As an initiative of the European Union, the Europeana DSI-4 project is implemented by a consortium of 23 partners with Europeana Foundation as coordinator.

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The second year of Europeana DSI-4 has been a year of two halves. From September 2019 to February 2020, we worked as usual and we met as usual - including in November at our Europeana 2019 ‘Connect Communities’ conference in Lisbon, Portugal. And then in March 2020, the world changed and so did the way we work.

The coronavirus pandemic continues to affect all of us - Europeana Foundation staff, our partners and friends in the Europeana Network Association, the Europeana Aggregators’ Forum and all of the projects we are part of. It has been a challenging time, with many people adapting to new ways of working, and we must thank all for their continued dedication and hard work on behalf of the Europeana Initiative.

We’ve also of course been affected and given cause to think deeply by the rise in activism against societal inequalities and injustices, and the need for cultural institutions to show their relevance to all parts of society at this time.

But it is heartening that while there is unease across the world, there is also a real sense of togetherness and we see that in the work of all involved in the Europeana Initiative. Over the past year, despite the crises the sector faces, we have seen much progress. A new five-year strategy was developed which formalises the Initiative’s mission to empower the cultural heritage sector in its digital transformation. We have revamped both the Europeana collections website - to make it easier to discover items you’re going to love - and Europeana Pro, to make joining and working with us much easier. We’ve advocated for the sector via an impressive Europe Day webinar, discovered fascinating stories through our ‘Europe at work’ season, and updated our APIs so that more people can do more things with Europe’s rich heritage.

We again thank everyone involved for their contributions and we look forward to moving into the third year of Europeana DSI-4 together.

Harry Verwayen
Executive Director, Europeana Foundation
Discoverability and use of digital cultural heritage

The Europeana Digital Service Infrastructure (DSI) showcases and provides online access to Europe’s digital cultural heritage. We aim to make it easier for people to use cultural heritage for education, research, creation and recreation. Our work contributes to an open, knowledgeable and creative society. Our main audiences are: European citizens, educational and research communities, as well as API consumers.

The Europeana collections website provides access to about 50 million1 digitised cultural heritage objects from thousands of cultural heritage institutions: libraries, museums, archives and audiovisual collections. The following section provides information on use and user satisfaction of the Europeana collections website in the past year.3

Number of visits is our key success metric for the Europeana collections website. Our target is to reach 500,000 visits per month. In the past year, we performed very well with an increase of traffic of 29.2% (equal to almost 6.1 million visits/year). In comparison to year one of Europeana DSI-4 we saw a steady increase in traffic, hitting almost 670,000 visits/month for the first time in April 2020.

Particularly successful in generating traffic were the Europe at Work season and the GIF IT UP contest in autumn 2019. From January 2020 onwards we got a boost in organic traffic, because more pages were crawled by Google. In March, we saw a peak in traffic related to communication and dissemination activities for the Women’s History Month. In March/April we also communicated the launch of the updated partner institutions prominent on the new repository (including content tier 0) are about 60 million items.

In-/decrease
Traffic to Europeana collections website comparing year 1 (Sep 2018 - Aug 2019) and year 2 (Sep 2019 - Aug 2020)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Aug 2019</th>
<th>Aug 2020</th>
<th>In-/decrease</th>
<th>Target Aug 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total visits</td>
<td>4,716,738</td>
<td>6,093,829</td>
<td>+ 29.2%</td>
<td>6,000,000</td>
</tr>
<tr>
<td>Returning visitors</td>
<td>1,361,478</td>
<td>1,691,900</td>
<td>+ 21.7%</td>
<td></td>
</tr>
<tr>
<td>Avg. visit duration</td>
<td>00:02:40</td>
<td>00:01:90</td>
<td>- 20.8%</td>
<td></td>
</tr>
<tr>
<td>Pages per visit</td>
<td>3.2</td>
<td>3.3</td>
<td>+ 3.1%</td>
<td></td>
</tr>
<tr>
<td>Downloads</td>
<td>352,682</td>
<td>441,546</td>
<td>+ 25.2%</td>
<td>240,000</td>
</tr>
<tr>
<td>Click-throughs to partners’ websites</td>
<td>241,200</td>
<td>132,665</td>
<td>- 44.1%</td>
<td></td>
</tr>
</tbody>
</table>

Usage statistics for the Europeana collections website comparing year 1 (Sep 2018 - Aug 2019) and year 2 (Sep 2019 - Aug 2020)

User return rate is another key metric we look at when we evaluate the success of the Europeana collections website. We can see that the user return rate remained stable for the past two years with small changes between 11.50% and 13.50%. In the past year we saw a slight decrease of 0.5% which might be related to more visits by users that can’t be tracked because of private/incognito browsers or users that do not allow cookies. Our aim is to see a steadily growing user return rate from year to year. To achieve this, the consortium maintains and continuously improves the website with a focus on a satisfying collections experience for users.

The latest user satisfaction survey on the Europeana collections website, done in July 2020, showed a very good NPS score4 of 42 for the question ‘How likely is it that you would recommend our service to a friend or colleague?’ Exhibitions achieved a very good NPS score, with an average of 53 in the past year.

In the past year, we saw a positive trend in the number of records downloaded. Number of click-throughs decreased. We assume that as data quality improves over time on the website there is less need for users to click-through to partners’ websites to explore the content. To increase traffic to partners’ websites we placed the partner institutions prominent on the new record page, visible for users to click. We also saw that the average time spent per visit decreased. This does not necessarily show lower user satisfaction, it can also mean that users were able to find what they are looking for faster.

2 Excluding items that are not compliant with the Europeana Publishing Framework (content tier 0 material). All items available in the Europeana repository including content tier 0 are about 60 million items.
3 More information can be found in C.2C.3 Users and usage reports available on the Europeana DSI-4 project page.
4 An NPS is calculated based on responses to a single question: ‘How likely is it that you would recommend our company/product/service to a friend or colleague?’ NPS rating is on a scale of -100 to +100, with a score of +50 considered excellent. https://en.wikipedia.org/wiki/Net_Promoter
5 Equals to 500,000 visits per month.
Engage European citizens

User engagement activities encourage both traffic to the Europeana collections website and the use of digital collections. They aim to reach cultural enthusiasts across Europe. In the past year, we highlighted high-quality content in editorials and via thematic seasons. Users engaged with cultural heritage on the Europeana collections website through participatory campaigns, and we promoted content via social media. Our end-user newsletter in two languages (French, English) reached about 49,400 subscribers each month. We also engaged users on Transcribathon.eu and via their communities of interest through partnerships.

High-quality editorial features

We used cultural heritage to tell our audiences curated stories through a number of formats including blogs, galleries and exhibitions. Editorial was produced by the Europeana DSI-4 consortium and Generic Services project partners. Curated content was particularly successful at generating traffic to the Europeana collections website and in its promotion on social media. Highlights of the past year are further detailed in this section.

Europe at Work

Between September and December 2019, we ran the Europe at Work season. In partnership with museums, galleries, libraries and archives across Europe, Europeana aimed to show that the working world we inhabit today is rich and varied and is the result of a series of technological and societal changes over time. Dedicated editorials illustrated the story of our working lives in the past and the present through cultural heritage content available on Europeana. During the season we published blogs, galleries and the exhibition ‘Still a Working Title? Social and Employment Realities’ with the Commission’s Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL). The editorial for the season showcased a wide variety of cultural heritage objects from hundreds of CHIs coming from all EU Member States.

The season also included a series of collection days which recorded the stories of the people who have worked at industrial heritage sites across Europe. Anyone could join online, by submitting a story about their working lives, or at events to which they brought their stories along with material such as pictures, diaries, videos and letters. We ran collection day events in cities, towns and villages in nine countries: Finland, Germany, France, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Sweden. We assessed the impact of the collection days by undertaking user research. We found that they encouraged a sense of a European connection for the participating hosts and those contributing their stories. It brought local objects and stories to new, international audiences; created connections to partners across Europe; and for some, appeared to improve the standing or reputation of the host organisation. It strengthened collection day hosts’ relationships with existing audiences and local partners.

Our collaborations with third-parties are excellent ways to promote cultural heritage material to wider audiences. Throughout the season, four openly licensed artworks presenting industrial heritage themes were featured in the DailyArt App and four guest blog posts were published on DailyArt Magazine. The four paintings presented in the app received over 1.5 million views.

The season was also supported by editorials on Europeana Pro focusing on engaging audiences through events and social media, applications of industrial heritage material in education, and how working lives in the cultural heritage sector are being transformed by digital technology.

What users say about the Europe at Work collection days

‘We still don’t yet have our collections online for people to see… we are working on digitisation. This collection day will be the first time we will be able to put something online.’
Emi Ingo, Fiskars Museum

‘On our way to digitize and share our collection, the collection days mark one step to visibility and accessibility… a great motivation for our colleagues to publish online and open access.’
Dr Elisabeth Böhm, Stiftung Historische Museen Hamburg

‘It means a lot to me… for my ancestors who still exist thanks to [Europeana]!’
Julien Paraiso

‘For the next generation we should leave an idea of how we lived, how we worked, with whom we have interacted, and tell our story’
António Gamito, Ambassador of Portugal to Luxembourg
Discovering Europe

Running from May to October 2020, our Discovering Europe season is one of a series of complementary European Commission-related initiatives to promote cultural heritage in the challenging economic context of tourism in 2020. Whether our audiences planned to stay close to home, visit new areas, or learn about unfamiliar places, Discovering Europe showcases cultural heritage to inspire travel and tourism. Throughout the summer we featured hidden gems and cultural jewels across the continent in editorial features and learning scenarios.

A page on Europeana Pro for cultural heritage professionals brought together information about the Discovering Europe editorial alongside news items, projects, apps and initiatives related to cultural heritage tourism from the Europeana Network Association and beyond.

Women’s History Month 2020

Every March, we mark Women’s History Month by publishing and promoting editorial features. This year, every day in March, we shared an amazing array of stories woven from cultural heritage, from suffragettes to Swedish jazz singers, literary anti-heroines to Irish freedom fighters, Josephine Baker to Astrid Lindgren. Our audience loved it. Here’s a typical comment: ‘Thank you, it’s an exquisite, valuable and very aesthetic tribute to women’s history.’

GIF IT UP competition

The fifth edition of the GIF IT UP competition was held in October 2019 where audiences were asked to create animated GIFs from openly licensed cultural heritage material. The competition increased reach to new and wider audiences. We collaborated with international partners including DPLA (Digital Public Library of America), Digital NZ (New Zealand), Trove (National Library of Australia), and the leading online GIF site GIPHY to run and promote the competition. 186 submissions were received. A jury selected the winning submissions while the public had a chance to select their favourites by voting.

GIF IT UP is one of our most successful communications activities. The campaign saw over 186.5 million impressions on social media in one month. This number was mainly achieved by the publication of Europeana GIFs on the homepage of giphy.com. The social posts including the hashtag #GIFITUP2019 received more than 10 million views on social media.

Exhibitions

Exhibitions use digitised cultural heritage from multiple institutions across Europe to tell stories that reflect the cultural diversity of Europe. Europeana’s exhibitions consistently receive high ratings from audiences and they are excellent traffic generators for the website. In the past year, we created 10 exhibitions.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of exhibitions created</td>
<td>10</td>
</tr>
<tr>
<td>Number of blog posts created</td>
<td>131</td>
</tr>
<tr>
<td>Avg. Institutions featured in editorials per month</td>
<td>160</td>
</tr>
<tr>
<td>Avg. countries of data providers presented in editorials per month</td>
<td>28</td>
</tr>
</tbody>
</table>

Statistics for editorial features (Sep 2019 - Aug 2020)

Screenshot of Europeana exhibitions at europeana.eu
Social media

Cultural enthusiasts engaged with digital cultural content via our various social media channels. Our social media activity not only generated traffic to the Europeana collections website, but also achieved high engagement of cultural heritage material on the platforms themselves. In the past year, a large increase was seen in traffic coming from social media (+179.9%).

Our presence on Facebook, Pinterest, Giphy, Twitter, and Instagram was very successful with a huge increase in reach (+337.5%) and engagement (+208.4%) on all platforms. For example, Europeana's gifs show up on the first result page on GIPHY for keywords like 'amour' and 'mustache', generating much visibility. Pinterest grew organically with more users saving images from Europeana, while our growing Instagram account gained more traction in the past year.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Year 1</th>
<th>Year 2</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total impressions on social media</td>
<td>157,662,225</td>
<td>689,886,429c</td>
<td>+337.5%</td>
</tr>
<tr>
<td>Total of likes, shares, comments</td>
<td>1,416,166</td>
<td>4,367,687</td>
<td>+208.4%</td>
</tr>
<tr>
<td>Total of followers/fans</td>
<td>196,436</td>
<td>215,699</td>
<td>+9.8%</td>
</tr>
</tbody>
</table>

Usage statistics for social media comparing Europeana DSI year 1 (Sep 2018 - Aug 2019) and year 2 (Sep 2019 - Aug 2020)

Transcribathon.eu

Transcribathon.eu is a crowdsourcing platform allowing users to add transcriptions, tags and georeferences to historical material (historical letters, diaries and pictures). Transcriptions of documents are sent back to the providing cultural heritage institution, to make their content more accessible. In the past year, as part of the Generic Services project Enrich Europeana we developed the technical solution to display transcription and annotations coming from Transcribathon.eu on the Europeana collections website. Transcriptions are now displayed on the item page and can also be searched on to find the object.

In the past year, we organised six participatory events to encourage cultural enthusiasts to transcribe historical documents. Two online events and four physical transcribathon events were organised in cooperation with heritage institutions throughout Europe (Austria, Germany, Romania, and Poland). These events gained new contributors and resulted in many new transcribed documents.

<table>
<thead>
<tr>
<th>Metric</th>
<th>August 2019</th>
<th>August 2020</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents completed</td>
<td>11,500</td>
<td>34,000</td>
<td>+195%</td>
</tr>
<tr>
<td>Documents in progress</td>
<td>86,000</td>
<td>176,000</td>
<td>+105%</td>
</tr>
<tr>
<td>Total of followers/fans</td>
<td>2,000</td>
<td>2,500</td>
<td>+25%</td>
</tr>
</tbody>
</table>

Statistics from Transcribathon.eu comparing August 2019 with August 2020

Engage API consumers

Europeana APIs allow users to build applications that use the wealth of cultural heritage objects available on the Europeana collections website, supporting the development of new products, services and creations. API usage statistics showed some decreases in the past year while users remain interested in our APIs (+25% API sign-ups). This year we have put effort into reviewing the approach for encouraging the use of APIs and developed a new API engagement strategy to form the basis of plans for the year ahead. These plans include fostering the current API developer community, creating more visibility (both internally and externally), onboarding new users, updating tools, and inspiring new integrations.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Year 1</th>
<th>Year 2</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>REST API users that exceeded the average of 5 calls a day per month</td>
<td>68</td>
<td>56</td>
<td>-17.6%</td>
</tr>
<tr>
<td>REST API users that were active for more than 5 days in each month</td>
<td>66</td>
<td>56</td>
<td>-15.2%</td>
</tr>
<tr>
<td>Avg. API users per month (REST API)</td>
<td>168</td>
<td>167</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Total of API sign-ups (REST API)</td>
<td>575</td>
<td>722</td>
<td>+25.6%</td>
</tr>
<tr>
<td>Avg. requests per month (all APIs)</td>
<td>74,725,017</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Usage statistics for APIs comparing Europeana DSI year 1 (Sep 2018 - Aug 2019) and year 2 (Sep 2019 - Aug 2020)

Screenshot of crowdheritage.eu (the platform uses Europeana APIs)
Engage educational audiences

In the past year, we raised awareness on the educational value of digital cultural content, developed resources for teachers and promoted its use for learning. We also embedded relevant Europeana resources in various educational systems.

Our work was supported by the Europeana Education community composed of professionals with educational and cultural heritage backgrounds who believe in the important role culture can play for innovative teaching and learning. In January 2020, we published a blog post on Europeana Pro describing the best practices of our dedicated community members over the last months to foster the use of digital culture in education at the national level.

From May to June 2020, the Europeana Education community in collaboration with the Learning Museum (LEM) working group of NEMO ran a short survey to understand training needs of museum educators and how they use digital cultural heritage with students in compulsory education. The survey had 102 respondents and some interesting results are: more than 45% of the respondents had their digital collections already on Europeana; more than 70% haven’t received training to migrate their activities online; and almost 85% are willing to use Europeana ready-made resources in their educational activities. We will use these findings to refine our offers for museum educators, a new audience we aim to reach.

We shared useful information with our audiences on Europeana Pro, on the Europeana Education Facebook Group, and via the Europeana Education LinkedIn group. Our outreach to education communities was very successful in the past year which resulted in a high increase in ENA community members and followers on key communication channels.

In the past year, we attended events, contributing with presentations, workshops, and panel discussions to the topic of cultural heritage in education. For example, we held a webinar for teachers with UNIR (La Universidad en Internet) on how to browse for content on Europeana and to show the learning material available in the Europeana Classroom. Another example is a two-day workshop for teachers and museum educators to offer them hands-on activities, promoting Historiana and Transcribathon tools, and to get feedback on how to connect formal and informal education. More than 70 attended and rated Europeana education resources and services with an excellent NPS score of 67.

We collaborated with educational partners on cross-promotion and joint community outreach campaigns. In March 2020, we contributed to the Open Education week and the All Digital Week with sets of resources contributing to their campaigns.

Europeana Classroom
In March 2020, we launched a new space with 300+ educational resources for educators and learners on the Europeana collections website. Europeana Classroom provides access to learning scenarios in five European languages and is categorised by age groups, co-creation tools, apps and games.

Integration of Europeana resources on educational platforms
We included representations of Europeana sources (API integration and/or Europeana resources) on educational portals to increase the reach to their educational communities. This resulted in 8 new integrations in the past year. These platforms are from Ministries of Education, CHI portals and other platforms widely considered as EdTechs.

Most successful was our collaboration with the Unsplash (US) platform. Since January 2020 the online space with 206 Europeana items integrated has generated over 45.2 million visits and over 269,000 downloads on the platform itself.

Currently, Europeana content is integrated in four Ministry of Education portals (France, Spain, Portugal, Flanders-Belgium). By December 2019, the online spaces dedicated to Europeana Education in the portals of Spain, Portugal and France were updated with new learning resources developed in 2019 in their national languages. In the past year, we also established conversations with two new Ministries of Education, Greece and Croatia. This resulted in a new Europeana online space for Greek educators in the Institute of Educational Policy, and a broadcast on national television of an online lesson with Europeana content for Croatian students.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total learning resources using Europeana data</td>
<td>448</td>
</tr>
<tr>
<td>Total new representations in external learning environments</td>
<td>8</td>
</tr>
<tr>
<td>Avg. Net Promoter Score of teachers using Europeana</td>
<td>67</td>
</tr>
</tbody>
</table>

Statistics for educational outreach (Sep 2019 - Aug 2020)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Outreach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsplash online platform</td>
<td>US, worldwide outreach</td>
</tr>
<tr>
<td>Lucian Blaga Central University Library of Cluj-Napoca</td>
<td>Romania</td>
</tr>
<tr>
<td>Biblioteca Naţională Digitală Moldova</td>
<td>Moldova</td>
</tr>
<tr>
<td>OER Commons online platform</td>
<td>US, worldwide outreach</td>
</tr>
<tr>
<td>Flanders Onderwijs en Vorming - Klassement</td>
<td>Belgium</td>
</tr>
<tr>
<td>Photoconsortium Education Portal</td>
<td>European</td>
</tr>
<tr>
<td>Football makes history project</td>
<td>Netherlands, European</td>
</tr>
<tr>
<td>Institute of Educational Policy</td>
<td>Greece</td>
</tr>
</tbody>
</table>

New integration of Europeana resources on educational platforms (Sep 2019 - Aug 2020)

Europeana DSI-4 Annual report
Europeana DSI-4 Annual report
Europeana MOOCs

Between January and May, the Europeana massive online course took place in English, French, Italian, Spanish and Portuguese. The MOOCs had about 2,000 participants, of which 668 received a certificate. In the post-MOOC surveys, teachers gave an excellent NPS score of 70 on the likelihood of recommending Europeana education resources to other teachers. Furthermore, 97% agree or agree strongly that the course was good or very good.

Historiana

Published 12 new source collections and 12 eLearning activities with Europeana content on Historiana for history teachers across Europe.

In the past year, EuroClio also ran five physical workshops (France, Portugal, Finland, Romania and The Netherlands) with more than 150 participants to train history teachers and trainees on how to use Historiana. In June 2020, EuroClio also ran a webinar for more than 70 attendees on how to create learning activities with Historiana.

Europeana DSI-4 Annual report

Increase the use of digital cultural content for learning

We supported the development of digital learning resources with Europeana content and its use in classrooms and other educational projects. In this area, we worked closely with consortium partners European Schoolnet (EUN) and Euroclio (Historiana). In the past year, we developed in total 442 new learning resources with Europeana data. Teachers using Europeana at MOOCs, workshops and webinars evaluated Europeana with an excellent NPS of 67.

European Schoolnet

In collaboration with European Schoolnet (EUN), a network of 34 European Ministries of Education, we engaged with more than 2,000 teachers from 37 countries in the past year. We coordinated the Europeana Teacher Ambassador network and the Europeana Teacher User Group.

We created dissemination videos, a publication and a brochure to promote Europeana resources to teachers in formal education. Videos featured the Europeana Ambassadors and introduced different educational methods and tools and connected them to Europeana.

The Europeana Teacher User Group added new learning scenarios and stories of implementation to the Teaching with Europeana blog and delivered feedback to other teachers. The User Group also contributed to the second Europeana Education Competition 2020 organised from March to April 2020, in collaboration with the 2020 STEM Discovery Campaign. During the competition, 106 teachers in primary and secondary education from 18 countries submitted 150 learning scenarios and 130 stories of implementation. The submissions covered all subjects and competed by showing innovative ways of using Europeana digital cultural items in their classroom. The winners’ best entries (all in English) were translated into six languages (Spanish, Portuguese, Italian, French, Greek and Polish) and will be published as an online booklet, that will be disseminated across Europe, to Ministries of Education, as well as teachers in autumn 2020.

Europeana DSI-4 Annual report

Engage research audiences

Research is one of the key fields in which Europeana engages with professionals interested in the reuse of digital cultural data and tools. We aim for cultural heritage professionals to find Europeana a source of digital cultural heritage, expertise, services and tools to develop digital collections suitable for research purposes at their institutions, and for researchers to find a fertile ground for producing new knowledge and experimenting with new approaches in their field.

We reached out to heritage professionals and researchers via a dedicated space on Europeana Pro and the Europeana Research Twitter account. Our outreach to research communities was successful in the past year which resulted in a high increase in ENA community members (+129.8%).

The work of Europeana Research was supported by the Europeana Research advisory board. Representatives of Europeana Foundation, Europeana Research partners (AthenaRC and CLARIN) and advisory board members attended and presented at various international events which provided excellent opportunities to expand our outreach to research communities. For example, CLARIN took part in the EOSC-Hub Week in May 2020 and held a demonstration of the CLARIN switchboard with Europeana resources.

Make Europeana services more visible and useful for research purposes

In the past year, we increased the visibility of Europeana content for research and analysed researchers’ needs and usage patterns to improve Europeana products and services.

Further to the integration of 135,000 Europeana resources into the CLARIN Virtual Language Observatory (VLO) by March 2019, we published a case study in September 2019, which describes the process of evaluation, selection and integration for the benefit of researchers interested in integrating Europeana resources into their digital projects or platforms.

In the past year (February and August 2020), CLARIN made two other integrations (approx. 140,000 records) into the VLO. With a total of approx. 275,000 records, Europeana is now the largest provider in terms of individual records to the VLO.

In June 2020, we developed downloadable access to the metadata of all items pertaining to an Europeana dataset (MVP). Each dataset in Europeana is now available as a compressed zip-file for easy access for researchers. The MVP is currently for internal use, and users asking for this service. We are investigating possible further developments to make this more widely accessible.

Establish synergies between the cultural heritage and research sectors

We established strong synergies between the cultural heritage and research sectors. This work was supported by the Europeana Research community which promotes digital cultural heritage for use in research and represents the needs of professionals working in research and cultural heritage.

In the past year, the community saw one active researcher and 3,740 Twitter followers. We engaged with more than 2,000 researchers and professionals to find Europeana a source of digital cultural heritage, expertise, services and tools.

Europeana DSI-4 Annual report

Europeana Research community statistics comparing August 2019 with August 2020

Europeana DSI-4 Annual report
Europeana DSI: platform development

In the past year, we maintained and continuously improved Europeana DSI’s main services and functionality. The focus was on an easy and rewarding data publishing process, a satisfying website experience for our users, and a reliable and high performing platform infrastructure.

Improved Europeana collections website experience

The Europeana collections website is the main service for end-users to access digital cultural content. In the past year, the consortium made substantive improvements by redesigning the experiences and replacing the entire technology stack. Effort was focused on adding browse features, making the search faster and more effective, improving the media viewing experience, making the site more accessible, and progressing work on both multilingual reach and user engagement.

Europeana collections website developments were supported by user research activities and direct user feedback. Input on what users like, or where users are experiencing difficulties with the website helped improve the website over time.

Launch of updated Europeana collections website

In March 2020, we launched an updated website that introduced an interconnected browsing experience between different kinds of content to encourage the discovery journey of users. In preparation for the launch, we performed several user tests to ensure that users understood the new browse interface and knew how to interact with it intuitively. As part of the launch we also reviewed, improved and updated several components of the website including a new Content Management System (CMS) that makes it easier to publish editorial, refreshed front-end designs, new collections pages (powered by entities), improved multilingual user experience, and enabled faster search.

Data improvement to power browse features

The new browsable collection pages are powered by entities that, ultimately, depend on the quality of captured metadata. These entities were improved by implementing new vocabularies in the Metis dereferencing service, allowing more references to entities and multilingual information to be established. Europeana can fetch the additional data (such as labels and translations) provided by those vocabularies if aggregators and CHIs use the URIs in their data. This increases discoverability of items on the website.

As part of this we also enhanced co-references between provided vocabularies. The URIs to vocabularies may contain cross references to other vocabularies that are used by other providers and Europeana. This improvement allowed the creation of more links within the entities and therefore saw an increase of the amount of results returned for collection pages on the Europeana collections website. For example, we implemented a mapping between Library of Congress Subjects Headings (LCSH) and EDM which means that additional data provided by the vocabulary are added to Europeana’s data. LCSH has a lot of references to other vocabularies that can be used to create more links within Europeana.

Leverage the opportunities offered by big innovation initiatives

We leveraged the opportunities offered by the big innovation initiatives such as Horizon 2020 and Horizon programmes and the EOSC. We received over 30 requests for project participation to various calls launched in November 2019 in the framework of the H2020 Programme. Europeana Foundation joined four project proposals as a beneficiary. One is on the reserve list.

We are exploring possibilities to share Europeana resources through the European Open Science Cloud (EOSC) as well as showcasing their possible reuse in research through the SSHOC Marketplace. We also contribute, as a partner, to the InDICEs project which undertakes research activities for participatory research methods and analysis.

Theme
A search engine for Art Market Studies
Metadata Enrichment
FAIR Data

Winner
KU Leuven, Belgium
University of Amsterdam, Netherlands
Swedish National Heritage Board, Sweden
Digital Repository of Ireland, Ireland

Europeana Research Grants Programme winners 2019

The new format of the Research Grants Programme was successfully launched in September 2019 with the aim of facilitating knowledge transfer and innovative forms of collaboration between the cultural heritage and research sectors. The grants support events that bring together professionals from both sectors and also provide outputs such as white papers, recommendations and videos. The call on the topic ‘Digital Cultural Heritage for Open Science’ closed with 70+ applications from almost all EU countries. Four institutions were awarded a Europeana Research grant.

The four institutions awarded a research grant delivered detailed plans to run their events in cooperation with Europeana. The workshop proposed by KU Leuven took place in March 2020. In June 2020, the Swedish National Heritage board delivered a series of three webinars under the title ‘Enrich Metadata - Enrich Research’. The other research grants events were postponed to autumn 2020 - spring 2021 because of the COVID-19 pandemic. In some cases, the format was slightly changed and related outputs will be published on Europeana Pro after the events take place.

Europeana DSI-4 Annual report

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Europeana DSI-4 Annual report

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Europeana DSI: platform development

In the past year, we maintained and continuously improved Europeana DSI’s main services and functionality. The focus was on an easy and rewarding data publishing process, a satisfying website experience for our users, and a reliable and high performing platform infrastructure.

Improved Europeana collections website experience

The Europeana collections website is the main service for end-users to access digital cultural content. In the past year, the consortium made substantive improvements by redesigning the experiences and replacing the entire technology stack. Effort was focused on adding browse features, making the search faster and more effective, improving the media viewing experience, making the site more accessible, and progressing work on both multilingual reach and user engagement.

Europeana collections website developments were supported by user research activities and direct user feedback. Input on what users like, or where users are experiencing difficulties with the website helped improve the website over time.

Launch of updated Europeana collections website

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Europeana Research Grants Programme winners 2019
Deliver better search experiences
As part of the updated website, we introduced a new search flow that enables the user to add context to search terms. The system will surface and display collection pages (entities) that match the user’s search term. Related collections may be about a subject or person (with the model being extensible to include other concepts over the next year such as organisations and place).

We improved the loading speed on the search results page. Parts of the Europeana collections website are now stored in the user’s browser, and only refreshed when there is data to be updated. This means less data is transmitted to and from our servers and the pages load faster. Previously, the entire page had to be reloaded and transmitted to and from the server for every change to the search query, making it slower.

To mitigate issues with low quality data in the collections experience we designed and updated the user interface to hide non EPF-compliant material (Tier 0) on the search page. The filter functionality does still allow the user to see this content if they wish.

We also improved the auto-suggest feature on the Europeana collections website. It now only serves suggestions for the language that the user is searching in which makes the autosuggest more comprehensible and useful.

In July 2020, we completed the full-text search for both transcriptions and full-text. Users are now able to search for user contributed transcriptions and newspaper full-text on the Europeana collections website. This outcome was implemented as part of the Europeana Generic services projects Enrich Europeana and Europeana Media.

Provide better media support
In the past year we also improved the media viewing experience by updating the media player with options to display multilingual subtitles and to support streaming formats (MPEG-DASH). This is the first time users can play items on the Europeana collections website directly from a streaming end-point. The player now also supports IIIF audiovisual material - Europeana is one of the first adopters of this technology. Outcomes were implemented as part of the Europeana Media project.

Europeana collections are more accessible
In June 2020, we completed an audit of the Europeana collections website to review compliance with web content accessibility guidelines. An external accessibility specialist reviewed the Europeana collections website and created a report flagging accessibility issues and their severity. Issues will be actioned as part of the regular development process in the upcoming months.

Transform the multilingual experience
Extending the multilingual reach of the Europeana collections website is seen as a way to reach and retain visitors by adding a unique value proposition to the service. Based on feedback from various stakeholders, we developed a medium-term strategy for the improvement of multilingual experiences on the Europeana collections website. This included solutions like the use of a pivot language, multilingual vocabularies, and real-time translation services to solve the complex technical and user experience challenges. The strategy also includes plans for advocating that CHIs provide training data to support the eTranslation services.
Europeana DSI offers a fully functional data and aggregation infrastructure through Metis, which allows Europeana to import, transform, validate and enrich metadata for aggregators. The focus for the past year revolved around improving search features that speed up and enhance the reliability of the publishing process. Substantive effort was also put into infrastructure and technology upgrades to improve performance, resilience, and maintainability.

**Metis and eCloud releases**

Metis V1.6 and eCloud V1.7 (November 2019): the release increased the number of parallel executions so as to improve performance, and the progress reporting of tasks was reviewed. Several issues preventing specific datasets to be processed were also addressed. The quality of code and several small interactions were improved in the Metis UI.

Metis V1.7 and eCloud V1.8 (January 2020): the release included improvements to workflows (e.g. Metis dataset search), support of streaming formats in the media service, as well as improvements to the eCloud infrastructure.

Metis v1.8 and eCloud v1.9 (March 2020): this included the release of the redirection feature, modifications to the enrichment service, improvements on the Metis media service, and upgrade of eCloud applications.

**Easy and rewarding data publishing**

In the past year, we also completed the integration and display of user contributed content on the item page (as part of Generic services projects CrowdHeritage, Silbas in Europe Kaleidoscope, and Enrich Europeana) - see example. We integrated with external platforms (such as Transcribathon.eu and CrowdHeritage.eu) to publish user generated transcriptions and annotations that come from those platforms. Annotations will improve searchability and discoverability of items on the website.

We developed a new authentication and authorisation service that is available to third-party applications. Since May 2020, an MVP of the service is available which allows clients and users to be centrally managed through Single Sign On. Currently, the service is being integrated with the Europeana collections website within the scope of the Europeana Generic Services project [Europeana XX](https://www.europaula.eu/xx). Login and user functionality is needed for the first use case of the project, namely user created galleries. In the upcoming months, we will upgrade and optimise the service, migrate all APIs, and apply front-end style customisations following the Europeana XX designs.

In the past year we also updated the User Sets API. Not only to support requirements coming from the Europeana XX project, but also to support the migration of curated datasets from Europeana Pro to the Europeana collections website.

Refactoring of the Search and Record API led to the development of a new Thumbnail API. The Thumbnail API was released as a separate service decoupled from the Record and Search APIs. Besides the fact that noticeable improvements were made to the performance of the thumbnail delivery and the quality of the code behind, it will allow both APIs to be better scale and perform in an optimal way.

We also implemented some major API extensions to support the CrowdHeritage and Enrich Europeana Generic Service projects. This included updates to the Annotations API and full-text indexing and also extensions to the IIIF Manifest and full-text APIs to support A/V material by implementing IIIF v3 and support for subtitles.
Improvements were also made to the dereferencing and enrichment services to improve their reliability. For the infrastructure, various version upgrades and components were maintained.

**Aggregation Strategy**

In May 2020, we completed the Aggregation Strategy. The strategy is intended to provide medium-term direction for the aggregation of European cultural heritage metadata and content. It proposed a conceptual model for delivering outcomes such as improved publishing speed, growth in data quality, lower barriers to entry, and increased engagement with CHIs. The strategy considered various user research inputs including feedback from aggregators, CHIs and other stakeholders. Implementation will take place over the upcoming two years.

**Metis Sandbox**

A key component of the Aggregation Strategy, the Metis Sandbox, was delivered as an MVP in May 2020. The Metis Sandbox environment will allow aggregators to participate in testing workflows and resolving publishing issues before datasets are processed by the Europeana DSI-4 Annual report and released via the Sandbox MVP. The Sandbox provides a platform to validate the datasets against the data requirements of Europeana DSI-4 and export in EDM the harvested data for ‘real’ ingestion in Europeana DSI via Metis.

A public survey on alternative aggregation methods was conducted between April and May 2020. The main objective was to gauge the interest of Europeana Network members in the new technologies, especially those related to Linked Data, IIIF, as well as to identify possible new pilots with these. A total of 52 participants completed the survey. Outcomes of the survey will help Europeana DSI prioritize technologies in order to add new options for harvesting metadata in Metis as part of the Aggregation Strategy (such as the IIIF metadata harvesting supported by the Data Aggregation Lab, as mentioned above).

**Harvesting process research**

We continued prototyping new ingestion methods using IIIF and Linked Data (Schema. org) to help us understand alternative methods of metadata acquisition (in addition to OAI-PMH and HTTP import already implemented in Metis). This resulted in a report that presented the most relevant experiments for harvesting metadata using novel technologies from the Linked Data and IIIF areas.

In November 2019, we finalised a guide on how to use the Data Aggregation Lab features (software for experimenting with new aggregation technology) to harvest datasets using IIIF-related technologies. This guide can be used by data officers who would like to harvest datasets using the options provided by the Labs, validate the datasets against the data requirements of Europeana DSI-4, and export in EDM the harvested data for ‘real’ ingestion in Europeana DSI via Metis.

We supported quality assured content supply by developing the processes and skills, mechanisms and tools as well as relationships to distribute improved data. A crucial part of this effort is propagating standards in interoperability of data, rights labelling and frameworks for data quality to facilitate the use of cultural content.

**Aggregators and providers are motivated to raise quality of collections**

The past year, our strategy revolved around providing better information to aggregators and CHIs, driving data quality plans, taking direct action on broken links and low-quality content (not compliant to the Europeana Publishing Framework), and establishing the foundations for third-party enrichments and corrections.

European Foundation and aggregator partners supported and assisted content providers to ingest content to Europeana DSI via outreach events and workshops, and one-to-one support.

In the past year, DSI aggregating partners worked with 200 institutions from 30 countries. This included the outreach to 46 new institutions that we contacted in the past year to collaborate with the Europeana Initiative. Support activities involved assistance in preparing data, working on IPR-related questions, improvements of the mapping of their data to EDM, linking to open-data vocabulary to enrich data for more context, fixing broken links, adding richer descriptions, and processing/ingesting of data.

**Quality-assured content supply**

We organised two Europeana Aggregators’ Forum (EAF) meetings in the past year. The EAF is the place to coordinate all activities required for the effective functioning of a pan-European cross-domain aggregation ecosystem at operational and strategic levels. The meetings facilitate knowledge exchange between aggregators and improve the collaboration of aggregators.

In October 2019, co-organised by the Swedish national aggregators (SOCH), we had an EAF meeting in Stockholm. In total 46 participants (30 accredited aggregators and Europeana Foundation) from 19 countries attended the meeting. Key agenda items were a workshop on cross domain collaboration and a train-the-trainer session on IIIF. In May 2020, the first online meeting in the history of EAF meetings took place. Key agenda items were a workshop on cross domain collaboration and a workshop to follow up on the cross domain collaboration workshop from the previous EAF meeting. In total 70 participants (34 accredited aggregators and Europeana Foundation) from 21 countries attended the meeting. Key agenda items were a workshop on cross domain collaboration and a workshop to follow up on the cross domain collaboration workshop from the previous EAF meeting.
Core activities for the 2020 programme for the EAF included activities around the EAF meetings, the review and change of the EAF governance and the development of Task Forces on topics relevant to the EAF. EAF Task Force activities aim to focus on advocacy efforts, and developing and formalising the train-the-trainer concept, a training plan to establish efficiently structured training workshops. For example, the EAF Working Group on IIIF adoption, training and translation of resources started in May 2020 in collaboration with the EDA.

A first webinar made by aggregators for aggregators was held in May 2020 as part of the Europeana Common Culture project. The British Library (DSI partner), in collaboration with the German Digital Library, fulfilled the role as trainers. The webinar introduced OpenRefine and explained in a number of examples how metadata can be cleaned up and improved using OpenRefine. The event saw more than 30 participants and a post-webinar survey showed that it was positively received by the participants.

In May 2020, we invited accredited aggregators to fill in a satisfaction survey. It covered aspects related to: the data submission support; the documentation available for preparing EDM for publishing on Europeana; the tools and processes used for tracking and managing the publication workflow; the support of the Europeana Data Publishing team; and the quality of Metis processes and the statistics tool. We received input from 25 accredited aggregators (out of a total of 38 accredited aggregators). 61% expressed being satisfied and very satisfied with the publication processes, tools and support offered by the Europeana team. In addition to the satisfaction, we received more detailed input from the aggregators about the individual points asked in the survey. This additional feedback is currently being evaluated and it will shape our priorities for the next few years, e.g. on how to improve the usefulness of guidance materials.

In the reporting period, we welcomed new accredited aggregators from Germany, Latvia, Ireland, Czech Republic and Finland. This adds up to the total of 38 accredited aggregators. This means that about 78% of EU countries (21 EU countries) are covered by a national or regional aggregator. Additionally we collaborated with domain and thematic aggregators in the areas of museums, archives, audiovisual material, fashion, archaeology, natural history, Jewish heritage, manuscripts, musical instruments, and photo collections.

National workshops
In the past year, we organised two national workshops. In October 2019, we organised one workshop in Stockholm, Sweden. The goal was to accelerate the development of the Swedish national aggregator (SOCH) as a cross domain aggregator for the country. Most of the 57 participants were new to the Europeana ecosystem and received an overview of the Europeana Initiative and the aggregation landscape. In parallel sessions the participants worked on data quality, copyright and the practicalities of publishing data via SOCH.

The national workshop in Frankfurt, Germany in November 2019 brought new and existing partners of the German national aggregator (DDB) from the museum sector together to introduce the work of Europeana DSI and the DDB. We answered specific questions of CHIs and we supported them in their preparations for publishing data in DDB and Europeana DSI. Feedback from the 50 participants was very positive.

In the past year, we assessed the impact of national workshops to understand how useful the format of the workshops are and what change those bring for CHIs. We explored the tangible learning outcomes and value placed on learning, as well as any improvements in data quality that could be considered the result of the workshops. In one case, both the national workshop and national level strategy focused on improved data quality which resulted in visible improvements in data quality. We found that in many cases, participants apply what they learn, and there is a need for practical in depth training.

Raise quality of aggregated data

The Europeana repository currently offers access to about 50 million items. Most of the content are image items (55.8%), followed by text (41.6%), sound (1.6%), video (1%) and 3D (0.03%). 47.9% of the objects are in the public domain or licensed for free reuse while an additional 23.8% allow for some kind of reuse, for example, educational purposes. Content comes from thousands of CHIs from all EU member states.

Improving metadata and content quality was one of our key objectives in the past year. Europeana Foundation and aggregator partners worked to ensure the quality of collections meet the standards set for Europeana DSI. Key mechanisms for driving this were aggregators’ data quality plans. Aggregator partners worked on more language attributes and more contextual information in the metadata (including links to Linked Open Data (LOD) vocabularies), correct rights information, and improved quality of content. DSI aggregators also added new content to the data repository and new content was also delivered as part of several Europeana Generic services projects. This eventually affected almost 15.5 million records in 512 datasets (including new and updated data).

In the past year, we increased Tier 2+ material by 3.33% and Tier 3+ material by 2.67%. With 63.23% we almost reached our target of 65% for Tier 2+ material. We did, however, surpass our target of 40% for Tier 3+ material by reaching 41.77%. It is worth saying that one aspect that contributes to the slow increase in the numbers is that about 20 million records out of the total of 50 million records are from data partners that are not currently active.

These 20 million records remain untouched while we work with the accredited aggregators to improve the other 30 million records in the database. In addition to bringing in high quality content from new institutions, the improvements mainly reflect the investment in direct links to digital objects and adding links to higher quality digital representations to the metadata.

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<table>
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<tr>
<th>Content quality*</th>
<th>Aug 2019</th>
<th>Aug 2020</th>
<th>In/ decrease</th>
<th>Target Aug 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 2+ material (high quality content)</td>
<td>59.90%</td>
<td>63.23%</td>
<td>+ 3.33%</td>
<td>&gt; 65%</td>
</tr>
<tr>
<td>Tier 3+ material (high quality and reusable content)</td>
<td>39.10%</td>
<td>41.77%</td>
<td>+ 2.67%</td>
<td>&gt; 40%</td>
</tr>
</tbody>
</table>

Content quality in the Europeana data repository comparing August 2019 with August 2020

* Data quality is defined by the Europeana Publishing Framework. Data excludes content Tier 0 material.
We made good progress on metadata quality improvements by increasing high quality metadata (data in Tier A+) by 8.52%. Improvements are not always visible in the figures due to the vast amount of records available in the repository. We update on average 1.1 million records every month, which is about 2% of the total number of records in the repository. Additionally, as mentioned above, we currently just work on data from active aggregators which make up 30 million records out of the total of 50 million records.

Since the implementation of the metadata component of the Europeana Publishing Framework, we see a lot more investment in language attributes being used and populated in our data. This will help in the long term to improve the multilingual search on the Europeana collections website. Also the use of linked open data vocabularies is increasing, which helps to contextualise content and improve discoverability.

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<tr>
<td>Tier A+ material (high quality metadata: search, browse and explore)</td>
<td>46.80%</td>
<td>55.32%</td>
<td>+ 8.52%</td>
</tr>
</tbody>
</table>

Broken links
Currently we record about 1.5 million broken links in the repository. We have several processes in place to reduce broken links. In the past year, we worked on the reduction of legacy broken links and solved broken links during the aggregation of the data. We developed a solution named CLIO, Checking Links in Operation, to automatically detect newly occurring broken links.

In August 2018, we started to resolve legacy broken links in the 500 largest datasets published on the Europeana collections website. We identified 66 datasets as having broken links to the digital objects on the side of the data partner (summing up to about 1.8 million records). While most issues were resolved in the previous year some datasets were still in progress to be updated in the past year. From the initial 66 datasets with broken links 63 datasets were fixed or depublished. Only three datasets are still in progress to be updated.

End-user enrichments
In recognition that there are limits to what aggregators, CHIs and the Europeana Foundation can do to improve data at scale, we also invested in APIs that would allow third parties to suggest enrichments. In the past year, we developed a technical solution for displaying annotations on the platform. Crowdsourced annotations and transcriptions from the Generic services projects CrowdHeritage (example), Fifties in Europe Kaleidoscope (example), and EnrichEuropeana (example) are now visible on the Europeana collections website.

Europeana Publishing Framework and long tail of ongoing data issues
The Europeana Publishing Framework (EPF) provides a clear framework to manage data and to improve content and metadata based on quality layers ( tiers). In the past year, we reviewed the experience with the EPF on a conceptual level as well as associated criteria and the technical implementation of the criteria. The result of this review was completed with a report on implementing a metadata quality framework. The report proposes to research the motivations of CHIs to publish their data in Europeana and to capture those motivations with case studies. It also proposes to invest in the support for aggregators and help them implement the EPF. For the support mechanisms we consulted with aggregators via a survey to help us prioritise what they need.

The report also clarifies approaches for the technical implementation of EPF criteria for different media types and describes some improvements that we implemented to calculate the correct tier (for some media types, mainly video). In addition, priorities were identified to improve the Metis Media Service. Finally, the report addresses the next steps on how to manage the long tail of data issues described previously. Having the diversity and complexity of these data issues in mind, the review of these issues is ongoing and will be continued in the next year. The goal of this review process is to prioritise data issues for integration in an amended EPF 3.0. The amended EPF with case studies and integrated problem patterns is planned to be delivered in summer 2021.

User feedback to data partners
User feedback can help Europeana and its data partners to identify issues and improve content and metadata quality. In February 2020, we implemented a mechanism to direct feedback from the user to the data partner. Europeana Foundation teams and data partners can then work on fixing issues with aggregators via a survey to pass user feedback to data partners and to follow up on the resolution process of the issues raised by the users.

Statistics dashboard
The statistics dashboard is a tool we provide to our partners to allow them to see content and metadata quality of their data on the Europeana collections website. In October 2019, we delivered version 1 of the dashboard. This version focused on extracting content and metadata tier information through different filters (per country, per provider etc.) from the Europeana API. The first version of the statistics dashboard was shared with aggregators via the Europeana Aggregators’ Forum and the Data Quality Committee to collect feedback both on the data information offered and usability of this first version. Feedback from survey respondents and the participants of the demo showed that the current statistics as presented in the dashboard are sufficient to get an overview of the tiers per datasets for reporting activities and to provide input into data quality plans. Improvements to the data and user interaction are currently being worked on for version 2.

Influence and organise global interoperability efforts to benefit CHIs
Global interoperability across the CHI network is an important foundation of Europeana’s work. The evolution of interoperability efforts has largely progressed through involvement in external Working Groups, Task Forces, and committees, but also through the creation and dissemination of research reports and reference papers. In the past year, we contributed to 7 reference papers or presentations, mostly on our Linked Data and IIIF experiments.

One highlight was the contribution to the conference on Theory and Practice of Digital Libraries (TPDL) 2019 in September 2019. Europeana Foundation was invited to co-chair the program committee of the conference. The TPDL conference is an important venue for publication of R&D work relevant to Europeana DSIs, and members of the EuropeanaTech community have been involved in the conference since its earliest editions. Being involved in the organisation was a unique opportunity to show Europeana’s commitment to the community, and to get first-hand insight on the community activity and priorities beyond the traditional Europeana circles.

We continued discussions with key initiatives such as Wikidata, IIIF, Linked Art and RightsStatements.org. Main outcomes of the collaborations with the RightsStatements.org’s
working group, co-chaired by Europeana Foundation, included a new version of the technical white paper ‘Requirements for the technical infrastructure for standardized international rights statements’. The new version notably features examples using the rights statements in Wikidata and Schema.org. The IIIF Discovery Technical Specification Group, also co-chaired by Europeana Foundation, issued a new version of the IIIF Charge Discovery API (0.9 Beta), which is a key piece of technology in our research on innovative metadata harvesting. The new version builds on experiences gathered in earlier experiments and recent software developments. We also continued to give feedback on the modeling work for Linked Art, an initiative to facilitate the implementation and sharing of Linked Data in the museum sector.

Europeana Data Model (EDM) We worked on keeping EDM aligned with relevant standards in the field. Special attention was given towards the evolution of these standards and to keeping potential gaps between EDM and other standards as narrow as possible.

In the past year, we extended and consolidated EDM profiles on annotations, full-text and user sets. This work supported the needs of Generic Service projects for representing transcriptions, closed captions and subtitles, as well as lists of favourite items from Europeana’s users. We also specified a process for making sure the statements used in the rights field in EDM are technically valid (i.e. the URIs used in the metadata strictly follow our technical specifications).

EuropeanaTech Interoperability efforts were also part of our collaborations with the EuropeanaTech community. EuropeanaTech is a community of experts, developers and researchers from the R&D sector making sure that the Europeana Initiative leads the way with technological innovation in the cultural heritage sector. The community contributed to strengthening our ties with other communities by publishing two new issues of EuropeanaTech Insight on 3D and the SWBill conference.

The EuropeanaTech Task Force on 3D content in Europeana published its final report in January 2020. It contains recommendations to Europeana and the community of providers of 3D content in three areas: (1) updating the Europeana Publishing Framework and Publishing Guide to encourage and guide the provision of high-quality 3D content; (2) calling for actions on file formats, viewers and delivery platforms, metadata schemas, content labeling, broken links; and (3) training and collaboration.

Other notable activities of the EuropeanaTech community include ongoing work by the Europeana Data Quality Committee, the launch of a new Task Force on AI in relation to GLAMs and a new Working Group on IIIF and Europeana. The Task Force on Annotations did not conclude its report as planned, however its activity contributed to the update of the aforementioned specifications for annotations in EDM. EuropeanaTech continued its general outreach activities via dedicated pages on Europeana Pro and the EuropeanaTech Twitter account.

Europeana Licensing Framework (ELF) We supported the implementation of the Europeana Licensing Framework (ELF) by reviewing policies, supporting rights issues in the data ingestion process and the Europeana collections website, and by updating related documentation.

One of our main objectives was to address copyright inaccuracies applied to digital objects provided by Europeana data partners. There are several efforts underway to address this. For one we worked on refining internal workflows and frameworks to tackle these inaccuracies in a consistent way, as data comes in.

In May 2020, we organised a copyright workshop during the Europeana Aggregator Forum meeting. We collected very useful insights, and received positive feedback. This led to planning out a series of webinars on...

Maintain an international interoperable licensing framework The Europeana Licensing Framework (ELF) and Rightsstatements.org are our main tools to standardise rights-related information and practices across cultural heritage domains and EU member states.

The Europeana Copyright community supported our efforts on copyright and facilitated connections to practitioners across Europe. In November 2019, we concluded a survey with copyright community members, as well as non-members, that helped us identify the most common challenges faced when dealing with copyright and related matters. Over 100 practitioners from different sectors replied and identified the copyright status of collection items and dealing with orphan works as the biggest challenges. The answers were used to build the copyright community 2020 work plan, which includes creating a space on Europeana Pro to display useful copyright resources and promoting developments around the DSM Directive through the copyright communication channels.

We also collaborated with initiatives working in and around the field of copyright such as the NEMO, Creative Commons and OpenGLAM. We collaborated with the aforementioned initiatives by contributing to the development of their surveys and training. This in turn allowed us to ensure that our standards and policies are reflected in the initiatives, and that the copyright community members benefited from the knowledge developed. We also co-organised an ongoing series of webinars for practitioners on OpenGLAM and copyright. The webinars have been very successful with an average of over 100 registrations per webinar and very active engagement from participants. As these webinars were co-organised with US based initiatives, conversations were a bridge between copyright practices in the EU and other parts of the world.

We provided relevant copyright updates on a regular basis via a dedicated space on Europeana Pro (including blogs and updates to pages), a mailing list, a newsletter and a Twitter account.

Europeana Copyright community statistics comparing August 2019 with August 2020

<table>
<thead>
<tr>
<th>Metric</th>
<th>August 2019</th>
<th>August 2020</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europeana Copyright community members</td>
<td>1,076</td>
<td>1,443</td>
<td>+33.9%</td>
</tr>
<tr>
<td>EuropeanaTech community members</td>
<td>1,078</td>
<td>4,395</td>
<td>-</td>
</tr>
</tbody>
</table>

Europeana Copyright community statistics comparing August 2019 with August 2020
more specific topics, for a wider audience of institutions sharing data with Europeana, and to the development of some additional materials. We plan to publish materials and deliver webinars throughout the coming months, before the end of the year 2020.

In July 2020, we compiled a research report with findings on the level of copyright knowledge needed for copyright training for CHIs. The outcomes were obtained from the copyright community survey, a survey conducted live with Europeana data partners, and we also took note of research outcomes conducted by other organisations, such as the report on digitisation and copyright by the Network of European Museum Organisations. Among other things, the sector generally struggles with interpreting the application of laws across-borders, identifying the copyright status of collection items, and dealing with orphan works. There are also many misunderstandings, at least among Europeana aggregators, on the scope of Creative Commons licences, tools and rights statements.

In April 2020, we implemented a digital process for agreeing on the Data Exchange Agreement (DEA). The DEA is a principal element of the ELF and outlines conditions under which data providers are contributing content and metadata to Europeana. We started using Zoho Sign to collect eSignatures for the DEAs.

The Rightsstatements.org (rs.org) consortium is the service that the Europeana Foundation and the Digital Public Library of America (DPLA) founded to develop and manage international interoperable rights statements. There are currently six members, five from outside the European Union. The implementation of rs.org statements is dominated by Europeana DSI (18.4 million objects) and DPLA (22.2 million objects). In June 2020, we surveyed aggregators to understand how many accredited aggregators have integrated rs.org statements into their infrastructure. 71% of Europeana accredited aggregators (27 out of 38) have integrated rs.org in their infrastructure. The implementation is slowly growing internationally with some implementations reported on in consortium member countries (Canada and Australia), as well as in non-member countries (Spain and Mexico), and planned in others, such as India. In certain countries implementation is closely tied to the presence of a translation. Therefore, the consortium prioritised supporting translations that facilitate the implementation by members. To date the multilingual statements are available in nine official EU languages (Dutch, English, Estonian, Finnish, French, German, Lithuanian, Polish and Spanish), with a further six languages being processed (four from the EU: Finland-Swedish, Swedish, Portuguese and Catalan, and two that are non-European: Serbian and Bangla).

In December 2019, we developed a new membership model based on motivation and need to contribute towards a sustainable operating model which was at near-capacity. The new fee based model acknowledges the different stages of maturity that an organisation may be at in implementing the statements, and matches this with what each member is looking to get from the membership.

Throughout 2020, the consortium aimed at implementing the revised membership model, developing a sustainable support model for the adoption of the statements, prioritising the translation of members’ languages, continuing to explore approaches to expressing indigenous cultural and intellectual property (ICIP) rights through the rights statements, and developing a solution for jurisdiction of specific public domain statements.

In the past year, we also implemented a digital system dedicated to the translation of the rights statements as well as a set of guidelines for translators and reviewers. It will be tested with upcoming translations. We also transitioned the Content Management System (CMS) of the rs.org website to a new system.

Finally, we created a Task Force with a group of knowledgeable practitioners to deliver a set of recommendations to the right statements consortium on how to best support institutions in the implementation of the statements.

Network of data partners and experts

We facilitated the expansion of the Europeana network and promoted capacity-building and cross-border collaboration between cultural institutions and professionals, as well as cultural and digital innovation. We engaged and nurtured the Europeana Network Association (ENA) and organised EU presidency events to secure the network’s outreach to EU Member States.

Communicate the value of the Europeana Initiative

We communicated and disseminated our wide-ranging activities to empower professionals and partners to build digital capacity and to reinforce Europeana’s values of openness and interoperability. We delivered high quality and engaging content under a strategic and consistent editorial approach, featuring examples of best practices and strong industry outcomes (case studies, resources and tools).

Through Europeana Pro news, we published articles communicating activities around the digital transformation of cultural heritage inside and outside of the Europeana Network Association (ENA). This included information about projects, events and initiatives from across the sector, and news from the Europeana Initiative. Monthly themes and ongoing series have provided inspirational content related to COVID-19. It provides a central point of access for CHIs to tools and resources such as webinars, best practices and other information to support CHIs and professionals during the crisis. This section was regularly updated to reflect the support Europeana can provide and to share the best of how the cultural heritage sector is harnessing digital cultural heritage to respond to these challenging times. This section was very successful in terms of generating traffic to Europeana Pro between March and June 2020, with the highest number of visits ever recorded on Pro in April 2020 (29,600 visits).

As part of our COVID-19 response Europeana Foundation and the Communicator’s community organised webinars to support online engagement with audiences for CHIs. A series of four webinars from April to June 2020 focused on the theme ‘Culture From Home’ and the digital activities and initiatives that
Europeana DSI-4 Annual report

Europeana DSI-4 Annual report

Europeana Communicators community and Europeana Foundation also worked on developing good practices for running online events and webinars. In July 2020, we launched a series of special webinars: ‘Running webinars: what we’ve learnt so far’ which invited some of the people behind the online events that Europeana and the ENA communities have led in the past few months to share their experiences. 125 people registered and 62 participated. The feedback received contributed to the development of guidelines for developing online activities (V1) - a set of useful and usable guidelines for digital events organised by Europeana or organised in cooperation with Europeana.

In May 2020, Europeana and Europa Nostra, acting in conjunction with the European Heritage Alliance held a Europe Day Webinar to mark the 70th anniversary of the Schuman Declaration. The event aimed to highlight how cultural heritage can be a powerful catalyst for the future of Europe. The event saw 500 participants comprising both high-level representatives of EU Institutions and representatives of Europe’s cultural heritage world. Aligned with the event we published the 70th anniversary of the Schuman Declaration, 9 May 1950, a special collaboration with the Archives of the European Parliament to mark a milestone in post-war political history. Published in an unprecedented 24 languages, it was highly rated by audiences (NPS 57) and promoted in tandem with the European Parliament. The exhibition had a high impact on traffic to the Europeana collections website and on social media with people engaging (shares, likes, comments) with the post on Facebook.

In the past months, we assessed the impact of our various webinars. We found that there were more non-ENA members than ENA members registered for the events, suggesting that the opportunities reached an audience that went beyond the Europeana Network. The data also showed that the majority of participants found that their confidence levels in the topic increased after the webinar.

As part of our efforts to develop a capacity-building framework around digital transformation, we initiated a phased campaign to raise awareness and gather input and buy-in from professionals in the sector. In May 2020, we launched a series of special peer-to-peer workshops with noted digital strategists Michael Peter Edson and Jasper Visser. Despite requiring a significant time commitment over 150 people applied for the workshops (around 35% non-ENA members). The workshops ran alongside a market scan commissioned with arts and heritage charity Culture24. It aimed to develop a shared understanding of what is happening in our sector to support digital capacity and what terms like ‘digital transformation’ mean in practice for GLAM institutions. The workshops and market scan were completed in July 2020. They are both rich in insight and we are currently evaluating these reports internally, using them to inform the themes of the Europeana 2020 annual conference. We will use and publish insights in the coming weeks and months. We created a dedicated space in Europeana Pro for this project which will be updated as the project progresses.

In the past year, we redesigned Europeana Pro to drive better outcomes with partners. The website saw a new release in March 2020 for our professional communities. To prepare the site for launch we did multiple rounds of usability testing and customer journey feedback from a respondent to the Culture from home - archives webinar

‘Good job with the webinars. I really hope they will become a permanent thing in this community.’

Feedback from a respondent to the Culture from home - archives webinar

<table>
<thead>
<tr>
<th>Metric</th>
<th>August 2019</th>
<th>August 2020</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europeana Twitter followers</td>
<td>36,036</td>
<td>39,354</td>
<td>+ 9.2%</td>
</tr>
<tr>
<td>Europeana LinkedIn followers</td>
<td>4,260</td>
<td>6,319</td>
<td>+ 48%</td>
</tr>
<tr>
<td>Communicators’ community members</td>
<td>110</td>
<td>703</td>
<td>+ 538%</td>
</tr>
<tr>
<td>Communicators’ community newsletter</td>
<td>120</td>
<td>651</td>
<td>+ 442%</td>
</tr>
</tbody>
</table>

Europeana communications channels and Communicators’ community statistics comparing August 2019 with August 2020

Europeana DSI-4 Annual report Europeana DSI-4 Annual report

Europeana DSI-4 Annual report Europeana DSI-4 Annual report

Europeana DSI-4 Annual report Europeana DSI-4 Annual report
workshops with aggregators, CHI representatives and Europeana Network Association (ENA) members which led to a new architecture navigation design. We needed to ensure that the new information structure makes sense to them and they can easily find the information they are looking for. We also did a full editorial review and depublished everything that was no longer relevant.

The new information architecture focuses on serving Europeana Foundation’s main customer groups, the cultural heritage institutions (CHIs), the Europeana Aggregators’ Forum (EAF), and the Europeana Network Association (ENA) members. From our customer journey workshops, we learned that the primary goal of the CHIs for joining Europeana is to be a part of an international initiative. They want to disseminate their content to a broader audience with the intent to increase traffic to their website. The EAF wants tools and resources to provide a better service to the CHIs. The ENA wants network internationally, find other experts in the same field, and advocate for open access.

In April 2020, we integrated the chatbot functionality to the Europeana Pro page that lists all the aggregators that work with Europeana. Currently, the chatbot interaction is limited to assisting a user to find an aggregator that matches their data needs. Going forward we will find more use cases for the chatbot so it assists the users in finding what they are looking for and helps us promote some of our tools and services. The integration was part of the Europeana Generic Services project Culture Chatbot.

In August 2020, we concluded a satisfaction survey which showed a very good NPS score of 42 for Europeana Pro. Generally, we see the highest traffic to Europeana Pro when high profile campaigns are running. In September-November 2019 we successfully promoted the Europeana Research grants and the Europeana 2019 annual conference. In March 2020, we promoted the launch of the updated Europeana Pro website. Heavy promotion of campaigns (COVID-19 section, capacity building project, Discovering Europe season and online events) also contributed to the increase in traffic to Europeana Pro website.

**Statistics for the Europeana collections website comparing year 1 (Sep 2018 - Aug 2019) and year 2 (Sep 2019 - Aug 2020)**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Aug 2019</th>
<th>Aug 2020</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total visits</td>
<td>258,067</td>
<td>281,291</td>
<td>+ 9.0%</td>
</tr>
<tr>
<td>Returning visitors</td>
<td>34,2%</td>
<td>34,2%</td>
<td>-</td>
</tr>
<tr>
<td>Total new visitors</td>
<td>169,741</td>
<td>184,953</td>
<td>+ 9.0%</td>
</tr>
<tr>
<td>User satisfaction (NPS)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

In March/April. We also saw yearly recurring traffic drops in winter and summer.

**Coverage of Europeana in the media**

Europeana’s activities were covered in cultural, technical and general media. This was primarily linked to public engagement activities such as GIFITUP or #ColorOurCollections and user generated content (UGC) activities such as Europe at Work or Europeana Sport. Other areas such as multilingualism or the recent support of Re-Open EU were also covered.

**Europeana Network Association (ENA)**

In the past year, the Europeana Foundation supported activities of the Europeana network, instituted and organised in the Europeana Network Association (ENA). We provided support for the ENA Members Council and Management board, ENA Task Forces and Working Groups, as well as ENA communities. The ENA consists of more than 3,100 members from across Europe who give time and expertise voluntarily to strengthen the role of cultural heritage in society.

A main objective continues to be expanding the Europeana network by attracting professionals working in the field of cultural heritage, while keeping the existing network fully engaged and active. In the past year, ENA and its communities continued to grow in numbers and people reached via our various communication channels. ENA activities were communicated to its network via the monthly newsletter, the Europeana LinkedIn group, and Europeana Pro publications.

In June 2020, we concluded a satisfaction survey with ENA members. It collected 308 responses (a response rate of around 10.5%). 48% of respondents are considered ‘promoters’ of the Network, according to the NPS score they gave. We recorded an overall NPS score of 31. The survey was part of an impact case study, in which most respondents stated that the Network is a little bit (32%) or moderately important for their work (30%). Over a third (36%) of respondents would like to get more involved in the Network. We found that the Network has most value for its members in terms of helping them to stay up to date with new trends and practice in digital cultural heritage sector (51%), followed by learning new information that can be used in one’s work (41%), and extending a professional network (34%). 11% of Network members report a link between Network membership and applications for project funding.

**Europeana Network Association statistics comparing August 2019 with August 2020**

<table>
<thead>
<tr>
<th>Metric</th>
<th>August 2019</th>
<th>August 2020</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENA members</td>
<td>2,500</td>
<td>3,100</td>
<td>+ 24%</td>
</tr>
<tr>
<td>ENA Newsletter subscribers</td>
<td>1,400</td>
<td>1,980</td>
<td>+ 41%</td>
</tr>
<tr>
<td>ENA + wider network LinkedIn followers</td>
<td>4,250</td>
<td>4,710</td>
<td>+ 11%</td>
</tr>
</tbody>
</table>
Europeana 2019 Conference ‘Connect Communities’

The Europeana conference ‘Connect Communities’ in November 2019 was a three day event that brought together not only representatives of the Europeana Network Association but also others who are interested to get inspired, transfer knowledge, learn and strengthen their network. Our host was the National Library of Portugal in Lisbon. The conference included pre-meetings on the first day such as GiFT, IIIF, EOSC, Historiana and a 3D Task Force seminar. The programme offered a stage to 67 speakers and twelve sessions dedicated and organised by our six countries were represented.

We assessed the impact of the event by sharing a survey after the event. It showed that most respondents stated that attending this conference, and annual Europeana conferences in general, helps them grow a network (89%). 51% of respondents reported gaining skills or knowledge that they can apply in practice. Participants also gained less tangible benefits from the conference, such as new perspectives, empowerment and inspiration. The data suggest that between 20% and 25% of attendees are likely to change their activity or take action in some ways. For example, 25% of respondents want to change how their organisation uses digital cultural heritage. Open text responses show us that respondents are most likely to take action in relation to education and digital cultural heritage (e.g. use heritage in an educational setting), followed by collaborating with others at the conference, stimulating new projects or to be more involved in projects.

As part of the conference, ENA members met for a general assembly where they discussed and approved several governance related documents such as the Association Annual Report 2019 and Association Activity Plan 2020. Most respondents stated that attending this conference, and annual Europeana conference, was a huge success with an ‘excellent’ score (NPS 57) and would be highly recommended to colleagues. Most respondents would join future events.

ENA communities

The ENA organises communities of trans-national networks of experts and specialists in the fields of creating, preserving and publishing digital cultural heritage online. Communities help ENA members to cultivate and share knowledge, expertise and best practices around a specific topic or area of common interest. The members can sign up to receive the newsletters, join various communication channels and social media groups, and attend community-related events and meetings. Currently there are six active communities: EuropeanaTech, Europeana Research, Europeana Education, Europeana Communicators group, Europeana Impact, and Europeana Copyright. More details on the individual community efforts can be found in the corresponding content section.

We worked on implementing the rules and functional terms of reference for the communities, setting up and carrying out activity plans for 2020 accommodating Task Forces and Working Groups within those, and (re-)appointing chairs and steering group members.

In March 2020, the work plans of the six active communities were formally approved by the Members Council (MC) and published on Europeana Pro. The work plans specify community Steering Group composition, community aspirations and priority areas to focus on in 2020, planned Task Forces, communications tools and budget required for 2020.

ENA Task Forces and Working Groups

ENA members take on specific subjects or areas of common interest by participating in Task Forces and Working Groups. Task Forces tackle specific subjects of interest related to the Europeana strategy. Task forces run for a limited period and result in the delivery of recommendations on their subject. Recommendations of the completed Task Forces can be found on the respective Europeana Pro pages. Working Groups are set up to address ongoing activities and issues of continuing relevance and run for as long as their purpose is required. Currently active Task Forces and Working Groups as well as the ones completed in the past year are listed in the table below.

<table>
<thead>
<tr>
<th>Task Force</th>
<th>Community</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Professionals Task Force</td>
<td>Impact</td>
<td>In progress</td>
</tr>
<tr>
<td>Research requirements</td>
<td>Research</td>
<td>In progress</td>
</tr>
<tr>
<td>How-to guide for labelling cultural heritage</td>
<td>Copyright</td>
<td>In progress</td>
</tr>
<tr>
<td>AI in relation to GLAMs</td>
<td>EuropeanaTech</td>
<td>In progress</td>
</tr>
<tr>
<td>Audiovisual Playout in Europeana</td>
<td>EuropeanaTech</td>
<td>In progress</td>
</tr>
<tr>
<td>Interoperability of annotations and user sets</td>
<td>EuropeanaTech</td>
<td>In progress</td>
</tr>
<tr>
<td>3D content in Europeana</td>
<td>EuropeanaTech</td>
<td>Completed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working Groups</th>
<th>Community</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Quality Committee Working Group</td>
<td>EuropeanaTech</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2019 Governance Working Group</td>
<td>ENA</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Europeana 2019/AGM WG/programme advisory committee</td>
<td>ENA</td>
<td>Completed</td>
</tr>
</tbody>
</table>

Active Task Forces and Working Groups (September 2019 - August 2020)
Europeana EU presidency events

Europeana Foundation organises two presidency events per year together with the Member States holding the presidency of the Council of the EU in order to secure the network’s outreach to EU Member States. The events invite high-level policy makers from European ministries of culture, national coordinators, experts in the topic, representatives of the European Commission and the DCHE Expert Group to discuss topics of current focus of the digital cultural heritage sector and the Europeana Initiative.

Finland’s presidency event

In October 2019, together with the Finnish ministry of culture, Europeana Foundation organised a two-day event in Espoo, Finland, titled ‘Multilingualism in Digital Cultural Heritage - needs, expectations and ways forward’, under the umbrella of the Finnish Presidency of the Council of the EU.

The event contributed ideas, experiences and expertise to the discussion on multilingualism in the digital cultural heritage sector. The meeting led to a refreshing perspective on how we can strengthen our approach to multilingualism. A reflection on the content of the meeting was published on Europeana Pro. In February 2020, we published the final report of the presidency event. The report summarises key outcomes of the meeting including the identified benefits, challenges and solutions in relation to multilingualism in digital cultural heritage. The outcomes of the meeting contributed to the development of Europeana's multilingual strategy and roadmap.

Croatian presidency event

Due to concerns around the coronavirus COVID-19, and for the health and safety of our colleagues, partners and network, the Croatian Ministry of Culture and Europeana Foundation decided to cancel the Europeana presidency event on the theme of ‘Impact’ planned to be held in Zagreb in April 2020. Despite the event cancellation, our work on developing a practice of impact assessment for the cultural heritage sector continues.

German Presidency digital conference 2020

We are currently preparing for Europeana’s digital conference 'The role of copyright in the digital transformation of the cultural heritage sector’ on 5 and 6 October 2020. The conference explores copyright for digital cultural heritage, its role in digital transformation, and the sector’s need for capacity building in this area. The Europeana conference is organised in collaboration with the Deutsche Nationalbibliothek and under the auspices of the German Presidency of the Council.

In the past year, we analysed the impact of the Finnish and Romanian presidency events in 2019 to explore the experience of participants such as development and consolidation of professional networks. We learned that most participants attended in order to learn from or contribute to the topic under discussion. The majority also agreed that the event met their expectations in three areas: providing opportunities to learn and share information, connecting and networking with others, and contributing and engaging around the topic. We see that all but one respondent noted that they made new contacts, while two noted that they consolidated their existing network.

Impact of digitisation and reuse of cultural heritage

We contributed to the study of the impact of digitisation and reuse of cultural heritage by investigating the status of digitisation in Europe, and by researching the added economic value of Europeana’s services to support opening up cultural heritage resources for reuse.

Statistics on digitisation of cultural heritage in Europe

In May 2020, we published the updated and refined ENUMERATE dashboard on Europeana Pro. The ENUMERATE Observatory provides a reliable baseline of statistical data about digitisation, digital preservation and online access to cultural heritage in Europe. The dashboard is presented in three themes: setting the context (of digitisation in the sector), investment in digitisation, and the development of digital collections. The dashboard was further refined in response to a growing need for data around the development of digital activities of the European cultural heritage sector. Research was undertaken into the state of participation in the survey throughout Member States, and what measures could be put in place to improve participation. Additionally we explored how we can improve how the data gathered through ENUMERATE surveys can be presented to participants and users of the Observatory. The refined observatory and dashboards explore the changes in the sector over the course of surveys, as well as enabling users to draw their own comparisons with EU averages and Member States.

Impact toolkit for the cultural heritage sector

The Europeana Impact toolkit helps cultural heritage institutions develop a better understanding of the changes their activities bring to audiences. The toolkit consists of a guide for cultural heritage organisations to assess their impact - the Europeana Impact Playbook.

In April 2020, the Impact Playbook Phase II was published. In the second phase the user gets familiar with spreadsheets and data collection techniques. Working from the design brief put together in Phase I, the playbook shows how to work with a team through six more steps towards an impact assessment.
The implementation is supported by the Europeana Impact community and by professionals on LinkedIn. Community goals for 2020 are a continued development of the Impact Playbook, communicating the value of impact design and assessment in the ENA and beyond and helping the development of impact practitioners within their own organisations. Our outreach to the impact community was successful in the past year which resulted in a high increase in ENA community members and newsletter subscribers.

In December 2019, we conducted a survey with the Europeana Impact community. The survey attracted 25 respondents - a disappointing result despite extending the time and extra promotion. Sharing case studies and examples of impact research remains the most valuable activity for members to learn about and increase their confidence in the area of impact. There is also a strong interest in online courses to learn more about impact, and in particular 90% respondents were interested in the idea of a ‘crash course’. To support these goals, the Impact Lite Task Force (official launch in September 2020) will develop an Impact lite activity for members to learn about and increase their confidence in the area of impact.

1. Economic impact can contribute to a holistic understanding of Europeana’s services
2. Europeana demonstrates strong social impact in its services
3. Europeana has most impact as a convener of sector professionals
4. Depth of experience and closer partnership working within Europeana initiative leads to stronger impact
5. Learning and organisational change are strong outcomes, but barriers to digital transformation cannot be solved by Europeana alone.

Research into impact of Europeana services
By undertaking longitudinal research into the impact of the services offered by Europeana, we aim to develop a good understanding of the impact of our services, over the coming years. Throughout the past year, we worked on ten cases of impact to demonstrate the areas where Europeana services deliver impact, as well as observations of how this changes over time. Some of the case studies are already finished while others are in the final stages to be concluded. Main findings of the impact assessments are mentioned at the corresponding content section in this report.

Across the research, five themes have emerged most strongly:

Research area

<table>
<thead>
<tr>
<th>Research area</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe at Work (Autumn 2019 campaign)</td>
<td>Analysing the impact of participation in this Europe-wide campaign with both those submitting their heritage content and participating CHIs.</td>
</tr>
<tr>
<td>Europeana 2019 annual conference, Lisbon (November 2019)</td>
<td>Incorporating economic impact for the host city and learning and network outcomes for participants as a result of attending, as well as environmental impact.</td>
</tr>
<tr>
<td>Europeana Education MOOC (summer 2019)</td>
<td>Calculating the Social Return on Investment on supporting the development of educators through MOOCs to learn about using digital cultural heritage.</td>
</tr>
<tr>
<td>Europeana presidency events (2019)</td>
<td>Analysing data from 2019 events, we explored the experience of participants such as development and consolidation of professional networks.</td>
</tr>
<tr>
<td>Europeana Network Association (June 2019 - August 2020)</td>
<td>Exploring the impact and satisfaction experienced by Network members, identifying examples of valued benefits or experiences.</td>
</tr>
<tr>
<td>EuropeanaTech and IIIF implementation (February 2020 - August 2020)</td>
<td>Using outcome harvesting to investigate change relating to IIIF implementation, such as visibility of IIIF among the community, or change in IIIF Compliance data.</td>
</tr>
<tr>
<td>National workshops (October 2019 - May 2020)</td>
<td>Exploring the tangible learning outcomes and value placed on learning, as well as any improvements in data quality that could be considered the result of the workshops.</td>
</tr>
<tr>
<td>Naturalis: opening up natural history (July 2020 - ongoing)</td>
<td>Exploring the rationale behind the adoption of CC0 instead of CC-BY and any discernible impact of this, as a case study for other natural history institutions.</td>
</tr>
<tr>
<td>Rights Statement consortium (May 2020 - ongoing)</td>
<td>Exploring the value generated for consortium members and for their national cultural heritage context as a result of their participation.</td>
</tr>
<tr>
<td>EuropeanaWebinar series (March 2020 - ongoing)</td>
<td>Developed rapidly in response to COVID-19 pandemic to continue engagement with professionals and partners, this case study focuses on individual learning and confidence outcomes.</td>
</tr>
</tbody>
</table>

Scope

10 cases of impact (Aug 2019 - Sep 2020)

<table>
<thead>
<tr>
<th>Metric</th>
<th>August 2019</th>
<th>August 2020</th>
<th>In-/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact community members</td>
<td>247</td>
<td>692</td>
<td>+ 180.2%</td>
</tr>
<tr>
<td>LinkedIn followers</td>
<td>370</td>
<td>427</td>
<td>+ 15.4%</td>
</tr>
<tr>
<td>Newsletter</td>
<td>300</td>
<td>793</td>
<td>+ 164.3%</td>
</tr>
</tbody>
</table>

Europeana Impact community statistics comparing August 2019 with August 2020
Europeana Generic Services projects

This section reports on the completed and currently running Generic Services (GS) projects and elaborates on the integration of their project results, from technical (such as platforms and tools) to data (content and metadata enrichments), into Europeana. Europeana Foundation supported all GS projects with ingestion of content and metadata (if applicable), consultation on the Europeana frameworks, policy and development guidelines, tool integration into the Europeana platform and dissemination of the project results.

To ensure best project alignment with Europeana, a GS projects meeting was held at the Europeana offices in The Hague, The Netherlands in October 2019. Project representatives of all running GS projects (CEF-TC-2017-3 and CEF-TC-2018-1) attended and presented the objectives and outcomes of their projects as well as the relation of these outcomes with Europeana DSI. Europeana staff shared updates on relevant Europeana DSI developments (Europeana collections website, editorial strategy, APIs). Project representatives also met with Europeana staff in several sessions to discuss successful implementation of the project outcomes in the Europeana collections website (features, annotations, editorial) as well as potential collaborations with regard to audience outreach (in particular, education).

In February 2020, seven projects from the CEF-TC-2017-3 call were concluded: Europeana Media; CrowdHeritage; Enrich Europeana; CrowdHeritage; Culture Chatbot tool; CultureMoves; Sharing New Perspectives, your 3D view on Europeana; and Fifties in Europe Kaleidoscope. The Opening Up Historiana project from the same call was extended and ended in June 2020.

In May 2020, Europeana Foundation joined the validation meetings for the aforementioned projects where we presented the project outcomes to the Innovation and Networks Executive Agency (INEA). We showcased the compliance of the project results with Europeana DSI. At the time of this reporting, seven of these eight projects have successfully passed the validation, one project is still under review.

In August 2020, all GS tools have been featured under the Services and Tools on Europeana Pro, except the Historiana Activity Builder which is showcased under the Teachers section on the Europeana collections website. All tools are also promoted on the respective project pages and in relevant blog posts on Europeana Pro.

A total of six GS projects are currently running. Four (CEF-TC-2018-1) projects (Judaica, Europeana 2.0, Linking Biodiversity and Culture Information - LinBi; European Archaeology; Europeana Common Culture) focus on content aggregation and data quality improvements. The integration of their results is expected in the last quarter of 2020.7

Two CEF-TC-2019-1 projects centered on high quality curated content (Europeana XX: Pagode) started in March and April 2020. So far, ten editorials from the Europeana XX project have been published on the Europeana collections website.

Moreover, two projects from the CEF-TC-2019-1 call - ‘Europeana Sport’ and ‘ARMA - the art of reading in the middle ages’ were officially granted later funding in May 2020. They focus on data aggregation, curation and quality improvements on the respective topics and will start on 1 October 2020.

### Main Generic services project results (Aug 2019 - Sep 2020)

<table>
<thead>
<tr>
<th>Project</th>
<th>Tool</th>
<th>DSI content integration</th>
<th>DSI metadata enrichments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrich Europeana</td>
<td>Transcriptionathon</td>
<td>359 records</td>
<td>19,241 transcriptions</td>
</tr>
<tr>
<td>Europeana Media</td>
<td>Enhanced Universal Media Player</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share3D</td>
<td>Dashboard Storytelling</td>
<td>101 new 3D records</td>
<td></td>
</tr>
<tr>
<td>CultureMoves</td>
<td>MotionNotes, MovesCollect, MovesScrapbook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CrowdHeritage</td>
<td>CrowdHeritage platform</td>
<td></td>
<td>11,241 annotations</td>
</tr>
<tr>
<td>Fifties in Europe Kaleidoscope</td>
<td></td>
<td>18,596 records</td>
<td>8,362 annotations</td>
</tr>
<tr>
<td>Culture Chatbot</td>
<td>Culture Chatbot tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Up Historiana</td>
<td>Activity Builder</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7 Judaica 2.0 requested an extension till end of February 2021; therefore, the results integration will happen at a later stage.
8 Under Historiana resources.
Europeana DSI-4 is funded by the European Union. Its funding is 14 million euro for the period from 1 September 2018 to 31 August 2020. The work was performed in nine separate activities:

1. Platform maintenance and development
2. Content supply
3. Content reuse
4. Communication and dissemination
5. Network
6. Impact of digitisation and reuse of cultural heritage
7. Governance
8. Phasing-in and phasing-out
9. Project and programme management

The charts and table below state the percentages of resources within the consortium allocated to each of the nine activities in the past year, both as planned (as stated in the tender) and actual realisation. Furthermore, a comparison with the previous year was added.

The realised division for the second year is close to the planned division from the tender. Some larger deviations are for Network (+2.2%), Governance (+1.74%) and Project and Programme management (+2.78%), these deviations are similar to the first year. Platform is 3.21% lower, which is related to some outstanding vacancies. The effort for Phasing-in and phasing-out activities is less because of reduced efforts for handover deliverables.

<table>
<thead>
<tr>
<th>Activities</th>
<th>DSI-4 - Planning</th>
<th>DSI-4 - Year 1</th>
<th>DSI-4 - Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform</td>
<td>57.10%</td>
<td>55.94%</td>
<td>53.89%</td>
</tr>
<tr>
<td>Content supply</td>
<td>10.95%</td>
<td>10.54%</td>
<td>11.73%</td>
</tr>
<tr>
<td>Content reuse</td>
<td>9.69%</td>
<td>10.17%</td>
<td>8.06%</td>
</tr>
<tr>
<td>Communication</td>
<td>8.93%</td>
<td>8.12%</td>
<td>9.62%</td>
</tr>
<tr>
<td>Network</td>
<td>6.44%</td>
<td>7.88%</td>
<td>8.64%</td>
</tr>
<tr>
<td>Impact</td>
<td>1.32%</td>
<td>1.15%</td>
<td>2.04%</td>
</tr>
<tr>
<td>Governance</td>
<td>1.96%</td>
<td>0.36%</td>
<td>0.22%</td>
</tr>
<tr>
<td>Phasing-in and Phasing-out</td>
<td>0.50%</td>
<td>0.02%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Project/Programme management</td>
<td>3.12%</td>
<td>5.82%</td>
<td>5.90%</td>
</tr>
</tbody>
</table>

100%                                             | 100%             | 100%           |

Allocation of resources by activity (%)