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Abstract: Measuring impact is important to evaluate the outputs and outcomes of a project. Within Europeana Sounds, we were able to evaluate the impact of each project activity separately by gathering metrics relating to Key Performance Indicators, by gathering web statistics and by examining feedback. We report on evaluation using each of these methodologies and examine the results gathered.

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Statement of originality

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Project summary

Europeana Sounds is Europeana's 'missing' fourth domain aggregator, joining APEX (Archives), EUscreen (television) and the Europeana film Gateway (film). It will increase the opportunities for access to and creative re-use of Europeana's audio and audio-related content and will build a sustainable best practice network of stakeholders in the content value chain to aggregate, enrich and share a critical mass of audio that meets the needs of public audiences, the creative industries (notably publishers) and researchers. The consortium of 24 partners will:

- Double the number of audio items accessible through Europeana to over 1 million and improve geographical and thematic coverage by aggregating items with widespread popular appeal such as contemporary and classical music, traditional and folk music, the natural world, oral memory and languages and dialects.
- Add meaningful contextual knowledge and medium-specific metadata to 2 million items in Europeana's audio and audio-related collections, developing techniques for cross-media and cross-collection linking.
- Develop and validate audience specific sound channels and a distributed crowd-sourcing infrastructure for end-users that will improve Europeana's search facility, navigation and user experience. These can then be used for other communities and other media.
- Engage music publishers and rights holders in efforts to make more material accessible online through Europeana by resolving domain constraints and lack of access to commercially unviable (i.e. out-of-commerce) content.

These outcomes will be achieved through a network of leading sound archives working with specialists in audiovisual technology, rights issues, and software development. The network will expand to include other data-providers and mainstream distribution platforms (Historypin, SoundCloud) to ensure the widest possible availability of their content.

For more information, visit <http://pro.europeana.eu/web/europeana-sounds> and <http://www.europeanasounds.eu>

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Contents

Executive summary: D7.7 Evaluation Report 2	5
1 Introduction	5
1.1 Project objectives	5
1.2 Measuring impact	6
2 Key Performance Indicators	7
3 Web statistics	8
4 External evaluation	12
4.1 General comments	12
4.2 Feedback on each WP	14
4.3 External evaluation recommendations	23
4.4 PMB response to the external evaluation	24
5 UAP and AB evaluation work	25
6 Evaluation from partners	27
6.1 Evaluation of the Music Collection curation by data providers	27
6.2 Feedback gathered during the final plenary meeting	28
Appendix A: Music Collections Curation monthly evaluation	32
Appendix B: Terminology	41

Executive summary: D7.7 Evaluation Report 2

This document develops the methodologies that were set out in *D7.4 Evaluation report 1* and includes the results gathered during the three years of the project. Further evaluation focussing on communication and dissemination can be found in *D6.6 Communication plan and evaluation V3* and the annual periodic report. During the end of 2016, we commissioned an external evaluation to examine whether the project had met its objectives during the course of the three year period, and evaluate the work carried out. An overview of that external evaluation is included in this report, as are the recommendations that were made by the external evaluator. Project partners were asked to continually evaluate their work over the course of the three years, and in particular an evaluation of the curation of the Music Collections was documented by each partner that was involved. A summary of these evaluations is included in this document, with the full information in an Appendix. Each partner also provided a brief evaluation overview during the third plenary meeting; these have been included to highlight important outcomes for project partners.

1 Introduction

1.1 Project objectives

As stated in the Description of Work (DOW), Europeana Sounds aims to create a much-needed gateway to Europe's incomparably rich sound and music collections. Many of Europe's leading cultural heritage institutions have large, high quality audio collections which are of great interest to a wide range of general and professional audiences, but access to them is fragmented and constrained. So, while audio is one of the most popular media types available through Europeana, it represents just 2% of Europeana's overall content. This project demonstrated the first time that technical specialists and European institutions with major audio collections have joined together to help solve this problem of access and availability.

Evaluation of the impact of the Europeana Sounds project should align closely to its six specific objectives, as laid out in the project formal Description of Work:

1. **Aggregation:** provide a critical mass of digital audio tracks and supporting objects through Europeana to meet the needs of public audiences, creative industries and academic researchers.
2. **Enrichment:** support discovery and use by improving metadata through innovative methods including semantic enrichment and crowdsourcing.
3. **Access:** work with our data providers as well as publishers, the recorded music industry, rights holders, and libraries to improve access to out-of-commerce audio content and increase the opportunities for creative re-use of Europeana content.
4. **Channels:** enhance the existing Europeana portal by implementing a mechanism for providing

channels that enable specific user communities to discover, share and annotate digital audio content and which can be extended to address other communities of interest and media.

5. **Infrastructure:** underpin the technical infrastructure required to enable the aggregation of metadata from archived digital content, primarily music and speech audio, including out-of-commerce recordings and crowdsourced content, through the Europeana portal.
6. **Dissemination and networking:** expand the work of the Europeana Sounds Best Practice Network among target audiences, acting as a catalyst for the inclusion of a significant quantity of items from collection-holders not yet engaged with Europeana

1.2 Measuring impact

In order to assess how successful the Europeana Sounds project has been at meeting its objectives, reaching target audiences and disseminating key messages, we need to determine the impact of our activities. While we can easily measure direct outcomes of the project, such as measuring the quantity of audio items aggregated and enriched, we also need to estimate impact: the longer-term, broader changes brought about by the project. By looking at the impact our work has had on our intended audiences, we can try to assess how useful the project has been, what we can improve on, as well as laying down lessons for other projects to build upon in the future.

Longer term impacts will only be apparent long after the project ends, not least because of the sustainability actions that are planned to ensure it has a lasting legacy beyond 2017, as documented in *D7.9 Final exploitation plan and sustainability strategy*.

Measuring impact is important to evaluate the outputs and outcomes of a project. For example, we are able to evaluate the impact of each project activity separately by:

- gathering a number of metrics relating to Key Performance Indicators;
- gathering web statistics;
- examining feedback

These three impact evaluation techniques form the basis of this document, which has been structured accordingly. Each section of this document represents one of these impact measurements. The metrics relating to the Key Performance Indicators are included in the next section of this document. Key Performance Indicators (KPIs) have provided, for each of the Europeana Sounds Work Packages, various quantitative metrics of project progress on an annual basis. These are reported formally to the European Commission at each Annual Review, and are summarised in the next section of this report.

Web statistics can be found in section 3 of this document and further metrics relating to WP6 can be found in *D6.6 Communication plan and evaluation V3*. Feedback from partners is included in section 6 of this report. Additional metrics relating to the Europeana Music Collection, Europeana Radio and external channel use has been documented in *D4.1 Audio channels production version* and *D4.2 Europeana Sounds external distribution channels*. The evaluation of the WP2 work can be found in *D2.9 Evaluation report on implementation of semantic enrichment*.

The following sections (4-6) of this report examine feedback which has been gathered. This includes the external evaluation that was commissioned by the project; the feedback received from our User Advisory Panel (UAP) and our Advisory Board (AB); and feedback collated from project partners.

2 Key Performance Indicators

Table 1: Europeana Sounds KPIs in the Description of Work and results to Q11

KPI	Relating to objective / result	Indicator name	Target Y1	Target Y2	Target Y3	Actuals (to Q11)
1	Aggregation (WP1)	Audio items aggregated	50,000	250,000	500,000	597,931
2	Aggregation (WP1)	Other items aggregated	30,000	90,000	225,000	247,525
3	Aggregation (WP1)	Items freely available for re-use	10,000	40,000	90,000	177,248
4	Aggregation (WP1)	Data providers using new EDM profile	50%	100%	100%	100%
5	Aggregation (WP1, WP5)	Consortium partners to have made use of training resources	33%	66%	100%	100%
6	User engagement (WP4)	User satisfaction - % users rate the channels as good or excellent	NA	70%	70%	63.7%
7	Technical platform (WP5)	Services developed and implemented in the Europeana infrastructure	3 Registration, Mapping, Publication	3 Cleaning, Normalisation, channels	2 Quality checking, Resource discovery	2
8	Enrichment (WP2)	Metadata records enriched through semantic enrichment	10,000	500,000	2,000,000	1,345,051
9	Enrichment (WP2)	Annotations (tags) added by users	0	0	40,000	2,781
10	Enrichment (WP2)	New connections among records established by users & automatically	0	5,000	10,000	84,221
11	Enrichment (WP2)	Participants in edit-a-thons	50	150	200	178
12	Music information retrieval (WP2)	Items accessible through the music retrieval service	0	15,000	25,000	321,096
13	Dissemination (WP6)	Participation in the hackathon (M24)		40	40	100
14	Dissemination (WP6)	Publications about the project (including external blogs)	200	500	800	970
15	Dissemination (WP6)	Events where the project is presented	10	20	40	156
16	Policy (WP3)	Publishers added to Europeana Network & engaged in stakeholder dialogue	3	5	4	4

Due to the timing of the writing of this deliverable, the year three targets achieved in the final column in Table 1 above only records the results up to quarter 11 (October 2016) of the project. The final KPI figures will be available from 1st February 2017, the day after the project officially ends. As this deliverable has been written during January 2017 the final figures are not yet available.

The Key Performance Indicators demonstrate that all of the WP1 KPI targets were achieved. Arguably, the most important KPI for WP1 was KPI1 which represents the number of audio items aggregated. The target of 500,000 was reached in quarter 10 of the project (July 2016), which also represented Milestone 6 of the project; *final tranche of content and metadata ready for ingestion*. However, aggregation did not end there, and in the final two quarters of the project additional audio items were aggregated by data providers.

WP2 had five KPIs, two of which had the targets amended during the project. KPI 9 was changed from a target of 1,500,000 to 40,000 and KPI 11 was amended to 200 participants. KPI 12 was achieved early on during the project, which left WP2 with additional time to focus on the four remaining targets.

WP3 had one KPI, which was amended from 5 to 4 during the last year of the project. This target was met by the time WP3 reached its end during summer 2016.

WP4 has only had one KPI to meet which was the user satisfaction percentage. 70% was a high target for a website and WP4 achieved both 68% and 63.7% in the quarters leading up to the end of the project.

WP5 also only had one KPI, and this was consistently achieved every year. (Note, while all other KPIs are cumulative in the table above, KPI 7 is not and shows the number of different services developed during each project year).

WP6 had three KPI targets to meet, which were successfully met and exceeded.

The KPI figures for the final three months of the project are currently unavailable, but we expect that the KPIs will be met by the end of the project. WP2 has been instrumental in producing a targeted crowdsourcing campaign which should ensure these targets are met during the last quarter of the project.

3 Web statistics

D7.4 *Evaluation Report 1* indicated that web statistics would be used as a quantitative evaluation method for Europeana Sounds. The next section of this document outlines the results which have been gathered at the end of the third year of the project.

Since the release of the Europeana Statistics Dashboard, it has been used by the project as an indicator of use via Europeana of the content aggregated in the project.

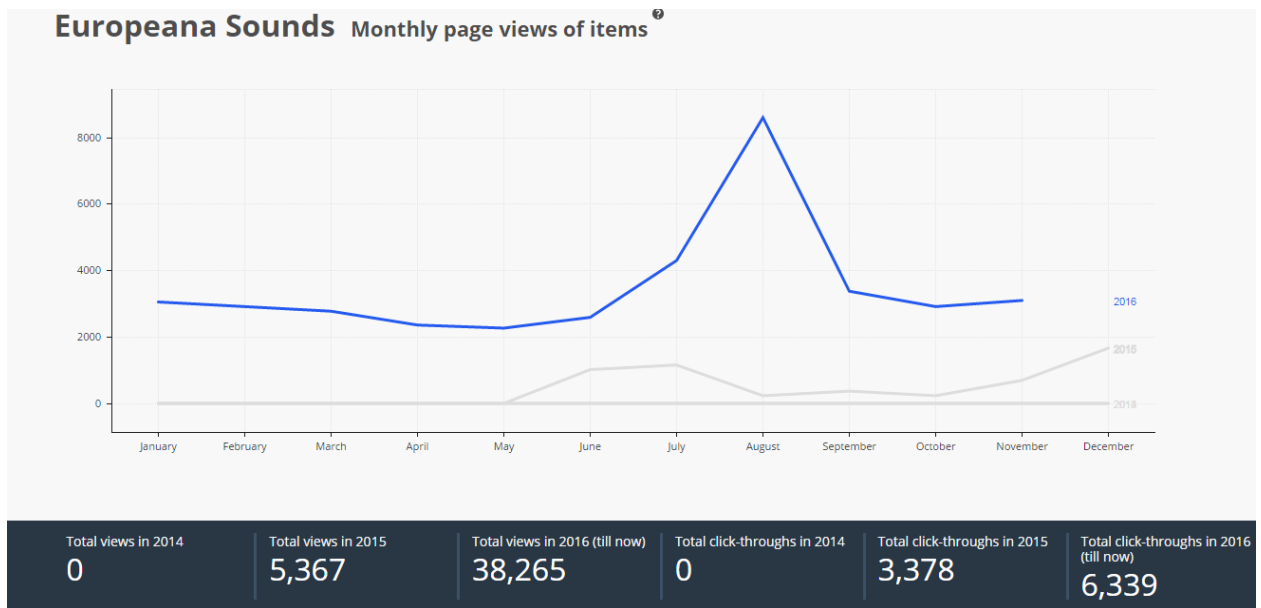


Figure 1: Europeana Sounds page views on items in 2016 (blue line) compared with 2014 and 2015 (grey lines)
(Source: Europeana Statistics Dashboard¹)

As expected, the monthly page view of items shows an increase between 2014 and 2016. The majority of the Europeana Sounds records were published during 2016, which explains the higher number of views.

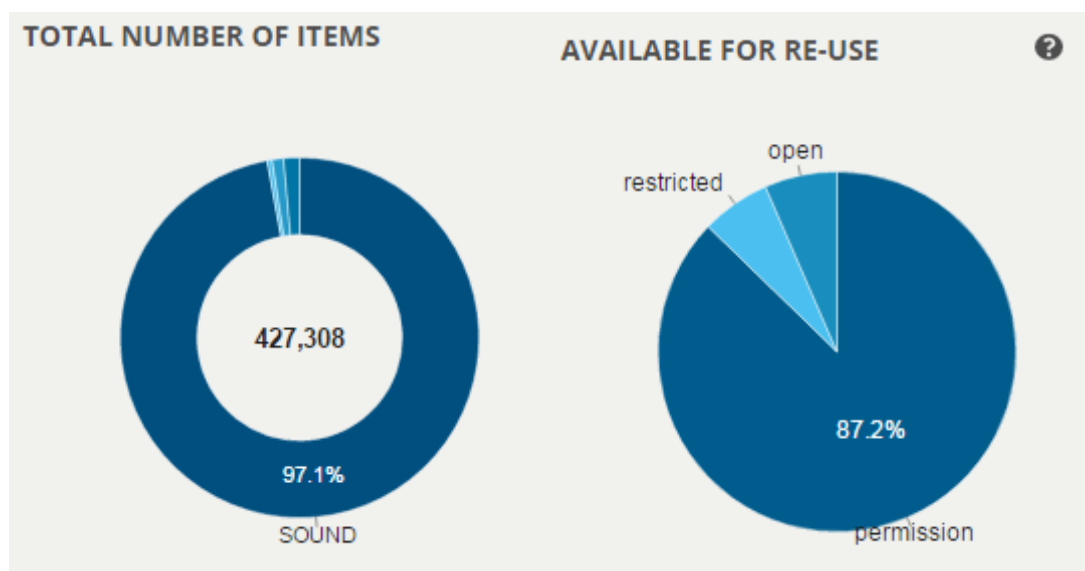


Figure 2: The total number of items and items available for re-use
(Source: Europeana Statistics Dashboard²)

¹ <http://statistics.europeana.eu/provider/europeana-sounds> (Accessed 20/01/2017)

² <http://statistics.europeana.eu/provider/europeana-sounds> (Accessed 20/01/2017)

Unfortunately, the total number of items displayed in the dashboard is incorrect. Europeana does not take into account multiple items per metadata record. For example, ONB have published a manuscript collection as part of the Europeana Sounds project, with 1,691 metadata records corresponding to 152,977 digital objects – but the statistics dashboard does not reflect the objects number and therefore displays a much lower number than the actual total number of items published.

TOP 10 COUNTRIES 

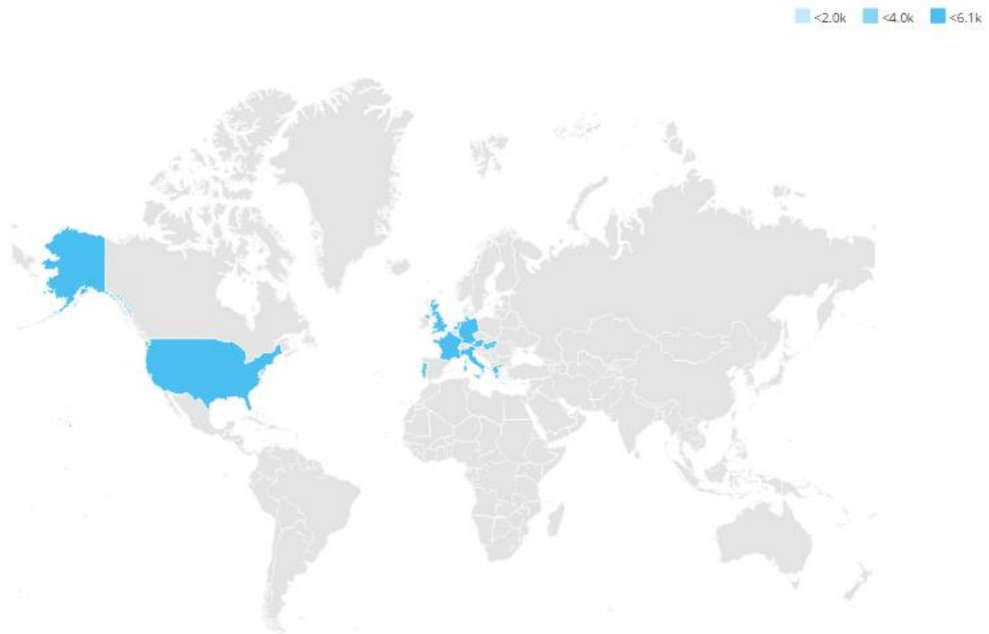


Figure 3: Top 10 Country page views.
Source: Europeana Statistics Dashboard³

As the highlighted map demonstrates and as expected, all but one of the top 10 countries viewing the Europeana Sounds material are based in Europe - including contributing partners in the project - with the addition of USA, which typically features prominently in web traffic reports due to the high number of internet users in that country.

Europeana has also carried out evaluation on the use of the Collections versus the use of the portal as a whole. The chart below demonstrates that the thematic collections (of which music is currently one of three which exist) has a higher rate of returning visitors and a lower bounce rate. Visitors are also spending a longer amount of time during an average session. These results all point towards users favouring the use of curated thematic content. More information can be found in D4.1 *Audio channels production version*.

³ <http://statistics.europeana.eu/provider/europeana-sounds> (Accessed 20/01/2017)

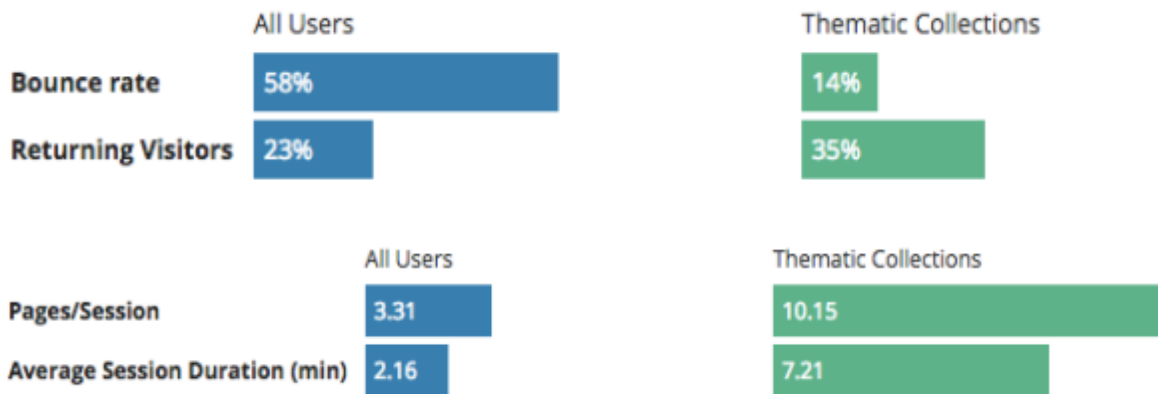


Figure 4: Use of Europeana Collections compared with the main portal during 2016.

These statistics demonstrate a much higher level of engagement within thematic collections when compared to the main Europeana portal.

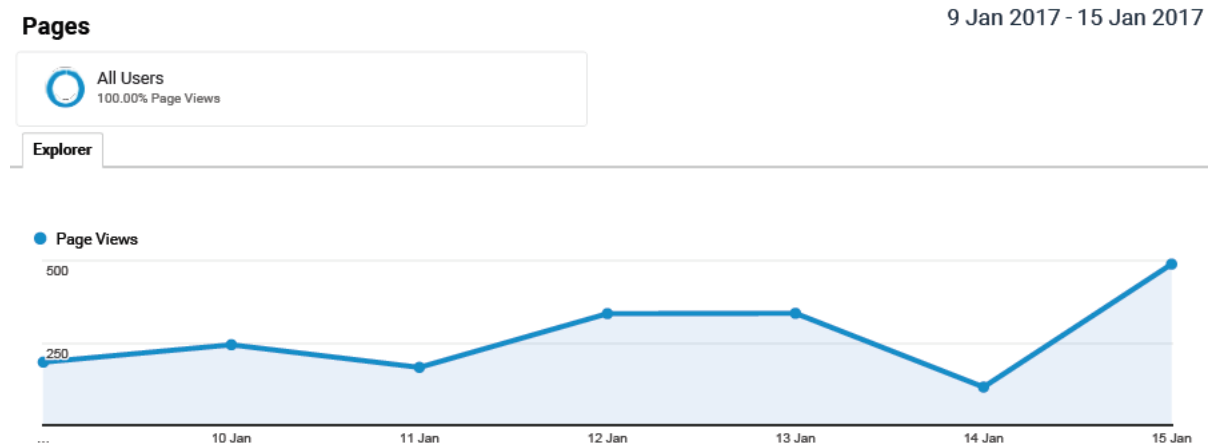


Figure 5: Page Views for Europeana Sounds, 9-15/01/2017

Figure 5 demonstrates the weekly traffic for Europeana Sounds, between 9-15th January 2017. These statistics have been shared between Europeana and the WP1 and WP7 lead on a weekly basis. It highlights the peaks and troughs of page views throughout the week. Peaks are usually explained by the release of a blog post or Tweet, or an orchestrated campaign such as those from either WP6 or WP2.

Reports on three other deliverables issued in January 2017 contain additional evaluation statistics for the Europeana Sounds project:

- The evaluation of web based dissemination statistics can be found in D6.6 *Communication Plan and Evaluation V3*.

- Additional statistics concerning the Music Collection user satisfaction, Europeana Sounds Europeana usage statistics and Europeana Radio have been documented in D4.1 *Audio channels* production version.
- Usage statistics for SoundCloud can be found in D4.2 *Europeana Sounds external distribution channels*.

4 External evaluation

During November - December 2016 an external evaluator was commissioned to assess the Europeana Sounds project achievement of its objectives and identify issues and lessons learned during the project lifetime. Following a competitive tender we selected, Neil Sandford, an independent consultant who has worked extensively with the cultural heritage sector and has a familiarity with European funded projects. His assessments were presented to the Project Management Board in mid-December 2016.

The evaluation began with a review of the project deliverables, milestones and periodic reports, then followed with interviews of each member of the PMB. Three types of questions were identified that needed to be answered by the WP leads in the project. Firstly, clarification was required as to what the key performance indicators (KPIs) were intended to measure, whether they were effective as measures and whether they were being met. Secondly, WP leaders needed to ensure that they understood the role of each of the deliverables and the control points that would be used to assess the achievements. Finally, it needed to be established what impact any issues may have on the project as a whole.

The remainder of this section 4 represents the feedback from the external evaluator.

4.1 General comments

Overall, the external evaluator found that:

'Europeana Sounds has been a successful project in terms of its achievements and outcomes. The team members we have spoken to convey enthusiasm and pride in those achievements.'

Comments received from work package leaders about the successful Best Practice Network:

<p>“The meeting in Paris to work with our policy recommendation group including the CMOs we had been working with. An intensive two days.”</p>	<p>“Delegates were much more experienced, technically and conceptually, by the time of the last training event and we were able to go into some more advanced areas. Also, Dublin is a marvellous place to have a meeting and this was the last training event so we were able to celebrate!”</p>
<p>“The workshop in Dublin. It was the first time all providers came together, working on a group exercise to make it possible to create hierarchical structures. Talking to each other. Enjoying Irish music and dancing.”</p>	<p>The people interviewed for this evaluation were asked about their strongest memory of the project. For many, it was the people that made the network.</p> <p>It is difficult to cost-justify spending money on relocating people for two or three days but here the benefit was clear-getting people with little or no experience of this type of project to come together rapidly and harmoniously.</p>
<p>“Times when partners came together. It is always rewarding to see the people you have been working with, discuss issues and solve things. Also, sound was a nice subject to work on.”</p>	<p>“My strongest memory was of participation in our first Edit-a-Thon at our own institute. I was working with experts from an area that I had no experience of, integrating their knowledge with archival recordings of bird sounds from Europeana into Wikipedia. Comparing the situation three years ago with what Europeana now provides, we can be proud of the contribution made by WP2.”</p>
<p>“Both of the public conferences have been project highlights, as was the year two review where the reviewers said they were very pleased with our results which cemented our belief that we were delivering a successful project.”</p>	<p>“I’m a product person and when I saw the first working alpha, I knew we were going to make it.”</p>

The KPIs are defined in the project’s Description of Work. There is a marked difference in the approach taken to KPIs by WP1 and WP2 compared with WP3, WP4 and WP5. Where necessary, assessment of the progress was also made with reference to the six ‘Activities and Outcomes’ listed in the DoW Project

Profile which defines additional high level targets for WP3 (“*recommendations for improving access and re-use to at least 1.5m additional audio tracks held by Consortium partners*”) and WP6 (two “*conferences with anticipated audiences of 200 potential participators*”). The external evaluator reported two overarching concerns about the approach to KPIs and milestones. The first is whether they were effective measures for the delivery of results. The second is whether they were applied properly, and this was investigated during the discussions with the relevant work package lead.

4.2 Feedback on each WP

WP1 Aggregation

Work package	Objectives	Critical questions
WP1 - Aggregation	Aggregate a critical mass of audio and audio-related metadata into Europeana and to establish a best practice model for future aggregation.	Was the aggregation process clear and efficient for project data providers and associate partners?

Was the aggregation process clear and efficient for project data providers and Associate Partners?

Data providers were normally able to work efficiently after suitable training (which was generally well-received) and in some cases revising their methodologies to save time in the medium and long-term. Issues encountered during the project included:

- some partners had to adopt unfamiliar processes and standards which delayed early publications of datasets on Europeana
- not all sound vocabulary was available at the very beginning of the aggregation
- some revisions to datasets were found to be necessary after reviewing content on Europeana.
- copyright clearance of datasets can be a time-consuming process.

When asked what might have been done differently, the WP1 lead said that it was necessary to compromise on level of ambition, getting project partners to accept limitations about what was technically possible in the timescale of a complex project.

What do the KPIs tell us?

Performance in the areas of KPI 1-5 is recorded in milestone MS6. The evidence it provides is satisfactory. KPIs 1-3 are expressed as absolute values and all have been exceeded. KPIs 4-5 are expressed as percentages and 100% has been reached in both cases.

The WP1 training activity has a KPI requiring that 100% of partners attended training workshops over the life of the project. This does not tell us anything about the *effectiveness* of the workshops. That can be measured more meaningfully in terms of satisfying a goal - the number of Data Providers who are able to successfully use MINT to prepare a batch of metadata for ingest in a timely fashion after

attending a training course. A KPI should provide a way of monitoring the value being created by the quality of the work not simply the quantity of items being produced.⁴

WP2 Enrichment and participation

Work package	Objectives	Critical questions
WP2 - Enrichment and participation	Design and implement mechanisms for enriching existing metadata, including semantic enrichment and crowdsourcing, to support enhanced exploration, discovery and use, deepen understanding of the collections and increase end-user engagement.	Has the crowdsourcing work been successful in improving use and discovery of audio heritage?

Has the crowdsourcing work been successful in improving use and discovery of audio heritage?

The project has demonstrated the ability to connect various crowdsourcing applications (Tunepal, Historypin, Pundit, WITH) through an Annotation API and has conducted small-scale pilots with them. Integration with the sound channel, allowing the user to discover and then contribute to the annotation of objects came late in the project's lifetime, as will be discussed below.

One factor in the slow roll-out of crowdsourcing tools was dependence on integration within the Music Collections through an Annotation API. According to MS11 in month 16, *"the Annotations API will be exploited to enable logged-in users of Europeana Portal Channels to annotate records and link items in different ways. Development of user annotation features in the Portal Channels and specifically the Music Channel will be in focus during 2016."* In other words, a document that is supposed to be reporting on evaluation of a crowdsourcing infrastructure is in fact telling us that WP4 will not be developing user annotation functionality for at least another eight months.

Clearly, the way work in WP4 has been scheduled leaves WP2 in a difficult position and the WP2 lead has no control over its KPIs. With hindsight the WP2 lead would have set more reasonable targets for crowdsourcing with less reliance on technical infrastructure development. Deploying the tools earlier would have allowed WP2 to start reaping any low-lying fruit.

What do the KPIs tell us?

KPI 8 includes records automatically enriched at the point of data ingestion as well as crowdsourced enrichment. The final figure will be determined by the last tranche of metadata to be processed before the end of the project. This indicator appears to be achievable. Similarly, KPI 10 includes links generated by effective use of (semi-) automatic alignment tools (like CultuurLink) to generate suggestions for enrichment of related metadata records. KPI 12 is the number of items that would be accessible through

⁴ This is from "Ten Characteristics of a Good KPI", Gerke & Associates, http://www.gerke.com/documents/ten_characteristics_of_a_good_kpi_pd_dw.pdf (last visited 21st Nov 2016)

the proposed music information retrieval service and is measured by the number of audio items that have been given similarity characteristics. KPI 10-12 have already been achieved.

KPI 9 and KPI 11 are the two indicators that relate specifically to participation of real users rather than use of automation for enrichment and both are under-performing. KPI 11 is based on the number of people participating in GLAMwiki edit-a-thons. The status of KPI 9 was discussed at the second technical review (*“The crowdsourcing aspect may offer more resistance than anticipated, but this is a general phenomenon in a time where the possibilities of self-expression via a plethora of social media are overwhelming.”*).

A KPI can only be applied in a relevant context that it is designed to monitor. The significant over-achievement of KPI 10-12 may be due to revision in the way the indicator is being applied, by including automated enrichment as well as or instead of crowdsourcing. In the case of KPI 8, there is justification in suggesting that the indicator should be split in two, to extract information about the progress of crowdsourcing separately. With regard to KPI 9, the WP2 lead believes that the level of ambition for crowdsourcing was over-reliant on the technical infrastructure development which was not recognised in the KPI. If a KPI is not relevant, it should probably be discarded or rewritten.

Other issues

A critical factor in ensuring that integration would be successful is correlation of requirements and specifications between WP2 (representing the ‘user’), WP4 (the ‘front end’) and WP5 (the ‘back-end’). It is not easy to grasp the way these interact and who is responsible for each step in the development. In this respect, moving responsibility for deliverable D5.4 to WP2 (as D2.10) was a sensible way of simplifying the lines of communication although it did not affect the interdependencies between WP2 and WP4.

WP3 Licensing guidelines

Work package	Objectives	Critical questions
WP3 - Licensing guidelines	Improve access to out-of-commerce content and increase the opportunities for creative re-use of Europeana content.	Have barriers been successfully identified and analysed or reduced for access to commercial items and domain-constrained audio?

Have barriers been successfully identified and analysed or reduced for access to commercial items and domain-constrained audio?

WP3 has invested significant effort in understanding why music is unique in the mix of content-types supported by Europeana. The Europeana Sounds project as a whole has triggered discussion about the need for a new usage rights policy, an area where the level of understanding of rights issues was significantly lower than anticipated, especially for Data Providers working in this area for the first time.

As set out in the final report D3.4, *“The rights statuses of audio and audio-related collections are diverse, each with different challenges to overcome before they can be made available online to the public.*

Hurdles range from collections that consist of never-in-commerce works and where rights-holders are difficult to trace, through to Public Domain works where the rights status is time intensive to verify, and collections where works will still be actively managed by rights-holders or representatives.”

WP3 worked with content partners and other stakeholders to identify and reduce these hurdles and to develop approaches allowing as much reuse as possible from these categories. The DoW contains a statement to the effect that at least 1.5m⁵ out-of-commerce and domain-constrained audio tracks that exist today could be affected by enactment of the recommendations emerging from deliverable D3.4.

The final task in WP3 was to produce a set of policy recommendations (D3.4). This was due in M24 but deferred until M27 to allow inclusion of analysis of *COM (2015) 626 updating the European Copyright Framework*, which had just been launched. Dissent arose within the WP3 working group about whether D3.4, a document discussing policy, was suitable for dissemination to the public at that time. Essentially there were three views - one that it should be published ‘as is’, one that it should not be published publicly but shared only with the EC and one that it should be released but edited to remove reference to on-going policy debates.

The DoW clearly says that D3.4 has two audiences: one for concrete policy recommendations (“*Special attention will be paid to bring these policy recommendations to the attention of relevant policy makers and networks.*”) and one for the outcomes of pilot projects (“*Support the implementation of solutions and monitor their effectiveness integrating them in a final report on the issues of out-of-commerce works*”). Content providers are presumably more interested in reading about how to gain access to domain-constrained material than they are in learning how new policies affect that access.

The logical conclusion is that D3.4 should have been split into two parts: a proactive, confidential, communication targeting policy makers and a reactive public document, targeting practitioners. It may even be more appropriate to consider the seven recommendations as discrete white papers with distinct audiences which would be; Legislators (#1, #3), CMOs (#4, #5) and the European Commission (#2, #5, #6, #7)

The evaluator understands from the WP7 lead that the issue has been closed, although an extended period of deadlock has delayed resolution. The third interim report makes it clear that when the issue of deadlock needed to be escalated it was EF that raised the issue with the PMB, that the analysis of options was instigated by EF and that negotiation of consensus around its preferred option was also instigated by EF.

What do the KPIs tell us?

Returning to the hypothetical KPI measuring use of out-of-commerce or domain constrained use (), even if the target had been defined in context, along the lines of “*bring at least 50% of today’s out-of-commerce and domain-constrained items into re-use*”, it would still have flaws. There is no guarantee that recommendations for changing policies will be adopted. The seven recommendations are enablers of change but there is no guarantee of the extent to which they will be used to unlock constrained material. A KPI is only achievable if the context it applies to is stable and not a moving target.

⁵ Note: This is not a target or KPI, it is an estimate of how much previously constrained material exists and could be unlocked if D3.4 is adopted in its entirety.

WP4 Channels development

Work package	Objectives	Critical questions
WP4 - Channels development	Implement a mechanism for providing channels that enable specific user communities to discover, share and annotate digital audio content and can be extended to address other communities of interest and other media.	Did the project develop audience-specific sound channels with improved search facility, navigation and user experience? Do our users find the music thematic collection helpful; to what extent is it being used?

Did the project develop audience-specific sound channels with improved search facility, navigation and user experience?

Assessment of this question requires that we know what we are supposed to be comparing with and how to measure 'improvement' being made by moving to the channels (collections) model.

The third interim report says *"An intensive round of user research and evaluation was performed and reported in Q9. The research comprised heuristic reviews, a user survey and user testing of the Europeana Collections discovery site as a whole and the Music Collections specifically."*

The analysis is reported in the User Intelligence integrated report (April 2016) which states its aim as providing *"insight into the overall experience of Europeana Collections"*. The reports 'main conclusions' (p. 21/22) make just one reference to Collections in the five numbered points:

- The content of the portal is the main driver for use and appreciation of the portal
- The portal is primarily used for professional or study related activities.
- The portal is perceived as a large database with search as the main functionality - top task.
- Usability issues during the use of the portal hinder an optimal user experience
- The thematic collections seem to have potential, however in the current form, the relevance is limited.

On page 62 of the UI report, it describes Collections as a form of browse interface to the portal *"Give browse functionalities (exhibitions, collections, browse) and information a less prominent position on the Homepage."* That is, the introduction of thematic Collections will be of more interest to the secondary user type who browses, not the primary user who searches.

Assessment of WP4 is complicated by the need to separate activities relating to the generic Europeana functionality and activities that aim to meet the specific needs of the Europeana Sounds Music Collection.

Do our users find the music thematic collection helpful and to what extent is it being used?

This question is best answered by the following table which has been extracted from a WP4 presentation slide at the 2016 plenary event.

	All users	Europeana Music
Bounce rate	57%	12%
Returning visitors	22%	34%
Pages / session	3.44	10.89
Average session (minutes)	2.32	8.53

That is, compared to Europeana visitors as a whole, visitors to the Music Collection (in round numbers):

- Have a much lower bounce rate (leaving the site without exploring) and more visitors return.
- Spend a longer time exploring the site and access three times as many pages.

What do the KPIs tell us?

There is only one KPI for WP4 even though it delivers two separate pieces of work. KPI 6 uses satisfaction ratings as an indicator: “Channels will be evaluated annually in a user survey where the KPI is that 70% of users rate the channels as Good or Excellent” on a scale of 1 to 5. This leaves several key questions unanswered. It does not differentiate between primary and secondary users. It does not differentiate between the various parts of the Europeana front-end (collections, exhibitions and search). The Music Collection is now subject to Europeana's continuous user evaluation process and a decision has been taken to defer both D4.1 and D4.2 until the end of the project. While this will result in up-to-date statistics based on Google Analytics and HotJar, it will also preclude any opportunity for formative evaluation in the life of the project. This will also, therefore, affect WP2 and possibly WP5. KPIs must be easy to comprehend: unambiguous statements of what is being measured and how it is being calculated.

Other issues

The second periodic report stated “After the release of the alpha Music Channel design, the focus was on navigation, media display and naming of the service. As a result of the naming decision the new Europeana portal is called Europeana Collections and the music channel, Europeana Music Collections.” We can find no documentation of the process by which the changes were made and whether ‘a naming decision’ had other implications but would have expected this to be treated as an off-spec issue for the following reasons:

- By restricting the content to music and music-related sounds, a data provider who only provides content on language and the spoken word has no presence in the Music Collection and all data providers who provide oral memories, dialect and language material are underrepresented.
- Not all data providers were aware that the Music Collection requires all content to be accessible through direct links to streamed data with world-wide rights. Partners have found this a difficult

change to implement. Not all are able to do this even now, meaning that perfect recordings of important pieces of music are omitted from the Music Collections because there is no direct link.

When asked whether he would, in retrospect, have done anything differently, the WP4 lead said that he should have lobbied more effectively to implement at least one more collection from the metadata aggregated by WP1 to make the point that Europeana Sounds was not just about music.

WP5 Technical infrastructure

Work package	Objectives	Critical questions
WP5 - Technical infrastructure	Enable the aggregation of metadata from archived digital content, primarily music and speech audio, including out-of-commerce recordings and crowdsourced content.	Did the project successfully underpin aggregation, enrichment and channel development in the Europeana portal in support of the Music Collection?

Did the work package successfully underpin aggregation, enrichment and channel development?

The WP5 lead, NTUA, is responsible for the MINT aggregation tool. WP5 provided aggregators with an enhanced version of the MINT metadata-processing tool and the infrastructure for aggregation/ingestion. Technical knowledge gained by data providers is portable across the whole platform and is part of their legacy from the project.

The implementation of the crowdsourcing facilities in WP2 is based on a generic Annotation API, a backend application implementing functionality for the storage, retrieval and management of annotations. The development of this service was started within the scope of the Europeana Creative project, following the Open Annotation specification. The task addressing a crowdsourcing infrastructure was subsequently moved from WP5 to WP2 become task T2.5 as noted elsewhere. The result was that the project ended up with three large items of technical work with no overall coordination: the crowdsourcing services being built by WP2, the channel front end (WP4) and the Core Infrastructure (presumably the responsibility of WP5) including the Annotation API itself.

What do the KPIs tell us?

KPI 7, the sole KPI for WP5 states that there will be eight 'services' *"developed and implemented in the Europeana infrastructure"* by the end of the project. These are registration, mapping and publication (year 1), cleaning, normalisation and channels (year 2) and quality checking and resource discovery (year 3). This is the extent of the explanation of the indicator. Searching the DoW for these terms, it reveals (page 77) that registration, mapping, cleaning, normalisation and quality checking prior to publication already exist. They are described as *"areas where the existing technical infrastructure for aggregation must be improved"*. If they already exist, then a performance indicator that monitors the gap between current and required performance should be used. Simply stating that the service exists is inadequate. An alternative approach might have been expressed in terms of the time it takes to resolve requests for change (backlog). KPIs must be complete and self-contained, without implied or 'hidden' meanings

Other issues

As previously mentioned, there was a critical dependency between the choice of tools that can be used for user-annotation and crowdsourcing, the Annotation API that allows annotations to be displayed, edited and re-ingested and the deployment of those tools as part of the channel/collection being developed by WP4. This is the source of the most significant delay in the project - the rate at which crowdsourcing and annotation services can be deployed as part of the 'live' Europeana Music Collection.

WP6 Dissemination and networking

Work package	Objectives	Critical questions
WP6 - Dissemination and networking	Extend the work of the Europeana Sounds Best Practice Network to its target audiences and act as a catalyst for the inclusion of a significant quantity of items from collection-holders not yet engaged with Europeana.	Has the dissemination of the project outputs been effective in engaging with stakeholders such as an external user (e.g. student, researcher or private archive)?

Has the dissemination of the project outputs been effective in engaging with stakeholders?

Dissemination of the results of a multinational research project requires a very special skillset that includes traditional and also social media marketing, command of several languages, subject matter expertise and engagement with issues like the public understanding of science. The project team respected the Europeana branding and took opportunities, such as the European Sounds timeline feature, to showcase Europeana as a whole.

WP6 used a number of examples of good practice that promote engagement, at scale, through which people understand how they can benefit from the project.

The Communication Plan was subject to continual monitoring of the effectiveness of the dissemination. Target audiences are not simply interested in everything that is on offer, there has to be some specific recognisable benefit. Once they can see the benefit, engagement becomes easier. This was particularly the case with 'the creative industries'. When WP6 recognised that this group was under-represented, it was broken down into targetable subsets such as pro/semipro, musicians, radio programmers etc.

In 2014, when Europeana Sounds began, there were several other Europeana Best Practice Networks underway (such as Europeana Creative, Fashion, Food and Drink, Photography, 1914-1918, 1989) which led to a strong sense of common identity. The situation today is very different and WP6 decided to rotate responsibilities within the work package, giving people exposure to a greater number of network members.

There is often a problem when project members are "turned on and off" to meet variable flows in the work in the project and internal dissemination (such as staff newsletters in the larger data providers)

helps in reassuring people that progress is being made. Each week during the second year, there were, on average, five or six mentions of the project in the press and media and two project blogs.

What do the KPIs tell us?

WP6 has three quantified indicators for measuring the effectiveness of dissemination: the number of hackathon participants, the number of events at which presentations were made and the number of publications about the project. KPI 13 was delayed because the hackathon it referred to did not take place until year 3. KPI 14 was passed in the first half of the final year and KPI 15 was passed in year two.

The DoW Project Profile says that WP6 would enable the project to “engage with 200 potential participants in the Best Practice Network”. Would each of the following constitute engagement with potential participants at the required level?

- filling 200 seats at a hackathon
- blogging fifty times to readers on four continents
- presenting a slide-set to an average of 20 people at ten events

KPIs based on widely-used terms such as “engagement” must be consistent in meaning and in the way the indicator is measured, based on corporate (i.e. project-wide) standards.

WP7 Project management and sustainability

Work package	Objectives	Critical questions
WP7 - Project management and sustainability	Provide leadership and guidance for the Best Practice Network (BPN), managing priorities and risks, ensuring quality of deliverables and evaluating the effectiveness of the BPN. Develop an exploitation plan for sustaining the platform and services post-project.	Has the consortium established a best practice network? Has project management been effective in fostering the other work packages activities and achieving the overall objectives? Are the sustainability plans for the project relevant, appropriate and realistic?

Has the consortium established a best practice network?

Europeana Sounds adds a new specific community of data providers who use the Europeana Portal to disseminate their collections. In order to achieve this, the project has had to provide intensive support to new data providers faced with challenges in providing metadata, rights clearance, access and curation of the online resources. It has adopted and transferred best practices found in the larger and more sophisticated GLAMs for the benefit of smaller organisations and their specialised user communities.

Has project management been effective in fostering the other work packages activities and achieving the overall objectives?

WP7 is at the hub of the project and provides the central co-ordinating role between the beneficiaries, their partners in the project and outside agencies including the EC. The assessment that this has been successful comes from the observations that issues tend not to remain unresolved, the quality of work and deliverables is generally high, actions are timely and the management approach pre-empts many of the typical problems with collaborative projects.

Are the sustainability plans for the project relevant, appropriate and realistic?

The sustainability of the community of practice that has emerged from the project is more tangible than the continued viability of the Music Collection which is embedded within the Europeana initiative. Steps have already been taken in conjunction with IASA (International Association of Sound and Audiovisual Archives) to establish modest potential revenue streams for the future - from training, to give just one example. However, opportunities may arise to exploit other elements of the project and steps should be taken before the end of the project to identify and allocate rights to elements of the project, especially when joint ownership may be necessary.

4.3 External evaluation recommendations

The external evaluation contained suggested recommendations which should be implemented post project either to ensure a complete success of the Europeana Sounds work or can be applied to future projects.

1. The BL and its partners should address the aspects of its objectives that have not yet been achieved by:

- Finding opportunities to extend work on annotation and enrichment techniques adopting open standards and avoiding commitment to any single platform
- Lobbying for take-up of the recommendations from D3.4 including awareness and dissemination activities
- Building a secure and robust Best Practice Network around the plans being made for collaboration with IASA providing services that support the recommendations such as advice and support for rights clearance and training in the use of crowdsourcing techniques

2. Management approach

It is (almost) inevitable that some part of a complex project like Europeana Sounds will stray outside the boundaries of what are considered acceptable tolerances on its timing, effort or scope. Most importantly, there is a risk that a delay in a piece of work will have repercussions in some other part of the project that is dependent on the delayed item. Deviations from the work plan were typically addressed in one of two ways. Either the level of ambition has been down-scaled by reducing or reinterpreting KPIs that have, for whatever reason become unrealistic, as happened with KPI 9. Alternatively, the plan has been revised by rescheduling or redefining milestones and deliverables, which should only happen after thorough analysis of any dependencies that are affected and certainly not enacted retrospectively. Therefore interdependencies must be examined carefully before implementing any changes.

3. KPIs

A good set of KPIs should reflect the key value drivers, goals, and plans for the project. It is vital for the project 'executive' management to own the application of KPIs, top-down. The KPIs have been created on the understanding "you cannot manage what you do not measure". It relies on WP and task leaders who treat performance monitoring as a tool for understanding where the project is succeeding and where it is failing. KPIs expressed in terms that are virtually impossible to miss (thus telling you next to nothing about the real state of progress in the work) are as useless as ones that are virtually impossible to achieve (and then have to be negotiated downwards until they are possible to reach). This project has examples of both categories, where specific KPIs address the performance of a component of the project (a WP or task); they will reflect the value drivers and KPIs at the level above them, and so on up to the level of the PMB. In other words: all good KPIs are based on and tied to the overarching corporate (project-wide) strategy and value drivers. Therefore future KPIs should measure a qualitative impact rather than an arbitrary number.

4.4 PMB response to the external evaluation

The commission of this report provided an expert external view for the work which was carried out over the past three years. The PMB have been very closely involved in all aspects of the project which can make it difficult to step back and make an independent judgement of the results. Therefore an external view was important to focus on what went well during the project, and what could be amended in future projects.

The external evaluator has made comments about the KPIs for all of the work packages, and has made the judgement that several of them do not demonstrate quality outputs or learnings; they simply demonstrate that an arbitrary number has been reached. Therefore in future projects KPIs need to be more meaningful and represent work that can be easily shared across organisations and reflect learnings for all involved. This is, by no means, an easy feat which is why it is easy to rely on statistical KPIs, which for the most part, have over the three year period demonstrated that the project was working towards the correct achievements and was on track to meet delivery targets.

Important to note was that the external evaluator commented 'a critical factor in ensuring that integration would be successful is correlation of requirements and specifications between WP2 (representing the 'user'), WP4 (the 'front end') and WP5 (the 'back-end'). This was addressed through the Technical Coordination Group, led by Technical Coordinator Johan Oomen. This led to an aligned roadmap, centralised administration of the relevant user stories in the SCRUM development and a shared language. The technical partners collaborated intensely in all three mentioned WPs. While the work was carried out collaboratively, perhaps it has become apparent that the technical coordination group work was not documented enough during the project (the external evaluator could only make judgements based on deliverables, milestone documents and annual reports).

5 UAP and AB evaluation work

D7.4 *Evaluation Report 1* stated that the Europeana Sounds User Advisory Panel (UAP) and Advisory Board (AB) groups would be used to assist with the evaluation methodologies. The UAP consisted of five external experts who together represented the target groups of the project: consumers, creative industries, publishers, researchers and memory institutions. This group was installed in month 2 as part of Task 7.2 *Quality assurance and risk management*. The AB members were selected for their specific expertise and for the networks they represented, which included: digital music distribution, machine-led music information retrieval and search; crowdsourcing and public participation in online digital platforms.

During the course of the three years the UAP met 6 times, the AB twice and the AB and UAP met jointly 3 times. Both the UAP and AB have reviewed deliverables and milestone documents and provided valuable feedback back to project developments. The UAP spent a great deal of time evaluating the Music Collections and panel members who are educators also encouraged their students to review the site. Feedback was provided both during the UAP teleconferences and directly to Europeana.

Additionally, it was recommended that the UAP would assist in developing further unofficial KPIs for the project. During a succession of meeting the UAP suggested these additional evaluation measures:

1. Measure the number of Associate Partners who agree to join Europeana Sounds, the new EU states they represent outside of the project consortium and the number of records they can aggregate and supply to Europeana via Europeana Sounds. Measuring this will demonstrate the wider impact the project has had on external parties.
2. As well as the quantitative evaluation there should be a qualitative evaluation of the project. Ideally this should measure the impact that the project has had on partner institutions, such as new skills that have been developed within the workforce and if they consider themselves to be part of the best practice network.

Following on from these recommendations, the following additional targets were drawn from the suggestions:

Indicator Number	Indicator name	Expected Progress (Year 3)	Benefit
17	Number of Associate Partners to join Europeana Sounds consortium	5	Additional associate partners will expand our network
18	Number of records published on Europeana by Associate Partners	1,000	Additional records to strengthen the numbers of audio heritage on Europeana
19	Number of additional EU member states that Associate Partners will represent	3	Including additional member states will expand the wealth and depth of audio heritage from across Europe

20	Measure of additional skills developed within project consortium and development of a best practice network	n/a	Surveying all partners during both year 2 and year 3 to assess how partners feel the BPN has developed will provide an indication of what additional work should be carried out in this area. It should ensure partners feel part of a 'team' and will want to carry out work post project. Qualitative rather than quantitative measure.
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At the end of year 3, we are now able to see if these additional measures were achieved. Five Associate Partners did join the Europeana Sounds Consortium, and are listed below.

Associate Partner	Location	Date joined
Dublin Institute of Technology	Dublin, Ireland	10/12/2015
Koc University – Soundscape of Istanbul	Istanbul, Turkey	02/11/2015
CNRS - Cresson	Grenoble, France	16/02/2016
The Fryderyk Chopin Institute	Warsaw, Poland	06/04/2016
Institute of Literature, Folklore and Art of the University of Latvia	Riga, Latvia	14/09/2016

However, as the table above shows, only two additional countries have joined the consortium, of which one is an EU member. Turkey and Poland are new countries to join the Europeana Sounds consortium and represent a new section of audio heritage which was yet to be explored by existing project partners. An additional 1,000 records from Associate Partners was also a very high estimate, which was not met. By the end of January 2017, only Koc University have been able to publish a collection on Europeana, and this totalled 200 records. Associate Partners required a lot of additional support from the WP1 lead as it was a new area of work for them. However, they have received all of the necessary literature and guides for aggregation as well as accounts to be used on the MINT aggregation tool and indicate that they would like to schedule in time for aggregation to Europeana during 2017.

Indicator number 20 is more difficult to measure as it does not require a quantitative result, but we can say that it has been achieved. At the halfway point of the project all partners were surveyed and asked to indicate how much of a 'network' they felt they were part of and what could be improved. Results of this survey were fed into D7.5 *Market Survey and Exploitation Planning* as partners were asked at this point of the project to begin sustainability and exploitation planning. Project partners were again surveyed at the end of the third year and the 'network' created by the project was unequivocally voted as the best outcome of the project.

6 Evaluation from partners

The project management team has, over the course of the project, asked project partners for their opinions regarding different aspects of the project. For example, D1.6 *Training Report 1* surveyed project partners who had attended the training event in order to evaluate the event and to learn what should be changed in order to make the next training session even more of a success. All partners were also surveyed for D7.5 *Market Survey and Exploitation Planning* to assess project outcomes, audiences and sustainability for each partner. These results allowed the project management team to evaluate the work had been carried during year 1 and 2 of the project and determine the best course of action for year 3 and post project, which is documented in D7.9 *Final Exploitation plan and sustainability strategy* which also includes feedback from partners about their sustainability work during the project, and what they will be doing in the future.

One of the key outputs of the project has been the Music Collections which was curated each month by a different partner and an evaluation of each month was collected by WP7. Highlights and conclusions of these monthly evaluations from these selected data providers are included in section 4.1 of this document.

Moreover, during the final plenary meeting each project partner was asked to provide a brief evaluation of their time in the project including issues encountered and highlights, and this is documented in section 4.2 of this document.

6.1 Evaluation of the Music Collection curation by data providers

At the end of each month, the curating data provider was asked to evaluate the time spent on the curation, difficulties encountered, benefits enjoyed and lessons learned. The full evaluation from each curating partner can be viewed in Appendix A.

On average the time spent on the curation of the Music Collections was three working days per month. This time ties in with the difficulties encountered, as many partners commented that the work was not included in the DoW and there was therefore no specific 'job description' or time effort allocated to this work. At the start of 2016 this work was an unknown quantity and it was difficult to know how to proceed, but by March 2016 a template has been created and guidelines put in place which simplified the role of the curator. This needed to be tweaked over time as more partners used the template and asked for clarification on points which were not clear.

Several partners also commented that technical problems stood in their way. For example, Statsbiblioteket reported that the technical section of the curation (e.g. browseentry points) did not work until the middle of their curation month due to technical issues with Europeana. This meant that the collection was only presented for a total of ten days rather than the whole month. TAD and ITMA also reported that there was no technical person assigned to ensure a smooth transition of records during the curation period and they obtained little support from Europeana during this time.

Benefits experienced from curating the Music Collections:

- Curating the Collection boosted the visibility of records which were highlighted and generated more web traffic for the data provider who was hosting the month.
- DNB reported that it was beneficial to learn how to carry out the curation for the month and developed new web skills. The curation tested the data provider’s knowledge of their own collections and music resources.
- It was an opportunity to learn how the Europeana Collections pages work and get to know the web functionality.
- BnF reported that the curation drove attention to their Sound Rediscovery event which they held in September 2016.

Lessons learned and recommendations for future curation:

- Templates were required to ensure the correct information was gathered from the curator, and detailed guidelines were needed to explain the role. In the future, templates and guidelines should be published in an easy access web space so all Collections curators have easy access to this information. Clear and concise instructions need to be issued so that all curating partners understand the requirements.
- DNB, OeM, ONB and NLL reported that they found it difficult to source a suitable high resolution image to feature as the hero image, and have suggested that Europeana hold a bank of images for the curator to choose from.
- Data providers learned that Europeana and Google search engines work in very different ways and more thought needs to be taken into creating search points which will find, and filter the exact search results desired.
- As TAD and ITMA experienced during August 2016, if a data provider is submitting new records to be highlighted during their curation month, this needs to be done well in advance as the records are not given a publication priority.

6.2 Feedback gathered during the final plenary meeting

During the final plenary meeting, held in December 2016, each partner who was present was asked to speak for two minutes to evaluate their experience of the project and achievements and difficulties that were encountered. These oral accounts add to the anecdotal evidence which can be included in this evaluation report and represent some of the most important outcomes experienced by project partners. These have all been documented in the following table.

Partner	Project evaluation during plenary meeting
BL	The BL has benefitted from the network that has been created during the project. Working with new colleagues across different countries has been a rewarding experience and staff hope that these relationships will continue after the project in future collaborations.
NISV	NISV have developed excellent partnerships with Wikimedia, both within the

	Netherlands and in different countries which will benefit NISV in the future. Europeana Sounds was only able to scratch the surface of crowdsourcing investigation, and there is much more which can be continued after the project end.
KL	There were several highlights for KL in the Europeana Sounds project. They were very happy that they got an active group together to discuss on how to overcome barriers to online access, discussing copyright and other relevant issues on a high level both in person and virtually. KL are proud of the end-result of policy recommendations that everyone worked very hard on. KL also have had difficulties of course, getting different opinions together in a document is not easy, and took convincing, diplomacy and discussions. KL look back on the project with a smile, having learned a lot, shared a lot and have gathered new insights in our area of expertise.
EF	EF has been very pleased with the production of the Music Collections and Europeana Sounds has ensured that this initial development could take place.
BnF	The BnF reported that the project helped staff work in a more cohesive way with other internal staff at the BnF. It was the first time that BnF was handling the transformation of its data into EDM itself, which provided to be a good learning experience in data transformation experiments. It was also reported that MINT current functionalities do not satisfy the complexities of the BnF data and therefore the BnF would probably not use MINT for future aggregation. The exchange of information between Europeana and BnF was also very fruitful regarding the revision of the Europeana Licensing Framework and the creation of new rights statements, which the BnF very much welcomes.
AIT	AIT felt they were able to implement tools which were missing in Europeana (e.g. annotations) which was a success and ensures information can now flow in two directions. Users can now directly provide Europeana with information which will benefit the platform. In the future AIT would like to see the search function improved.
NET7	NET7 were able to apply existing technologies and later update and improve it. Improvements were made on a technological level which benefitted both AIT and other project partners.
CNRS	Participating in the project to led to quality improvements in own internal database and allowed for networking within CNRS so staff were able to work with colleagues they had not previously worked with. WP2 was entirely new to CNRS and they were able to develop new skills and gain knowledge for their organisation through this work package.
DIZI	DIZI appreciated the opportunity to organise the second public conference. While this task was not originally anticipated at the start of the project, it offered an opportunity to promote Lithuania music and culture to a European audience. DIZI did experience issues linking their metadata and sound files which were scattered in different storage areas. The project allowed these to be connected in a cohesive manner.
DNB	DNB note that the project was an excellent European experience and proves what can be done with a large team across Europe. DNB would like to strengthen future cooperation between partners. Additionally DNB found WP3 very labour intensive but was also very informative. In the future DNB will aggregate through the German national aggregator rather than independently.
FMS	FMS are a small team which meant all staff had to work in all work packages and gain new skills in order to succeed. Crowdsourcing was a new concept to FMS and they were very pleased to hold two events relating to this which were very successful.
ICCU	ICCU found that this was the first project where they were able to put more effort into promoting the quality of their content and succeeded in opening up public domain

	material. ICCU also noted they enjoyed a very fruitful cooperation with Wikimedia which they hope to continue.
ITMA	ITMA are a small organisation and felt that the project was daunting to start with. However it is the first time they have been able to share sounds outside of Ireland and have brought their material to new audiences. They have also adopted project initiatives within their organisation.
MPG	MPG is a small organisation but found that this project was an ideal opportunity to improve their data quality. Connections created with other partner organisations were also extremely beneficial and will continue in the future.
NLL	NLL found that the project was a wonderful opportunity to expose their content to a wider audience. Working with Wikimedia was a learning curve and had never been done before, but will now happen again. Events such as edit-a-thons helped to introduce new concepts to internal colleagues.
OeM	OeM had not experience such a large project before but found it was an excellent opportunity to share content and develop many new skills which will benefit their own organisation. Knowledge sharing between partners was an excellent project benefit and expanded beyond project information.
RBB	RBB were disappointed they were not able to further open up the radio archives and will not use MINT in the future for aggregation. Instead, they will focus on DISMARC. RBB found that it was nice to see new partners who had not been involved in a European project before and develop relationships outside the 'usual crowd'.
TAD	TAD found the project was a positive experience. It enabled them to share their material and make it available to a wider audience. However, WP2 was a challenging experience due to rights restrictions which prevented TAD from making much of their content open access which was needed for WP2.
SB	SB found that the project was a great experience and it was very beneficial to work with everyone, promote their collections and push forward in their own internal digitisation.
ONB	ONB found that there was excellent collaboration within the project. While they are experience with MINT there were still obstacles to overcome within aggregation. It was a brilliant way to promote the content from the music department and projects like this are an excellent way of sharing experiences and best practices across cultures and within the European community.
FCSH	FCSH faced a huge challenge as they do not hold any collections and they also experienced rights issues. However, they were able to engage with enthusiastic external partners and had a national impact on sound heritage in Portugal which may lead to the creation of a national sound archive, which does not yet exist.

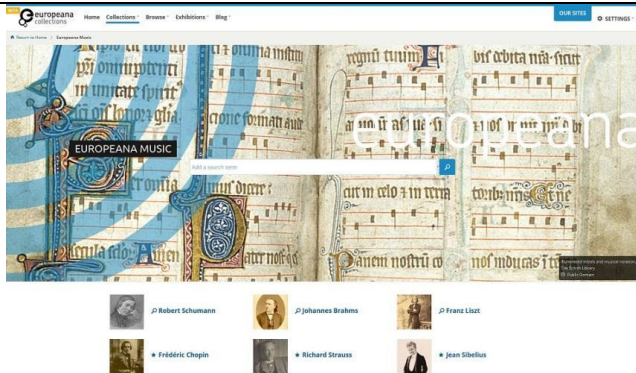
While the above shows that different partners had different project experiences, there is a key benefit which runs through many of these partner statements. This is the creation of the network of Europeana Sounds partners and the working relationships developed. Colleagues have been able to learn new skills from fellow European professionals and they have shared technological, sound heritage and licensing information.

Additionally several partners also indicated that their work in WP2 and collaborating with Wikimedia was an important part of their project experience. For many partner organisations this was something new that had not been explored before and can now continue after the project.

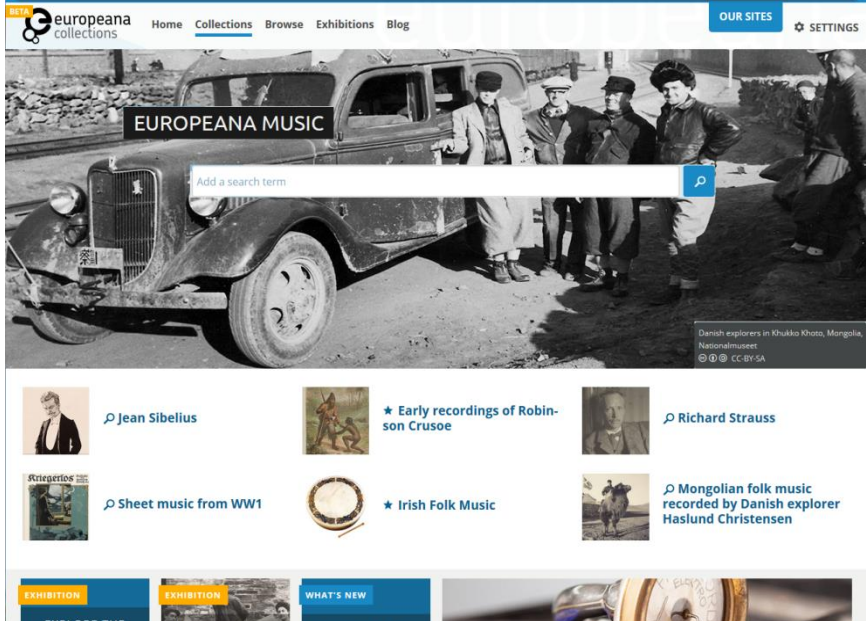


Figure 6: The Europeana Sounds project team during the final plenary meeting in Leipzig, December 2016 (Picture by Deutsche Nationalbibliothek – Bärbel Kaiser)

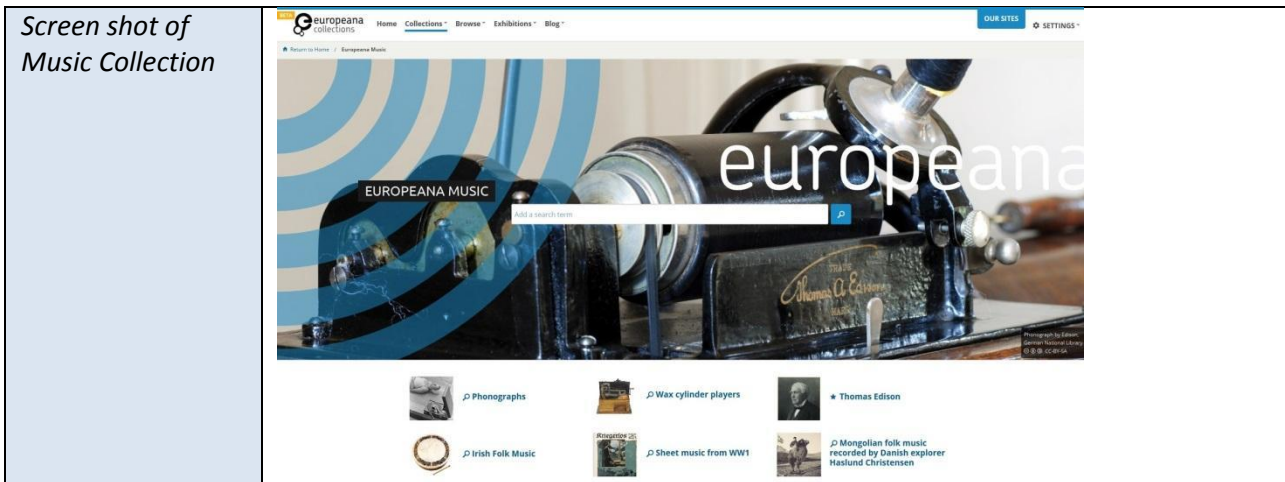
Appendix A: Music Collections Curation monthly evaluation

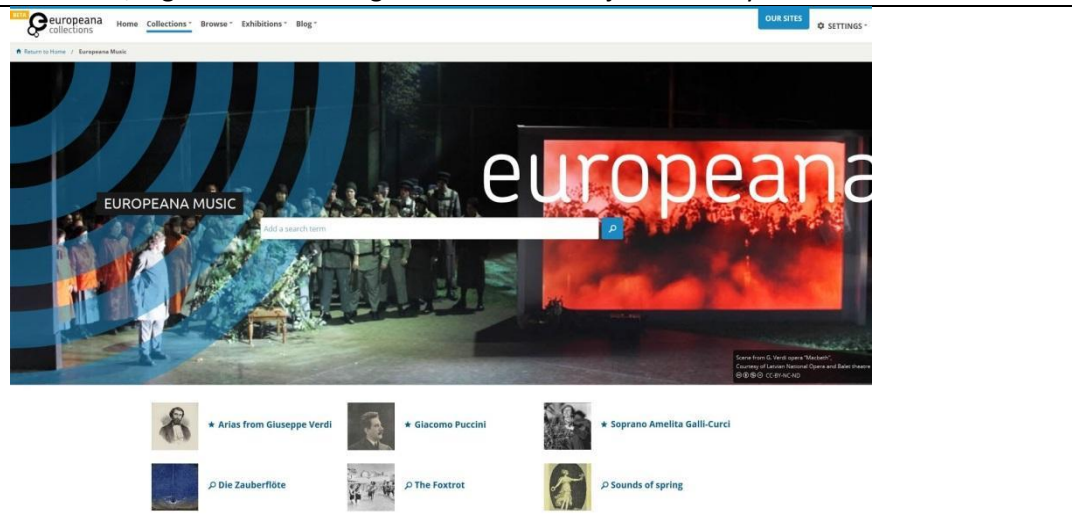
Month One: January 2016	
<i>Data provider curator</i>	British Library (BL)
<i>Chosen theme</i>	European Composers: sounds, text and images
<i>Estimated time spent on curation</i>	0.5 day
<i>Difficulties encountered</i>	<p>As we were the first to carry out the curation there were no templates to follow or a standard procedure to follow. It was difficult to know what was expected and how it would look once published on the site, and our work on this was experimental.</p> <p>As this work was not anticipated in the DoW or project planning it was difficult to know which work package this work would come under and the time should be allocated to. This led to discussions within the PMB and it was decided that as the work encompassed WP1 and WP6 actions, the time could be claimed under either of these. However, at this point it was still an unknown how long each partner would need to plan and execute their monthly curation and so difficulties were encountered when partners felt they would not have enough time allocated to carry out this work. As the first partner to carry out the curation the BL was able to feedback and let partners know the time it had taken us and what might be expected.</p>
<i>Benefits enjoyed from curation</i>	We were able to highlight parts of the BL collection which may not have otherwise been found on the Europeana portal.
<i>Lessons learned</i>	<ul style="list-style-type: none"> • Helpful to have a template to follow • Need input from Europeana to let us know if the work we have done is correct • Helpful for blog and spotlights to link together to showcase a united theme
<i>Screen shot of Music Collection</i>	 <p>The screenshot shows the Europeana Music Collection interface. At the top, there are navigation links: Home, Collections, Browse, Exhibitions, Blog. Below the navigation is a header with 'EUROPEANA MUSIC' and a search bar. The main content area displays a grid of musical manuscripts with various notations and text. Below the grid, there are several small circular icons representing composers: Robert Schumann, Johannes Brahms, Franz Liszt, Frédéric Chopin, Richard Strauss, and Jean Sibelius.</p>

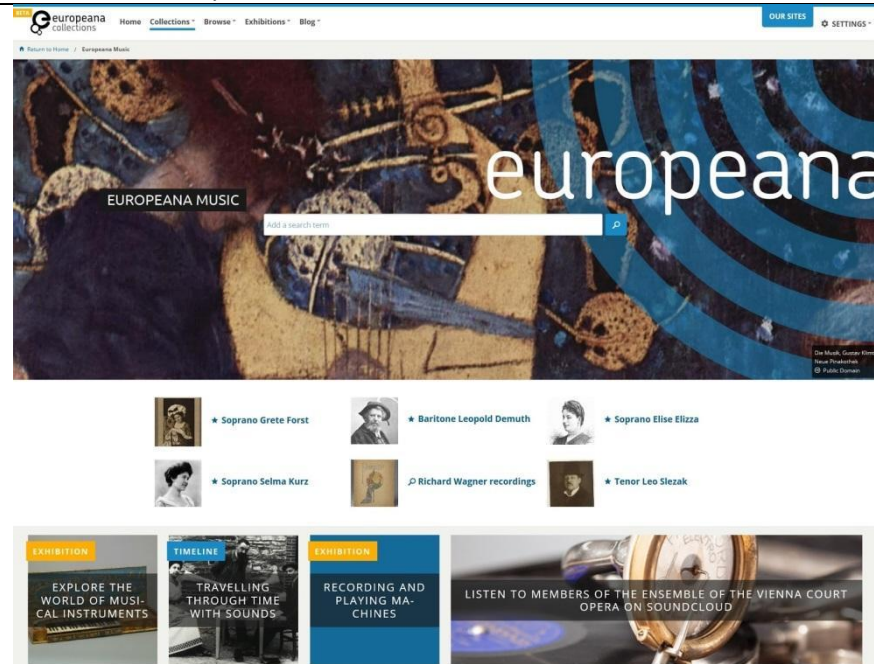
Month Two: February 2016	
<i>Data provider curator</i>	Statsbiblioteket (SB)
<i>Chosen theme</i>	Henning Haslund-Christensen Collection of Mongolian Folk Music
<i>Estimated time spent on curation</i>	ca 10 hours
<i>Difficulties</i>	<ul style="list-style-type: none"> • Very short time for preparation

<i>encountered</i>	<ul style="list-style-type: none"> • Understanding the template: I started with understanding some terms/definitions in a wrong way • the “technical part” did not work before the middle of the month, the collection was only presented for about 10 days. • difficult to find an old photography in high resolution
<i>Benefits enjoyed from curation</i>	Promotion of the collection, one of the recordings from the collection is and has been for a long time number one on the list of items, people most have listened to (“Views”: 272): http://statistics.europeana.eu/provider/europeana-sounds
<i>Lessons learned</i>	<ul style="list-style-type: none"> • Take good time for preparation (both for the content and the technique) • creating a common understanding (of terms and definitions) is important • A template is great help • Skype was very useful for the cooperation with Joris
<i>Screen shot of Music Collection</i>	

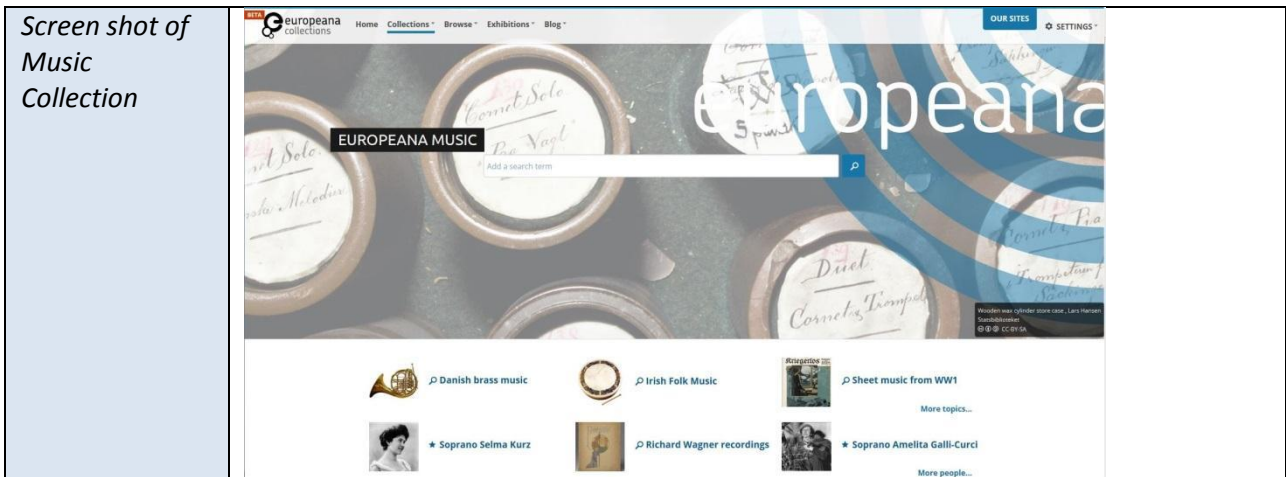
Month Three: March 2016	
<i>Data provider curator</i>	DNB
<i>Chosen theme</i>	Cylinder phonographs
<i>Estimated time spent on curation</i>	10 h
<i>Difficulties encountered</i>	finding matching pictures in Europeana in general; in particular: finding the hero image in high resolution in Europeana
<i>Benefits enjoyed from curation</i>	How to fill and implement a monthly curated landing page in a highly efficient way
<i>Lessons learned</i>	Using a template (see benefits); very good instructions from Joris

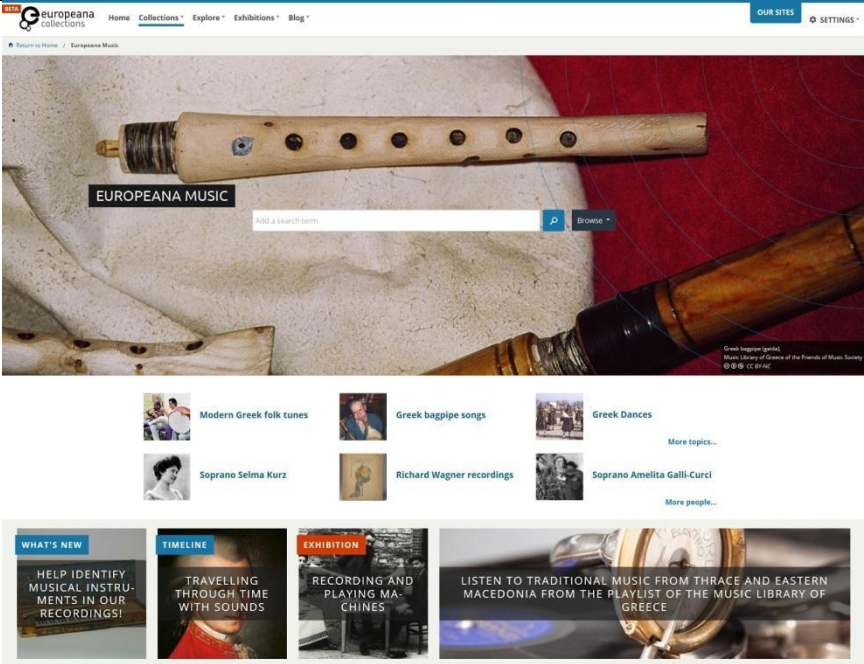


Month Four: April 2016	
Data provider curator	National Library of Latvia (NLL)
Chosen theme	Opera music, arias
Estimated time spent on curation	ca 16 hours (including writing the blog post)
Difficulties encountered	<p>Finding a hero image - couldn't find anything suitable already on Europeana, so had to use local contacts, sources in finding one, and come to an arrangement about the rights.</p> <p>Searching for browse entry points - many initial searches didn't provide wanted results, Europeana search engine not intuitive, so many refinements were needed. Searching for thumbnail images also took some time.</p>
Benefits enjoyed from curation	Learning more about the way Europeana portal works; highlighting part of our collection, probably especially our SoundCloud opera arias playlist; interesting experience overall, testing our skills and knowledge of music and music resources
Lessons learned	Europeana and Google search engines are very different, and it takes much more time to find and filter the search results wanted; would be a good idea to have a 'bank' of attractive, high resolution images on different subjects already available for curators
Screen shot of Music Collection	

Month Five: May 2016	
Data provider curator	Österreichische Mediathek (OeM)
Chosen theme	Gustav Mahler and the Vienna Court Opera
Estimated time spent on curation	1 Working day, 2 additional days for 2 blogposts
Difficulties encountered	was not so easy to find an appropriate hero-image (finally it worked very well (we still like it ;-))
Benefits enjoyed from curation	The online exhibition we linked to from the post got promoted very well during our month, we got some traffic and some personal feedback.
Lessons learned	It's not that complicated.
Screen shot of Music Collection	

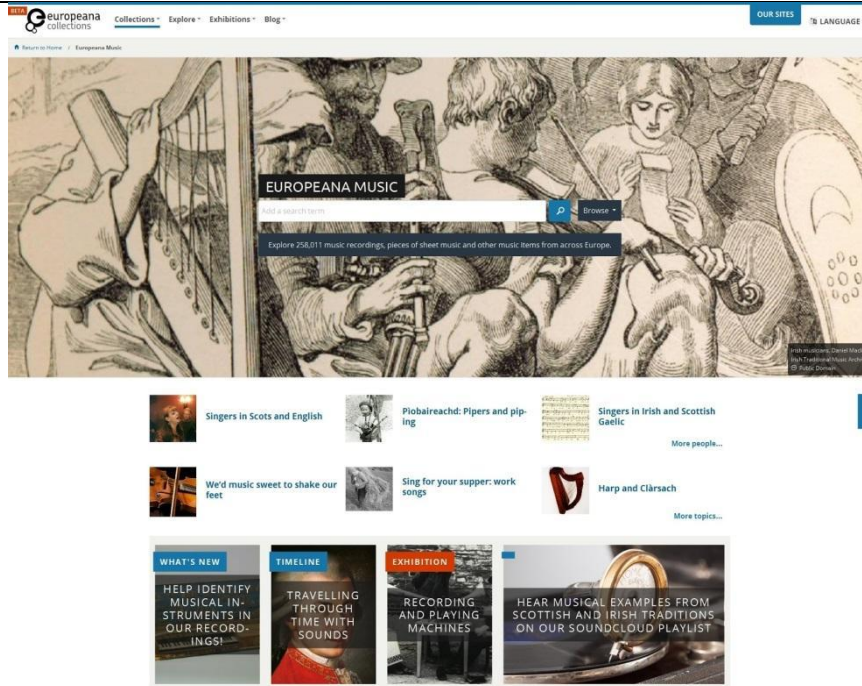
Month Six: June 2016	
Data provider curator	Statsbiblioteket (SB)
Chosen theme	The Ruben collection - the oldest Danish sound recordings
Estimated time spent on curation	ca. 4 hours
Difficulties encountered	Cooperation and technique worked fine, even though there was a short time for preparation (again)
Benefits enjoyed from curation	Promotion for the collection, e.g.: one record from a playlist has 54 views (ranked as no. 17): http://statistics.europeana.eu/provider/europeana-sounds
Lessons learned	"Practice makes perfect." ;o)



Month Seven: July 2016	
<i>Data provider curator</i>	FMS
<i>Chosen theme</i>	Greek folk music of Thrace and Macedonia
<i>Estimated time spent on curation</i>	1 working day
<i>Difficulties encountered</i>	No “job description” in the DOW. Many difficulties (for our own collections) related to the browse entry points. Through this process we realized problems concerning our records’ appearance.
<i>Benefits enjoyed from curation</i>	Easy to follow the template (some months after the launch of course). The best way to get to know the functionality of Music Collections.
<i>Lessons learned</i>	Everything seems easy when you look back to it!
<p>Screen shot of Music Collection</p>	

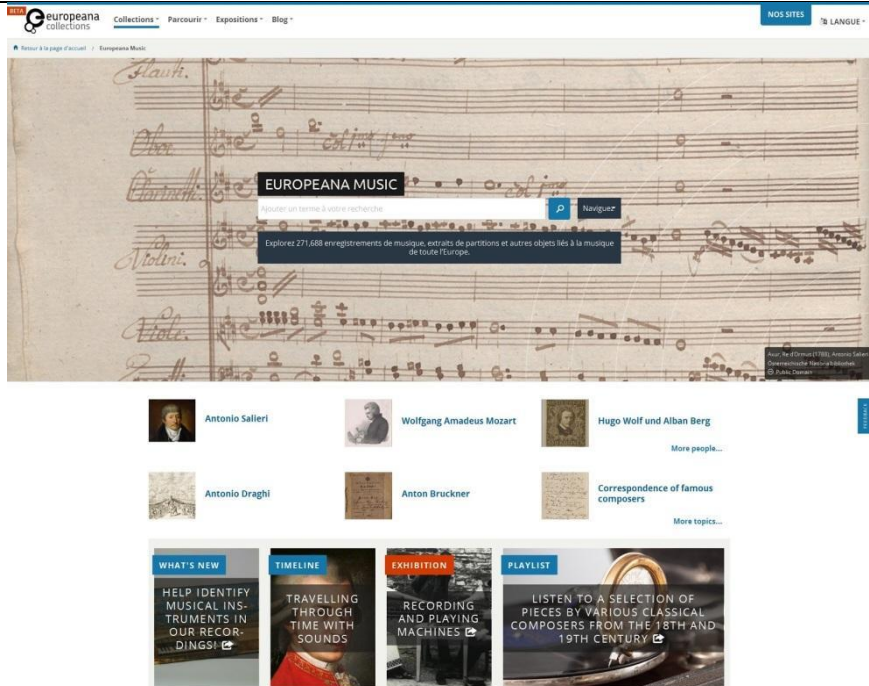
Month Eight: August 2016	
<i>Data provider curator</i>	TAD and ITMA
<i>Chosen theme</i>	Connections between Irish and Scottish music
<i>Estimated time spent on curation</i>	26 hours (ITMA) plus 80 hours (TAD) - including time spent trying to resolve problems
<i>Difficulties encountered</i>	<ul style="list-style-type: none"> • There seemed to be no technical personnel assigned to ensure a smooth path from MINT to Europeana and there was very little support from Europeana when problems emerged - eg TAD required more support because of the requirement to provide direct links (which was not our usual method of publication) but in spite of previous assurances of assistance, this was not forthcoming. When we submitted amended material, it appeared to go into a queue rather than there being somebody tasked to make sure the data was moved across quickly. As a result, some of the TAD material either did not appear, appeared twice or failed to play and because nobody was tasked with making sure that problems were solved, many of the issues flagged up at the beginning of the month were still outstanding by the time the month ended. • The instruction template was not detailed enough, eg on the question of how the entry points should be structured, there was no mention of “people” and “topics”. It also did not make it clear that the blogs panel would only change by one blog on a weekly basis – as a result, a blog that was commissioned specially for the project did not appear until the 30th of August, thus lessening its impact. • We were led to believe that the search strings could be tweaked to make them smaller. However, this did not happen so that the long (ugly!) strings submitted were the ones that were used. Given the nature of our material both ITMA and TAD had to choose very specific items from their collections and there should be a more straightforward way to do this. • Because of all the problems, neither organisation felt that we could really promote our curation in the way that we would have wished as we felt that what appeared did not best showcase our material or present our institutions in a good light. It was a very disappointing result given the amount of work that we had put into it.
<i>Benefits enjoyed from curation</i>	Opportunity to work closely with another provider – both ITMA and TAD felt this was valuable.
<i>Lessons learned</i>	<ul style="list-style-type: none"> • There should be closer links between Europeana and the providers in an exercise of this type eg it would have been good to have a named contact to work with during the planning stages and to ensure that the material submitted was correctly displayed in the final product. • All three blogs should appear at the same time so that they tie in with the material highlighted and achieve maximum input. • It would be good to have a simplified way to extract specific records in the search string ie by the unique identifier.

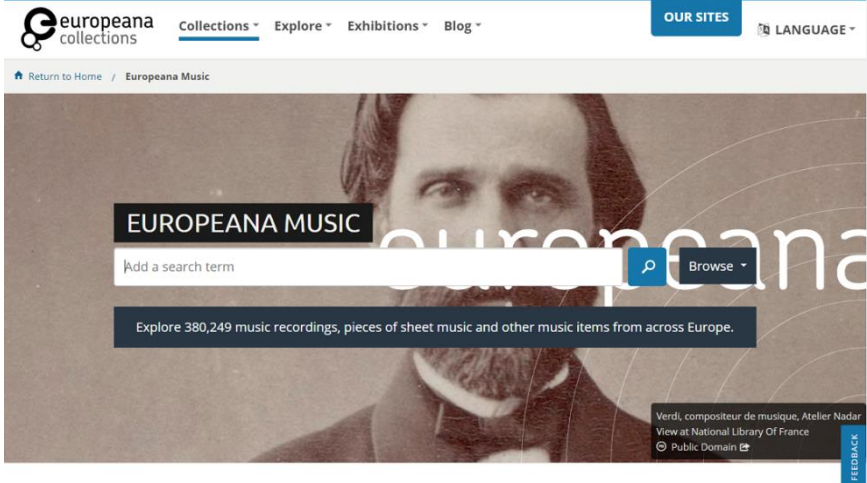
Screen shot
of Music
Collection



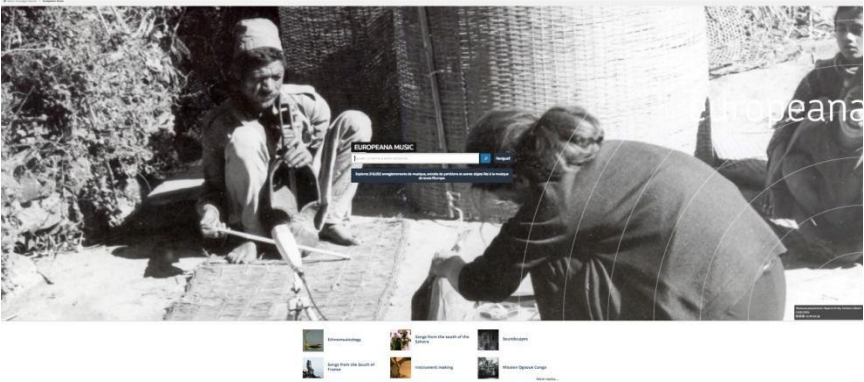
Month Nine: September 2016

<i>Data provider curator</i>	BnF
<i>Chosen theme</i>	French folk music
<i>Estimated time spent on curation</i>	About 5 hours
<i>Difficulties encountered</i>	Identify relevant browse entry points that give a significant number of results. Issue with thumbnail display of BnF objects.
<i>Benefits enjoyed from curation</i>	Drove attention toward the sound (re)discovery event organised at BnF on 18 September.
<i>Lessons learned</i>	Familiarisation with the curation process
<i>Screen shot of Music Collection</i>	

Month Ten: October 2016	
Data provider curator	ONB
Chosen theme	Music manuscripts with a focus on Antonio Salieri
Estimated time spent on curation	probably around 20h (not counting in the time it took to research and write the Blog Post about Antonio Salieri)
Difficulties encountered	<ul style="list-style-type: none"> Some files of our content have too many pictures to be displayed on Europeana, it takes forever to load and the items will not be opened at all. Therefore we had to make last minute changes concerning the search entry points and the first blog post. Therefore the hits of the search entry points do not support the chosen theme as well, as they did before. It took longer than expected to find a good hero image and good Search Entry Points Soundcloud Playlist: Not having Sound Files complicates the matter: it took a pretty long time going through the content, finding, listening and deciding on some items that support the theme.
Benefits enjoyed from curation	To be able to put the focus on Antonio Salieri/ Highlighting part of our collection
Lessons learned	Check first if the items in the queries of the Search Entry Points can actually be completely displayed before planning the theme and writing a Blog post about it.
Screen shot of Music Collection	

Month Eleven: November 2016	
Data provider curator	ICCU
Chosen theme	Giuseppe Verdi
Estimated time spent on curation	Around 15 hours
Difficulties encountered	<ul style="list-style-type: none"> No ICCU items are in the music channel so we could not spot properly our items. We mixed up music channel and general portal items are links of the blog posts. Two blog posts were not published because of overwork of the editorial board. They've been postponed to January. It was sometimes difficult to find in Europeana pictures related to the music pieces. Clearer instructions on how to organize the entry points would have been appreciated.
Benefits enjoyed from curation	<ul style="list-style-type: none"> Networking with music experts Developing new skills on communication of complex topics.
Lessons learned	<ul style="list-style-type: none"> Curating the channel boosts the visibility of the records and generates more traffic to the website.
Screen shot of Music Collection	

Month Twelve: December 2016 and Month Thirteen: January 2017	
Data provider curator	CNRS
Chosen theme	Sound, Music and Anthropology
Estimated time spent on curation	about 3 days
Difficulties encountered	<ul style="list-style-type: none"> at first, our collections were not included in Music Collection It was difficult to do a precise request due to the lack of multi-criteria search

	<ul style="list-style-type: none"> ● It was difficult to find in Europeana pictures related to the music topic ● it was longer than expected to find a good hero image and good Search Entry Points ● The instruction template was not detailed enough
<i>Benefits enjoyed from curation</i>	<ul style="list-style-type: none"> ● Curating the channel boosts the visibility of the recordings
<i>Lessons learned</i>	The research engine is not efficient and it is very difficult to find relevant results without criteria as place of the recording (or the geographical origin of the music)
<i>Screen shot of Music Collection</i>	

Appendix B: Terminology

A project glossary is provided at: <http://pro.europeana.eu/web/guest/glossary>.

Additional terms are defined below:

Term	Definition
AB	Advisory Board
APEX	Archives Portal Europe network of excellence
EC-GA	Grant Agreement (including Annex I, the Description of Work) signed with the European Commission
PI	Performance Indicator
PMB	Project Management Board
TEL	The European Library
UAP	User Advisory Panel
WP	Work Package