



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

CONTRACT NUMBER - LC - 00822914

**DELIVERABLE**

**B.2/B.3 Periodic report M34**

<b>Revision</b>	1.2
<b>Date of submission</b>	30 June 2021
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<b>Dissemination Level</b>	Public



Funded by  
the European Union

# REVISION HISTORY AND STATEMENT OF ORIGINALITY

## Revision History

Revision No.	Date	Author	Organisation	Description
0.1	18-06-2021	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, Sebastiaan ter Burg, Zuzana Malicherova, Ariadna Matas, Shadi Ardan, Alba Irollo, Monique De Boer, Michelle Lewis, Milena Popova, Julia Schellenberg	Europeana Foundation	Draft
1.0	30-06-2021	Julia Schellenberg	Europeana Foundation	Final version
1.1	14-07-2021	Management team and Julia Schellenberg	Europeana Foundation	Updates based on EC feedback
1.2	27-07-2021	Management team and Julia Schellenberg	Europeana Foundation	Updates based on EC feedback

Periodic reports can be viewed and accessed online in the document section on the Europeana DSI-4 project page<sup>1</sup>.

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

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## Highlights

In this period, we released support for data provenance of machine-generated metadata (as part of the release of Metis V4). An extension of EDM was created to allow aggregators to represent their enrichment separately from the source data (submitted by a data provider) in the data they provide to Europeana.

In our efforts to improve the search experience on the Europeana website, we completed a search strategy which presents general areas to focus on towards search improvements. The Search strategy includes methodological proposals on how search should be evaluated. Some elements of the search evaluation methodology have been implemented over the first months of 2021.

In this period, we organised the Europeana MOOC, *Digital Education with Cultural Heritage*<sup>2</sup>. 547 participants completed the MOOC and got a certificate (50% completion rate).

To shed light on AI-related activities in the cultural heritage sector, EF and the EuropeanaTech community launched a Europeana Pro news theme, highlighting AI projects and initiatives.<sup>3</sup> The end of the series has coincided with the beginning of the EuropeanaTech x AI Webinars series.<sup>4</sup> We also published a Europeana-originated dataset with annotations on the style of 1,614 paintings to be used for training and evaluating machine learning algorithms for artistic style detection on Zenodo<sup>5</sup>.

In May 2021, EF hosted the spring edition of the Europeana Aggregators Forum (EAF) meeting. On the second day the meeting a train the trainer event was held which focused on Artificial Intelligence (AI) for aggregators. It introduced tools and best practice examples developed mainly as part of Generic Services projects.

We also launched the Research Grants (2020)<sup>6</sup> which were postponed to April 2021 due to the pandemic. The call's theme is 'Crowdsourcing and Research'.

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<sup>2</sup> [https://www.europeanschoolnetacademy.eu/courses/course-v1:Europeana+Culture\\_EN+2021/about](https://www.europeanschoolnetacademy.eu/courses/course-v1:Europeana+Culture_EN+2021/about)

<sup>3</sup> <https://pro.europeana.eu/post/introducing-our-europeanatech-x-ai-webinar-series>

<sup>4</sup> <https://pro.europeana.eu/post/introducing-our-europeanatech-x-ai-webinar-series>

<sup>5</sup> <https://zenodo.org/communities/europeana/>

<sup>6</sup> <https://pro.europeana.eu/post/europeana-research-grants-the-2021-call-is-out>

## Introduction

The periodic report describes work carried out under Europeana DSI-4 from 1 April 2021 (M32) until 31 May 2021 (M33) 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 2020-2025<sup>7</sup>. 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 as well as the integration of other project outcomes (including Generic Services (GS) projects) into Europeana DSI.

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 2021<sup>8</sup>. 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.<sup>9</sup> 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 <sup>10</sup>
	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

<sup>7</sup> <https://pro.europeana.eu/page/strategy-2020-2025-summary>

<sup>8</sup> Due dates of individual outcomes as stated in the implementation plan are indicative and timing might change based on current priorities.

<sup>9</sup> 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.

<sup>10</sup> 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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 1.1.1. Extend and maintain Metis</b>										
EF, PSNC	System upgrades and performance are maintained (bugs fixing, infrastructure upgrades, refinement of existing features) - 50% of effort in M32/M33	Ongoing	-							
EF	Existing enrichment service upgraded	Done	-							
EF	Provenance of machine-generated metadata is maintained <sup>11</sup>	100%	-							
EF, PSNC	Incremental update process established	60%	M36							
EF, PSNC	Release Metis V4 and eCloud V4	100%	-							
<b>Objective 1.1.2. Enable Metis Sandbox</b>										

<sup>11</sup> In collaboration with Europeana XX Generic Services project.

EF	Public release of Metis Sandbox	60%	M36							
EF	MS1 Metis Sandbox report on its contribution to the aggregation strategy delivered	100%	-							
EF, PSNC	Metis Sandbox data sources extended	Not started	_ <sup>12</sup>							
EF, PSNC	Fast track publishing workflow enabled	Not started	_ <sup>13</sup>							

*Provenance of machine-generated metadata is maintained* - An extension of EDM was created to allow Aggregators to represent their enrichment separately from the source data (submitted by a data provider) in the data they provide to Europeana. To support this extension, Metis required changes into the EDM schema, a new transformation to the internal EDM representation and changes to the indexing component. This new functionality has been released in Metis V4 to enable the provision of the enrichments created by the Europeana XX Generic service project.

*Release Metis and eCloud V4* - This new release covered in addition to the support for data provenance, an upgrade of a FF probe library, upgrades of rabbitmq, postgres, and redis databases to new generation databases. And several improvements of the Cassandra to limit the impact of data storage issues encountered in the past months.

*MS1 Metis Sandbox report on its contribution to the aggregation strategy delivered<sup>14</sup>* - A report was completed clarifying the position of the Sandbox in the overall Aggregation Strategy and highlighting the current status of the development.

*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	High (4)	Low (2)	8	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	-

<sup>12</sup> Outcome that cannot be delivered. The development of the Sandbox took more resources than expected, which delayed this piece of work. The Sandbox works only with EDM but the use case for further development has been found in the form of a collaboration with BnF. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>13</sup> Outcome that cannot be delivered. Two components were needed to speed up the publishing workflow: Sandbox and incremental processing in Metis. The hypothesis was that connecting the two into a 'fast track' feature would potentially further speed up the processes. We see the need for this hypothesis to be evaluated properly first before we start the implementation. With the Sandbox and a first version of the incremental processing in Metis in place we will be able to start assessing the impact of these developments on the speed of data publishing and propose a way forward. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>14</sup> Available on request.



	envisaged which may delay implementation.				functionalities implemented at once.	
R1.2	The Generic services are bringing extra requirements for data ingestion that require modifications in Metis.	Medium (3)	Low (2)	6	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](http://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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
EF	Europeana website usability and performance maintained (bugs fixing, security & software updates) - 20% of efforts in M32/M33	Ongoing	-							
<b>Objective 1.2.1. Extend user engagement features</b>										
EF, AIT Vienna	Public release of user-created collections (with recommendations) <sup>15</sup>	90%	M36							

<sup>15</sup> Project results from Europeana XX contribute to this outcome.

EF	Process of automated updates to Collections section in place (topics, centuries)	70%	M36 <sup>16</sup>							
EF	Browse by organisations is supported (new entity type)	10%	M37 <sup>17</sup>							
EF	Visitor feedback mechanism upgraded	90%	M34							
EF	Publication of schema.org for item pages	70%	TBC <sup>18</sup>							
<b>Objective 1.2.2. Deliver better search experience</b>										
EF	Search relevance and performance maintained	Ongoing	-							
EF	Public release of search within newspaper pages	Done	-							
EF	Methodology for evaluating search effectiveness designed	100%	-							
EF	Search performance evaluation completed	100%	-							
EF	MS2 Search strategy delivered (including community feedback)	100%	-							
<b>Objective 1.2.3. Extend multilingual reach</b>										
EF	Metrics to measure improvements to the multilingual experience confirmed	100%	-							

<sup>16</sup> By August 2021, dynamic and diverse collections sections will be available on the website. The currently developed implementation supports the manual update of the sections. In the next weeks we will test the impact of the various automation patterns. After we have tested the impact of the various patterns we will automate them. We try to complete this outcome by August 2021 with a risk for this outcome to be delayed. Risk was communicated to EC in a separate document (June 2021).

<sup>17</sup> By August 2021, the Europeana database is updated with organisation entities in an Acceptance environment. The availability of this work in the production environment relies on a re-indexing of the entire Europeana dataset. The full completion of this work is expected by September 2021. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>18</sup> We were concerned with the impact on SEO of a release of Schema.org across all item pages, thus we determined to pilot first with one dataset (Mauritshuis dataset) and monitor the outcome. We are currently analyzing results (what impact Schema.org has on outcomes). The evaluation will be completed by August 2021. If the evaluation proved positive, we can further implement Schema.org for all item pages. Just after the evaluation is completed we are able to estimate the efforts needed for full implementation. We will plan the activity into the roadmap to be done as soon as possible. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

EF	Language detection of metadata is validated (experiment)	Not started	_ <sup>19</sup>							
EF	Multilingual search designs prove to be usable and understood by users (user research)	Not started	M36							
EF	Multilingual item page designs prove to be usable and understood by users (user research)	90%	M36							
EF	Real-time translation of item page metadata from English validated (experiment)	10%	M36							
EF	Users can view item pages in language of choice (implementation)	10%	TBC <sup>20</sup>							
EF	Candidate machine translation services for metadata selected	Done	-							
EF	Report on the percentage of exhibition and feature translations	70%	M36							
EF	MS3 Outcomes of multilingual experiments, and their contribution to the multilingual strategy	Not started	M36							
EF	UI translations are validated by crowdsource community	100%	-							

*Methodology for evaluating search effectiveness designed* - The Search strategy, as part of its Evaluation focus area, includes methodological proposals on how search should be evaluated, during implementation, prior to deployment and after deployment. The methodology provides elements to organise feedback and evaluation of search across Europeana teams, and using user signals (logs). It also proposes a number of metrics to assess search along five dimensions: effectiveness, usage, efficiency, coverage and diversity. Implementation of this methodology is a

<sup>19</sup> We deferred this work to accelerate progress on multilingual search. 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 will 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 important to progress challenges with multilingual search queries. The alternative outcome ‘Real-time translation of search queries’ prototype will be complete by August 2021. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>20</sup> This work is the front-end implementation of the outcome ‘Real-time translation of item page metadata from English validated (experiment)’. The outcome will be available for experimentation (as part of the Spanish pilot) and not for a production feature as opposed to the original plan. The activity will be reported on in more detail in ‘MS3 Outcomes of multilingual experiments (August 2021)’. The expected due date for completion of this outcome can be confirmed in the next B.2/B.3 Periodic report M36. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

long-term effort. Some elements have been already implemented (see below) while others will require further effort, notably those that rely on logging user behaviour.

*Search performance evaluation completed* - Some elements of the search evaluation methodology have been implemented over the first months of 2021. Notably, a space has been set up on Jira where feedback on search performance (e.g. search issues) can be tracked across Europeana teams. Evaluation of a recent search improvement (improving textual normalization, M-F4 in the Search strategy) has also been performed: an instance of the search engine with the improvement has been deployed on a test environment, and representatives from Europeana teams have contributed with queries, relevance assessments, and observations as part of a predefined task with the objective of assessing the impact of the changes. This has allowed us to confirm the positive effect of the improvement prior to its deployment on the Europeana website.

*MS2 Search strategy delivered (including community feedback)*<sup>21</sup> - This document presents the various components of search, the general areas to focus on towards search improvements, desired outcomes and specific actions to progress towards the outcomes. It also proposes a roadmap that organises actions into various stages, which can be used to prioritise search-related work in the coming years. The Search strategy has been delivered following internal reviews and feedback from selected external experts of the Europeana community.

*Metrics to measure improvements to the multilingual experience confirmed* - We have assembled a document<sup>22</sup> that presents various metrics that can be used to measure the impact of implementing the multilingual strategy. Metrics were defined considering the type of translatable data (e.g. object metadata, queries), usage scenarios that are especially impacted by multilingual issues (e.g., search autocomplete) and quality dimensions (e.g. completeness, accuracy). For example, the completeness of search autocomplete can be partly assessed by computing the percentage of queries that have been auto-completed per language. We have identified a subset of more relevant metrics, which we will prioritise for implementation (and will report on) in future.

*UI translations are validated by crowdsource community* - We established a process to timely update the User Interface (UI) translations in 24 EU official languages as we are adding new features and also to validate the automated translations by a native speaker. Additionally, we published a blog post<sup>23</sup> on the Europeana Pro website calling out to our partners to notify us when they see a mistranslation and to send us the correct term. We then update this term on the website. This process ensures that our website UI translations are up to date and accurate. We have received three requests so far which we have actioned.

### *Reporting metrics: Europeana website experience*

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<sup>21</sup> Available on request.

<sup>22</sup> Available on request.

<sup>23</sup> <https://pro.europeana.eu/post/website-development-for-cultural-heritage-content-at-europeana>

No.	Description	Measured by	Frequency	Target	Mar 2021	Apr 2021	May 2021
KPI 1.1	Traffic to Europeana website	Number of visits per month	Monthly	<b>500,000</b>	580,072	473,827	487,140
KPI 1.2	Returning visitors to Europeana website	Percentage of visitors returning	Monthly	<b>15%</b>	15.37%	15.2%	13.1%
KPI 1.3	Satisfaction rate for Europeana website	Average satisfaction on a 5-point Likert scale <sup>24</sup>	Three times a year	<b>75%</b>	-	73.69%	-
KPI 1.4	Downloads on the Europeana website	Total number of downloads (cumulative)	Monthly	<b>240,000</b>	82,306	92,002	100,749
RM 1.1	New visitors to the Europeana website	Total number of new visitors per month	Monthly	-	416,944	333,946	364,676
RM 1.2	Visit duration on the Europeana website	Average time spent per visit	Monthly	-	01:40	1:50	1:31
RM 1.3	Page views on Europeana website	Average amount of pages viewed per visit	Monthly	-	2.98	3.21	2.84
RM 1.4	Click-throughs to partner websites	Total number of click-throughs (cumulative)	Bi-monthly	-	117,682	134,365	149,140
RM 1.5	User feedback for the Europeana website	Total number of user feedback received via feedback button (cumulative)	Bi-monthly	-	511	-	679

In March, we saw exceptionally high traffic and user return on the Europeana website due to the launch and use of the user galleries, editorial and social media engagement activities. This reporting period we see traffic and user return rate going back to normal. We also measured the

<sup>24</sup> 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%).

satisfaction rate on the Europeana website with 1,903 respondents who rated the website a good average satisfaction of 73.69%.

*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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 1.3.1. APIs and infrastructure are high-performing</b>										
EF	Infrastructure is maintained (bugs, attacks, clean-ups, upgrades, back-ups) - 50% of effort in M32/M33	Ongoing	-							
EF, AIT Vienna	Core APIs are maintained (incidents, bugs, technical debt improvements, software updates, releases) - 30% of effort in M32/M33	Ongoing	-							
EF	Solr and MongoDB reindexed	Done	-							
EF	Full failover environment established	75%	M36 <sup>25</sup>							
EF, AIT Vienna	Full disaster recovery test completed <sup>26</sup>	Done	-							
EF	Production hosting environment reconfirmed [IBM]	50%	M36							

*Reporting metrics: reliable platforms*

No.	Description	Measured by	Frequency	Mar 2021	Apr 2021	May 2021
RM 1.6	Response time of Europeana website	Average time (seconds) for single record per month	Monthly	1.33	1.58	1.5
RM 1.7	Uptime of Europeana website	Average in % for single records per month	Monthly	99.6	99.86	99.67
RM 1.8	Response time of APIs (all)	Average response time (seconds) per month	Monthly	0.21	0.20	0.22

<sup>25</sup> The work on the failover environment has been progressing. The full completion of this work was impacted by the absence on short notice of key staff that was leading on this work. Work has been picked up by other staff and will be completed as soon as possible. We try to complete this outcome by August 2021 with a risk for this outcome to be delayed. Risk was communicated to EC in a separate document (June 2021).

<sup>26</sup> This outcome fed into C.4 Stress and disaster recovery test reports (March 2021).

RM 1.9	Uptime of APIs (all)	Average in % per month	Monthly	99.83	99.99	100
RM 1.10	Response time of Europeana Pro	Average response time (seconds) per month	Monthly	0.86	0.88	0.97
RM 1.11	Uptime of Europeana Pro	Average in % per month	Monthly	100	100	98.88
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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 1.4.1. Deliver high-quality editorial features</b>										
EF, DSI AGG, GS <sup>27</sup>	Editorial activities published (exhibitions, blogs and galleries)	Ongoing	-							

<sup>27</sup> Europeana XX, Pagode - Europeana China, Europeana Sport and The Art of Reading in the Middle Ages- ARMA contribute to this outcome.



EF, GS <sup>28</sup>	Discovering Europe season completed	Done	-								
EF	Exhibition: The Danube: Connecting Europe (CENL) published	100%	-								
EF	Exhibition: The Beaver's Journey (Aust-Agder museum og arkiv) published	100%	-								
EF	Women's History Month organised	Done	-								
EF	Exhibition: 200th anniversary of the death of Napoleon (Fédération Européenne des Cités Napoléoniennes) published	Not started	-. <sup>29</sup>								
EF	Sport season initiated	90%	M34								
EF	Autumn season (TBC) initiated	Not started	-. <sup>30</sup>								
EF	Exhibition: The Sakharov Prize (European Parliament Archives) published	100%	-								
EF	New European Bauhaus <sup>31</sup>	Ongoing	-								
<b>Objective 1.4.2. Communication and dissemination to European citizens</b>											
EF	Newsletter and social media posts (Facebook, Twitter, Instagram, Pinterest) published <sup>32</sup>	Ongoing	-								
EF	GIF IT UP organised	Done	-								
EF	Women's History Month organised	Done	-								

<sup>28</sup> Editorials from Europeana Common Culture, Europeana Archaeology, Europeana XX, Europeana Media contributed to this outcome.

<sup>29</sup> Outcome that cannot be delivered. Fédération Européenne des Cités Napoléoniennes was unfortunately unable to provide the promised online exhibition for the 200th anniversary of the death of Napoleon in May 2021. In Europeana DSI-4 year 3 so far we published three exhibitions not part of the initial implementation plan which we propose to be acknowledged as alternative outcomes. [1] [The Sakharov Prize, the European Parliament and human rights worldwide](#); [2] [The Charter of Fundamental Rights of the European Union turns 20!](#); [3] [It was 30 years ago](#). A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>30</sup> This outcome was mistakenly added to the year 3 implementation plan with a due date for September 2021. The autumn season will be done in October 2021 during DSI-4 year 4. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>31</sup> <https://www.europeana.eu/new-european-bauhaus> and <https://pro.europeana.eu/page/new-european-bauhaus>

<sup>32</sup> Editorial outcomes of GS projects are promoted.

EF	MuseumWeek on Twitter organised	Not started	_33								
EF	Digital Storytelling Festival	60%	M35								
<b>Objective 1.4.3. Engage with educational communities</b>											
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	50%	M36 34								
EuroClio	PR package targeting the cultural heritage sector available	Done	-								
EUN	MOOC for educators (English) launched	100%	-								
EuroClio	Train-the-trainers session during the EuroClio annual conference (Europeana training for educators) organised	40%	M34								
EF	Annual Open Education Week: contribution added	Done	-								
EF	All Digital Week campaign: contribution added	Done	-								
NISV	Task Force recommendations on making A/V more available in education available	35%	M38 35								

<sup>33</sup> Outcome that cannot be delivered. Museum Week 2021 was delayed at very short notice from May to June. The planned first edition of our Digital Storytelling Festival then conflicted with the new dates. (Digital Storytelling Festival is a new initiative by Europeana, in collaboration with The Heritage Lab, India.). With little time to pivot, we focused on the Storytelling Festival instead of Museum Week. We propose to acknowledge the Storytelling Festival as an alternative outcome. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>34</sup> This event was cancelled by eTwinning for April 2021. Euroclio has prepared the course and will provide a link by the end of August 2021 with all the materials uploaded on the eTwinning platform to start the self paced training. The course will remain as a sustainable resource on the eTwinning platform for the whole academic year 2021-2022. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>35</sup> The members of the TF are currently developing 6 different case studies addressing diverse aspects of AV in education which will result in a set of recommendations. Some of these cases need student's implementation. The school lockdowns all over Europe plus the uncertain working environments that teachers had to sort out during the academic year have made it very difficult to implement the cases so far. The Task Force will have a draft of recommendations available by the end of August. The full completion of this outcome is expected by October 2021. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

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 primary (and secondary) schools in six different languages published	40%	M36								
EuroClio	Advanced webinar series (Europeana training for educators) organised	75%	M34								
EuroClio	Five new partner pages on Historiana with one Exemplary Source Collection and five eLearning activities per partner available	30%	M36								
EUN	Europeana Education Competition 2021	90%	M35								
<b>Objective 1.4.4. Attract API users and grow data usage</b>											
EF	API developer community mailing list re-established	Done	-								
EF	Feedback on API strategy from developer community	90%	M34								
EF	Current libraries, documentation, and tools reviewed and updated	Done	-								
EF	New libraries, FAQs, and tutorials created	60%	M34								
EF	Reuse package for CHIs created	Not started	_ <sup>36</sup>								

The online exhibition *The Beaver's Journey: From Disappearance to Recovery*<sup>37</sup>, written by Aust-Agder museum og arkiv, was the first Europeana exhibition curated by a Norwegian-based team. It chronicles the history of the reintroduction of beavers in Scandinavia in the early 1900s.

<sup>36</sup> Outcome that cannot be delivered. Our focus on outreach efforts among API developers in DSI-4 Y3 revealed that the API user base found a reuse package unconvincing, convincing us of the need to change direction here. We saw a need of gaining additional insight in what products API users do want and need to serve their needs better. We propose, as an alternative outcome, to identify the most valuable support and resources for API users at CHIs, to be reported by the end of August 2021, and to address those needs translated as actions into the Y4 plan. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>37</sup> <https://www.europeana.eu/en/exhibitions/the-beavers-journey>

*The Danube: Connecting Europe*<sup>38</sup> online exhibition was published on 9 May (Europe Day) and is curated by the Austrian National Library and Conference of European National Librarians (CENL). User comments include: 'Brilliant idea and material, thank you' and 'A very informative exhibition! Thank you for this journey into the past of the beautiful Danube!'.

*The Sakharov Prize, the European Parliament and human rights worldwide*<sup>39</sup> was the latest exhibition developed in partnership with the European Parliament Archives. Published on 21 May in 24 languages, it was visited over 50,000 times in the first week.

*MOOC for educators (English) launched* - The Europeana MOOC, *Digital Education with Cultural Heritage*<sup>40</sup> run from 15 March until 28 April. 2,114 people from 67 countries registered for the course, 1,092 participants followed at least one course module (52% engagement rate) and 547 participants completed the MOOC and got a certificate (50% completion rate). 99% of post-survey respondents rated the overall value of the course as "Good" or "Very good" and 95% agree or agree strongly that they will use the ideas and examples presented in the course in their everyday work<sup>41</sup>.

#### Communication and dissemination activities

Partner	Name of event	Activity	Location	Date
EF	Digital Education and the Power of Storytelling with Europeana <sup>42</sup>	Webinar and training event for primary and secondary education teachers on how to use and reuse Europeana resources in their lessons.	Online	15/04/2021
EuroClio	Creating a Historical Argument <sup>43</sup>	Historiana webinar series to explore the platform's teaching and learning tools and to debate critical thinking skills.	Online	27/04/2021
FINA, EF	Europeana - Engaging Collections for Finnish GLAMs <sup>44</sup>	Webinar for Finnish CHIs to get acquainted with Europeana's engagement strategies, content curation tools and Europeana resources for education. Finnish institutions also learned how they can provide digital content to Europeana.	Online	11/05/2021

<sup>38</sup> <https://www.europeana.eu/en/exhibitions/the-danube-connecting-europe>

<sup>39</sup> <https://www.europeana.eu/en/exhibitions/sakharov-prize>

<sup>40</sup> [https://www.europeanschoolnetacademy.eu/courses/course-v1:Europeana+Culture\\_EN+2021/about](https://www.europeanschoolnetacademy.eu/courses/course-v1:Europeana+Culture_EN+2021/about)

<sup>41</sup> A detailed report about the evaluation of the event is available on request.

<sup>42</sup> <https://pro.europeana.eu/event/digital-education-and-the-power-of-storytelling-with-europeana>

<sup>43</sup>

<https://www.euroclio.eu/2021/05/14/creating-a-historical-argument-dr-james-diskants-webinar-on-women-working-in-the-19th-century/>

<sup>44</sup> <https://www.kiwi.fi/display/formula/Webinar%3A+Europeana+-+Engaging+Collections+for+Finnish+GLAMs>

EF	Copyright office hours: supporting each other with copyright challenges	Webinar to ENA community members focused on educational reuse of audiovisual heritage	Online	20/05/2021
ICOM-CECA	Learning and engaging digitally working group meeting	Monthly event to drive the involvement of museum educators in the Europeana Initiative	Online	21/05/2021
Memoriav	MemoBase launch event	Presentation about Europeana and encouraging more Swiss institutions to join Europeana	Online	18/05/2021

*Reporting metrics: discoverability of digital cultural content*

No.	Description	Measured by	Frequency	Target	Mar 2021	Apr 2021	May 2021
KPI 1.5	Satisfaction rate for exhibitions	Average satisfaction on a 5-point Likert scale <sup>45</sup>	Monthly	<b>75%</b>	83%	84%	85%
KPI 1.6	Reach on social media	Total number of impressions on social media (cumulative)	Monthly	<b>250 million</b>	358.8 million	412 million	451.4 million
KPI 1.7	Learning resources for education	Total number of resources using Europeana data <sup>46</sup> (cumulative)	Monthly	<b>50</b>	24	24	42
KPI 1.8	External learning environments for education	Total number of integrations of Europeana educational offers <sup>47</sup> (cumulative)	Monthly	<b>5</b>	3	3	4
KPI 1.9	Satisfaction rate of educational communities	Average satisfaction on a 5-point Likert scale	Monthly	<b>75%</b>	77%	82%	87%
RM 1.13	Editorial outcomes: exhibitions	Number of exhibitions created (cumulative)	Bi-monthly	-	5	-	8

<sup>45</sup> The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals a satisfaction rate of 72%).

<sup>46</sup> Metric excludes multilingual resource variations.

<sup>47</sup> Integrations into third party platforms are highly dependent on other parties. 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 1.14	Editorial outcomes: blogs	Number of blogs created (cumulative)	Bi-monthly	-	87	-	107
RM 1.15	Newsletter subscribers	Total number of subscribers	Bi-monthly	-	50,929	-	50,671
RM 1.16	Social media engagement	Total number of likes, shares, comments per month	Monthly	-	472,668	328,514	305,049
RM 1.17	Social media followers/ fans	Total number on social media	Monthly	-	225,020	226,468	226,660
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
RM 1.20	Participants completing the MOOC	Total number of participants (cumulative)	Upon occasion	-	-	-	547
RM 1.21	Reach to Europeana Education community	Number of people reached per month (mailing list, LinkedIn, Facebook)	Bi-monthly	-	7,779	-	8,291
RM 1.22	API usage (REST API)	Number of API users that exceeded the average of 5 calls a day per month	Monthly	-	69	67	59
RM 1.23	API usage (REST API)	Number of API users that were active for more than 5 days in each month	Monthly	-	60	60	52

RM 1.24	API usage (REST API)	Total number of requests per month <sup>48</sup>	Monthly	-	22.2 million	18.6 million	19.9 million
RM 1.25	API users (REST API)	Total number of API users per month	Monthly	-	223	227	220
RM 1.26	API sign-ups (REST API)	Number of API sign-ups per month	Monthly	-	100	91	109

In the reporting period, 17 new learning scenarios have been produced by the Europeana Educators Ambassadors and User group members. This material will be uploaded on the Teaching with Europeana blog and distributed for audience engagement in the coming weeks. We also run the Europeana Education MOOC (in English) with 547 participants who completed the MOOC and got a certificate (50% completion rate). The MOOC content and materials remain open and available as a learning resource for other educators to use. Additionally, we saw one new integration of Europeana resources in Wikiwijs.nl<sup>49</sup> an educational platform in the Netherlands for teachers in primary and secondary. Our average satisfaction rate of educational communities increased this period to 87% with excellent ratings received from participants of the MOOC.

*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	-

<sup>48</sup> This number states only requests done by external parties (other than Europeana platform related requests done for example via the Europeana website).

<sup>49</sup> <https://www.wikiwijs.nl/app/uploads/Auteursrecht-en-digitaal-erfgoed-in-het-onderwijs.pdf>

					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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 2.1.1. Raise the quality of content and metadata</b>										
EF	Data partners supported with data quality improvements and data publication (DSI, Generic services <sup>50</sup> , 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 <sup>51</sup> ; IIF & Europeana <sup>52</sup> )	Ongoing	-							
EF	Strategy for reviving records from inactive data partners delivered	Done	-							
EF, DSI AGG	MS4 Review of individual data quality plans with respective DSI partners	Done	-							
EF	Outreach campaign to inactive data partners initiated	Done	-							
EF	Regular link resolution process implemented	Done	-							
EF, DSI AGG	Individual data quality plans for the following DSI year created	Not started	10 Sep '21							
EF, SPK	Plan for growing fulltext newspaper content is developed	30%	M36							
<b>Objective 2.1.2. Maintain data and publishing frameworks, standards and documentation</b>										
EF	EDM updated and documented	Ongoing	-							
EF	Update of the Statistics Dashboard V2	50%	M36 <sup>53</sup>							

<sup>50</sup> Judaica Europeana 2.0, Europeana XX, Pagode - Europeana China, Europeana Sport and The Art of Reading in the Middle Ages- ARMA.

<sup>51</sup> <https://pro.europeana.eu/project/data-quality-committee>

<sup>52</sup> <https://pro.europeana.eu/project/iif-europeana-working-group>

<sup>53</sup> We try to complete this outcome by August 2021 with a risk for this outcome to be delayed. Risk was communicated to EC in a separate document (June 2021).

EF	Recommendations for how to improve the usefulness of guidance materials	Done	-								
EF, DSI AGG	Case studies that document impact of publishing digital collections online	50%	M36								
EF	EPF amendment to integrate problem patterns from long-tail data issues	50%	M36								
EF, DSI AGG	MS5 EPF 3.0 delivered with case studies and integrated problem patterns	50%	M36								
<b>Objective 2.1.3. Influence global interoperability and technological innovation</b>											
EF	EuropeanaTech community <sup>54</sup> , Data Quality Committee <sup>55</sup> , IIF Discovery Technical Specification Group <sup>56</sup> , IIF & Europeana Working Group <sup>57</sup> supported	Ongoing	-								
EF	Data mapping and conversions with stakeholders is supported	Ongoing	-								
EF	Interoperability of annotations and user sets <sup>58</sup> Task Force is supported	80%	M38 <sup>59</sup>								
EF, NISV	AI in relation to GLAMs <sup>60</sup> Task Force is supported	90%	M34								
EF	'Exploring AI in the cultural heritage sector' Pro news theme series	100%	-								

*'Exploring AI in the cultural heritage sector' Pro news theme* - To shed light on AI-related activities in the cultural heritage sector, the Europeana communications team and the EuropeanaTech community launched a Europeana Pro news theme, highlighting AI projects and initiatives from the EuropeanaTech Community, Europeana Foundation and beyond. In total 10 posts were

<sup>54</sup> <https://pro.europeana.eu/page/europeanatech>

<sup>55</sup> <https://pro.europeana.eu/project/data-quality-committee>

<sup>56</sup> <https://iif.io/community/groups/discovery/>

<sup>57</sup> <https://pro.europeana.eu/project/iif-europeana-working-group>

<sup>58</sup> <https://pro.europeana.eu/project/interoperability-of-annotations-and-user-sets;>

<sup>59</sup> By August 2021, the report will be available. Some last editorial improvements might be necessary before publishing the report. Priority was given to finalising the AI TF report because of the currentness of that topic. The full completion of the outcome is expected by October 2021. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>60</sup> <https://pro.europeana.eu/project/ai-in-relation-to-glams>

published<sup>61</sup>. The end of the series has coincided with the beginning of the EuropeanaTech x AI Webinars, which are also available on Europeana Pro.<sup>62</sup>

*Reporting metrics: quality assured data*

No.	Description	Measured by	Frequency	Target	Mar 2021	Apr 2021	May 2021
KPI 2.1	High quality content	Percentage of Tier 2 + material (excluding content Tier 0)	Monthly	>65%	68.01%	68.08%	68.07%
KPI 2.2	High quality and reusable content	Percentage of Tier 3+ material (excluding content Tier 0)	Monthly	>40%	45.61%	45.58%	45.53%
KPI 2.3	High quality metadata (search, browse and explore)	Percentage of Tier A+ material (excluding content Tier 0)	Monthly	>60%	61.70%	62.8%	62.81%
KPI 2.4	Europeana Research and Development contributions	Total number of reference papers or presentations (cumulative)	Monthly	10	8	9	11
RM 2.1	Broken links in the repository	Number of broken links (out of total)	Quarterly	-	721,719	-	Expected Jun 2021
RM 2.2	Non-EPF compliant content (Tier 0)	Percentage of Tier 0 content	Monthly	-	15.93%	15.90%	16.01%
RM 2.3	Updates to datasets	Total number of newly created and updated datasets per month (out of total)	Monthly	-	48	30	88
RM 2.4	Updates to records	Total number of newly created and updated records per month (out of total)	Monthly	-	721,145	927,296	610,632
RM 2.5	New CHIs published on Europeana website	Total number of new CHIs (cumulative)	Once a year	-	-	-	Expected Aug 2021

<sup>61</sup> <https://pro.europeana.eu/tags/ai-theme>

<sup>62</sup> <https://pro.europeana.eu/post/introducing-our-europeanatech-x-ai-webinar-series>

RM 2.6	Records in the data repository	Total number of records (excluding content tier 0)	Monthly	-	52.1 million	52.2 million	52.3 million
RM 2.7	Records in the data repository by accredited aggregators	Total number of records (excluding content tier 0)	Quarterly	-	33.9 million	-	34.5 million
RM 2.8	Reach to Europeana Tech community	Number of people reached per month (Mailing list, Twitter)	Bi-monthly	-	6,149	-	6,295

In the reporting period, we updated 118 datasets and over 1.5 million records which led to an increase of high quality metadata (Tier A+ material) by 1.11%.

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

Partner	Name of activity	Activity	Location	Date
EF	EuropeanaTech x AI Webinar "Saint George on a Bike"	Webinar	Online	2021-04-23
EF, NISV	EuropeanaTech x AI Webinar "Cultural AI Lab"	Webinar	Online	2021-05-07
EF	EuropeanaTech x AI Webinar "Qurator"	Webinar	Online	2021-05-21

*Data quality improvements per aggregator based on the EPF<sup>63 64</sup>*

Metric	End Aug 2020 (M24)	End Mar 2021 (M31)	End May 2021 (M33) <sup>65</sup>
<b>APEF</b>			
Percentage of Tier 2+ material	12.81%	12.61%	14.02%
Percentage of Tier 3+ material	8.65%	8.45%	9.39%

<sup>63</sup> 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.

<sup>64</sup> 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.

<sup>65</sup> Tier statistics changed in the period because EF depublished records from the APEF data as part of our broken links activities.

Percentage of Tier A+ material	1.45%	1.45%	1.61%
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			
<b>BL (Europeana Sounds)</b>			
Percentage of Tier 2+ material	40.46%	40.47%	40.47%
Percentage of Tier 3+ material	9.27%	9.27%	9.27%
Percentage of Tier A+ material	70.62%	70.63%	70.63%
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			
<b>CARARE / AthenaRC</b>			
Percentage of Tier 2+ material	75.59%	72.65%	72.60%
Percentage of Tier 3+ material	60.51%	58.73%	58.67%
Percentage of Tier A+ material	99.45%	99.54%	99.54%
Number of records updated (M26/M27)			94,744
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			
<b>MCA</b>			
Percentage of Tier 2+ material	44.83%	45.09%	44.94%
Percentage of Tier 3+ material	7.16%	6.73%	6.71%

Percentage of Tier A+ material	75.02%	76.51%	76.59%
Number of records updated (M26/M27)			22,889
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			
<b>eFashion</b>			
Percentage of Tier 2+ material	89.51%	89.47%	89.47%
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)			-
Number of datasets updated (M26/M27)			-
Number of contributing data providers (M26/M27)			-
Number of new datasets (M26/M27)			-
Type of new datasets			
<b>DFE (EFG - The European Film Gateway)<sup>66</sup></b>			
Percentage of Tier 2+ material	22.60%	25.20%	25.20%
Percentage of Tier 3+ material	0.20%	0.22%	0.23%
Percentage of Tier A+ material	43.73%	99.90%	99.90%
Number of records updated (M26/M27)			96,417
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			
<b>NISV (EUscreen)<sup>67</sup></b>			
Percentage of Tier 2+ material	22.44%	20.92%	20.89%

<sup>66</sup> Updates in this period were partly done as part of the Europeana XX Generic Services project.

<sup>67</sup> Updates in this period were partly done as part of the Europeana Sport Generic Services project.

Percentage of Tier 3+ material	0.25%	0.23%	0.27%
Percentage of Tier A+ material	26.09%	24.32%	24.36%
Number of records updated (M26/M27)			4386
Number of datasets updated (M26/M27)			2
Number of contributing data providers (M26/M27)			2
Number of new datasets (M26/M27)			1
Type of new datasets	New set from <a href="#">FINA</a>		
<b>AIT-Graz (OpenUp!)</b>			
Percentage of Tier 2+ material	98.26%	98.28%	98.28%
Percentage of Tier 3+ material	87.61%	87.38%	87.37%
Percentage of Tier A+ material	42.90%	43.96%	48.89%
Number of records updated (M26/M27)			524,799
Number of datasets updated (M26/M27)			8
Number of contributing data providers (M26/M27)			5
Number of new datasets (M26/M27)			-
Type of new datasets			
<b>PhotoCons</b>			
Percentage of Tier 2+ material	66.76%	66.41%	66.60%
Percentage of Tier 3+ material	23.74%	27.29%	27.49%
Percentage of Tier A+ material	99.64%	99.64%	99.64%
Number of records updated (M26/M27)			51,471
Number of datasets updated (M26/M27)			3
Number of contributing data providers (M26/M27)			3
Number of new datasets (M26/M27)			1
Type of new datasets	A new dataset from <a href="#">KIK-IRPA</a>		

*Risk assessment: quality assured data*

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
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R2.1	Data partners don't control content quality and have difficulties to incentivise the improvement of content quality.	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.	-
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## **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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 2.2.1. Extend entities to support better browsing</b>										
EF, AIT Vienna	Entity framework for data ingestion and updating is redeveloped	90%	M36							
EF, AIT Vienna	Entities can be manually added and removed	90%	M36							
EF, AIT Vienna	Entities to support browsing by organisation are available	90%	M36							
EF, AIT Vienna	Entities are extended to support high quality people relationships	60%	M36 <sup>68</sup>							

<sup>68</sup> We try to complete this outcome by August 2021 with a risk for this outcome to be delayed. Risk was communicated to EC in a separate document (June 2021).



<b>Objective 2.2.2. Use crowdsourcing and machine learning to enrich metadata</b>									
EFHA	Validation of automatic enrichments for the Fashion Heritage collection is completed through crowdsourcing campaigns	70%	M36						
AIT Graz	Curated metadata enrichment and curated content clustering through expert crowdsourcing	70%	M36						
NISV	Crowdsourcing toolkit on subtitling videos, translating and correcting is published on Europeana Classroom	70%	M36						
APEF	Contextual classes are tagged through the use of metadata evaluation and crowdsourcing	70%	M36						
APEF	Automatic topic detection proof-of-concept developed	70%	M36						
BL	Conversion of placenames and wikidata links using OpenRefine	70%	M36						
CARARE	Enrichment services on MORE are extended	70%	M36 <sup>69</sup>						
Photocons	3 crowdsourcing campaigns to enrich data completed	70%	M36 <sup>70</sup>						
F&F	Enrichments from Transcribathon.eu transferred to Europeana	70%	M36						
<b>Objective 2.2.3. Establish machine-learning platforms</b>									
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	80%	M34						

<sup>69</sup> CARARE is no longer using MORE. CARARE advertised a tender for aggregation services at the start of DSI-4, the tender was awarded to Talent SA and CARARE is now using their Repox service for aggregation (approved by the Commission). Instead of extending the enrichment services on MORE, CARARE is working with Talent SA to improve their services, e.g. to harvest Wikidata's API for some of the CARARE collections. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>70</sup> Completing 3 crowdsourcing campaigns is a mistake in the implementation plan that was not corrected after the work plan for Photoconsortium was finalised. Photoconsortium is planning 3 crowdsourcing campaigns for Y3 and Y4 of DSI-4, of which 1 is already completed for year 3 of DSI-4. A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

EF	Training data is shared on pilot platforms (max six platforms)	100%	-						
EF	Learnings from SGoaB project <sup>71</sup> incorporated into 2021/22 plans	Not started	M36						

*Training data is shared on pilot platforms (max six platforms)* - In line with the actions laid out in our recent discussion document on machine learning<sup>72</sup>, we have published a Europeana-originated dataset with annotations on the style of 1,614 paintings<sup>73</sup>. This dataset, produced during the V4Design project, can be used for training and evaluating machine learning algorithms for artistic style detection. After assessing several available platforms for their suitability, we have selected Zenodo because it has a strong background in European research (it was founded by the EC OpenAIRE project) and it provides good discovery and publication functionality, such as the automatic provision of a DOI identifier. Publishing a dataset on Zenodo may also (by mirroring) facilitate the publication on Figshare, another relevant data sharing platform we have targeted in our discussion document. Finally, there was an already existing Europeana 'community' available on Zenodo<sup>74</sup>.

*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

<sup>71</sup> <https://pro.europeana.eu/project/saint-george-on-a-bike>

<sup>72</sup> Available on request.

<sup>73</sup> <https://doi.org/10.5281/zenodo.4896487>

<sup>74</sup> <https://zenodo.org/communities/europeana/>

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. 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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 3.1.1. Deliver rewarding events for professionals</b>										
EF	Programme of events for professionals, published on Europeana Pro	Done	-							
EF	Method of events evaluation implemented	Done	-							
EF	Annual Conference: Europeana 2020	Done	-							
EF	Value and impact of events evaluated	60%	M36							
EF	Events Management toolkit	70%	M35							
EF	Analysis of impact of Annual conference: Europeana 2020	100%	-							
EF	Europeana Digital Spring programme <sup>75</sup>	50%	M35							

<sup>75</sup> [Europeana Digital Spring Programme](#)

<b>Objective 3.1.2. Deliver scalable training for aggregators and CHIs</b>										
EF	Enriched training resources for aggregators on Pro	Ongoing	-							
EF, F&F	Transcribathon strategy and plan	90%	M35							
EF, DSI AGG	EAF Training Programme 2020-2021	70%	M36							
EF, DSI AGG	Train the Trainer events (two events)	100%	-							
EF, F&F, DSI AGG	Training workshops, webinars and one-to-one support for CHIs to share knowledge and develop skills (six events)	70%	M36							
EF	Europeana Aggregators' Fair <sup>76</sup>	50%	M34							
EF	Europeana Aggregators' Forum meeting	100%	-							
<b>Objective 3.1.3. Develop Europeana Managers Academy</b>										
DEN	Deliver Pilot Managers Academy	80%	M34							
DEN	MS6 Preliminary results and feasibility study	10%	M36							
<b>Objective 3.1.4. Develop a capacity-building framework</b>										
EF	Strategy for building and implementing a capacity building framework published	80%	M34							
EF	Preliminary reporting indicators for capacity building developed	30%	M36							
EF/DEN	Report on inventorisation of existing training courses created	50%	M36							
EF	Approach for measuring impact of capacity building developed	30%	M36							
EF	MS7 Capacity-Building Framework V1 developed	30%	M36							

*Analysis of impact of Annual conference: Europeana 2020* - almost 1,650 people registered to attend the 2020 annual conference with an estimated 998 participants joining from 60 countries across the world (in comparison to 38 countries in 2019). The more accessible digital format is likely to

<sup>76</sup> <https://pro.europeana.eu/post/register-for-the-first-ever-europeana-aggregators-fair>

have led to an increased representation of non-Network members registering for the conference. A post-event questionnaire was distributed to all attendees shortly after the event with a response rate of approximately 23%.

The survey revealed an increased literacy in the key themes of the conference, particularly around collaboration as a tool for finding shared solutions. 88% of participants reported that Europeana 2020 had value for them personally or professionally. 77% gained skills or knowledge that they can apply in practice (an increase of 27% from 2019). 63% of participants indicated that they want to make a change in their organisation after the conference (also a significant increase from the year before). Despite having an online format, Europeana 2020 helped to create a sense of community and importantly, the majority (86%) of participants enjoyed themselves. 69% of non-Network members who attended Europeana 2020 agreed that the conference had motivated them to become members. 74% of participants felt like part of a community around digital cultural heritage (a 5% increase to previous year). However, in comparison to 2019, there was a decrease in the number of new contacts made and much lower ratings for network development outcomes.

Dissatisfaction with the online format was particularly evident when people spoke about the lack of opportunities to build a network. This shows us that digital or remote participation nevertheless comes at a price. Others found it to be less enjoyable. Several participants expressed dissatisfaction not with the quality of the online format (which was rated highly) but the necessity to use an online format.

Holding Europeana 2020 digitally resulted in a significantly smaller carbon footprint. We estimate that the environmental impact of participants travelling by air to Europeana 2020 would have been 123 metric tonnes of carbon. Attending Europeana 2020 digitally was anywhere between 15 and 149 times less detrimental to the environment than the air travel alone that would have been required to attend the in-person event.

*Train the Trainer events (two events)* - As part of the two last Europeana Aggregators Forum (EAF) meetings we organised train the trainer days. The one in October 2021 focused on the product development at Europeana Foundation and the Aggregation Strategy. To follow up this day we launched the Aggregator User Group, which will support the feedback loop between the EAF and EF about our products. The training day in May 2021 focused on Artificial Intelligence (AI) for aggregators. It introduced tools and best practice examples developed mainly as part of Generic Services projects.

*Europeana Aggregators Forum (EAF) meeting* - On 20 and 21 May 2021 EF hosted the spring edition of the EAF meeting online. 83 participants from 21 countries joined over both days and 35 aggregators (out of 40 accredited aggregators) participated in the event. The meeting included the following items: the accreditation scheme and two new aggregators were accredited (Cyprus

Ministry of Education and Culture<sup>77</sup> and Estonian e-Repository and Conservation of Collections<sup>78</sup>); conclusion of the Steering Group elections with Marie-Veronique Leroi and Nicole Emmenegger replacing Marco Rendina and Sara Di Giorgio; recovery and resilience as well as diversity and inclusion. On the second day the meeting saw a train the trainer event (see outcome above).

*Reporting metrics: build capacity of aggregators and professionals*

No.	Description	Measured by	Frequency	Target	Mar 2021	Apr 2020	May 2021
KPI 3.1	Aggregator satisfaction with Europeana (accredited aggregators)	Average satisfaction on a 5-point Likert scale <sup>79</sup>	Once a year	75%	-	-	Expected Jul 2021
KPI 3.2	CHI satisfaction with aggregator (partner in Europeana DSI-4)	Average satisfaction on a 5-point Likert scale	Once a year	75%	-	-	Expected Jul 2021
RM 3.1	Events organised for professionals <sup>80</sup>	Number of events (cumulative)	Bi-monthly	-	20	-	39
RM 3.2	Participants attending events for professionals	Number of participants (cumulative)	Bi-monthly	-	1,838	-	2,690
RM 3.3	Satisfaction rate for annual conference (Europeana 2020)	Average satisfaction on a 5-point Likert scale	Once a year	-	-	-	-
RM 3.4	CHIs supported by DSI aggregators	Total number of individual CHIs (cumulative)	Bi-monthly	-	157	-	196
RM 3.5	Coverage of CHIs supported by DSI aggregators	Total number of countries that received support (cumulative)	Bi-monthly	-	29	-	32
RM 3.6	Outreach to CHIs	Total number of new CHIs collaborating with DSI	Bi-monthly	-	37	-	41

<sup>77</sup> <https://pro.europeana.eu/organisation/cyprus-ministry-of-education-and-culture>

<sup>78</sup> <https://pro.europeana.eu/organisation/estonian-e-repository-and-conservation-of-collections>

<sup>79</sup> The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals a satisfaction rate of 72%).

<sup>80</sup> This metric counts events organised by EF. Events can be seen at <https://pro.europeana.eu/page/webinars>.

		aggregators (cumulative)					
RM 3.7	Events delivered through the EAF training programme	Number of events delivered by DSI aggregators and EF (cumulative)	Bi-monthly	-	36	-	44

In the reporting period, EF held [19 events for professionals](#) with 852 participants attending in total. DSI aggregators (co)organised 8 events, these included workshops or presentations at an outreach event in the period.

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

Partner	Name of event	Activity	Location	Date
<b>Events organised for professionals</b>				
EF, MCA	Europeana Sport Copyright workshop <sup>81</sup>	In the framework of the Europeana Sport project, Michael Culture and Europeana are co-organising two online workshops about copyright and sports related data.	Online	1&7/04/2021
EF	Copyright Office hours <sup>82</sup>	Copyright Community: Through a set of regular and informal calls, we want to help make connections and explore a different approach to supporting the sector. These calls take place every 6 weeks and will not be recorded.	Online	08/04/2021
EF	Europeana Spring Programme - Mapping Musical Heritage <sup>83</sup>	A presentation that gathers expert reflections and practices on mapping and digitising musical heritage	Online	15/04/2021
EF	Europeana Spring Programme - How can you show more than just an object? <sup>84</sup>	Speakers show use cases on how this graph can be used and how we can transform a cultural heritage database with semantic technologies into a dynamic digital knowledge representation graph database.	Online	15/04/2021
EF	Europeana Spring Programme - Ignite talks <sup>85</sup>	Three expert speakers present three ten minute ignite talks covering topics linked to innovation, experimentation and social change in digital cultural heritage.	Online	15/04/2021

<sup>81</sup> <https://pro.europeana.eu/event/europeana-sport-workshops>

<sup>82</sup> <https://pro.europeana.eu/event/the-copyright-directive-new-approaches-to-the-public-domain-and-to-out-of-commerce-works>

<sup>83</sup> <https://pro.europeana.eu/event/mapping-musical-heritage>

<sup>84</sup> <https://pro.europeana.eu/event/data-driven-cultural-heritage-how-can-you-show-more-than-just-an-object>

<sup>85</sup> <https://pro.europeana.eu/event/europeana-digital-spring-programme-ignite-talks>

EF	EuropeanaTech x AI: Introduction to the series and the "Saint George on a Bike" Project <sup>86</sup>	EuropeanaTech community: This webinar explores the Saint George on a Bike project, which aims to improve the quality and quantity of open metadata associated with European cultural heritage imagery with Machine Learning.	Online	23/04/2021
EF	Europeana Spring Programme: Not in Public Ownership, but Available for Public Use <sup>87</sup>	A roundtable discussion on how to keep digital public access to works removed from museum collections. Two methods are proposed for discussion on how digital technology can ensure that works are publicly available even after the gavel comes down at an auction	Online	29/04/2021
EF	Europeana Spring Programme - A representation of 3D collection storage facilities <sup>88</sup>	A workshop in which participants debate how 3D collection storage facilities could re-define museum practices, promote better understanding for the general public and educate the future generations. The workshop also focuses on the use of digital storage for different objectives such as sustainability, education, research, conservation, navigation and presentation.	Online	06/05/2021
EF	EuropeanaTech on AI #2 <sup>89</sup>	EuropeanaTech community: The Amsterdam based Cultural AI Lab accelerates research on the intersection of humanities and artificial intelligence. Explore the lab and its projects in this webinar.	Online	07/05/2021
EF	Europeana Spring Programme - Data Science using R <sup>90</sup>	R is the most widely used open-source environment for statistical computing. This session provides the training on the fundamentals of R to perform different analysis and visualisation.	Online	11/05/2021
EF	Europeana Spring Programme -When Monuments Talk <sup>91</sup>	A round table discussion focuses on quality and complexity in 3D digitisation of cultural heritage.	Online	11/05/2021
EF	Europeana Spring Programme -Culture of remembrance in a digital space <sup>92</sup>	This webinar explores how XR technologies can be an innovative way to provide historical information and keep memories alive.	Online	11/05/2021

<sup>86</sup> <https://pro.europeana.eu/event/europeanatech-x-ai-introduction-to-the-series-and-the-saint-george-on-a-bike-project>

<sup>87</sup> <https://pro.europeana.eu/event/not-in-public-ownership-but-available-for-public>

<sup>88</sup> <https://pro.europeana.eu/event/dipot-digital-depot-a-representation-of-3d-collection-storage-facilities>

<sup>89</sup> <https://pro.europeana.eu/event/europeanatech-x-ai-cultural-ai>

<sup>90</sup> <https://pro.europeana.eu/event/digital-spring-programme-2021-data-science-using-r>

<sup>91</sup> <https://pro.europeana.eu/event/digital-spring-programme-2021-when-monuments-talk>

<sup>92</sup> <https://pro.europeana.eu/event/digital-spring-programme-2021-culture-of-remembrance-in-a-digital-space>



EF	Europeana Spring Programme - Sport & Cultural heritage <sup>93</sup>	Europeana Sport project, explores how we can bridge the divide between sport and culture and showcases how sport can bring us together as an essential part of our shared cultural heritage.	Online	11/05/2021
EF	Europeana Spring Programme - Impact/Research Sympos <sup>94</sup>	Europeana brought together cultural heritage professionals, policy makers, academics and researchers to discuss impact horizons of research when nurtured by digital cultural heritage. The organisers explain where the idea of a symposium came from and how its programme took shape.	Online	11&12/05 / 2021
EF	Copyright Office hours <sup>95</sup>	Copyright Community: An open and informal setting to connect and explore a different approach to supporting the sector.	Online	20/05/2021
EF	Aggregators' Forum Spring <sup>96</sup>	The Europeana Aggregators' Forum (EAF) is the place to coordinate all activities required for the effective functioning of this pan-European cross-domain aggregation ecosystem at operational and strategic level. Accredited aggregators to the Europeana service come together twice a year for the meetings of the EAF	Online	20&21/05 / 2021
EF	EuropeanaTech on AI #3 <sup>97</sup>	EuropeanaTech community: This webinar introduces the Qurator project, which develops an innovative technology platform that provides services to support knowledge workers in various industries to address the challenges they face when curating digital content.	Online	21/05/2021
EF	NEB Europeana Cafe #1 <sup>98</sup>	First informal meeting in a series on the New European Bauhaus where we will discuss together what we know so far, what being involved could look like and how we can use digital heritage to support that.	Online	26/05/2021
EF	Opening Session Transcribathon Portuguese Presidency Manuscritos no palco <sup>99</sup>	This session opened a week in which participants are challenged to transcribe as many documents as possible. The event	Online	31/05/2021

<sup>93</sup> <https://pro.europeana.eu/event/digital-spring-programme-2021-sport-cultural-heritage>

<sup>94</sup> <https://pro.europeana.eu/post/join-our-symposium-research-and-digital-cultural-heritage-new-impact-horizons>

<sup>95</sup> <https://pro.europeana.eu/event/copyright-office-hours-supporting-each-other-with-copyright-challenges-2>

<sup>96</sup> <https://pro.europeana.eu/event/europeana-aggregators-forum>

<sup>97</sup> <https://pro.europeana.eu/event/europeanatech-x-ai-the-qurator-project>

<sup>98</sup> <https://pro.europeana.eu/event/new-european-bauhaus-europeana-cafe>

<sup>99</sup> <https://pro.europeana.eu/event/manuscritos-no-palco-maratona-de-transcricao>

		takes place entirely online, using the Transcribathon platform.		
<b>Events delivered through the EAF training programme</b>				
APEF	Using Vocabularies and Linked Data #ConnectingArchaeology <sup>100</sup>	Presentation on "How vocabularies can help organise information" as guest speaker at CARARE's webinar series	Online	30/04/2021
APEF	Europeana Aggregators Forum	Presentation on "Automatic topic detection in a multilingual environment"	Online	21/05/2021
APEF	APEF Country Managers meeting	Train-the-trainers webinar on the importance of metadata quality with a special focus on using vocabularies for subject headings; this is part of APEF's work in relation to the automatic topic detection tool and general support for topic-based entry points to the data, which are expected to also benefit the data shared with Europeana	Online	25-28/05/2021
CARARE	VIGIE workshop <sup>101</sup>	Presentation 'Sharing 3D Cultural Heritage: Standards and metadata'	Online	14/04/2021
CARARE	CAA-GR 2021 SESSIONS (Spring Edition) – "Open Digital Archaeological Content in the Connected World: Curation and Stewardship" <sup>102</sup>	Presentation 'Connecting archaeology datasets in Europe: background, challenges and possibilities'	Online	16/04/2021
CARARE	Using Vocabularies and Linked data: #ConnectingArchaeology webinar <sup>103</sup>	CARARE's webinar and presentation 'Exploiting vocabularies and linkThe aim of the event was to comment of the evolution of the digital approach of museums in a post-pandemic world, illustrating the Europeana frameworks and resources that the European museums may apply to create, share and reuse quality digital content.ed data: in practice'	Online	30/04/2021
MCA (MUSEU)	Presentation within the Adrinetbook project	Presentation of EDM and Europeana Publishing Framework	Online	01/04/2021

<sup>100</sup> <https://vimeo.com/547534057>

<sup>101</sup> <https://digitalheritagelab.eu/event/workshop-quality-in-3d-digitisation-of-cultural-heritage/>

<sup>102</sup> <https://gr.caa-international.org/el/2021/03/24/caa-gr-2021-sessions-spring-edition/>

<sup>103</sup> <https://www.carare.eu/en/events/using-vocabularies-and-linked-data-connecting-archaeology/>

MCA (MUSEU)	Benefits of sharing content with Europeana <sup>104</sup>	The experts of four small cultural institutions in Poland, Croatia, Hungary, Italy explained how they benefited from being part of the larger community of MUSEU that supported them in the process of creating, sharing and re-using quality digital content for Europeana.	Online	19/04/2021
MCA (MUSEU)	Museums going digital: why invest in quality digital content?	The aim of the event was to comment of the evolution of the digital approach of museums in a post-pandemic world, illustration the Europeana frameworks and resources that the European museums may apply to create, share and reuse quality digital content.	Online	19/04/2021
Photoconsortium	History in pictures from Bulgaria <sup>105</sup>	Crowdsourcing action embedded in one CitizenHeritage event, collecting annotations on NALIS' legacy records which will be sent to Europeana to enrich the dataset	Online	26-27/05/2021

*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 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 the framework is developed and implemented collaboratively with stakeholders, and an effective feedback cycle is established.	-

<sup>104</sup> <http://www.michael-culture.eu/europeana-dsi>

<sup>105</sup> <https://www.citizenheritage.eu/citizen-science-workshops/sofia/>

## 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)<sup>106</sup> and Europeana Aggregators' Forum (EAF)<sup>107</sup> (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	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 3.2.1. Maintain and develop the effective governance of ENA/EAF</b>										
EF	Periodic meetings organised (incl. Management Board and Members Council)	Ongoing	-							
EF	Governance working group <sup>108</sup> (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)	Done	-							
<b>Objective 3.2.2. Maintain and develop the operational activities of ENA/EAF</b>										
EF	General management support for Task Forces, Working Groups and communities	Ongoing	-							
EF	General management for Task Forces, Working Groups and members	Ongoing	-							

<sup>106</sup> <https://pro.europeana.eu/network-association/sign-up>

<sup>107</sup> <https://pro.europeana.eu/page/aggregators>

<sup>108</sup> <https://pro.europeana.eu/project/governance-working-group>

NISV	Annual reports 2020 (ENA and EAF) published	Done	-							
NISV	Annual work plans 2021 (ENA and EAF) developed	Done	-							
EF	Thematic agenda for Europeana Initiative published	30%	M36							
EF	Strategy and plan to support diversity and growth of ENA and EAF created	20%	M36							
<b>Objective 3.2.3. Engage with research communities</b>										
EF, Athena RC	Digital Panel on 1940s webinar organised	Done	-							
EF	Research Grants (2020) launched	100%	-							
EF	Research Community: Research Community blog series on Europeana Pro launched	Done	-							
EF	Research Community: Research Requirements TF's recommendations on researchers' needs <sup>109</sup> available	85%	M36 <sup>110</sup>							
EF	Europeana Research: new strategic plan developed	Not started	M36							
EF	Research Grants (2019) <sup>111</sup> : Events and outputs completed	80%	M35							
EF, CLARIN	Ingestions into VLO completed	100%	-							
EF	OCLC integration	90%	M35							
EF	'Research and digital cultural heritage: new impact horizons' Symposium (11-12 May 2021) <sup>112</sup>	100%	-							
EF	Contribution to the programme committee of the Digital Humanities	90%	M34							

<sup>109</sup> <https://pro.europeana.eu/project/research-requirements>

<sup>110</sup> The initial scope of the TF was reduced in agreement with the ENA MB. The TF undertook research and collected data it was ill equipped to analyse. The TF is no longer active and it was agreed that EF will produce the final report, limited from its original scope to document the process and method followed, and the outputs of that (not including analysis/conclusions/ recommendations found from the data). A request for approval of this adjustment was submitted to the EC in a separate document in June 2021.

<sup>111</sup> Research Grants 2019 events and outputs were postponed due to COVID-19 pandemic and will still be delivered throughout 2020/2021.

<sup>112</sup> <https://pro.europeana.eu/event/research-and-digital-cultural-heritage-new-impact-horizons>

	Benelux Conference 2021 (2-4 June 2021) <sup>113</sup>									
EF	Panel on <i>Masterclasses for Open Digital Cultural Heritage</i> (co-organised with University of Amsterdam as part of the Research Grants 2019)	100%	-							
EF	New service of downloading datasets available on Europeana Pro	50%	M34							
EF	Survey on reuse of Europeana images (in collaboration with Humboldt University)	30%	M35							

#### Objective 3.2.4. Communicating and promoting to professionals and partners

EF, GS 114	Editorial reviewed and all static content updated (Europeana Pro)	Ongoing	-							
EF	Pro themes published	Ongoing	-							
EF, GS 115	(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 <sup>116</sup> available	95%	M35							

#### 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	Done	-							

<sup>113</sup> <https://2021.dhbenelux.org/>

<sup>114</sup> Including editorials from all GS projects, and other EU funded projects.

<sup>115</sup> Including GS editorials published on Europeana Pro.

<sup>116</sup> <https://pro.europeana.eu/project/europeana-as-a-powerful-platform-for-storytelling>

EF	Code quality and accessibility improvements implemented	Done	-							
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*Research Grants (2020) launched* - Some adjustments to the 2020 call were required by the pandemic. Since the new format of the Research Grants Programme supports events, the launch of the 2020 call was postponed to April 2021.<sup>117</sup> We plan for the events to not take place before January 2022 (and not later than June 2022). The call's theme is 'Crowdsourcing and Research'. In response to the situation generated by the pandemic and the increasing interest for digital resources and tools available for reuse in university courses, part of the overall budget for the grants was allocated to special prizes that will support the making of video tutorials showing the potential of such resources and tools in Higher Education. Approximately forty proposals were submitted to EF. EF will announce the successful ones by the end of July.

*Ingestions into VLO completed* - CLARIN harvested and imported new language resources to the Virtual Language Observatory, which allows their reuse with a variety of digital tools. After the accomplishment of this task, the number of records from Europeana increased from 275,000 (October 2020) to 327,249 (April 2021).<sup>118</sup>

*'Research and digital cultural heritage: New impact Horizons', online symposium (11-12 May 2021)*<sup>119</sup> - EF organised this symposium in response to the growing interest in social impact shown by policy makers and funding organisations, as well as researchers and cultural heritage professionals engaged in promoting the reuse of digital cultural heritage. A scientific committee was set up, and twenty speakers represented each of these four points of views. More than 400 people signed up to participate; a survey and video recordings were distributed afterwards. Even if the symposium was conceived as a part of the offer to the Europeana Research and Impact communities, the outreach went well beyond them, especially thanks to the support of a big research infrastructure like DARIAH, which is also one of the Europeana's main stakeholders in the research area.

*Panel on Masterclasses for Open Digital Cultural Heritage, co-organised with University of Amsterdam as part of the Research Grants 2019 (25 May 2021)* - The panel aimed to introduce the masterclasses as an event format new to cultural heritage institutions, proposed as ideal places for discussions about the reuse of digital cultural heritage in research projects.<sup>120</sup> Four well-renewed speakers were invited to discuss three themes for as many masterclasses, which will be concretely tested in 2022. Approximately 90 people signed up, half of them attended. The video recordings were circulated among them and on social media.

#### *Communication and dissemination activities*

<sup>117</sup> <https://pro.europeana.eu/post/europeana-research-grants-the-2021-call-is-out>

<sup>118</sup> <https://vlo.clarin.eu/search?1&fq=dataProvider:Europeana&fqType=dataProvider:or>

<sup>119</sup> <https://pro.europeana.eu/event/research-and-digital-cultural-heritage-new-impact-horizons>

<sup>120</sup> <https://pro.europeana.eu/event/masterclasses-for-open-digital-cultural-heritage>

Partner	Name of event	Activity	Location	Date
EF	From Digital Humanities to Participatory Practices. Europeana, Cultural Heritage, History, Identity.	Talk on Europeana.	Online	20/04/2021
EF	DH Goes Viral Workshop	Presentation on the Europeana Research's activities during the pandemic.	Online	25/04/2021

### Reporting metrics: nurture networks

No.	Description	Measured by	Frequency	Target	Mar 2021	Apr 2021	May 2021
KPI 3.3	Growth of Europeana Network Association members	Number of members in the ENA	Bi-monthly	2,250	2,805	-	2,978
KPI 3.4	Satisfaction of the Europeana Network Association members with the ENA	Average satisfaction on a 5-point Likert scale <sup>121</sup>	Once a year	75%	-	-	Expected Jun 2021
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	-	-	-	-
RM 3.9	Working groups in the Europeana Network Association	Number of active working groups per month	Bi-monthly	-	2	-	3

<sup>121</sup> The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals a satisfaction rate of 72%).



RM 3.10	Active members in the Europeana Network Association	Number of members participating in task forces and working groups per month	Bi-monthly	-	140	-	145
RM 3.11	Research Grants events	Total number of events organised (cumulative) <sup>122</sup>	Bi-monthly	-	2	-	3 <sup>123</sup>
RM 3.12	People reached with research Grants events	Total number of people participating in events (cumulative)	Bi-monthly	-	240	-	280
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	-	5,698	-	6,086
RM 3.15	Traffic to Europeana Pro	Number of visits per month	Monthly	-	32,416	33,689	30,950
RM 3.16	Returning visitors to Europeana Pro	Percentage of visitors returning	Monthly	-	35.20%	36.90%	36.30%
RM 3.17	New visitors to Europeana Pro	Total number of new visitors per month	Monthly	-	20,933	21,260	19,706

<sup>122</sup> Note: due to the COVID pandemic some events of the Research Grants programme 2019 are still due to be completed in 2020/2021.

<sup>123</sup> Note: we adjusted the metric compared to the previous period. In total three Grant events were organised within the current DSI year. One event was not added to the previous report. Additional to the event organised in May (see reporting above), one event was held on 29 September 2020 under the title '[Using FAIR data from Galleries, Libraries, Archives and Museums \(GLAM\) sector](#)', and another one on 29 October 2020 under the title '[Publishing GLAM data as FAIR data](#)'.

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	-	2,160	-	2,389

This period one new working group started, the ENA Membership Working group<sup>124</sup>. The group started its work in May 2021 and will explore the membership benefits of the ENA, and look for new ways to engage and recruit members.

In May, one new Research Grants 2019 event was organised as part of the panel on Masterclasses for Open Digital Cultural Heritage, co-organised with University of Amsterdam (see reporting on page 44). 40 participants attended the event.

#### *Risk assessment: nurture networks*

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R3.3	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	-
R3.4	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	-
R3.5	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	-
R3.6	Digital collections do not comply with the FAIR principles <sup>125</sup> and	High (4)	Low (2)	8	Create awareness of the importance of the FAIR	-

<sup>124</sup> <https://pro.europeana.eu/project/ena-membership-working-group>

<sup>125</sup> <https://www.go-fair.org/fair-principles/>

	are not considered to meet the quality criteria to be used in academic research				principles in the GLAM sector.	
R3.7	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).

*Overview of outcomes: strengthen national infrastructures*

Partner	Outcomes	Progress	Due date	Apr M32	May M33	Jun M34	Jul M35	Aug M36	Sep M37	Oct M38
<b>Objective 3.3.1. Develop and maintain interoperable licensing framework</b>										
EF	Guidelines on good practice for institutions to manage copyright developed and promoted	Ongoing	-							
EF	Copyright Community Task Force: rights labelling Task Force completed	90%	M35							
EF	RightsStatements.org strategy and plan 2021 developed	50%	M35							

EF	RightsStatements.org Task Force: Supporting the implementation of statements completed	100%	-	■	■						
EF	RightsStatements.org: Implementing recommendations of membership model	60%	M36	■	■	■	■	■			
EF	Copyright Office Hours: Supporting Each Other with Copyright Challenges <sup>126</sup>	50%	M36	■	■	■	■	■			
<b>Objective 3.3.2. Developing the evidence of digital transformation</b>											
EF	Longitudinal research into impact of EF services supported	Ongoing	-								
EF	Impact lite Task Force completed	75%	M36	■	■	■	■	■			
EF	Impact question bank published on Europeana Pro	100%	-	■							
EF	Phase 3 Europeana Impact Playbook published	80%	M36	■	■	■	■	■			
EF	MS8 Report on impact research and development published	10%	M36	■	■	■	■	■			
EF	Phase 3 Europeana Impact Playbook draft for review	100%	-	■	■						
EF	New Professionals Task Force completed	100%	-	■							
<b>Objective 3.3.3 Engage with Member States</b>											
EF	German presidency Europeana conference	Done	-								
EF	German Presidency Europeana conference report published	Done	-								
EF	Portuguese presidency event/report	50%	M36	■	■	■	■	■			
EF	Impact assessment of the Portuguese presidency event	60%	M36	■	■	■	■	■			

*RightsStatements.org Task Force: Supporting the implementation of statements completed*<sup>127</sup> - The implementation taskforce provided recommendations on how the consortium can best raise

<sup>126</sup> <https://pro.europeana.eu/post/copyright-office-hours-supporting-each-other-with-copyright-challenges>

<sup>127</sup> Report available on request.

awareness of the benefits of using standardised rights information, and on the type of support that the consortium should provide to those seeking to adopt the statements, including materials, an up to date website and a network of practitioners.

*Impact question bank published on Europeana Pro*<sup>128</sup> - in May 2021 we published the Europeana Impact Question bank. This resource shares a bank of standardised questions relating to Europeana’s work in digital cultural heritage which can be used by anyone. This is an accompaniment to Phase 2 of the Impact Playbook. As a constantly updated resource, it aims to support cultural heritage institutions and our partners in their data collection and impact assessment practices, particularly surveying stakeholders. Most of the questions included have been used and refined in practice. Others are being developed in response to our work and the conditions in which we and the sector are operating. Read the Pro blog post<sup>129</sup> introducing the tool.

*Phase 3 Europeana Impact Playbook draft for review*<sup>130</sup> - in early May 2021, the beta version of Phase three of the Impact playbook was released for review after being developed by a small group of Europeana Foundation colleagues and external advisors. Phase three is dedicated to narrating your impact story and includes resources, tips and tools to help you build and validate your narrative and visualise data. It has been shared with an invited audience of experts and Network members, the Impact Community and downloaders of the Impact Playbook, and noting the relevance of the topic, with the steering group and wider members of the Communicators Community. The deadline for the beta review is the end of June 2021, after which point changes will be incorporated and Phase three will be published on Pro.

*New Professionals Task Force completed* - The Europeana New Professionals Task Force explored the challenges and barriers facing new professionals working in the cultural heritage sector, while also identifying opportunities to include and support them within the Europeana Network Association. This, in turn, aims to increase spaces for new voices in the ENA and its communities, to help support a more diverse, inclusive, and sustainable network. The Task Force produced a detailed report and several interlinked recommendations on how the Europeana Initiative can include, support and encourage new professionals within the network. The work of the Task Force was promoted through a report on Europeana Pro.<sup>131</sup>

*Reporting metrics: strengthen national infrastructures*

No.	Description	Measured by	Frequency	Target	Mar 2021	Apr 2021	May 2021
KPI 3.7	Take up of rs.org	Percentage of active aggregators that integrated	Once a year	35%	-	-	Expected Aug 2021

<sup>128</sup> <https://pro.europeana.eu/page/europeana-standardised-question-bank>

<sup>129</sup> <https://pro.europeana.eu/post/supporting-impact-practice-with-the-europeana-standardised-question-bank>

<sup>130</sup> Available on request.

<sup>131</sup> <https://pro.europeana.eu/post/supporting-new-professionals-in-the-cultural-heritage-sector>

		rs.org in their infrastructure					
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	-	18.4 million	-	18.5 million
RM 3.22	Reach to Europeana Copyright community	Number of people reached per month (Mailing list, Twitter, newsletter)		-	3,454	-	3,663
RM 3.23	Reach to Europeana Impact community	Number of people reached per month (Newsletter, LinkedIn)	Bi-monthly	-	1,707	-	1,792
RM 3.24	Satisfaction with the Europeana EU presidency events	Average satisfaction on a 5-point Likert scale <sup>132</sup>	Upon occasion	-	-	-	Expected Jun 2021

*Risk assessment: strengthen national infrastructures*

ID	Risk	Probability	Impact	Rate	Mitigation strategy	Change
R3.8	Rightsstatement.org: Challenge to build a sustainable consortium 2021 - especially more challenging post-covid	Low (2)	Medium (3)	6	The new membership model is operational in 2020, and a revision of services offered by the consortium will together be used to attract new members.	-

<sup>132</sup> The average satisfaction on a 5-point Likert scale is translated into % (e.g. an average of 3.6 stars equals a satisfaction rate of 72%).

					Post-covid we are taking steps to specifically re-review the model and simplify in light of the perceived impact.	
R3.9	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	<p>Involve internal stakeholders and members of the network to provide motivation and opportunity to support this work to ensure a timely completion.</p> <p>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.</p>	-
R3.10	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.	-
R3.11	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 achieved and the recommendations are not sufficiently implemented.	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.	-

## 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	Apr M32	May M33	Jun M34	Jul M35	Aug M36
EF	Programme management	Ongoing					
B.2/B.3	Periodic reports M32	100%					
C.1	Technical documentation	100%					

In the reporting period, we submitted two deliverables to EC (B.2/B.3 Periodic report and C.2/C.3 Users and usage report). Both deliverables are available on Europeana Pro.<sup>133</sup>

#### **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 May 2021
<b>WP 1: Strengthen the infrastructure</b>	<b>49.50%</b>	<b>50.44%</b>
Task 1.1. Easy data publishing	11.60%	12.47%
Task 1.2. Europeana website experience	14.90%	13.54%
Task 1.3. Reliable platforms	8.40%	10.35%
Task 1.4. Discoverability of digital cultural content	14.60%	14.08%

<sup>133</sup> Available on the Europeana DSI-4 project page. <https://pro.europeana.eu/project/europeana-dsi-4>



<b>Work package 2: Improve data quality</b>	<b>17.50%</b>	<b>17.01%</b>
Task 2.1. Quality assured data	12.50%	11.43%
Task 2.2. Enriched data	5.00%	5.58%
<b>Work package 3: Build capacity</b>	<b>26.50%</b>	<b>25.18%</b>
Task 3.1. Build capacity of aggregators and professionals	10.80%	11.28%
Task 3.2. Nurture networks	9.60%	8.60%
Task 3.3. Strengthen national infrastructures	6.10%	5.30%
<b>Work package 4: Programme management</b>	<b>6.50%</b>	<b>7.37%</b>
Task 4.1. Programme management of Europeana DSI-4	6.00%	6.43%
Task 4.2. Relations with Europeana DSI Generic Services projects	0.20%	0.74%
Task 4.3. Governance (DCHE)	0.10%	0.08%
Task 4.4. Phasing-in and phasing-out periods	0.20%	0.12%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

### Major changes in staff, if applicable

In May, Andy Neale (Chief Digital Officer) left the Europeana Foundation. The responsibilities were taken over by Valentine Charles (new Data Services Director) and Hugo Manguinhas (new Head of Engineering).

### 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	-

## Task 4.2. Relations with Europeana Generic Services projects<sup>134</sup>

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	Apr M32	May M33	Jun M34	Jul M35	Aug M36
EF	Programme coordination	Ongoing					
<b>Objective 4.2.1. Supporting Europeana Generic Services (CEF-TC-2018-1) call</b>							
Call commitments concluded.							
<b>Objective 4.2.2. Supporting Europeana Generic Services (CEF-TC-2019-1) call</b>							
EF	Europeana XX <sup>135</sup>	70%					
EF	Europeana Pagode <sup>136</sup>	N/A					
EF	Europeana Sport <sup>137</sup>	50%					
EF	ARMA - the art of reading in the middle ages <sup>138</sup>	45%					
<b>Objective 4.2.3. Supporting Europeana Generic Services (CEF-TC-2020-1) call</b>							
EF	Jewish History Tour <sup>139</sup>	5%					
EF	Weave <sup>140</sup>	5%					
EF	Europeana Enrich+ <sup>141</sup>	5%					
<b>Other projects (Horizon 2020, CEF - Public open data and CEF - eArchiving)</b>							

<sup>134</sup> This section also highlights other projects the DSI platform is involved with.

<sup>135</sup> Project officially requested an extension of three months (tbc by HaDEA)

<sup>136</sup> <https://pro.europeana.eu/project/europeana-xx>

<sup>137</sup> <https://pro.europeana.eu/project/pagode-europeana-china>

<sup>138</sup> <https://pro.europeana.eu/project/europeana-sport>

<sup>139</sup> <https://pro.europeana.eu/project/the-art-of-reading-in-the-middle-ages-arma>

<sup>140</sup> <https://pro.europeana.eu/project/jewish-history-tours>

<sup>141</sup> <https://pro.europeana.eu/project/weave-widen-european-access-to-cultural-communities-via-europeana>

<sup>141</sup> <https://pro.europeana.eu/project/enricheuropeana>

EF	SGoaB - Saint George on a Bike <sup>142</sup>	45%					
EF	InDICES <sup>143</sup>	40%					
EF	Europeana Translate <sup>144</sup>	5%					

The ‘European Jewish Community Archive - EJCA’ led by Jewish Heritage Network (JHN) was funded under the CEF Telecom eArchiving<sup>145</sup> call. EJCA aims to promote the adoption of eArchiving solutions and standards by the European cultural heritage sector while using Jewish heritage as a sample. It will also interconnect the Europeana, eArchiving and eTranslation DSIs. The consortium has 6 partners from across Europe, incl. EF. The project is expected to start in September 2021 and it will run for 18 months. We will start reporting on the project once the project starts.

*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 flag and mitigate possible risks.</p>	-

**Task 4.3. Governance (DCHE)**

**Partners:** EF

<sup>142</sup> <https://pro.europeana.eu/project/saint-george-on-a-bike>

<sup>143</sup> <https://pro.europeana.eu/project/indices>

<sup>144</sup> <https://pro.europeana.eu/project/europeana-translate>

<sup>145</sup> <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-telecom/apply-funding/2020-earchiving>

Under WP7 EF reports to the European Commission, the Expert Group on Digital Cultural Heritage and Europeana (DCHE)<sup>146</sup> 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.

EF attended the DCHE meeting on 5 May 2021.

#### **Task 4.4. Phasing-in and phasing-out periods**

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**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 M32/M33.

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<sup>146</sup> <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 (1 September 2020 - 31 August 2021).

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	M33 (May 2021)	Done
MS2	WP1	Search strategy delivered (including community feedback)	Milestone document sent to EC	M32 (Apr 2021)	Done
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.<sup>147</sup>

ID	Description	Due month	Done	Due
A.1	Platform reports	Every 10 months, starting M10	M30 (Feb 2021)	-
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) - M34 (Jun 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		-	

<sup>147</sup> Note: the schedule of deliverables was updated in January 2020.

## Annex: Glossary of terms

Formal definitions of terms used frequently are detailed in the glossary of terms<sup>148</sup> 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: <a href="https://www.europeana.eu/portal/en/explore/people/61016-alphonse-mucha.html">https://www.europeana.eu/portal/en/explore/people/61016-alphonse-mucha.html</a>
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. <a href="https://metis.europeana.eu/home">https://metis.europeana.eu/home</a>
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.

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<sup>148</sup> <https://pro.europeana.eu/resources/standardization-tools/glossary>

MINT	Mapping tool to define semantic mappings between source and target 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. <a href="https://en.wikipedia.org/wiki/Schema.org">https://en.wikipedia.org/wiki/Schema.org</a>
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.