalbibliothek, 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 Historisches Forschungsinstitut Berlin Drauschke Schreiber Partnerschaftsgesellschaft Archiv-, Geschichts- und Literaturwissenschaftler, Germany
INESC-ID	INESC-ID, Instituto de Engenharia de Sistemas e Computadores - Investigação e Desenvolvimento em Lisboa, Portugal
MCA	Michael Culture AISBL, Belgium
NISV	Stichting Nederlands Instituut voor Beeld en Geluid, The Netherlands
NTUA	National Technical University of Athens, Greece
Photocons	International Consortium for Photographic Heritage Photoconsortium, Italy
PSNC	Instytut Chemii Bioorganicznej Polskiej Akademii Nauk - Poznańskie Centrum Superkomputerowo-Sieciowe, Poland
SPK	Stiftung Preussischer Kulturbesitz, Germany

Other

CHIs	Cultural Heritage Institutions
DCHE	Digital Cultural Heritage and Europeana
DPS	Data Partner Services
DSI AGG	DSI aggregators
EAF	Europeana Aggregators' Forum
EDM	Europeana Data Model
ELF	Europeana Licensing Framework
ENA	Europeana Network Association
EPF	Europeana Publishing Framework
IIIF	International Image Interoperability Framework
R&D	Research & Development
SEO	Search Engine Optimisation
UI	User Experience

Formal definitions of terms used frequently can be found in [Annex: Glossary of terms](#).

Work package 1: Strengthen the infrastructure

WP1 maintains and continuously improves Europeana DSI’s main services and functionality. WP1 is focused on an easy and rewarding data publishing process (task 1.1.), a satisfying website experience for our users (task 1.2.), and a reliable and high performing platform infrastructure (task 1.3.). The work package also provides engagement activities for users to discover Europeana’s digital cultural content (task 1.4.).

Task 1.1. Easy data publishing

Partners: EF, PSNC

Europeana DSI-4 offers a fully functional data and aggregation infrastructure through Metis (<https://metis.europeana.eu/>), which allows EF to import, transform, validate and enrich metadata for aggregators. The focus for the year revolves around implementing part one of the aggregation strategy by speeding up and enhancing the reliability of the publishing process (objective 1.1.1.) and releasing the Metis Sandbox (objective 1.1.2.) which creates new ways of publishing through Europeana.

Overview of outcomes: easy data publishing

Partner	Outcomes	Progress	Dec M28	Jan M29	Feb M30	Mar M31	Apr M32	May M33	Jun M34	Jul M35	Aug M36
Objective 1.1.1. Extend and maintain Metis											
EF, PSNC	System upgrades and performance are maintained (bugs fixing, infrastructure upgrades, refinement of existing features) - 40% of effort in M28/M29	Ongoing									
EF	Existing enrichment service upgraded	100%	█	█							
EF	Provenance of machine-generated metadata is maintained ⁶	40%	█	█	█						
EF, PSNC	Incremental update process established	20%	█	█	█	█	█	█	█	█	█
EF, PSNC	Metis and eCloud V3	100%	█	█							
Objective 1.1.2. Enable Metis Sandbox											
EF	Public release of Metis Sandbox	40%	█	█	█	█					
EF	MS1 Metis Sandbox report on its contribution to the aggregation strategy delivered	Not started									

⁶ In collaboration with Europeana XX Generic Services project.

EF, PSNC	Metis Sandbox data sources extended	Not started										
EF, PSNC	Fast track publishing workflow enabled	Not started										

Existing enrichment service upgraded - the Metis enrichment/dereferencing service was restructured to make it more modular and easier to reuse the service by applications other than Metis.

Metis and eCloud V3 - This new release of Metis includes some major new features:

- Optimisation of the workflow and parallelisation of tasks within Metis
- Enrichment with new century entities and improved language support
- Validation of rights statements as part of the validation service
- Detection of duplicate records during data harvesting

Risk assessment: easy data publishing

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R1.1	The work planned for year 3 of DSI-4 may require more preparation of requirements analysis and design than envisaged which may delay implementation.	High (4)	Medium (3)	12	The work needs to be planned in smaller iterations which means that the products (such as Metis or the Sandbox) may not have all the expected functionalities implemented at once.	-
R1.2	The Generic services are bringing extra requirements for data ingestion that require modifications in Metis.	High (4)	Medium (3)	12	The roadmap needs careful management and amendment if needed. Further discussion will take place with projects to better understand their requirements, and any conflicts with the DSI will be discussed with EC.	-

Task 1.2. Europeana website experience

Partners: EF, AIT Vienna

The Europeana website (www.europeana.eu) is the single multilingual access point to digital resources of European heritage. This year we aim to see the website maintain 500,000 visits a month (KPI 1.1) with a 15% user return rate (KPI 1.2). To achieve this, the consortium maintains and continuously improves the website with a focus on a satisfying experience for users. We will

add more user engagement features to attract more return visitors (objective 1.2.1.). Improvements to search are a key aspect of website experience that we will continue to invest in (objective 1.2.2.). The extension of features to support the new multilingual strategy are also critically important for reaching and retaining new audiences (objective 1.2.3.).

Overview of outcomes: Europeana website experience

Partner	Outcomes	Progress	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
			M28	M29	M30	M31	M32	M33	M34	M35	M36
EF	Europeana website usability and performance maintained (bugs fixing, security & software updates) - 20% of efforts in M28/M29	Ongoing									
Objective 1.2.1. Extend user engagement features											
EF, AIT Vienna	Public release of user-created collections (with recommendations) ⁷	90%	█	█	█	█					
EF	Process of automated updates to Collections section in place (topics, centuries)	60%	█	█	█	█					
EF	Browse by organisations is supported (new entity type)	10%	█	█	█	█	█	█	█		
EF	Visitor feedback mechanism upgraded	60%	█	█	█	█	█	█	█	█	█
EF	Publication of schema.org for item pages	40%	█	█	█	█	█	█	█	█	█
EF	Item page updated (Maps display)	100%	█								
Objective 1.2.2. Deliver better search experience											
EF	Search relevance and performance maintained	Ongoing									
EF	Public release of search within newspaper pages	95%	█	█	█						
EF	Methodology for evaluating search effectiveness designed	70%	█	█	█	█	█				
EF	Search performance evaluation completed	60%	█	█	█	█	█				
EF	MS2 Search strategy delivered (including community feedback)	60%	█	█	█	█	█				
Objective 1.2.3. Extend multilingual reach											

⁷ Project results from Europeana XX contribute to this outcome.

EF	UI translations are validated by crowdsource community	20%	
EF	Metrics to measure improvements to the multilingual experience confirmed	80%	
EF	Language detection of metadata is validated (experiment) ⁸	Not started	
EF	Multilingual search designs prove to be usable and understood by users (user research)	Not started	
EF	Multilingual item page designs prove to be usable and understood by users (user research)	20%	
EF	Real-time translation of item page metadata from English validated (experiment)	Not started	
EF	Users can view item pages in language of choice (implementation)	Not started	
EF	Candidate machine translation services for metadata selected	100%	
EF	Report on the percentage of exhibition and feature translations	30%	
EF	MS3 Outcomes of multilingual experiments, and their contribution to the multilingual strategy	Not started	

Item page updated (Maps display) - we released the map on the item page to show the location of the item. We show a map for the item where the DC: spatial field is populated (for example⁹ - see tab 'location' on the Europeana website).

Candidate machine translation services for metadata selected - This outcome is one of the key starting points for the implementation of Europeana DSI's multilingual strategy¹⁰. We consider this outcome completed after preparation and acceptance of the Europeana Translate project in the Automated Translation Generic Services call (CEF-TC-2020-1). Europeana Translate will develop an automatic translation service to fit the needs of Europeana DSI and DSI aggregators.

⁸ We are currently putting this work on hold so work on multilingual search can be accelerated. We are now prioritising effort on the 'Real-time translation of search queries' from year two of the multilingual strategy. By the end of DSI-4 year 3 we plan to have a working prototype of a Spanish destination where we aim to show how multilingual search across English/Spanish can work. Validating search across one extra language is a necessary step before scaling across many. This is a different tactic to the original proposal for this implementation plan, however we believe it is more important to progress challenges with multilingual search queries.

⁹ https://www.europeana.eu/en/item/2020708/CA_BA12857_5_17_01

¹⁰ <https://pro.europeana.eu/post/europeana-dsi-4-multilingual-strategy>

This service shall of course become the main candidate for re-use within Europeana DSI, should its quality meet our expectations. To validate this, we can also rely on evaluation efforts in the Europeana Translate context, which will assess the service developed and compare it with other general-purpose translation services (the list of which will be refined during the project).

Reporting metrics: Europeana website experience

No.	Description	Measured by	Frequency	Target	Nov 2020	Dec 2020	Jan 2021
KPI 1.1	Traffic to Europeana website	Number of visits per month	Monthly	500,000	462,700	492,100	514,200
KPI 1.2	Returning visitors to Europeana website	Percentage of visitors returning	Monthly	15%	12.80%	13.61%	13.52%
KPI 1.3	Satisfaction rate for Europeana website	Average satisfaction on a 5-point Likert scale ¹¹	Three times a year	75%	72%	-	Expected Mar 2021
KPI 1.4	Downloads on the Europeana website	Total number of downloads (cumulative)	Monthly	240,000	37,753	47,651	59,526
RM 1.1	New visitors to the Europeana website	Total number of new visitors per month	Monthly	-	368,631	353,000	394,662
RM 1.2	Visit duration on the Europeana website	Average time spent per visit	Monthly	-	01:44	01:33	01:31
RM 1.3	Page views on Europeana website	Average amount of pages viewed per visit	Monthly	-	2.83	2.36	2.40
RM 1.4	Click-throughs to partner websites	Total number of click-throughs (cumulative)	Bi-monthly	-	45,242	-	80,788

¹¹ The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals to a satisfaction rate of 72%).

RM 1.5	User feedback for the Europeana website	Total number of user feedback received via feedback button (cumulative)	Bi-monthly	-	164	-	271
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In the reporting period, we saw an increase in traffic to the Europeana website, exceeding our target of 500,000 visits in January 2021 (514,200). We also saw an increase of user return rate with the highest return % recorded so far for Europeana DSI-4 year 3 (since 1 September 2020).

Risk assessment: Europeana website experience

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R1.3	Traffic on Europeana website (KPI 1.1) is below target	High (4)	Medium (3)	12	Continuing our experiments on making record pages more discoverable to Google; expanding editorials with seasons, exhibitions; promotions and activities engaging users; better promotion of APIs to engage with developer and institutional reuse	-
R1.4	Returning visitors on Europeana website (KPI 1.2) is below target: product/content not good enough to encourage people to return	High (4)	Medium (3)	12	Optimising the browsing and viewing experiences; optimising the searching experiences; optimising multilingual experience; extending user engagement features; expanding editorials with seasons, exhibitions; promotions and activities engaging users	-
R1.5	Satisfaction rate for the Europeana website is low	Medium (3)	High (4)	12	Review europeana.eu user feedback and behaviour and take appropriate actions; monitor website performance; constant improvement of the Europeana website	-
R1.6	Expectations regarding multilingual strategy are higher than what available language technology enables us to implement	High (4)	Low (2)	8	Regularly evaluate and communicate the results of evaluation to stakeholders. Adapt plans to the performance level of technology.	-

Task 1.3. Reliable platforms

Partners: EF, AIT Vienna

High availability and performance (objective 1.3.1.) is an important priority for the Europeana services. With a high-availability architecture design, we aim for our main products to be available 24/7 with an uptime of 99.5% (excluding scheduled outages). We will monitor the quality of our services (uptime and response time) and report on them regularly.

Overview of outcomes: reliable platforms

Partner	Outcomes	Progress	Dec M28	Jan M29	Feb M30	Mar M31	Apr M32	May M33	Jun M34	Jul M35	Aug M36
Objective 1.3.1. APIs and infrastructure are high-performing											
EF	Infrastructure is maintained (bugs, attacks, clean-ups, upgrades, back-ups) - 50% of effort in M28/M29	Ongoing									
EF, AIT Vienna	Core APIs are maintained (incidents, bugs, technical debt improvements, software updates, releases) - 40% of effort in M28/M29	Ongoing									
EF	Solr and Mongo reindexed	50%	█	█	█						
EF	Full failover environment established	75%	█	█	█	█					
EF, AIT Vienna	Full disaster recovery test completed ¹²	25%	█	█	█	█					
EF	Production hosting environment reconfirmed [IBM]	20%	█	█	█	█	█	█	█	█	█
EF	ELK migration from V5 to V7	100%	█								

ELK¹³ migration from V5 to V7 with APM - The open source version of the ELK stack was upgraded following the product end of life matrix.

Reporting metrics: reliable platforms

No.	Description	Measured by	Frequency	Nov 2020	Dec 2020	Jan 2020
RM 1.6	Response time of Europeana website	Average time (seconds) for single record per month	Monthly	1.52	1.36	1.25

¹² This outcome will feed into C.4 Stress and disaster recovery test reports (March 2021).

¹³ [Elasticsearch/Logstash/Kibana](#) + [APM](#)

RM 1.7	Uptime of Europeana website	Average in % for single records per month	Monthly	99.77	99.83	99.87
RM 1.8	Response time of APIs (all)	Average response time (seconds) per month	Monthly	0.22	0.23	0.24
RM 1.9	Uptime of APIs (all)	Average in % per month	Monthly	99.99	100	99.98
RM 1.10	Response time of Europeana Pro	Average response time (seconds) per month	Monthly	0.84	0.82	0.83
RM 1.11	Uptime of Europeana Pro	Average in % per month	Monthly	99.99	100	100
RM 1.12	Uptime of Metis	Average in % per month	Monthly	100	100	100

Risk assessment: reliable platforms

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R1.7	High traffic in form of attacks can cause interruptions in the service	Low (2)	High (4)	8	Anti-flooding mechanism to limit the traffic to real users;	-

Task 1.4. Discoverability of digital cultural content

Partners: EF, DSI AGG (EFHA, NISV, DFF, CARARE, MCA), EUN, and EuroClio

Our efforts to publish digital cultural content can only be valued when material is found and consumed. Therefore, the ability for European citizens, educational audiences and API consumers to discover content is critical to the success of the Europeana Initiative. The foundation of our discoverability efforts are Europeana’s high-quality editorial features that will highlight captivating materials and stories (objective 1.4.1.). Through communication and promotion, EF will bring this material to the attention of our audiences to drive traffic to the Europeana website and engagement with digital culture (objective 1.4.2.). Activities with educational communities will foster partnerships for teaching and learning (objective 1.4.3.). Efforts to support third-party developers use of the Europeana APIs will help to diversify the usage of digital cultural content (objective 1.4.4.).

Overview of outcomes: discoverability of digital cultural content

Partner	Outcomes	Progress	Dec M28	Jan M29	Feb M30	Mar M31	Apr M32	May M33	Jun M34	Jul M35	Aug M36
Objective 1.4.1. Deliver high-quality editorial features											

EF, DSI AGG, GS ¹⁴	Editorial activities published (exhibitions, blogs and galleries)	Ongoing																		
EF, GS ¹⁵	Discovering Europe season completed	Done																		
EF	Women's History Month organised	80%	■	■	■	■														
EF	Exhibition: The Beaver's Journey (Aust-Agder museum og arkiv) published	90%	■	■	■	■														
EF	Exhibition: Discovering Danube (CENL) published	80%	■	■	■	■	■													
EF	Sport season initiated	20%	■	■	■	■	■	■	■											
EF	Autumn season (TBC) initiated	Not started																		
Objective 1.4.2. Communication and dissemination to European citizens																				
EF	Newsletter and social media posts (Facebook, Twitter, Instagram, Pinterest) published ¹⁶	Ongoing																		
EF	GIF IT UP organised	100%	■																	
EF	Women's History Month organised	80%	■	■	■	■														
EF	MuseumWeek on Twitter organised	Not started																		
Objective 1.4.3. Engage with educational communities																				
EF	Blogs and social media posts (LinkedIn, Facebook, Twitter) published	Ongoing																		
EuroClio	Online course for beginners at an eTwinning eLearning event (Europeana training for educators) organised	40%	■	■	■	■	■													

¹⁴ Europeana Common Culture, LinBi, Europeana Archaeology, Europeana XX, Pagode - Europeana China, Europeana Sport, The Art of Reading in the Middle Ages - ARMA, Europeana Media and Europeana Judaica 2.0 (tbc) contribute to this outcome.

¹⁵ Editorials from Europeana Common Culture, Europeana Archaeology, Europeana XX, Europeana Media contribute to this outcome.

¹⁶ Editorial outcomes of GS projects are promoted.

EuroClio	PR package targeting the cultural heritage sector available	80%	■	■	■	■												
EUN	MOOC for educators (English) launched	40%	■	■	■	■												
EuroClio	Train-the-trainers session during the EuroClio annual conference (Europeana training for educators) organised	Not started																
EF	Annual Open Education Week: contribution added	Not started																
EF	All Digital Week campaign: contribution added	Not started																
NISV	Task Force recommendations on making A/V more available in education available	15%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EUN	Best case examples for reuse completed (learning scenarios and stories of implementation) 2020	Done																
EUN	Best case example booklet (learning scenarios and stories of implementation) for Secondary schools in six different languages published	Not started																
EuroClio	Advanced webinar series (Europeana training for educators) organised	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EuroClio	Five new partner pages on Historiana with one Exemplary Source Collection and five eLearning activities per partner available	20%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EUN	Communication plan for education	100%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF	#reinventingBeethoven challenge	100%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Objective 1.4.4. Attract API users and grow data usage																		
EF	API developer community mailing list re-established	90%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF	Feedback on API strategy from developer community	90%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF	Current libraries, documentation, and tools reviewed and updated	90%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

EF	New libraries, FAQs, and tutorials created	20%	
EF	Reuse package for CHIs created	Not started	

GIF IT UP organised - We completed the evaluation of the GIF IT UP challenge. Held each year in October, GIF IT UP challenges people to use openly licensed digitised cultural heritage material to produce unique GIFs and share them online. 2020's contest¹⁷ saw a record 165 entries from 31 countries around the world (including Mexico, Latvia, Brazil, Italy, India, USA and Japan) and 175 artworks were remixed from 62 cultural heritage institutions. In addition to regular partners DPLA, Trove and DigitalNZ, this year we welcomed two new partners, Japan Search and DAG Museums, India. Finally, we organised online workshops at the Creative Commons Summit and with DAG Museums to encourage and educate people to take part in the competition. The winning entries can be seen here.¹⁸

Communication Plan¹⁹ for Education - The document aims to provide an overall plan for the promotion of Europeana in education for the third project year. The document presents guidelines towards engaging with teachers in primary and secondary education and museum educators to raise their awareness about the educational value of digital cultural heritage and to increase the use of digital learning resources with Europeana content in formal and informal education.

#reinventingBeethoven challenge - From 26 October until 3 December 2020, we ran the educational challenge #reinventingBeethoven²⁰. This competition invited teachers to introduce Beethoven's life and work to students and to coordinate the creation of a group artwork. It aimed to encourage students' creativity with cultural heritage resources. 28 groups of students from 11 countries around the world took part. On 10 December, we invited our online followers and jury (composed of the Europeana Education community, European Schoolnet, and EuroClio) to vote on 13 of these artworks to select two winners²¹. The call for votes was published on the Europeana Education Facebook Group, where a total of 12,716 votes were collected. Most interesting results were published.²²

Communication and dissemination activities

Partner	Name of event	Activity	Location	Date
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¹⁷ <https://pro.europeana.eu/post/looking-back-on-gif-it-up-2020>

¹⁸ <https://gifitup.net/>

¹⁹ Available on request.

²⁰ <https://pro.europeana.eu/page/reinventing-beethoven>

²¹ <https://pro.europeana.eu/post/announcing-the-winners-of-reinventingbeethoven-an-educational-challenge>

²²

<https://pro.europeana.eu/post/reinventingbeethoven-encouraging-creativity-in-education-through-digital-cultural-heritage>

EuroClio	Sources of Post-War Europe. Sources as evidence (1st Webinar for Advanced Users of Historiana) ²³	EuroClio kicked off the four-part webinar series on mastering the art of developing eLearning Activities on Historiana. By using Europeana's source material on post-war Europe, the expert Helen Snelson creates a meaningful eActivity for students ²⁴	Online	09/12/2020
EF	Copyright and Open GLAM	Webinar for UK Copyright Literacy	Online	11/12/2020
EF	Conversare tra le carte in un mondo digitale. Legami possibili tra scuola, archivi, biblioteche, musei ²⁵	Three days seminar (Europeana intervention on the 17th century)	Online	15-17/12/2020
EF	ESACH Talks! Museum, Art and Cultural Heritage	Interactive event for sharing knowledge amongst students and young professionals working within cultural heritage studies.	Online	21/01/2021
EF	Public Domain Month GIF-making workshop	Webinar with Goethe Institut Jakarta	Online	30/01/2021

Reporting metrics: discoverability of digital cultural content

No.	Description	Measured by	Frequency	Target	Nov 2020	Dec 2020	Jan 2021
KPI 1.5	Satisfaction rate for exhibitions	Average satisfaction on a 5-point Likert scale ²⁶	Monthly	75%	89%	88%	88%
KPI 1.6	Reach on social media	Total number of impressions on social media (cumulative)	Monthly	250 million	122.4 million	175.9 million	229.6 million
KPI 1.7	Learning resources for education	Total number of resources using	Monthly	50	11	11	11

²³ <https://www.euroclio.eu/event/webinar-for-advanced-users-of-historiana-2/>

²⁴

<https://www.euroclio.eu/2021/01/14/sources-as-a-window-to-the-past-revisit-helen-snelsons-webinar-on-using-sources-as-evidence-in-the-digital-classroom/?fbclid=IwAR2DzxX6lcMDcilobGQUeZ8UpotIQNOVqnNWZFCtg6vftOM38939mcq-xvI>

²⁵ <https://www.indire.it/patrimoniostorico/conversare-tra-le-carte-in-un-mondo-digitale/>

²⁶ The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals to an average of 72%).

		Europeana data ²⁷ (cumulative)					
KPI 1.8	External learning environments for education	Total number of integrations of Europeana educational offers ²⁸ (cumulative)	Monthly	5	-	-	2
KPI 1.9	Satisfaction rate of educational communities	Average satisfaction on a 5-point Likert scale	Monthly	75%	77%	77%	77%
RM 1.13	Editorial outcomes: exhibitions	Number of exhibitions created (cumulative)	Bi-monthly	-	4	-	5
RM 1.14	Editorial outcomes: blogs	Number of blogs created (cumulative)	Bi-monthly	-	37	-	54
RM 1.15	Newsletter subscribers	Total number of subscribers	Bi-monthly	-	49,335	-	49,898
RM 1.16	Social media engagement	Total number of likes, shares, comments per month	Monthly	-	391,893	280,525	334,980
RM 1.17	Social media followers/fans	Total number on social media	Monthly	-	219,849	220,717	222,739
RM 1.18	Educators actively involved in creating learning resources (EUN)	Total number of educators (cumulative)	Once a year	-	-	-	Expected Aug 2021
RM 1.19	Countries coverage of contributing educators (EUN)	Total number of countries (cumulative)	Once a year	-	-	-	Expected Aug 2021

²⁷ Metric excludes multilingual resource variations.

²⁸ Integration into third party platforms highly depend on the other party. Therefore expected due dates can not be given accurately. We aim for 5 new integrations by August 2021 and will add progress once an integration is completed.

RM 1.20	Participants completing the MOOC	Total number of participants (cumulative)	Upon occasion	-	-	-	Expected May 2021
RM 1.21	Reach to Europeana Education community	Number of people reached per month (mailing list, LinkedIn, Facebook)	Bi-monthly	-	6,729	-	7,255
RM 1.22	API usage (REST API)	Number of API users that exceeded the average of 5 calls a day per month	Monthly	-	55	58	57
RM 1.23	API usage (REST API)	Number of API users that were active for more than 5 days in each month	Monthly	-	51	48	52
RM 1.24	API usage (REST API)	Total number of requests per month	Monthly	-	97.1 million	19.5 million	29.9 million
RM 1.25	API users (REST API)	Total number of API users per month	Monthly	-	177	181	212
RM 1.26	API sign-ups (REST API)	Number of API sign-ups per month	Monthly	-	67	72	106

In the reporting period we published 1 exhibition ('The Charter of Fundamental Rights of the European Union turns 20!²⁹⁾ and 17 blogs (i.e. Exploring European Capital Cities for 2021³⁰⁾. We had a very good average satisfaction rate for exhibitions reaching 88%.

In this period, we also saw two new integrations of Europeana educational offers in external platforms: Ministry of Education Poland³¹ added a link to the Europeana website as an open resource for educators and Eduscol³² translated and included 8 learning scenarios (developed by French teachers during years 2 of Europeana DSI-4 for the Teaching with Europeana blog).

RM 1.24 decreased between November and December 2020. Starting from December we excluded internal API requests (i.e. requests to the Europeana APIs via the Europeana website)

²⁹ <https://www.europeana.eu/en/exhibitions/the-charter-of-fundamental-rights-of-the-european-union-turns-20>

³⁰ <https://www.europeana.eu/en/blog/sport-youth-innovation-more-european-capital-cities-for-2021>

³¹ <https://epodreczniki.pl/a/materialy-partnerow/D1DDYDP5e>

³² <https://edubase.eduscol.education.fr/recherche?q=europeana>

from external API requests. This aims to make external engagement and usage of our API service more visible.

Risk assessment: discoverability of digital cultural content

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R1.8	Editorials which depend on third party contributions might not progress as planned	Medium (3)	Medium (3)	9	Frequent communication with third party contributors; provide support and advice as required.	-
R1.9	Reach of Europeana data on social media: changes to the algorithms and pricing on social media platforms	Medium (3)	Medium (3)	9	Adaptation and diversification of channels, tools and platforms used	-
R1.10	School lockdowns for COVID	High (4)	Medium (3)	12	Most of the activities with teachers are planned for the digital environment but some necessary implementations with students might be hampered.	-
R1.11	Complete new strategy involving CHIs professionals in the education initiative (e.g new partner pages on Historiana). There is a risk of not reaching all the expected outcomes in 12 months (strategy initially planned for two years)	Medium (3)	Low (2)	6	Continuation of the tasks during Europeana DSI-4 (Y4)	-
R1.12	Outdated contact info of API key holders can mean loss of contact with valuable members of the API community, decreasing Europeana's impact on this important user group.	Medium (3)	Medium (3)	9	Update API key signup form, follow up with current API key holders to update information.	-
R1.13	Outreach to new developers does not generate interest and might prevent growing Europeana API community	Medium (3)	Medium (3)	9	Review documentation, improve API user experience.	-

Work package 2: Improve data quality

WP2 will increase high-quality content and metadata (task 2.1) to improve access and reusability of digital content. This will include new technological approaches of enriching data, such as crowdsourcing and machine-learning (task 2.2). These efforts will contribute to a more satisfying user experience on the Europeana website.

Task 2.1. Quality assured data

Partners: EF, SPK, and DSI AGG (APEF, BL, CARARE, MCA, EFHA, DFF, NISV, AIT-Graz, Photocons, NTUA)

The data issues that have developed over the past decade can only be resolved through a multi-year effort. In the next year, we will continue to work with aggregators and data providers to raise the quality of content and metadata (objective 2.1.1). As part of this effort, we will further develop our data and publishing frameworks, standards and documentation for partners (objective 2.1.2) and influence global interoperability through our networks (objective 2.1.3).

Overview of outcomes: quality assured data

Partner	Outcomes	Progress	Dec M28	Jan M29	Feb M30	Mar M31	Apr M32	May M33	Jun M34	Jul M35	Aug M36
Objective 2.1.1. Raise the quality of content and metadata											
EF	Data partners supported with data quality improvements and data publication (DSI, Generic services ³³ , and others)	Ongoing									
DSI AGG	Data quality improvements and new content delivered	Ongoing									
EF	Aggregators under development reviewed for accreditation	Ongoing									
EF, DSI AGG	Working Groups (Data Quality Committee ³⁴ ; IIF & Europeana ³⁵)	Ongoing									
EF	Strategy for reviving records from inactive data partners delivered	100%									
EF, DSI AGG	MS4 Review of individual data quality plans with respective DSI partners	10%									

³³ Europeana Common Culture, Linking Biodiversity and Culture Information-LinBi, Europeana Archaeology, Judaica Europeana 2.0, Europeana XX, Pagode - Europeana China, Europeana Sport and The Art of Reading in the Middle Ages-ARMA (delivery date tbc).

³⁴ <https://pro.europeana.eu/project/data-quality-committee>

³⁵ <https://pro.europeana.eu/project/iif-europeana-working-group>

EF	Outreach campaign to inactive data partners initiated	10%	■	■	■	■													
EF	Regular link resolution process implemented	60%	■	■	■	■													
EF, DSI AGG	Individual data quality plans for the following DSI year created	Not started																	
EF, SPK	Plan for growing fulltext newspaper content is developed	5%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Objective 2.1.2. Maintain data and publishing frameworks, standards and documentation																			
EF	EDM updated and documented	Ongoing																	
EF	Update of the Statistics Dashboard V2 ³⁶	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF	Recommendations for how to improve the usefulness of guidance materials	100%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF, DSI AGG	Case studies that document impact of publishing digital collections online	20%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF	EPF amendment to integrate problem patterns from long-tail data issues	20%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF, DSI AGG	MS5 EPF 3.0 delivered with case studies and integrated problem patterns	20%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
EF	Design and technical plan for Statistics dashboard (including review of the mock-up)	100%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Objective 2.1.3. Influence global interoperability and technological innovation																			
EF	EuropeanaTech community ³⁷ , Data Quality Committee ³⁸ , IIF Discovery Technical Specification Group ³⁹ , IIF & Europeana Working Group ⁴⁰ supported	Ongoing																	
EF	Data mapping and conversions with stakeholders is supported	Ongoing																	

³⁶ Note: this outcome was expected to be completed by October 2020. Plans for the Statistics Dashboard need to be reviewed in the context of the published Aggregation Strategy and more specifically the Sandbox. The dashboard shouldn't be seen as an individual product but as a specific component of the Sandbox. We therefore need to spend more time in writing new technical and design requirements based on the experience of the first version of the dashboard.

³⁷ <https://pro.europeana.eu/page/europeanatech>

³⁸ <https://pro.europeana.eu/project/data-quality-committee>

³⁹ <https://iiif.io/community/groups/discovery/>

⁴⁰ <https://pro.europeana.eu/project/iiif-europeana-working-group>

EF	Interoperability of annotations and user sets ⁴¹ Task Force is supported	80%	
EF, NISV	AI in relation to GLAMs ⁴² Task Force is supported	80%	
EF	Election to IIF Executive Committee	100%	

*Strategy for reviving records from inactive data partners delivered*⁴³ - The purpose of this strategy is to outline an approach for reconnecting to data providers that are not active contributors to Europeana DSI. This has become important because it is not possible to meet quality targets if providers have lost contact or are no longer making updates. The main focus of the work to revive records from inactive data partners are organisations that provided data directly to the Europeana Initiative (i.e. their name is explicit in edm:provider of the metadata) but disconnected from the Europeana Initiative. The outreach activities to such former partners will be prioritised according to the quality of the data. For high quality data that is stable for the last few years it is less urgent to take action than for data of low quality that are even at risk to be depublished because of the quality challenges.

*Recommendations for how to improve the usefulness of guidance materials*⁴⁴ - During the past 2 years EF ran several satisfaction surveys to understand the aspects that aggregators like and benefit from and the ones that need improvement. It was flagged that the current documentation, published online on Europeana Pro, needs to be improved. Web-based documents, more efficient search, a clearer document hierarchy, and the adjustment of the language are the key recommendations to improve the usefulness of the guidance material. Working on this in close collaboration with the data partners will make sure that the documents are indeed useful and will help to share knowledge efficiently.

Design and technical plan for Statistics dashboard (including review of the mock-up) - A prototype for the Statistics Dashboard⁴⁵ was built in order to collect feedback on 1) the type of statistics data required for reporting 2) the user flow with the dashboard. The prototype was tested internally and the feedback contributed to the refinement of the initial requirements and highlighted several user needs that will need to be addressed in the final design of the dashboard. The design and technical plan lists the requirements and the results of the testing phase.⁴⁶

Election to IIF Executive Committee - EF's renewable term in the executive committee of the IIF Consortium came to an end. EF was re-elected in early December 2020. This is a recognition of the work carried out in the committee, but also in the various IIF groups we have contributed to.

⁴¹ <https://pro.europeana.eu/project/interoperability-of-annotations-and-user-sets>

⁴² <https://pro.europeana.eu/project/ai-in-relation-to-glams>

⁴³ Available on request.

⁴⁴ Available on request.

⁴⁵ <https://statistics-dashboard-test.eanadev.org/>

⁴⁶ Available on request.

It follows our efforts to influence global interoperability and innovation: EF will contribute to the directions for the IIF Consortium and this will contribute to our IIF-related outreach.

Reporting metrics: quality assured data

No.	Description	Measured by	Frequency	Target	Nov 2020	Dec 2020	Jan 2021
KPI 2.1	High quality content	Percentage of Tier 2 + material (excluding content Tier 0)	Monthly	>65%	66.81%	67.72%	67.70%
KPI 2.2	High quality and reusable content	Percentage of Tier 3+ material (excluding content Tier 0)	Monthly	>40%	44.67%	44.27%	45.24%
KPI 2.3	High quality metadata (search, browse and explore)	Percentage of Tier A+ material (excluding content Tier 0)	Monthly	>60%	57.94%	59.00%	61.00%
KPI 2.4	Europeana Research and Development contributions	Total number of reference papers or presentations (cumulative)	Monthly	10	2	4	6
RM 2.1	Broken links in the repository	Number of broken links (out of total)	Quarterly	-	1.1 million	-	Expected Mar 2021
RM 2.2	Non-EPF compliant content (Tier 0)	Percentage of Tier 0 content	Monthly	-	17.10%	16.75%	16.86%
RM 2.3	Updates to datasets	Total number of newly created and updated datasets per month (out of total)	Monthly	-	83	34	59
RM 2.4	Updates to records	Total number of newly created and updated records per month (out of total)	Monthly	-	2.9 million	1.2 million	2.2 million
RM 2.5	New CHIs published on Europeana website	Total number of new CHIs (cumulative)	Once a year	-	-	-	Expected Aug 2021
RM 2.6	Records in the data repository	Total number of records (excluding content tier 0)	Monthly	-	51.0 million	52.3 million	52.0 million

RM 2.7	Records in the data repository by accredited aggregators	Total number of records (excluding content tier 0)	Quarterly	-	33.0 million		
RM 2.8	Reach to Europeana Tech community	Number of people reached per month (Mailing list, Twitter)	Bi-monthly	-	5,951	-	6,979

In the reporting period, we updated 93 datasets and about 3.4 million records (including newly created and updated datasets and records). We saw an increase of high quality content (tier 2+) by 0.89% and an increase of high quality and reusable content (tier 3+) by 0.57%. Updates also lead to the achievement of our metadata quality target with 61% of metadata being in A + quality (3.06% increase in the period).

In the reporting period we saw four new research and development reference publications (KPI 2.4):

Partner	Name of activity	Activity	Location	Date
EF, NISV	EuropeanaTech Insight	Publication of Issue 16 on newspapers ⁴⁷	Online	01/12/2020
EF, INES-ID	14th International Conference on Metadata and Semantics Research (MTSR) ⁴⁸	Presentation of research paper 'Metadata aggregation via linked data: results of the Europeana Common Culture project'	Madrid, Spain (online)	02/12/2020
EF	Semantic Web journal	Research Paper "Introducing the Data Quality Vocabulary (DQV)" ⁴⁹	Online	01/01/2021
EF, NISV	EuropeanaTech Insight	Publication of Issue 17 on multilinguality ⁵⁰	Online	14/01/2021

Data quality improvements per aggregator based on the EPF^{51 52}

⁴⁷ <https://pro.europeana.eu/page/issue-16-newspapers>

⁴⁸ <http://www.mtsr-conf.org/home>

⁴⁹ <https://content.iospress.com/articles/semantic-web/sw200382>

⁵⁰ <https://pro.europeana.eu/page/issue-17-multilinguality>

⁵¹ The table states ingestion activities to Europeana per aggregator in the current reporting period. Data quality improvements are prepared by aggregators and CHIs based on data quality improvement plans while ingestion is the last step of the workflow. This is an ongoing process and progress per aggregator will become visible with the publication on the Europeana website. Progress per aggregator also reflects data ingestion activities done as part of other projects (e.g. Generic Services projects). Those activities affect the tier statistics of the aggregator as a whole and are therefore included in the table. If aggregator contributions were done fully or partly as part of another project this is indicated with a footnote.

⁵² All numbers stated here are excluding content Tier 0. Currently, all our reporting is based on EPF compliant content (excluding Tier 0). Tier 0 content per partner is available on request.

Metric	End Aug 2020 (M24)	End Nov 2020 (M27)	End Jan 2021 (M29)
APEF			
Percentage of Tier 2+ material	12.81%	12.81%	12.81%
Percentage of Tier 3+ material	8.65%	8.65%	8.65%
Percentage of Tier A+ material	1.45%	1.45%	1.45%
Number of records updated (M26/M27)		-	-
Number of datasets updated (M26/M27)		-	-
Number of contributing data providers (M26/M27)		-	-
Number of new datasets (M26/M27)		-	-
Type of new datasets	-		-
BL (Europeana Sounds)			
Percentage of Tier 2+ material	40.46%	40.46%	40.46%
Percentage of Tier 3+ material	9.27%	9.27%	9.27%
Percentage of Tier A+ material	70.62%	70.62%	70.62%
Number of records updated (M26/M27)		-	-
Number of datasets updated (M26/M27)		-	-
Number of contributing data providers (M26/M27)		-	-
Number of new datasets (M26/M27)		-	-
Type of new datasets	-		-
CARARE / AthenaRC⁵³			
Percentage of Tier 2+ material	75.59%	73.47%	73.43%
Percentage of Tier 3+ material	60.51%	58.83%	59.29%
Percentage of Tier A+ material	99.45%	99.47%	99.48%
Number of records updated (M26/M27)		107,502	229,338
Number of datasets updated (M26/M27)		9	7
Number of contributing data providers (M26/M27)		12	6

⁵³ Content improvements as stated here were done partly under the GS project Europeana Archaeology.

Number of new datasets (M26/M27)		4	1
Type of new datasets		New material for Europeana Archaeology project from DANS-KNAW provider.	
MCA⁵⁴			
Percentage of Tier 2+ material	44.83%	45.10%	45.44%
Percentage of Tier 3+ material	7.16%	7.59%	7.64%
Percentage of Tier A+ material	75.02%	75.13%	75.97%
Number of records updated (M26/M27)		24,400	22,671
Number of datasets updated (M26/M27)		4	1
Number of contributing data providers (M26/M27)		4	1
Number of new datasets (M26/M27)		2	-
Type of new datasets		-	
eFashion			
Percentage of Tier 2+ material	89.51%	89.51%	89.51%
Percentage of Tier 3+ material	2.70%	2.70%	2.70%
Percentage of Tier A+ material	100%	100%	100%
Number of records updated (M26/M27)		492,370	-
Number of datasets updated (M26/M27)		2	-
Number of contributing data providers (M26/M27)		2	-
Number of new datasets (M26/M27)		-	-
Type of new datasets		-	
DFF (EFG - The European Film Gateway)			
Percentage of Tier 2+ material	22.60%	22.61%	22.62%
Percentage of Tier 3+ material	0.20%	0.19%	0.19%
Percentage of Tier A+ material	43.73%	99.91%	99.91%
Number of records updated (M26/M27)		546,031	-
Number of datasets updated (M26/M27)		15	-

⁵⁴ Content improvements as stated here were done partly under the GS project Europeana Archaeology.

Number of contributing data providers (M26/M27)	15	-	
Number of new datasets (M26/M27)	-	-	
Type of new datasets	-	-	
NISV (EUscreen)			
Percentage of Tier 2+ material	22.44%	20.92%	20.92%
Percentage of Tier 3+ material	0.25%	0.23%	0.23%
Percentage of Tier A+ material	26.09%	24.32%	24.32%
Number of records updated (M26/M27)	59	-	
Number of datasets updated (M26/M27)	1	-	
Number of contributing data providers (M26/M27)	1	-	
Number of new datasets (M26/M27)	1	-	
Type of new datasets	-	-	
AIT-Graz (OpenUp!)			
Percentage of Tier 2+ material	98.26%	98.27%	98.28%
Percentage of Tier 3+ material	87.61%	87.32%	87.40%
Percentage of Tier A+ material	42.90%	43.53%	43.79%
Number of records updated (M26/M27)	121,511	51,124	
Number of datasets updated (M26/M27)	4	2	
Number of contributing data providers (M26/M27)	5	2	
Number of new datasets (M26/M27)	1	1	
Type of new datasets	-		Austrian botanicals from Steiermärkisches Landesmuseum Joanneum - Herbarium GJO
PhotoCons			
Percentage of Tier 2+ material	66.76%	66.76%	67.86%
Percentage of Tier 3+ material	23.74%	23.74%	26.19%
Percentage of Tier A+ material	99.64%	99.64%	99.65%
Number of records updated (M26/M27)	-	15,986	

Number of datasets updated (M26/M27)	-	1
Number of contributing data providers (M26/M27)	-	1
Number of new datasets (M26/M27)	-	-
Type of new datasets	-	-

Risk assessment: quality assured data

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R2.1	Data partners don't control content quality and have difficulties to incentivise the improvement of content quality, which is a risk for Tier 2 and Tier 3 and above to be achieved.	High (4)	Medium (3)	12	The new Europeana website is much better featuring high quality content related to specific themes, subjects, and people. This can help to have a motivation for CHIs to invest in content quality. In parallel, training on the real message 'the more you give the more you get' of the EPF can help to focus more on publishing with a purpose.	-

Task 2.2. Enriched data

Partners: EF, AIT Vienna, F&F, DSI AGG (APEF, AIT Graz, BL, CARARE, EFHA, NISV, Photocons)

The focus on enriched data is vitally important to the future of the Europeana Initiative. As the scale of data publishing grows, new technological approaches are needed to improve the accessibility and use of cultural heritage data. The extension of entities to support better browsing (objective 2.2.1) will help categorise items more usefully for website visitors, while the use of crowdsourcing and machine-learning tools by partners (objective 2.2.2) will see data quality enriched before it is ingested by Europeana. Importantly, this year EF will also begin researching and experimenting with machine-learning platforms (Objective 2.2.3) in an effort to determine where to invest.

Overview of outcomes: enriched data

Partner	Outcomes	Progress	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
			M28	M29	M30	M31	M32	M33	M34	M35	M36
Objective 2.2.1. Extend entities to support better browsing											
EF, AIT Vienna	Entity framework for data ingestion and updating is redeveloped	30%									

EF, AIT Vienna	Entities can be manually added and removed	30%	■	■	■	■													
EF, AIT Vienna	Entities to support browsing by organisation are available	Not started																	
EF, AIT Vienna	Entities are extended to support high quality people relationships	Not started																	
Objective 2.2.2. Use crowdsourcing and machine learning to enrich metadata																			
EFHA	Validation of automatic enrichments for the Fashion Heritage collection is completed through crowdsourcing campaigns	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
AIT Graz	Curated metadata enrichment and curated content clustering through expert crowdsourcing	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
NISV	Crowdsourcing toolkit on subtitling videos, translating and correcting is published on Europeana Classroom	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
APEF	Contextual classes are tagged through the use of metadata evaluation and crowdsourcing	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
APEF	Automatic topic detection proof-of-concept developed	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
BL	Conversion of placenames and wikidata links using OpenRefine	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CARARE	Enrichment services on MORE are extended	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Photoco ns	3 crowdsourcing campaigns to enrich data completed	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
F&F	Enrichments from Transcribathon.eu transferred to Europeana	30%	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Objective 2.2.3. Establish machine-learning platforms																			
EF	Machine learning discussion paper delivered to AI in relation to GLAMs Task Force	Done																	
EF	Jupyter notebook proof-of-concept is shared with Network	60%	■	■	■	■	■												

EF	Training data is shared on pilot platforms (max six platforms)	50%							
EF	Learnings from SGoaB project ⁵⁵ incorporated into 2021/22 plans	Not started							

Risk assessment: enriched data

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R2.2	Some entity relations are currently of low quality.	High (4)	Low (2)	8	Work to improve the quality of the entity relationships is underway in the API team. This includes offering explicit relations coming directly from the entities.	-
R2.3	The existence of plans with regards to employing AI in Europeana raise wrong expectations on the capacity of the technology to fix all of Europeana's data problems	Medium (3)	Low (2)	6	Clearly position Europeana's current effort as being experimental. Regularly report on evaluation and observed limitations of the available technology (especially with respect to scarcity of data to correctly train AI systems)	-

Work package 3: Build capacity

WP3 will support professionals and partners in three principle areas to build capacity for digital transformation. We will engage professionals and partner organisations (both large and small) in capacity-building activities by running events, training and workshops (task 3.1.). Secondly, we will nurture our networks, in particular by supporting operations of the Europeana Network Association (ENA) and Europeana Aggregators' Forum (EAF). This will include communication and promotion of activities and resources to our networks (task 3.2.). Finally, we will strengthen national infrastructures by supporting the adoption of Europeana standards and frameworks and by reinforcing the value delivered by the Europeana Initiative towards digital transformation of the cultural heritage sector (task 3.3.).

Task 3.1. Build capacity of aggregators and professionals

Partners: EF, F&F, DEN, and DSI AGG (APEF, BL, CARARE, MCA, EFHA, DFF, NISV, AIT-Graz, Photocons, NTUA)

Under this task we will build capacity to support the digital transformation of the cultural sector.

⁵⁵ <https://pro.europeana.eu/project/saint-george-on-a-bike>

This will be done by developing and delivering events, workshops and training formats addressing the needs of professionals (objective 3.1.1) as well as aggregators and CHIs (objective 3.1.2). We will establish professional education for management in the cultural sector by sharing good practices, knowledge and training across our networks (objective 3.1.3). We will also develop a capacity-building framework to facilitate the structural adoption of our capacity-building initiative (objective 3.1.4).

Overview of outcomes: build capacity of aggregators and professionals

Partner	Outcomes	Progress	Dec M28	Jan M29	Feb M30	Mar M31	Apr M32	May M33	Jun M34	Jul M35	Aug M36
Objective 3.1.1. Deliver rewarding events for professionals											
EF	Programme of events for professionals, published on Europeana Pro	Done									
EF	Method of events evaluation implemented	100%	█	█							
EF	Annual Conference: Europeana 2020	Done									
EF	Value and impact of events evaluated	50%	█	█	█	█					
EF	Events Management toolkit	60%	█	█	█	█	█				
EF	Analysis of impact of Annual conference: Europeana 2020	50%	█	█	█	█					
Objective 3.1.2. Deliver scalable training for aggregators and CHIs											
EF	Enriched training resources for aggregators on Pro	Ongoing									
EF, F&F	Transcribathon strategy and plan	90%	█	█	█	█					
EF, DSI AGG	EAF Training Programme 2020-2021	20%	█	█	█	█	█	█	█	█	█
EF, DSI AGG	Train the Trainer events (two events)	20%	█	█	█	█	█	█	█	█	█
EF, F&F, DSI AGG	Training workshops, webinars and one-to-one support for CHIs to share knowledge and develop skills (six events)	30%	█	█	█	█	█	█	█	█	█
Objective 3.1.3. Develop Europeana Managers Academy											
DEN	Deliver Pilot Managers Academy	20%	█	█	█	█	█	█	█	█	█
DEN	MS6 Preliminary results and feasibility study	Not started									
Objective 3.1.4 Develop a capacity-building framework											

EF	Strategy for building and implementing a capacity building framework published	60%	■	■	■	■	■				
EF	Preliminary reporting indicators for capacity building developed	10%	■	■	■	■	■				
EF/DEN	Report on inventorisation of existing training courses created	50%	■	■	■	■					
EF	Approach for measuring impact of capacity building developed	5%	■	■	■	■	■				
EF	MS7 Capacity-Building Framework V1 developed	10%	■	■	■	■	■	■	■	■	■
EF	Publishing a collaboratively-developed definition of digital transformation	90%	■	■	■						

Method of events evaluation implemented - in the Spring of 2020, with the increased programming of digital events brought about by Covid, we implemented a framework for evaluation and impact assessment. A template was created for both event registration and post-event evaluation. At the event registration stage, we ask participants a series of questions related to their background in order to monitor attendance and representation, and to improve the accessibility of our events. We also capture a confidence rating in their knowledge of the topic being discussed at the event. At the post-event stage, we ask questions related to satisfaction with the event and needs/demands for future events or training. This feeds into programming efforts and will also help to shape the capacity building framework. We also capture the post-event confidence rating in terms of their knowledge of the topic being discussed. This provides us with data with which to conduct an impact assessment at a later date. At the same time, more extensive evaluation frameworks are in place for events such as the Europeana annual conference and presidency events.

Reporting metrics: build capacity of aggregators and professionals

No.	Description	Measured by	Frequency	Target	Nov 2020	Dec 2020	Jan 2021
KPI 3.1	Aggregator satisfaction with Europeana (accredited aggregators)	Average satisfaction on a 5-point Likert scale ⁵⁶	Once a year	75%	-	-	Expected Jul 2021
KPI 3.2	CHI satisfaction with aggregator	Average satisfaction on a 5-point Likert scale	Once a year	75%	-	-	Expected Jul 2021

⁵⁶ The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals to an average of 72%).

	(partner in Europeana DSI-4)						
RM 3.1	Events organised for professionals ⁵⁷	Number of events (cumulative)	Bi-monthly	-	12 ⁵⁸	-	16
RM 3.2	Participants attending events for professionals	Number of participants (cumulative)	Bi-monthly	-	1,466	-	1,679
RM 3.3	Satisfaction rate for annual conference (Europeana 2020)	Average satisfaction on a 5-point Likert scale	Once a year	-	82%	-	-
RM 3.4	CHIs supported by DSI aggregators	Total number of individual CHIs (cumulative)	Bi-monthly	-	89	-	120
RM 3.5	Coverage of CHIs supported by DSI aggregators	Total number of countries that received support (cumulative)	Bi-monthly	-	25	-	29
RM 3.6	Outreach to CHIs	Total number of new CHIs collaborating with DSI aggregators (cumulative)	Bi-monthly	-	33	-	31 ⁵⁹
RM 3.7	Events delivered through the EAF training programme	Number of events delivered by DSI aggregators and EF (cumulative)	Bi-monthly	-	15	-	15

⁵⁷ This metric counts events organised by EF. Events can be seen at <https://pro.europeana.eu/page/webinars>.

⁵⁸ This number was adjusted compared to the previous period (from 46 to 12). We decided to count the Europeana 2020 event as one item and not the individual sessions/events (34 of those sustainable online events/webinars were organised as part of Europeana 2020).

⁵⁹ This number is lower as there was a mistake in the previous reporting period in how this metric was counted.

In the reporting period, EF held 4 events for professionals. The events organised in the period saw 213 participants in total.

Overview of communication and dissemination efforts: build capacity of aggregators and professionals

Partner	Name of event	Activity	Location	Date
Events organised for professionals				
EF	The copyright directive: new approaches to the public domain and to out of commerce works ⁶⁰	This webinar highlighted key opportunities the directive presents for the cultural heritage sector and explores the approach that some member states are taking during the implementation.	Online	13/12/2020
EF	Crowdsourcing of Digital Cultural Heritage ⁶¹	The webinar introduced the results of a current study of DCH crowdsourcing carried out by museums and other cultural institutions and a discussion of actions potentially needed to improve access and coordinate approaches in ways beneficial to users.	Online	15/12/2020
EF	Narrating and sharing your impact story: Impact Playbook - Phase 3 ⁶²	In this webinar, we explored the components that will be part of the Phase 3 of the Europeana Impact Playbook.	Online	27/01/2021
EF	Diversity & Inclusion ⁶³	This Europeana Cafe focused on the theme of 'Diversity and Inclusion'.	Online	28/01/2021

Risk assessment: build capacity of aggregators and professionals

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R3.1	Professionals/ Aggregator training and development activities do not meet the needs of the partners, and we do not grow the audience for these	Low (2)	High (4)	8	We work with the ENA and EAF to develop a training and development approach that can be implemented and measured under the capacity building framework. We will regularly review feedback from participants, and implement a holistic approach to promoting	-

⁶⁰

<https://pro.europeana.eu/event/the-copyright-directive-new-approaches-to-the-public-domain-and-to-out-of-commerce-works>

⁶¹ <https://pro.europeana.eu/event/crowdsourcing-of-digital-cultural-heritage>

⁶² <https://pro.europeana.eu/event/narrating-and-sharing-your-impact-story-impact-playbook-phase-3>

⁶³ <https://pro.europeana.eu/event/europeana-lunch-cafe-4>

					these activities to reach a wide audience.	
R3.2	Capacity Building Framework does not meet partner expectations or needs	Low (2)	High (4)	8	Ensure framework is developed and implemented collaboratively with stakeholders, and an effective feedback cycle is established.	-

Task 3.2. Nurture networks

Partners: EF, CLARIN, DSI AGG

Under this task we will maintain and develop effective governance as well as the operational activities of the Europeana Network Association (ENA)⁶⁴ and Europeana Aggregators' Forum (EAF)⁶⁵ (objective 3.2.1. and objective 3.2.2.). We will facilitate digital change by developing connections with professionals, partners and other networks such as research communities (objective 3.2.3). Our work will be enabled through communicating and promoting the value of the Europeana Initiative (objective 3.2.4.), and by developing the Europeana Pro website (objective 3.2.5.).

Overview of outcomes: nurture networks

Partner	Outcomes	Progress	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
			M28	M29	M30	M31	M32	M33	M34	M35	M36
Objective 3.2.1. Maintain and develop the effective governance of ENA/EAF											
EF	Periodic meetings organised (incl. Management Board and Members Council)	Ongoing									
EF	Governance working group ⁶⁶ (eight members)	Ongoing									
EF	Periodic meetings of the Steering Group and Forum members organised	Ongoing									
EF	Membership campaign 2020 concluded	Done									
EF	Governance renewed (Members Council election, Management Board appointment)	100%									
Objective 3.2.2. Maintain and develop the operational activities of ENA/EAF											
EF	General management support for Task Forces, Working Groups and communities	Ongoing									

⁶⁴ <https://pro.europeana.eu/network-association/sign-up>

⁶⁵ <https://pro.europeana.eu/page/aggregators>

⁶⁶ <https://pro.europeana.eu/project/governance-working-group>

EF	General management for Task Forces, Working Groups and members	Ongoing																	
NISV	Annual reports 2020 (ENA and EAF) published	90%																	
NISV	Annual work plans 2021 (ENA and EAF) developed	90%																	
EF	Thematic agenda for Europeana Initiative published	20%																	
EF	Strategy and plan to support diversity and growth of ENA and EAF created	5%																	
EF	ENA community work plans published	100%																	
Objective 3.2.3. Engage with research communities																			
EF, Athena RC	Digital Panel on 1940s webinar organised	Done																	
EF	Research Grants (2020) launched	70%																	
EF	Research Community: Research Community blog series on Europeana Pro launched	80%																	
EF	Research Community: Research Requirements TF's recommendations on researchers' needs ⁶⁷ available	85%																	
EF	Europeana Research: new strategic plan developed	Not started																	
EF	Research Grants (2019) ⁶⁸ : Events and outputs completed	50%																	
EF, CLARIN	Ingestions into VLO completed	30%																	
EF, CLARIN	Report on quality evaluation of Europeana collections for harvesting (Europeana Language resources)	50%																	
EF	OCLC integration	70%																	
Objective 3.2.4. Communicating and promoting to professionals and partners																			

⁶⁷ <https://pro.europeana.eu/project/research-requirements>

⁶⁸ Research Grants 2019 events and outputs were postponed due to COVID-19 pandemic and will still be delivered throughout 2020/2021.

EF, GS ⁶⁹	Editorial reviewed and all static content updated (Europeana Pro)	Ongoing																		
EF	Pro themes published	Ongoing																		
EF, GS ⁷⁰	(Periodic) activities promoted (newsletters: ENA, Communities & EAF; social media: Twitter, LinkedIn)	Ongoing																		
EF	Public consultation on opportunities offered by digital technologies for the culture heritage sector promoted	Done																		
EF	Europeana as a 'powerful platform for storytelling' Task Force recommendations ⁷¹ available	70%																		
Objective 3.2.5. Maintain and develop the Europeana Pro website																				
EF	Europeana Pro developed and maintained (bugs, user journeys, software updates)	Ongoing																		
EF	More flexible solution for event display on Pro implemented	Done																		
EF	FAQ Europeana Pro available	Done																		
EF	oEmbed for images available	100%																		
EF	Code quality and accessibility improvements implemented	100%																		

Governance renewed (Members Council election, Management Board appointment) - EF renewed both the ENA Members Council (November 2020) and Management Board (January 2021). 35 candidates came forward in the 2020 Members Council elections and 9 Councillors⁷² were elected. The ENA Management Board⁷³ elections: Stephan Bartholmei, Sara Di Giorgio, and Marco de Niet stepped down from the Management Board in January 2021 as their electoral term ended. Milena Dobрева⁷⁴ was elected as a new Board member.

ENA community work plans published - The 2021 ENA Community work plans were finalised and published by the end of January 2021. They describe the community budget and activities that

⁶⁹ Including all GS projects.

⁷⁰ Including GS editorials published on Europeana Pro.

⁷¹ <https://pro.europeana.eu/project/europeana-as-a-powerful-platform-for-storytelling>

⁷² <https://pro.europeana.eu/post/europeana-network-association-welcomes-its-nine-new-members-councillors>

⁷³ <https://pro.europeana.eu/network-association/management-board>

⁷⁴ <https://pro.europeana.eu/person/milena-dobрева>

every community aims to deliver by the end of 2021: EuropeanaTech⁷⁵, Europeana Research⁷⁶, Europeana Education⁷⁷, Europeana Copyright⁷⁸, Europeana Impact⁷⁹, Europeana Communicators⁸⁰.

oEmbed for images available - The oEmbed service facilitates sharing of cultural heritage items that are available on the Europeana website and ensures that they are properly attributed. For Europeana Pro we implemented a piece of functionality that allows the website to consume and render embedded media. This will save time for editors by simplifying their workflow and ensures that all media shared on the website is properly attributed and remains so even if an element of the attribution changes overtime.

Code quality and accessibility improvements implemented - In January 2021 we ran code quality reports using SymphonyInsights⁸¹ which analysed 57,923 lines of code on Europeana Pro and highlighted 32 major issues and 133 recommendations. Our developers then addressed these issues and re-ran the reports, which highlighted three major issues and 21 recommendations. We have reviewed these outstanding issues with our developers and are confident that they are not critical to the performance of the website (two being external code and the third related to our CRM provider, Zoho while fixing could negatively affect the way the website and Zoho work together).

Reporting metrics: nurture networks

No.	Description	Measured by	Frequency	Target	Nov 2020	Dec 2020	Jan 2021
KPI 3.3	Growth of Europeana Network Association members	Number of members in the ENA	Bi-monthly	2,250	3,344	-	2,545
KPI 3.4	Satisfaction of the Europeana Network Association members with the ENA	Average satisfaction on a 5-point Likert scale ⁸²	Once a year	75%	-	-	Expected Jun 2021

⁷⁵ <https://pro.europeana.eu/post/europeanatech-community-work-plan-2021>

⁷⁶ <https://pro.europeana.eu/post/research-community-work-plan-2021>

⁷⁷ <https://pro.europeana.eu/post/education-community-work-plan-2021>

⁷⁸ <https://pro.europeana.eu/post/copyright-community-work-plan-2021>

⁷⁹ <https://pro.europeana.eu/post/impact-community-work-plan>

⁸⁰ <https://pro.europeana.eu/post/communicators-community-work-plan-2021>

⁸¹ <https://insight.symfony.com/>

⁸² The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals to an average of 72%).

KPI 3.5	Communities in the Europeana Network Association	Number of active communities	Once a year	4	-	-	Expected Aug 2021
KPI 3.6	Task forces in the Europeana Network Association	Number of active task forces per month	Monthly	5	8	8	8
RM 3.8	Retention rate of Europeana Network Association Members	% of members who renewed their membership in 2020	Upon occasion	-	-	-	74%
RM 3.9	Working groups in the Europeana Network Association	Number of active working groups per month	Bi-monthly	-	2	-	2
RM 3.10	Active members in the Europeana Network Association	Number of members participating in task forces and working groups per month	Bi-monthly	-	130	-	140
RM 3.11	Research Grants events	Total number of events organised (cumulative) ⁸³	Bi-monthly	-	1	-	1
RM 3.12	People reached with research Grants events	Total number of people participating in events (cumulative)	Bi-monthly	-	120	-	120
RM 3.13	Research Grants outcomes	Total number of outcomes delivered (cumulative)	Bi-monthly	-	-	-	Expected Aug 2021
RM 3.14	Reach to Europeana Research community	Number of people reached per month (Mailing list, Twitter)	Bi-monthly	-	5,339	-	5,504

⁸³ Note: due to the COVID pandemic some events of the Research Grants programme 2019 are still due to be completed in 2020/2021.

RM 3.15	Traffic to Europeana Pro	Number of visits per month	Monthly	-	40,631	23,067	26,574
RM 3.16	Returning visitors to Europeana Pro	Percentage of visitors returning	Monthly	-	45.70%	34.90%	33.30%
RM 3.17	New visitors to Europeana Pro	Total number of new visitors per month	Monthly	-	22,052	15,010	17,726
RM 3.18	Satisfaction rate for Europeana Pro	Average satisfaction on a 5-point Likert scale	Once a year	-	-	-	Expected Jul 2021
RM 3.19	Reach to Europeana Communicators community	Number of people reached per month (Newsletter, LinkedIn, mailing list)	Bi-monthly	-	1,642	-	2,000

Out of approximately 3,400, almost 1,000 members did not confirm their membership in the 2020 membership campaign and were therefore removed from the members' list. There are currently around 2,500 ENA members, which leaves us with a retention rate around 74% (a more successful result than we expected).

Risk assessment: nurture networks

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R3.3	Losing a high number of ENA members: membership campaign planned for 2020 will ask members to re-confirm their membership	High (4)	Low (2)	8	Encourage re-confirmation by sending reminders, communicating the value of being an ENA member	-
R3.4	Task forces do not finish recommendations on time	Medium (3)	Low (2)	6	Manage expectations and be aware of potential impact for Europeana DSI; accommodate extension of task force work	-

R3.5	Community members show little activity and engagement	Medium (3)	Low (2)	6	Provide calls to action, meeting and webinars, useful tools and material, active information flow	-
R3.6	CHIs are not aware of research development contributions	Medium (3)	Low (2)	6	All research developments should benefit CHIs, benefits should be communicated to CHIs, initiatives (conferences/workshops) to improve digital skills and literacy of CHI professionals	-
R3.7	Digital collections do not comply with the FAIR principles ⁸⁴ and are not considered to meet the quality criteria to be used in academic research	High (4)	Low (2)	8	Create awareness of the importance of the FAIR principles in the GLAM sector.	-
R3.8	Research grants: events and outputs postponed	High (4)	Low (2)	8	The COVID-19 pandemic has obliged us to postpone all the in person events planned for March - June 2020 to autumn 2020 or summer 2021. This will cause a delay in delivering the related outputs, originally due by December 2020 at the latest.	-

Task 3.3. Strengthen national infrastructures

Partners: EF

Under this task we will maintain and develop activities that demonstrate the value of the Europeana Initiative to national infrastructures. We will facilitate the adoption of our Licensing Framework and reinforce the value in a common legal framework (objective 3.3.1.). We will develop and maintain the Europeana Impact Framework and an evidence base to establish a measure of change and progress across the sector (objective 3.3.2.). We will also engage with EU Member States to raise awareness of the Europeana Initiative and engage in relevant policy areas (objective 3.3.3).

⁸⁴ <http://www.go-fair.org/fair-principles/>

Overview of outcomes: strengthen national infrastructures

Partner	Outcomes	Progress	Dec M28	Jan M29	Feb M30	Mar M31	Apr M32	May M33	Jun M34	Jul M35	Aug M36
Objective 3.3.1. Develop and maintain interoperable licensing framework											
EF	Copyright Community Task Force: rights labelling Task Force completed	80%	█	█	█	█					
EF	RightsStatements.org strategy and plan 2021 developed	5%	█	█	█	█	█				
EF	RightsStatements.org Task Force: Supporting the implementation of statements completed	40%	█	█	█	█	█	█	█	█	█
EF	Guidelines on good practice for institutions to manage copyright developed and promoted	60%	█	█	█	█	█				
EF	RightsStatements.org: Implementing recommendations of membership model	60%	█	█	█	█	█	█	█	█	█
EF	Copyright webinar serie for aggregators completed and evaluated	100%	█	█							
EF	Key documents translated (Public domain charter ⁸⁵ , Public domain guidelines ⁸⁶)	100%	█	█							
Objective 3.3.2. Developing the evidence of digital transformation											
EF	Longitudinal research into impact of EF services supported	Ongoing									
EF	Impact lite Task Force completed	20%	█	█	█	█	█	█	█	█	█
EF	Impact question bank published on Europeana Pro	90%	█	█	█						
EF	Phase 3 Europeana Impact Playbook published	20%	█	█	█	█	█	█	█	█	█
EF	MS8 Report on impact research and development published	Not started									
EF	Phase 3 Europeana Impact Playbook draft for review	30%	█	█	█	█	█	█			

⁸⁵ <https://pro.europeana.eu/post/the-europeana-public-domain-charter>

⁸⁶ <https://www.europeana.eu/en/rights/public-domain-usage-guidelines>

EF	New Professionals Task Force completed	90%	
Objective 3.3.3 Engage with Member States			
EF	German presidency Europeana conference	Done	
EF	German Presidency Europeana conference report published	90%	
EF	Portuguese presidency event/report	5%	

Copyright webinar serie for aggregators completed and evaluated - From September to December 2020, four webinars⁸⁷ directed at aggregators and other heritage professionals interested in copyright took place:

- ‘Rights in digital objects & structured rights information at Europeana’ (325 registrations),
- ‘Clearing rights in collection items’ (366 registrations),
- ‘Opening up: approaches from cultural heritage institutions across Europe’ (104 registrations), and
- ‘The copyright directive: new approaches to the public domain and to out of commerce works’ (129 registrations).

Participation was often half or a third of the number of registrations. 40 participants answered an evaluation survey, in which 71% indicated they felt more confident in accurately assigning a rights statement or license to digital content after watching the webinars; 57.70% strongly agreed (and 27% agreed) that they had gained skills or knowledge that they could now apply to their work or professional setting thanks to the webinars; and 92% indicated they wanted Europeana to provide more copyright training.

Key documents translated (Public domain charter⁸⁸, Public domain guidelines⁸⁹) - Towards the end of 2020, OpenGLAM and the Europeana Copyright and Communicators communities organised two translation sprints⁹⁰ to make key guidelines and articles about the public domain available to more people in their native languages. As a result, the Europeana Public Domain Charter⁹¹ is now available in 14 languages and the Public Domain Usage Guidelines⁹² are available in 19 languages.

⁸⁷ <https://pro.europeana.eu/post/copyright-when-sharing-data-with-europeana-introducing-a-new-webinar-series>

⁸⁸ <https://pro.europeana.eu/post/the-europeana-public-domain-charter>

⁸⁹ <https://www.europeana.eu/en/rights/public-domain-usage-guidelines>

⁹⁰ <https://pro.europeana.eu/post/celebrating-a-multilingual-public-domain>

⁹¹ <https://pro.europeana.eu/post/the-europeana-public-domain-charter>

⁹² <https://www.europeana.eu/en/rights/public-domain-usage-guidelines>

Reporting metrics: strengthen national infrastructures

No.	Description	Measured by	Frequency	Target	Nov 2020	Dec 2020	Jan 2021
KPI 3.7	Take up of rs.org	Percentage of active aggregators that integrated rs.org in their infrastructure	Once a year	35%	-	-	Expected Aug 2021
RM 3.20	Use of rs.org by accredited aggregators	Percentage of accredited aggregators that share data using a rights statements from the rs.org	Once a year	-	-	-	Expected Aug 2021
RM 3.21	Use of rs.org rights statements	Number of objects published on the Europeana website with a rs.org rights statement (excluding content Tier 0)	Bi-monthly	-	18.7 million	-	18.7 million
RM 3.22	Reach to Europeana Copyright community	Number of people reached per month (Mailing list, Twitter, newsletter)		-	3,027	-	3,281
RM 3.23	Reach to Europeana Impact community	Number of people reached per month (Newsletter, LinkedIn)	Bi-monthly	-	1,442	-	1,607
RM 3.24	Satisfaction with the Europeana EU presidency events	Average satisfaction on a 5-point Likert scale ⁹³	Upon occasion	-	-	-	-

Risk assessment: strengthen national infrastructures

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R3.9	Rightsstatement.org: Challenge to build a	Low (2)	Medium (3)	6	The new membership model is operational in	-

⁹³ The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals to an average of 72%).

	sustainable consortium 2020 - especially more challenging post-covid				2020, and a revision of services offered by the consortium will together be used to attract new members. Post-covid we are taking steps to specifically re-review the model and simplify in light of the perceived impact.	
R3.10	Ongoing Impact research cannot be completed or updated in a timely manner due to external factors during the process (e.g. insufficient data collection)	Medium (3)	Medium (3)	9	Involve internal stakeholders and members of the network to provide motivation and opportunity to support this work to ensure a timely completion. Set out work to date and a framework and plan (including surveys, etc) in which impact assessment might be completed at a later date, for those impact assessments where it is felt that communication with the sector is affected.	-
R3.11	Impact toolkit is not being used	Low (2)	Medium (3)	6	Work with the community to help people learn how to use it and to make it more accessible for them to use. We are scheduling webinars to guide professionals through the toolkit and to introduce the resources available. We are also developing a question bank to make the process of using the toolkit even more accessible.	-
R3.12	In an online environment co-creation sessions and workshops as part of the presidency conferences are challenging. There is a risk that the shared understanding is not	Medium (3)	Medium (3)	9	Explore and use methods and tools that allow for ideation and collaborative co-creation resulting in shared understanding amongst the participants.	-

achieved and the recommendations are not sufficiently implemented.						
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Work package 4: Programme management

EF will provide high-quality programme management for Europeana DSI-4 (task 4.1.). We will manage good relations with Europeana DSI Generic services (GS) projects and the integration of GS project outcomes (task 4.2.). We will work closely with the European Commission, the Expert Group on Digital Cultural Heritage and Europeana (DCHE) and its subgroups to review activities and developments of the Europeana Initiative (task 4.3.). Full documentation of Europeana DSI will also be provided to facilitate the transfer processes to a successor supplier (task 4.4.).

Task 4.1. Programme management of Europeana DSI-4

Partners: EF

EF will coordinate Europeana DSI-4 as described in the tender and B.1 Implementation plan M24.

Overview of outcomes

Partner	Outcomes	Progress	Dec M28	Jan M29	Feb M30	Mar M31	Apr M32	May M33	Jun M34	Jul M35	Aug M36
EF	Programme management	Ongoing									
B.2/B.3	Periodic reports M28	100%									

In the reporting period, we submitted periodic report M28 to EC. Reports are available on Europeana Pro.⁹⁴

Balance of efforts

The balance of efforts table states the foreseen and actual percentages of resources allocated to each of the four work packages and its related tasks.

Balance of efforts per Work Package

Work package	Foreseen	Actual Jan 2020
WP 1: Strengthen the infrastructure	49.50%	49.97%
Task 1.1. Easy data publishing	11.60%	12.11%
Task 1.2. Europeana website experience	14.90%	12.71%

⁹⁴ Available on the Europeana DSI-4 project page. <https://pro.europeana.eu/project/europeana-dsi-4>

Task 1.3. Reliable platforms	8.40%	10.68%
Task 1.4. Discoverability of digital cultural content	14.60%	14.47%
Work package 2: Improve data quality	17.50%	17.10%
Task 2.1. Quality assured data	12.50%	11.50%
Task 2.2. Enriched data	5.00%	5.60%
Work package 3: Build capacity	26.50%	25.09%
Task 3.1. Build capacity of aggregators and professionals	10.80%	12.93%
Task 3.2. Nurture networks	9.60%	7.23%
Task 3.3. Strengthen national infrastructures	6.10%	4.93%
Work package 4: Programme management	6.50%	7.84%
Task 4.1. Programme management of Europeana DSI-4	6.00%	6.74%
Task 4.2. Relations with Europeana DSI Generic Services projects	0.20%	0.92%
Task 4.3. Governance (DCHE)	0.10%	0.10%
Task 4.4. Phasing-in and phasing-out periods	0.20%	0.08%
TOTAL	100%	100%

Major changes in staff, if applicable

No updates for M28/M29.

Risk assessment: Programme management of Europeana DSI-4

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R4.1	Individual outcomes require more work than anticipated which might affect other outcomes committed to	Low (2)	Medium (3)	6	Careful planning of efforts and resources needed for individual work, communication and awareness building of challenges, agreeing on priorities	-
R4.2	Additional work or extended scope of work is done which might affect other outcomes committed to	Medium (3)	Medium (3)	9	Management of expectations towards individual outcomes, communication and awareness building of	-

					challenges, agreeing on priorities	
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Task 4.2. Relations with Europeana Generic Services projects

Partners: EF

EF maintains regular contact with the funded Europeana DSI Generic Services (GS) projects (e.g. via Basecamp groups) and supports them with ingestion of content and metadata (if applicable), consultation on the Europeana frameworks, policy and development guidelines, tool integration into Europeana CSP and dissemination of the project results. Specific work undertaken in the reporting period is described in the respective subject areas of this report (e.g. technical developments, editorial contributions).

Overview of progress: Europeana Generic Services projects

Partner	Outcomes	Progress	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
			M28	M29	M30	M31	M32	M33	M34	M35	M36
EF	Programme coordination	Ongoing									
Objective 4.2.1. Supporting Europeana Generic Services (CEF-TC-2018-1) call											
EF	Judaica Europeana 2.0 ⁹⁵	N/A ⁹⁶									
EF	Europeana Common Culture ⁹⁷	100%									
Objective 4.2.2. Supporting Europeana Generic Services (CEF-TC-2019-1) call											
EF	Europeana XX ⁹⁸	60%									
EF	Europeana Pagode ⁹⁹	N/A									
EF	Europeana Sport ¹⁰⁰	30%									
EF	ARMA - the art of reading in the middle ages ¹⁰¹	30%									
Objective 4.2.3. Supporting Europeana Generic Services (CEF-TC-2020-1) call											
No active work in M28/M29.											

⁹⁵ <https://www.jhn.ngo/judaica-europeana-20/>

⁹⁶ In projects marked with N/A (not applicable) we are not partners and therefore we do not receive progress updates from the projects. A progress indication can not be provided.

⁹⁷ <https://pro.europeana.eu/project/europeana-common-culture>

⁹⁸ <https://pro.europeana.eu/project/europeana-xx>

⁹⁹ <https://pro.europeana.eu/project/pagode-europeana-china>

¹⁰⁰ <https://pro.europeana.eu/project/europeana-sport>

¹⁰¹ <https://pro.europeana.eu/project/the-art-of-reading-in-the-middle-ages-arma>

*Judaica Europeana 2.0*¹⁰² - The project ended on 31 January 2021. It aimed to increase the amount of high-quality data and metadata from Jewish CHIs in Europeana. For this, the project built a new technical aggregation platform for Jewish heritage content that integrates several open-source components to support a wide variety of incoming data sources and map them to the Europeana Data Model (EDM). Additionally, the project provided more than 240,000 high-quality metadata and digital heritage records to Europeana. The project created a Jewish Heritage page¹⁰³ in Europeana website that showcases curated datasets and editorials about Jewish customs, tradition, culture and history.

*Europeana Common Culture*¹⁰⁴ - The project ended on 31 December 2020. It contributed to the development of a harmonised and sustainable data aggregation infrastructure in Europe. The project enhanced the skills, services and processes of National Aggregators¹⁰⁵ through a programme of dedicated workshops and webinars¹⁰⁶. Additionally, the project built up the European aggregation infrastructure by establishing 5 new National Aggregators¹⁰⁷. The project created a 'Policy recommendations'¹⁰⁸ for Europeana Member States and Commission to support a common digital aggregation strategy across Europe. Moreover, ECC developed three applications which support novel approaches to aggregation, improve the speed and quality of the ingestion process and contribute to higher content and metadata quality: [Metis Sandbox](#)¹⁰⁹, [Linked Open Data Aggregator \(LODA\) pipeline](#)¹¹⁰ and [Lightweight 3D viewer](#)¹¹¹. The project also improved the data quality of 4,440,533 records to Tier 2+ and aggregated 2,008,486 new high quality records (Tier 3+) from 20 Member States. Finally, the project engaged Europeana users by creating 76 editorials (including 41 blogs, 34 galleries and 1 exhibition).

In the reporting period, EF integrated the following GS results into the Europeana Core Service Platform:

Type of Activity	Amount	Project (s)
Data ingestion	2,057,342 new records, of which 65 user-generated stories 4,683,877 improved records	Europeana Archaeology, Europeana Common Culture, Judaica 2.0, Europeana Sport
Metadata enrichments	-	-

¹⁰² <https://pro.europeana.eu/project/judaica-europeana-2-0>

¹⁰³ <http://europeana.eu/jewish-heritage>

¹⁰⁴ <https://pro.europeana.eu/project/europeana-common-culture>

¹⁰⁵ https://pro.europeana.eu/page/aggregators?utm_source=share-your-data%2Fprocess&utm_medium=Find%20an%20aggregator&utm_campaign=internal_link#national-regional-aggregators

¹⁰⁶ <https://pro.europeana.eu/page/webinars>

¹⁰⁷ Ireland, Serbia, Latvia, Estonia and Croatia, increasing the number of accredited Europeana aggregators to 38.

¹⁰⁸ The development of the recommendations was initiated by the ECC project and then developed as part of an EAF aggregation policy task force in summer/autumn 2020.

¹⁰⁹ <https://pro.europeana.eu/post/the-metis-sandbox-or-finding-joy-in-working-with-data>

¹¹⁰ <https://pro.europeana.eu/post/innovating-metadata-aggregation-in-europeana-via-linked-data>

¹¹¹ <https://pro.europeana.eu/post/introducing-the-europeana-common-culture-3d-pilot>

Editorials (Europeana website and Europeana Pro)	6 Pro pieces 10 Blogs (Europeana website) 7 Galleries 6 Clustered content set ¹¹² 1 Feature page ¹¹³	Europeana Archaeology, LinBi, Europeana Common Culture, Judaica 2.0, Europeana XX, Pagode, Europeana Sport
Technical developments	Submission and validation of the clustered sets through the User Sets API	LinBi
Capacity building	1 Webinar ¹¹⁴	Europeana Common Culture

Finally, EF is a beneficiary in all 5 funded proposals from GS Europeana 2020 call¹¹⁵. The projects funded under this call aim to continue supporting cultural heritage institutions to open up their collections and provide high quality engaging digital content to Europeana with the use of innovative approaches and tools. These projects will start in late spring 2021 and run between 18 and 24 months. Find out more in the list of the newly funded projects¹¹⁶.

Risk assessment: relations with Europeana Generic Services projects

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R4.3	Generic Services projects bring extra requirements (for data ingestion and reingestion, technical updates, editorials, comms). As the GS requirements can be time-sensitive and time consuming, DSI work might be delayed to accommodate and fulfill these requests.	Medium (3)	High (4)	12	<p>Implementation of a new process for better coordination of the respective ingestions of the projects.</p> <p>Raising awareness of the partners early in the project of the importance of ingestion timelines and of the need to comply with the agreed time of submission.</p> <p>Monthly internal GS team meeting for better coordination and risk mitigation.</p> <p>Continuous collaboration with project partners to</p>	-

¹¹² For example, Wild animals in Meise Botanic Garden (<https://www.europeana.eu/en/set/664>)

¹¹³ A feature page is a manually created browse page that presents related collection, gallery, exhibition, and blog page-types under a single concept. For example, Jewish Heritage <http://europeana.eu/jewish-heritage>

¹¹⁴ <https://pro.europeana.eu/event/crowdsourcing-of-digital-cultural-heritage>

¹¹⁵ <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-telecom/apply-funding/2020-europeana>

¹¹⁶ <https://drive.google.com/file/d/1oY0lkdbqoc4DmpDS7JQOxHNucYUrfSQn/view>

					flag and mitigate possible risks.	
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Task 4.3. Governance (DCHE)

Partners: EF

Under WP7 EF reports to the European Commission, the Expert Group on Digital Cultural Heritage and Europeana (DCHE)¹¹⁷ and its sub-groups the status of the Europeana DSI platform, activities and developments as well as re-prioritise developments of the platform based on received feedback and validation with users.

No activities in M28/M29.

Task 4.4. Phasing-in and phasing-out periods

Partners: EF

The task provides correct and up-to-date information to the European Commission on assets and liabilities related to the Europeana platform and tests phasing-out and transfer processes to a successor supplier.

No activities in M28/M29.

¹¹⁷ <https://ec.europa.eu/digital-single-market/en/expert-group-digital-cultural-heritage-and-europeana-dche>

Annex: Updates towards milestones

The table states the status of milestones to be delivered in year 3 of Europeana DSI-4.

MS No.	WP	Description	Verification	Due date	Status
MS1	WP1	Metis Sandbox report on its contribution to the aggregation strategy delivered	Milestone document sent to EC	M32 (Apr 2021)	Due
MS2	WP1	Search strategy delivered (including community feedback)	Milestone document sent to EC	M32 (Apr 2021)	Due
MS3	WP1	Outcomes of multilingual experiments, and their contribution to the multilingual strategy	Milestone document sent to EC	M36 (Aug 2021)	Due
MS4	WP2	Review of individual data quality plans with respective DSI partners	Milestone document sent to EC	M30 (Feb 2021) M36 (Aug 2021)	Done Due
MS5	WP2	EPF 3.0 delivered with case studies and integrated problem patterns	Framework sent to EC	M36 (Aug 2021)	Due
MS6	WP3	Preliminary results and feasibility study	Milestone document sent to EC	M36 (Aug 2021)	Due
MS7	WP3	Capacity-Building Framework V1 developed	Framework sent to EC	M36 (Aug 2021)	Due
MS8	WP3	Report on impact research and development published	Milestone document sent to EC	M36 (Aug 2021)	Due

Annex: Progress on deliverables (M25-M36)

This table states progress on deliverables and what deliverables were submitted to EC.¹¹⁸

ID	Description	Due month	Done	Due
A.1	Platform reports	Every 10 months, starting M10	M30 (Feb 2021)	-

¹¹⁸ Note: the schedule of deliverables was updated in January 2020.

B.1	Implementation Plan	M01 and every 12 months thereafter	-	M36 (Aug 2021)
B.2/ B.3	Periodic reports	Every 2 months, starting M2	M26 (Oct 2020) - M30 (Feb 2021)	M32 (Apr 2021) - M36 (Aug 2021)
B.4	Annual report	Every 12 months, starting M12	-	M36 (Aug 2021)
B.5	Final report	Last month of the contract M36 (Aug 2021) or M48 (Aug 2022) in case of renewals		
C.1	Technical documentation	Every 12 months, starting M32	-	M32 (Apr 2021)
C.2/ C.3	Users and usage report	Every 5 months, starting M5	M25 (Sep 2020) and M30 (Feb 2021)	M35 (Jul 2021)
C.4	Stress and disaster recovery test reports	Every 12 months, starting M31	-	M31 (Mar 2021)
D.1	Communication and dissemination plan	Every 9 months, starting M9	M27 (Nov 2020)	M36 (Aug 2021)
D.2	Study on impact of digitisation and reuse of cultural heritage	October every second year, starting Y2	-	-
E.1	Transfer of assets and liabilities report	M1, M10 (for E.1 and E.2) and M1, M6, M12 (for E.3) and then for all: 4 months before the contract ends (M20, April 2020) or M32 (April 2021)/44 (April 2022) in case of renewals	-	4 months before the contract ends: M32 (April 2021) or M44 (April 2022) in case of renewals
E.2	Transfer process report		-	
E.3	Employed staff report		-	

Annex: Glossary of terms

Formal definitions of terms used frequently are detailed in the glossary of terms¹¹⁹ on Europeana Pro. Additional terms are listed below.

DC	Dublin Core (DC) is a small set of vocabulary terms that can be used to describe digital resources (video, images, web pages, etc.), as well as physical resources such as books or CDs, and objects like artworks.
eCloud	eCloud is a cloud-based infrastructure that allows to efficiently store, share and provide access to digital cultural heritage. The data storage part of eCloud relies on the Cassandra database.
eCloud component: IIIF image server	The IIIF image server allows to efficiently store, share and provide access to IIIF images as one component of eCloud.
ELK	'ELK' is the acronym for three open source projects: Elasticsearch, Logstash, and Kibana. ELK enables the collection, storage, search and visualisation of log data.
Entities	Entities (such as persons, topics and places) are part of the Europeana Entity Collection, a collection of entities in the context of Europeana harvested from and linked to controlled vocabularies, such as Geonames, Dbpedia and Wikidata.
Entity pages	Entity pages showcase related entities towards persons, topics and places. For example: https://www.europeana.eu/portal/en/explore/people/61016-alphonse-mucha.html
Entity API	The Entities API allows to search on or retrieve information from named entities.
MARC21	Format for Bibliographic Data
Metis	Data and aggregation infrastructure through which allows to import, transform, validate and enrich metadata. https://metis.europeana.eu/home
Metis component: Link Checking service	This service allows the checking of links in the EDM data during the aggregation process (when the data is imported the first time but also after it has been published).
Metis component: Media service	This service is responsible for technical metadata extraction and thumbnail generation.
MINT	Mapping tool to define semantic mappings between source and target

¹¹⁹ <https://pro.europeana.eu/resources/standardization-tools/glossary>

schemas.

Mongo database	MongoDB is a document database that stores the Europeana data in JSON-like documents. The Europeana APIs relies on Solr to search for records while the metadata associated to those data comes from Mongo.
Newspaper full-text service	This service allows to search for a term in the full-text of newspapers .
Schema.org	Webmasters use this shared vocabulary to structure metadata on their websites and to help search engines understand the published content, a technique known as search engine optimization. https://en.wikipedia.org/wiki/Schema.org
Solr index	It is the search engine powering the Europeana Collections portal. Apache Solr is an open-source platform used at Europeana for full-text (e.g. metadata) index and search.
UIM infrastructure	The United Ingestion Manager is the suite of tools used to run the data aggregation activities prior to Metis.