



**THEME [CIP-ICT-PSP.2013.2.1a]  
[Europeana and creativity – Enriching and  
improving the Europeana content base]**

Grant agreement for: CIP-Best Practice Network

<b>Annex I - "Description of Work"</b>
--

Project acronym: Europeana Sounds

Project full title: " Europeana Sounds "

Grant agreement no: 620591

Version date: 2015-10-19

# Table of Contents

## Part A

A.1 Project summary .....	3
A.2 List of beneficiaries .....	4
A.3 Overall budget breakdown for the project .....	6

## Workplan Tables

WT1 List of work packages .....	1
WT2 List of deliverables .....	2
WT3 Work package descriptions .....	6
Work package 1.....	6
Work package 2.....	10
Work package 3.....	15
Work package 4.....	19
Work package 5.....	22
Work package 6.....	26
Work package 7.....	31
WT4 List of milestones .....	36
WT5 Tentative schedule of project reviews .....	39
WT6 Project effort by beneficiaries and work package .....	40

# A1: Project summary

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

One form per project

## General information

Project title <sup>3</sup>	Europeana Sounds		
Starting date <sup>4</sup>	01/02/2014		
Duration in months <sup>5</sup>	36		
Call (part) identifier <sup>6</sup>	CIP-ICT-PSP-2013-7		
Objective most relevant to your topic <sup>7</sup>	CIP-ICT-PSP.2013.2.1a: Europeana and creativity – Enriching and improving the Europeana content base		

## Abstract <sup>9</sup>

The Europeana Sounds is Europeana's 'missing' fifth domain aggregator, joining APEX (Archives), EUscreen (television), the Europeana Film Gateway (film) and TEL (libraries). 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 from 12 countries 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 crowdsourcing 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 content-providers and mainstream distribution platforms (Historypin, Spotify, Soundcloud) to ensure widest possible availability of their content.

# A2: List of Beneficiaries

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## List of Beneficiaries

No	Name	Short name	Country	Project entry month <sup>10</sup>	Project exit month
1	THE BRITISH LIBRARY BOARD	BRITISH LIBRARY	United Kingdom	1	36
2	STICHTING NEDERLANDS INSTITUUT VOOR BEELD EN GELUID	BEELD EN GELUID	Netherlands	1	36
3	STICHTING NEDERLAND KENNISLAND	KENNISLAND	Netherlands	1	36
4	STICHTING EUROPEANA	EUROPEANA	Netherlands	1	36
5	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	NTUA	Greece	1	36
6	BIBLIOTHEQUE NATIONALE DE FRANCE	BNF	France	1	36
7	AIT Austrian Institute of Technology GmbH	AIT	Austria	1	36
8	NET7 SRL	NET7	Italy	1	36
9	HISTORYPIN COMMUNITY INTEREST COMPANY	HP	United Kingdom	1	36
10	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	CNRS	France	1	36
11	UAB DIZI	DIZI	Lithuania	1	36
12	DEUTSCHE NATIONALBIBLIOTHEK	DNB	Germany	1	36
13	SYLLOGOS OI FILOI THS MOUSIKHS PUBLIC LEGAL ENTITY UNDER PRIVATE LAW	ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	Greece	1	36
14	Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche	ICCU	Italy	1	36
15	IRISH TRADITIONAL MUSIC ARCHIVE/TAISCE CHEOL DUCHAIS EIREANN LBG	ITMA	Ireland	1	36
16	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	MPG	Germany	1	36
17	NATIONAL LIBRARY OF LATVIA	NLL	Latvia	1	36
18	TECHNISCHES MUSEUM WIEN MIT OSTERREICHISCHER MEDIATHEK	Österreichische Mediathek	Austria	1	36
19	RUNDFUNK BERLIN-BRANDENBURG	RBB	Germany	1	36

## A2: List of Beneficiaries

No	Name	Short name	Country	Project entry month <sup>10</sup>	Project exit month
20	SABHAL MOR OSTAIG LIMITED LBG	SABHAL MOR OSTAIG	United Kingdom	1	36
21	STATSBIBLIOTEKET	STATSBIBLIOTEKET	Denmark	1	36
22	OESTERREICHISCHE NATIONALBIBLIOTHEK	ONB	Austria	1	36
23	FACULDADE DE CIENCIAS SOCIAIS E HUMANAS DA UNIVERSIDADE NOVA DE LISBOA	FCSH-UNL	Portugal	1	36
24	COMHALTAS CEOLTOIRI EIREANN FRIENDLY SOCIETY	Comhaltas Ceoltoiri	Ireland	1	36

# A3: Budget breakdown

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

One Form per Project

Participant number in this project	Participant short name	Personnel costs	Sub contracting	Other direct costs	Total costs	Max EU Contribution	Requested EU contribution
1	BRITISH LIBRARY	583,589.00	19,300.00	68,615.00	671,504.00	537,203.00	537,203.00
2	BEELD EN GELUID	733,011.00	13,000.00	52,981.00	798,992.00	639,193.00	639,193.00
3	KENNISLAND	140,900.00	0.00	14,454.00	155,354.00	124,283.00	124,283.00
4	EUROPEANA	562,608.00	118,000.00	45,756.00	726,364.00	581,091.00	581,091.00
5	NTUA	346,836.00	0.00	25,810.00	372,646.00	298,116.00	298,116.00
6	BNF	460,830.00	22,000.00	56,000.00	538,830.00	431,064.00	431,064.00
7	AIT	603,958.00	3,000.00	36,237.00	643,195.00	514,556.00	514,556.00
8	NET7	185,972.00	0.00	11,158.00	197,130.00	157,704.00	157,704.00
9	HP	182,680.00	23,153.00	12,986.00	218,819.00	175,055.00	175,055.00
10	CNRS	156,254.00	8,000.00	9,375.00	173,629.00	138,903.00	138,903.00
11	DIZI	39,618.00	0.00	8,300.00	47,918.00	38,334.00	38,334.00
12	DNB	132,230.00	8,000.00	7,934.00	148,164.00	118,531.00	118,531.00
13	ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	84,100.00	0.00	7,500.00	91,600.00	73,280.00	73,280.00
14	ICCU	116,445.00	0.00	8,500.00	124,945.00	99,956.00	99,956.00
15	ITMA	82,444.00	0.00	7,500.00	89,944.00	71,955.00	71,955.00
16	MPG	122,150.00	0.00	8,020.00	130,170.00	104,136.00	104,136.00
17	NLL	36,364.00	0.00	9,700.00	46,064.00	36,851.00	36,851.00
18	Österreichische Mediathek	77,848.00	0.00	7,500.00	85,348.00	68,278.00	68,278.00
19	RBB	228,240.00	8,000.00	13,694.00	249,934.00	199,947.00	199,947.00

# A3: Budget breakdown

Participant number in this project	Participant short name	Personnel costs	Sub contracting	Other direct costs	Total costs	Max EU Contribution	Requested EU contribution
20	SABHAL MOR OSTAIG	111,647.00	0.00	7,500.00	119,147.00	95,317.00	95,317.00
21	STATSBIBLIOTEKET	180,106.00	8,000.00	10,806.00	198,912.00	159,129.00	159,129.00
22	ONB	127,500.00	8,000.00	8,650.00	144,150.00	115,320.00	115,320.00
23	FCSH-UNL	56,599.00	0.00	8,400.00	64,999.00	51,999.00	51,999.00
24	Comhaltas Ceoltoiri	96,640.00	0.00	7,500.00	104,140.00	83,312.00	83,312.00
<b>TOTAL</b>		<b>5,448,569.00</b>	<b>238,453.00</b>	<b>454,876.00</b>	<b>6,141,898.00</b>	<b>4,913,513.00</b>	<b>4,913,513.00</b>

### **1. Project number**

The project number has been assigned by the Commission as the unique identifier for your project, and it cannot be changed. The project number **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

### **2. Project acronym**

Use the project acronym as indicated in the submitted proposal. It cannot be changed, unless agreed during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

### **3. Project title**

Use the title (preferably no longer than 200 characters) as indicated in the submitted proposal. Minor corrections are possible if agreed during the preparation of the grant agreement.

### **4. Starting date**

Unless a specific (fixed) starting date is duly justified and agreed upon during the preparation of the Grant Agreement, the project will start on the first day of the month following the entry into force of the Grant Agreement (NB : entry into force = signature by the Commission). Please note that if a fixed starting date is used, you will be required to provide a detailed justification on a separate note.

### **5. Duration**

Insert the duration of the project in full months.

### **6. Call (part) identifier**

The Call (part) identifier is the reference number given in the call or part of the call you were addressing, as indicated in the publication of the call in the Official Journal of the European Union. You have to use the identifier given by the Commission in the letter inviting to prepare the grant agreement.

### **7. Activity code**

Select the activity code from the drop-down menu.

### **8. Free keywords**

Use the free keywords from your original proposal; changes and additions are possible.

### **9. Abstract**

**10. The month at which the participant joined the consortium, month 1 marking the start date of the project, and all other start dates being relative to this start date.**

**11. The number allocated by the Consortium to the participant for this project.**



# Workplan Tables

Project number

620591

Project title

Europeana Sounds—Europeana Sounds

Call (part) identifier

CIP-ICT-PSP-2013-7

Funding scheme

CIP-Best Practice Network



# WT1

## List of work packages

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

### LIST OF WORK PACKAGES (WP)

WP Number <sup>53</sup>	WP Title	Lead beneficiary number <sup>55</sup>	Person-months <sup>56</sup>	Start month <sup>57</sup>	End month <sup>58</sup>
WP 1	Aggregation	1	332.50	1	36
WP 2	Enrichment & participation	2	315.50	1	36
WP 3	Licensing guidelines	3	62.00	1	30
WP 4	Channels development	4	91.00	1	36
WP 5	Technical infrastructure	5	48.00	1	36
WP 6	Dissemination & networking	6	95.50	1	36
WP 7	Project management & sustainability	1	94.50	1	36
<b>Total</b>			<b>1,039.00</b>		

# WT2: List of Deliverables

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## List of Deliverables - to be submitted for review to EC

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D1.1	Content selection policy	1	1	8.00	R	PU	6
D1.2	Rights labelling guidelines	1	1	2.00	R	PU	7
D1.3	Ontologies for sound	1	8	12.00	O	PU	7
D1.4	EDM profile for sound	1	4	12.00	O	PU	8
D1.5	Aggregation report 1	1	1	56.00	R	PU	13
D1.6	Training report 1	1	5	6.00	R	PU	19
D1.7	Aggregation report 2	1	1	109.00	R	PU	25
D1.8	Final aggregation report including impact of licensing guidelines on aggregation	1	1	120.00	R	PU	36
D1.9	Training report 2	1	5	7.50	R	PU	36
D2.1	Crowdsourcing infrastructure and exchange policy	2	2	20.00	R	PU	9
D2.2	Functional design of semantic enrichment	2	8	52.00	R	PU	10
D2.3	Linking Music to Scores Pilot delivery report	2	7	28.00	R	PU	14
D2.4	Crowdsourcing infrastructure V1 Assessment and Recommendations	2	2	68.00	R	PU	17
D2.5	GLAM-wiki collaboration progress report	2	2	8.00	R	PU	21
D2.6	Music Information	2	7	12.00	R	PU	22

# WT2: List of Deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
	Retrieval Pilot delivery report						
D2.7	Crowdsourcing evaluation and impact assessment	2	2	68.00	R	PU	30
D2.8	GLAM-wiki collaboration progress report 2	2	2	8.00	R	PU	34
D2.9	Evaluation report on implementation of semantic enrichment	2	2	4.00	R	PU	36
D2.10	Development of the Crowdsourcing Infrastructure	2	4	47.50	R	CO	23
D3.1	Guidelines for contributing audio content into Europeana	3	3	24.00	R	PU	7
D3.2	Summary Report on barriers to online access to out-of-commerce works and domain constrained audio works	3	3	18.50	R	PU	10
D3.3	Report from stakeholder workshop including the reactions from right holders	3	3	4.00	R	PU	15
D3.4	Final report including policy recommendations	3	3	15.50	R	PU	27
D4.1	Audio channels production version	4	4	90.00	P	PU	34
D4.2	Europeana Sounds External distribution channels report	4	4	1.00	P	PU	34

# WT2: List of Deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D5.1	Report on the evaluation of the aggregation mechanism	5	5	10.00	R	CO	14
D5.2	Deployment of fully functional updated aggregation system deployed by UIM	5	5	20.00	R	PU	16
D5.3	Report on Sounds thesaurus and the metadata cleaning and normalisation module	5	5	12.00	R	CO	19
D5.5	Final report on aggregation toolset	5	5	6.00	R	PU	36
D6.1	Online presence	6	6	4.00	D	PU	4
D6.2	Dissemination Materials and Press Kit 1	6	6	9.50	O	PU	7
D6.3	Initial Communication plan	6	6	8.00	R	PU	9
D6.4	Communication plan and evaluation V1	6	6	12.00	R	PU	13
D6.5	Communication plan and evaluation V2	6	6	16.00	R	PU	25
D6.6	Communication plan and evaluation V3	6	6	19.00	R	PU	36
D6.7	Dissemination Materials and Press Kit 2	6	6	12.00	O	PU	19
D6.8	Dissemination Materials and Press Kit 3	6	6	15.00	O	PU	31
D7.1	Quality Assurance Plan	7	1	2.00	R	PU	2
D7.2	Risk Plan	7	1	2.00	R	PU	2

# WT2: List of Deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D7.3	Interim Progress report 1	7	1	2.00	R	PU	7
D7.4	Evaluation Report 1	7	1	4.00	R	PU	12
D7.5	Market Survey and Exploitation planning	7	1	7.00	R	RE	24
D7.6	Interim Progress report 2	7	1	3.00	R	PU	19
D7.7	Evaluation Report 2	7	1	3.00	R	PU	31
D7.8	Interim Progress report 3	7	1	4.00	R	PU	31
D7.9	Final Exploitation plan and Sustainability strategy	7	1	12.00	R	PU	36
<b>Total</b>				<b>983.50</b>			

# WT3: Work package description

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## One form per Work Package

Work package number <sup>53</sup>	WP1
Work package title	Aggregation
Start month	1
End month	36
Lead beneficiary number <sup>55</sup>	1

## Objectives

Objectives in the context of the project as a whole

The objective of this work package is to aggregate a critical mass of audio and audio-related metadata into Europeana and to establish a best practice model for future aggregation.

Specific goals

- Establish a framework for aggregating metadata for audio and related digital objects by defining and maintaining a content-selection policy including quantity, quality, subject matter, genre, language, geographical spread, public interest and Europeana Data Model (EDM) compliance, and help content providers resolve issues.
- Improve discoverability by defining suitable ontologies for audio and audio-related content and to extend these where necessary.
- Improve the workflow for aggregation of audio material by developing an EDM profile compatible with existing profiles for other time-based media.
- Build critical mass by managing the aggregation of the audio and audio-related content identified in Table 0 as well as additional material that complies with the selection policy, and by managing the community of content providers for future expansion.
- Expand availability for out-of commerce and domain-restricted content by working with WP3 (Licensing).

## Description of work and role of partners

Approach

The work plan separates core aggregation activities (agreement on access rights, selection and submission) from enhancements to the aggregation workflow (development of ontologies, data profiling, enhanced metadata mapping). There will be several iterations of these two types of activity, as shown below.

Regular checkpoints are identified for the first year of the project and additional checkpoints will be introduced to augment the six-monthly checkpoints in years two and three. Formal project deliverables correspond to the specific goals listed above.

Tasks

T1.1: Content Selection Policy, start M1, duration 5 months, Lead: BL (5M); also RBB (1M), TLA (1M), DNB (1M), CNRS (1M), ONB (1M)

This task entails the development of a content selection policy that will combine quantity with quality, enabling the project to achieve critical mass. The primary aim is to reach the figure of 500,000 additional sound recordings and 220,000 associated objects on Europeana, bringing the full number of audio items on the portal to well over a million. However it will be essential to ensure diversity of subject matter, genre (i.e. types of sound recording), language and geographical spread, so that the sounds and languages of Member States are represented as comprehensively as possible.

Subject and genre representation will be guided by concentrating on five main themes: Classical and Contemporary Music, Traditional Music, Natural World, Oral Memories, Language and Dialects. The policy will also covered audio-related materials, such as music scores, which should as far as possible match available sound recordings. All content selected will need to be accompanied by appropriate metadata records, with ontologies added, and mapped across to the EDM, which will be updated (under T1.3) to accommodate



# WT3: Work package description

requirements for audio content. A content selection policy document covering all of these points will be produced by the British Library in consultation with lead representatives of the different content types. (D1.1)

Guidelines will be produced by the British Library by M7 in consultation with content partners for the attribution of the correct rights statement to the digital objects. This will ensure that the digital records and their related metadata are freely accessible and where possible can be reused by the general public, the creative industries (especially publishers) and researchers. (D1.2)

T1.2: Ontologies, start M3, duration 4 months, Lead: NET7 (4M); also BL (1M), RBB (2M), NTUA (2M), AIT (2M), TLA (1M)

This task will ensure that multi-lingual ontologies are identified and implemented which will ensure consistency of description for audio subjects and genres, particularly for music.

The project will be using Europeana's Linked Open Data to enable metadata to be connected and enriched.

This uses the crowdsourced DBpedia to enrich content semantically, but in some audio areas, particularly music classification, best practice guidelines need to be issued to ensure consistency, which will in turn benefit the music enrichment tools outlined in WP2. Classification of sound and music genres will be mandatory for all content submissions. The music genre classification developed for DISMARC by Rundfunk Berlin Brandenburg will form the basis of this task, but will be developed and extended as part of a common ontology development for audio, to be fed into the SKOS-repository outlined under WP5. This work will be led by NET7. (D1.3)

T1.3: EDM profile, start M4, duration 4 months, Lead: EF (3M); also NTUA (2M), BL (1M), DNB (2M) RBB (1M), NISV (1M), BNF (2M)

This task will provide recommendations for the adaptation of the EDM profile for audio and audio-related objects to ensure richer digital records and enhanced discovery. The work will reference that already done for other audiovisual projects for Europeana, particularly EUscreen and the European Film Gateway.

The EDM will be adapted to incorporate sound specific metadata, including the facility to incorporate time-based metadata and tagging which will enable resource discovery at particular points in an audio file. A task force will be formed comprising experts from within and outside the Consortium that will define the EDM profile for sound. This work will be led by the Europeana Foundation. (D1.4)

All metadata for Europeana Sounds will be stored on a central database, in accordance with Europeana storage standards (including any developments made by the Europeana Cloud project). This work will be managed by NTUA.

T1.4: Aggregation management, start M7, duration 30 months, Lead: BL (37M); also NTUA (6M), EF (3M), NISV (12M), BNF (15M), ITMA (12M), SB (14M), TAD (17.5M), ICCU (18M), FMS (12M), TLA (13M), CNRS (20M), CCE (12M), RBB (18M), DIZI (14M), ONB (12M), DNB (9M), OeM (12M), NLL (14M), FCSH (15M)

This task involves managing the community of content providers. It will be realised by the implementation of standards, agreed effective workflows and identification of problems and taking remedial actions. It will include alliance with The European Library (TEL) which already operates as an aggregator for content from national libraries.

Content providers will provide metadata for audio and audio-related content to Europeana and the dedicated channel; they will be supported by technical partners that will provide the technologies and technical expertise for the aggregation infrastructure and the accessibility of the metadata. BL will manage the process of aggregation by ensuring that all WP1 deliverables are achieved on time; that guidelines and standards are disseminated, understood and implemented; and that all project partners work effectively towards a common goal. Progress will be documented in three aggregation reports at the end of each project year. The third aggregation report will include an assessment of the impact of WP3 on aggregation (D1.8)

T1.5: Training and support in content selection policy and aggregation workflow, start M7, duration 30 months, Lead: NTUA (8M); also BL (4M), EF (1M)

This task will ensure that training and ongoing support in the selection of content and contributions to the aggregation workflow are made available to all content partners for the lifetime of the project.

Three training sessions developed by the National Technical University of Athens, will be delivered in M10, M18, M30 in the use of the MINT platform and the implementation of metadata standards and the new EDM profile, with WP6 co-ordinating regional promoters.

The training sessions will be augmented by one-to-one support from T1.4 when necessary and a set of guidelines, to be regularly reviewed and updated in the light of user feedback. Mid-project and end-of-project reports on training operations will be issued. (D1.6, D 1.9)

## Checkpoints

- Initial selection policy published (M3)

# WT3: Work package description

- Rights labelling guidelines available from WP3 (M3)
- Initial ontologies selected (M3)
- Training courses and materials prepared (M9)
- First tranche of content and metadata ready for ingestion (M12)
- Final tranche of content and metadata ready for ingestion (M30)

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	BRITISH LIBRARY	48.00
2	BEELD EN GELUID	13.00
4	EUROPEANA	7.00
5	NTUA	18.00
6	BNF	17.00
7	AIT	2.00
8	NET7	4.00
10	CNRS	21.00
11	DIZI	14.00
12	DNB	12.00
13	ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	12.00
14	ICCU	18.00
15	ITMA	12.00
16	MPG	15.00
17	NLL	14.00
18	Österreichische Mediathek	12.00
19	RBB	22.00
20	SABHAL MOR OSTAIG	17.50
21	STATSBIBLIOTEKET	14.00
22	ONB	13.00
23	FCSH-UNL	15.00
24	Comhaltas Ceoltoiri	12.00
Total		332.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D1.1	Content selection policy	1	8.00	R	PU	6
D1.2	Rights labelling guidelines	1	2.00	R	PU	7

# WT3: Work package description

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D1.3	Ontologies for sound	8	12.00	O	PU	7
D1.4	EDM profile for sound	4	12.00	O	PU	8
D1.5	Aggregation report 1	1	56.00	R	PU	13
D1.6	Training report 1	5	6.00	R	PU	19
D1.7	Aggregation report 2	1	109.00	R	PU	25
D1.8	Final aggregation report including impact of licensing guidelines on aggregation	1	120.00	R	PU	36
D1.9	Training report 2	5	7.50	R	PU	36
			Total			332.50

## Description of deliverables

- D1.1) Content selection policy: The handbook of policies in place for the initial tranche of aggregation [month 6]
- D1.2) Rights labelling guidelines: Scheme for correct labelling of digital objects [month 7]
- D1.3) Ontologies for sound: The recommendations from work on ontologies and language [month 7]
- D1.4) EDM profile for sound: The result from the working group defining audio extensions to EDM [month 8]
- D1.5) Aggregation report 1: Status report and recommendations for changes in selection policy [month 13]
- D1.6) Training report 1: Mid-term report on conduct of training and support for content providers [month 19]
- D1.7) Aggregation report 2: Status report and recommendations for changes in selection policy [month 25]
- D1.8) Final aggregation report including impact of licensing guidelines on aggregation: Final work package report including impact of licensing changes on aggregation [month 36]
- D1.9) Training report 2: final report on conduct of training and support for content providers [month 36]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial selection policy published	1	3	WP1
MS2	Rights labelling guidelines available	3	3	WP1, WP3
MS3	Initial ontologies selected	1	5	WP1, WP2, WP5
MS4	Preparation of training courses and materials complete	5	9	
MS5	First tranche of content and metadata ready for ingestion	1	12	
MS6	Final tranche of content and metadata ready for ingestion	1	30	

# WT3: Work package description

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## One form per Work Package

Work package number <sup>53</sup>	WP2
Work package title	Enrichment & participation
Start month	1
End month	36
Lead beneficiary number <sup>55</sup>	2

## Objectives

Support discovery and use by improving metadata through innovative methods including semantic enrichment and crowdsourcing.

Design and implement mechanisms to improve the quality of existing metadata and contextual information.

This will support enhanced exploration, deepen understanding of the collections, and will increase end-user engagement. Significantly increase quality of existing and new Europeana metadata for audio and audio-related items through: (a) active participation with existing audiences; (b) machine-driven tools.

Specific goals

- Offer tools for metadata tagging and contextualisation to the wider community. This will (1) increase quality and user satisfaction in terms of content discovery; (2) promote increased engagement between institutions and their audiences.
- Apply semantic web technologies to enable enrichment of the Europeana Sounds collections. This will increase quality of the metadata and user satisfaction in terms of content discovery.
- Collaborate with Wikimedia chapters in Europe to add contextual knowledge on the Europeana Sounds collection. Six edit-a-thons (campaigns that aim to create wiki pages on focussed areas) will be organised in year two and three of the project. This will (1) add a layer of in-depth knowledge to the collections presented online; (2) strengthen links between Europeana, the Europeana Network and the international Wikipedia community.
- Align music scores to text, to forge a dynamic connection between currently separated collections. By allowing for new types of exploration, the value for end-users of both the multimedia and digitised paper-based resources will be increased.
- Explore possibilities of music information retrieval to support innovative, language independent exploration of audio collections.
- Put in place policies and (in connection with WP5) infrastructural preconditions allowing enrichments to be re-ingested in the information systems of the contributing archives, wherever relevant.

## Description of work and role of partners

### Approach

We will address the need for metadata enrichment through three strands of work, validated by 'proof of concept' pilots. See the Section B3.2a for an explanation of the detailed enrichment strategy.

#### 1. Enrichment through end-user participation

EF, together with Historypin, NISV, AIT and NTUA, will define detailed specifications for the infrastructure to support crowdsourcing of metadata in the context of the project. This will be done by assessing work in the context of Europeana Awareness (notably the UGC Taskforce), focus group interviews and one co-design workshop.

The central concept is to break down activities into micro-tasks. For instance, this will involve adding keywords such as styles, instruments, influences, emotions and other properties to the collections. From a technical point of view, the design will take into account related work from the Europeana Creative and Europeana V2 projects and activities of the Open Knowledge Foundation in this area.

The service will allow communities of users (e.g. experts in a given field) semi-automatically and manually to create additional structured data that will increase the metadata and establish new relations among the Europeana Sound objects.

When the infrastructure is in place (M18), EF and NISV will oversee the successful deployment of the crowdsourcing infrastructure. Initially, the infrastructure will be used by the core partners. After a four-month trial and evaluation phase, followed by the execution of technical improvements, the wider Europeana Network will be encouraged and supported to use the crowdsourcing platform. The existing Europeana Terms of Use will apply to all user interactions as a way of ensuring that the IPR of the contributions is in line with Europeana's policies.

## 2. Semantic enrichment

Net7, in collaboration with AIT and NISV will put in place a software environment to enable semantic enrichment of different kinds of media related to the Europeana Sound content. Domain specific knowledge available on the web will be used to uncover/highlight connections between recordings by extracting knowledge regarding musical relationships and suggesting collections based on artists' collaborations, influences, shared members, genres etc. This activity will have a major impact on improving the quality of metadata on Europeana.

## 3. Collaborating with Wikipedia

NISV will facilitate, in collaboration with Wikimedia chapters, the organisation in at least six countries of so-called 'edit-a-thons' in year two and three of the project. Wikimedia chapters will be encouraged to apply for financial support to host events that will add contextual information on music to Wikipedia, which can be then linked to the content on Europeana. To this end, a budget of €8,000 will be set aside. The GLAMwiki toolset, as developed by EF in collaboration with the Wikimedia chapters of UK, Netherlands and France, will be used to batch upload/download metadata and open (format and licence) music content to Wikimedia Commons. EF will develop and execute a marketing and communications plan to support the chapters and to ensure maximum visibility of these events to various stakeholders. We have already secured participation of four Wikimedia Chapters.

## Tasks

### T2.1: Crowdsourcing

T2.1.1: Crowdsourcing: requirements and policy definition, start M1, duration 9 months (SHIFT 4M, EF 4M, NTUA 4M, AIT 4M, NISV 4M)

This task will define requirements for crowdsourcing of metadata in the context of Europeana Sounds. Requirements will be gathered through focus groups sessions, desk research and complimentary questionnaires circulated to the Europeana Network. The User Advisory Panel (see B3.2c) will be consulted. The requirements will differentiate between two target groups: the general public and experts. This sub-task will also define preconditions for all end-user contributions (exchange policies) created in the context of WP2 to be offered to the content providers. This will be reported as part of D2.1.

T2.1.2: Crowdsourcing: operationalisation and evaluation, start M13, duration 24 months (EF 8M, NISV 30M, SHIFT 28.5M, BNF 8M, CNRS 6M, all other content providers: 4M)

This subtask oversees the successful deployment and end-user evaluation of the crowdsourcing infrastructure: on the Europeana portal, the individual partner sites and on Historypin. Activities include creating training materials and one hands-on workshop. Results of this activity (measured in the number of contributions) will be reported in the progress reports that will be provided by WP7; this will also include recommendations for technical improvements, based on evaluations with selected end-users. The quality and overall usefulness of the contributions will be monitored and will be reported in M30. The dissemination activities will be coordinated with WP6.

T2.2: Semantic enrichment, start M4, duration 33 months (NET7 32M, AIT 12M, NTUA 12M)

Net7, in collaboration with AIT and NTUA will put in place a collaborative annotation and augmentation environment using Pundit, customised and extended to meet the specific requirements of annotating sound objects. The solution will be deployed across all audio content on Europeana. This will allow users to revise, correct and enhance results of the automated semantic enrichment of time-based media based on specialised controlled vocabularies targeted to a specific community. The service enriches existing metadata with additional, domain specific knowledge by leveraging structured information represented in Linked Open Data sources, and existing methods and tools from the domains of statistical data analysis, graph search and named entity extraction.

T2.3: Wikimedia partnership, start M8, duration 26 months (NISV 12M, EF 4M)

# WT3: Work package description

This task will facilitate the contextualisation of Europeana Sounds content on the Wikipedia platform. Selected content will be uploaded using the GLAM-wiki toolset, and a number (at least 6) edit-a-thons will be organised by Wikipedia chapters that will enrich wiki pages. These will be integrated in the Europeana channel.

## T2.4. Innovative exploration pilots: audio information retrieval and dynamic linking

T2.4.1. Linking music to scores, start M2, duration 12 months (AIT 16M, EF 2M, BL 4M, NTUA 2M, BNF 4M)

This pilot focuses on the creation of links between segments of audio content aggregated as part of WP1 and related image content (images of sheet music) and/or digital scores stored in MusicXML or a similar format. The pilot will be concluded with an evaluation phase that examines quality of the links and usefulness as part of the Europeana Sounds infrastructure.

T2.4.2 Music information retrieval, start M14, duration 8 months (AIT 10M, EF 2M)

This pilot will make use of existing music information retrieval algorithms and will build a service to be used in the Europeana Sounds context. Specific audio properties (timbre, chords, harmonies, melody, main pitch, beats per minute or rhythm) will be extracted, indexed and searched to serve as basis for innovative explorations on the front-end of the Europeana Sounds channel. The pilot will be concluded with an evaluation phase that examines quality and usefulness as part of the Europeana Sounds infrastructure.

T2.5 Crowdsourcing infrastructure. Start M7, duration 16 months (EF 8M, AIT 10M, NISV 7M, NET7 7M, NTUA 7M, SHIFT 4M)

INPUT Dependency: CP2.1 (specification) at M6

EF will oversee the development of the Europeana Sounds crowdsourcing infrastructure, based on the specifications developed in WP2. Tools will be developed by AIT, NET7 and Historypin based on proven technology. NTUA will ensure the backend of the Europeana Sounds infrastructure can manage the ingestion of the metadata; output will be indexed by Europeana and will also be offered to the contributing partners.

### Checkpoints

- Functional design of the semantic enrichment (M9)
- First GLAM-wiki edit-a-thon (M12)
- Evaluation of first deployment of the crowdsourcing infrastructure (M16)
- Evaluation of the Pilots (13, 21)

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	BRITISH LIBRARY	8.00
2	BEELD EN GELUID	53.00
4	EUROPEANA	28.00
5	NTUA	25.00
6	BNF	12.00
7	AIT	52.00
8	NET7	39.00
9	HP	36.50
10	CNRS	6.00
11	DIZI	4.00
12	DNB	4.00
13	ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	4.00
14	ICCU	4.00
15	ITMA	4.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
16	MPG	4.00
17	NLL	4.00
18	Österreichische Mediathek	4.00
19	RBB	4.00
20	SABHAL MOR OSTAIG	4.00
21	STATSBIBLIOTEKET	4.00
22	ONB	4.00
23	FCSH-UNL	4.00
24	Comhaltas Ceoltoiri	4.00
Total		315.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D2.1	Crowdsourcing infrastructure and exchange policy	2	20.00	R	PU	9
D2.2	Functional design of semantic enrichment	8	52.00	R	PU	10
D2.3	Linking Music to Scores Pilot delivery report	7	28.00	R	PU	14
D2.4	Crowdsourcing infrastructure V1 Assessment and Recommendations	2	68.00	R	PU	17
D2.5	GLAM-wiki collaboration progress report	2	8.00	R	PU	21
D2.6	Music Information Retrieval Pilot delivery report	7	12.00	R	PU	22
D2.7	Crowdsourcing evaluation and impact assessment	2	68.00	R	PU	30
D2.8	GLAM-wiki collaboration progress report 2	2	8.00	R	PU	34
D2.9	Evaluation report on implementation of semantic enrichment	2	4.00	R	PU	36
D2.10	Development of the Crowdsourcing Infrastructure	4	47.50	R	CO	23
Total			315.50			

## Description of deliverables

# WT3: Work package description

- D2.1) Crowdsourcing infrastructure and exchange policy: Requirements report, based on findings of desk research, consultation workshop and interviews with stakeholders [month 9]
- D2.2) Functional design of semantic enrichment: Technical report, includes detailed assessment of LOD sources and quality measurement method [month 10]
- D2.3) Linking Music to Scores Pilot delivery report: Technical report outlining the execution of the pilot [month 14]
- D2.4) Crowdsourcing infrastructure V1 Assessment and Recommendations: Documents results of first trials with all content providers [month 17]
- D2.5) GLAM-wiki collaboration progress report: Report on execution of the campaign, including assessment of success criteria and recommendations for future collaborations between Europeana and Wikimedia chapters [month 21]
- D2.6) Music Information Retrieval Pilot delivery report: Technical report outlining the execution of the pilot [month 22]
- D2.7) Crowdsourcing evaluation and impact assessment: Assessment of quality and usefulness of the user contributions [month 30]
- D2.8) GLAM-wiki collaboration progress report 2: Report on execution of the campaign, including assessment of success criteria [month 34]
- D2.9) Evaluation report on implementation of semantic enrichment: Technical report with the application scenario, the implementation of Semantic Web technologies in the Europeana context [month 36]
- D2.10) Development of the Crowdsourcing Infrastructure: Will include report on tools developed by AIT, NET7 and Historypin [month 23]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS7	End-user contributions defined	2	9	WP2, WP4
MS8	Functional design of semantic enrichment	2	9	
MS9	First GLAM-wiki edit-a-thon	2	12	
MS10	Evaluation of Linking Music to Scores Pilot	2	13	
MS11	Evaluation of first deployment of the crowdsourcing infrastructure	2	16	
MS12	Evaluation of MIR pilot	4	21	
MS13	Music Information Retrieval Pilot complete	7	22	
MS14	Final GLAM-wiki collaboration	2	34	
MS29	Crowdsourcing infrastructure	4	24	



# WT3: Work package description

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## One form per Work Package

Work package number <sup>53</sup>	WP3
Work package title	Licensing guidelines
Start month	1
End month	30
Lead beneficiary number <sup>55</sup>	3

## Objectives

This work package will work with our content providers as well as with publishers, the recorded music industry, rights holders, and libraries to improve access to out-of-commerce content and increase the opportunities for creative re-use of Europeana content.

### Specific goals

- Work with cultural heritage institutions and rights-holders (publishers and collective management organisations) to identify and reduce barriers to access to audio and related material held by European cultural heritage institutions
- Make recommendations to address access to out-of-commerce and domain-constrained audio material and propose practical approaches to implement these recommendations
- Ensure that the content that is aggregated by the project can be integrated in the existing Europeana Licensing framework.

## Description of work and role of partners

### Approach

The approach will build upon the existing Europeana Licensing framework. This work package will focus on issues that are specific to audio content, such as the restricted availability of out-of-commerce material, and the existence of large collections of content that are domain-constrained (i.e. not universally available, because accessible only within certain member states or only available to certain categories of users such as educational users).

WP3 consists of two main activities: the first activity (Task 3.1) will focus on the legal aspects of integrating the 'guaranteed' content (listed in Table 0) into Europeana. This includes developing guidelines for integrating audio content, use of industry-standard unique identifiers and sharing of best practices for rights clearance.

The second activity will focus on the barriers to access to commercial works and domain-constrained audio content. The objective of this activity is to develop approaches that enable the Consortium partners to integrate as much content as possible from these categories (see examples listed in Table (c), section B2.1b). This activity will be carried out under three consecutive tasks (T3.2, T3.3 and T3.4).

WP3 is a facilitating work package that aims to create the legal basis for work carried out in the other work packages. It will therefore concentrate its activities in the first 24 months of the project. All tasks of WP3 therefore end at M24.

### Tasks

T.3.1 Integrate audio content into the Europeana Licensing Framework, start M1 duration 12 months, 23.5PM (KL 5M, BL 2M, EF 3M, BNF 3M, DNB 3M, NISV 0.5M, SB 0.5M, TAD 0.5M, ITMA 0.5M, NLL 0.5M, TLA 0.5M, CNRS 0.5M, DIZI 0.5M, FMS 0.5M, OeM 0.5M, RBB 0.5M, ICCU 0.5M, FSCH 0.5M, ONB 0.5PM, CCE 0.5M) EF and KL will work with the data providers to establish guidelines for integrating audio collections into the Europeana Licensing Framework and to ensure that the services developed as part of the project align with the requirements of the framework. This task will also examine how Europeana and its data providers can ensure the adoption of industry standard unique identifiers for content in Europeana. The task will survey all content partners with regards to rights clearance practices, use of identifiers and issues related to the licensing

# WT3: Work package description

framework. Kennisland and Europeana will coordinate this survey and produce guidelines for contributing audio content to Europeana that will be validated during an internal workshop with all content partners in M5.

As part of this task the following content partners will also conduct additional rights clearing activities for content identified in Table (c): DNB, SB, CCE, BL, DIZI, NISV, TLA

T3.2: Identification of barriers to online access, start M4, duration 6 months 18.5 PM (KL 5M, BL 1M, EF 2PM, BNF 0.5M, DNB 1M, NISV 1M, SB 1M, TAD 0.5M, ITMA 0.5M, NLL 1M, TLA 0.5M, CNRS 0.5M, DIZI 0.5M, FMS 0.5M, OeM 0.5M, RBB 0.5M, ICCU 0.5M, FSCH 0.5M, ONB 0.5M, CCE 0.5M)

Together with all content partners, KL and EF will identify the access barriers for out-of-commerce works and domain-constrained audio works to obtain a precise understanding of the problems and to identify approaches to solve them. The work will be based on a survey among the content partners that will be synthesised into a summary report to serve as the inception document for task 3.3.

T3.3: Rights holder consultation, start M11, duration 4 months, 5PM (KL 4M, EF 1M).

This task will be based on the report produced in task 3.2. Rights holder representatives will be invited to provide their perspective on the approaches identified in the report. To enable them to engage substantially with the report, the Consortium will subcontract with two external experts to be identified by rights holder representatives. GESAC, the European grouping of collecting societies, has indicated its intention to contribute to this effort by making an external consultant available, and the Consortium will work on ensuring a similar involvement of ICMP (representing publishers of musical works).

This task will be concluded by a stakeholder workshop in month 14 (involving Europeana, content providers, commission, rights-holders, academics) that will aim to identify solutions to the problems posed by out-of-commerce works and domain-constrained audio works that are supported by all relevant stakeholders.

T3.4: Develop policy recommendations, start M15, duration 9 months 16 PM (KL 4M, EF 2M, BNF 3M, SB 3M, DNB 3M)

This concluding task will build on the outcomes of the two preceding tasks in two ways. The Consortium intends to work with the Institute for Information law (IVIIR) as a subcontractor to transform the outcomes of the stakeholder dialogue into concrete policy recommendations.

In addition this work package will also examine the possibilities of implementing approaches identified in task 3.3 within the scope of the project. This could take the form of pilot projects involving one or more content partners.

This work package would support the implementation of solutions and monitor their effectiveness integrating them in a final report on the issues of out-of-commerce works.

The policy recommendations will become part of a final report on the issues of out-of-commerce works and domain-constrained works that will be published in M27. Special attention will be paid to bring these policy recommendations to the attention of relevant policy makers and networks.

#### Checkpoints

- Initial rights labelling guidelines (M3)
- Stakeholder workshop (M14)

#### Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	BRITISH LIBRARY	3.00
2	BEELD EN GELUID	1.50
3	KENNISLAND	18.00
4	EUROPEANA	8.00
6	BNF	6.50
10	CNRS	1.00
11	DIZI	1.00
12	DNB	7.00
13	ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	1.00

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
14	ICCU	1.00
15	ITMA	1.00
16	MPG	1.00
17	NLL	1.50
18	Österreichische Mediathek	1.00
19	RBB	1.00
20	SABHAL MOR OSTAIG	1.00
21	STATSBIBLIOTEKET	4.50
22	ONB	1.00
23	FCSH-UNL	1.00
24	Comhaltas Ceoltoiri	1.00
Total		62.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D3.1	Guidelines for contributing audio content into Europeana	3	24.00	R	PU	7
D3.2	Summary Report on barriers to online access to out-of-commerce works and domain constrained audio works	3	18.50	R	PU	10
D3.3	Report from stakeholder workshop including the reactions from right holders	3	4.00	R	PU	15
D3.4	Final report including policy recommendations	3	15.50	R	PU	27
Total			62.00			

## Description of deliverables

D3.1) Guidelines for contributing audio content into Europeana: Guidelines for integrating audio collections into the Europeana Licensing Framework [month 7]

D3.2) Summary Report on barriers to online access to out-of-commerce works and domain constrained audio works: Understanding of the problems based on a survey among the content partners [month 10]

D3.3) Report from stakeholder workshop including the reactions from right holders: Workshop aiming to identify solutions to the problems posed by out-of-commerce works and domain-constrained audio work [month 15]

D3.4) Final report including policy recommendations: Full report and proposals for further initiatives [month 27]

# WT3: Work package description

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS2	Rights labelling guidelines available	3	3	WP1, WP3
MS15	Workshop with content partners	3	5	affects WP1
MS16	Stakeholder workshop	3	14	WP1, WP3,WP6
MS17	policy recommendations drafted	3	22	WP1

# WT3: Work package description

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## One form per Work Package

Work package number <sup>53</sup>	WP4
Work package title	Channels development
Start month	1
End month	36
Lead beneficiary number <sup>55</sup>	4

## Objectives

This WP will 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 can be extended to address other communities of interest and other media.

### Specific goals

- The Europeana platform channels will, based on deliverables of other WPs, provide users with improved discovery functions (based on controlled vocabularies and semantic links), direct access to media, and the ability for users to annotate metadata records and media. Via federated search, users will be able to use these channels to access audio content from SoundCloud.
- Explore and evaluate third party platforms for showcasing the audio and related content of Europeana implemented as a discovery/social tool.

## Description of work and role of partners

### Approach

#### User centred design and development

The methodological approach is to combine user experience (UX) design and Agile technical development. Development will follow the Agile Scrum methodology adopted by Europeana (and by many other organisations). Emphasis in Scrum lies on a cross-functional team working closely together in short iterations with a focus on delivering working software from the start. Designers and developers will work tightly together throughout the project. At the end of each iteration the cross-functional team demonstrates progress to business stakeholders providing them with regular opportunities to review from a business perspective and to revise business priorities (the latter is especially important in a 36-month project).

Development will be iterative. Continuous cycles of UX design, development, and testing will result in tight feedback loops allowing the project to make sure that it is doing both the right thing and things right. The tight iterations and feedback loops also manage the risk of expending resources too early in the project.

The project will begin with a UX research and design phase (initiating T4.1). In this phase the full range of user experience design principles (user research, content strategy, information architecture, interaction design, visual design, usability evaluation) will be applied in order to ensure that the channels as a product are clearly scoped and documented in a product brief. This initial intensive UX phase will then transition into less intensive phases, in synch with the technical development, focusing on refining and adapting the designs based on the stakeholder feedback, new technologies and best practices and, above all, user feedback, working with a sub-contracted design bureau (at c. 75,000 Euros, as justified in Section B3.3).

As the intensive UX research and design phase draws to its close the development task (T4.2) will be initiated. The reason for splitting it out as a sub-task and separate usability sub-contract (c. 40,000 Euros) is to not have the same persons and organisations creating the design and evaluating them. Note that tasks 4.1 and 4.2 are interlocking and cyclical, they are not linear or parallel tasks. This means for example that there will be user testing staggered throughout the development with the results of the testing applied as design revisions and fed into the development.

# WT3: Work package description

The Europeana Office, together with the Europeana Network of projects and partners, will through the channels be able to collaboratively target different user groups with appropriate content and features. This is expected to increase both user satisfaction and user reach.

## Tasks

### T4.1: User experience research and design

T4.1.1: User experience design, start M2, duration 35 months (EF 6M, NISV 7M, AIT 4M).

This subtask will apply best practices of UX design to define the product and ensure that the channels developed meet all the requirements of our users. The majority of the work will be carried out in the first nine months of the project. The design work (front end-design, wireframing and mobile design) will be led by a subcontracted design bureau, as Europeana does not have this expertise in house. The bureau will be selected after an open and transparent procurement process that allows several agencies to put forward proposals.

T4.1.2: User experience designs, user testing and expert review, start M4, duration 32 months (EF 7M).

This subtask will perform heuristic reviews of the UX-design outcomes and plan, execute and analyse usability testing. To ensure critical testing takes place, it is proposed to contract an expert or expert company in user testing. The User Advisory Panel will be consulted as part of this process. The majority of the work will be carried out in the first 15 months of the project.

T4.2: Channels development, start M6, duration 30 months (EF 20M, AIT 13M, NTUA 14M, NISV 14M, Net7 4M, SHIFT 1M)

This task will develop the channels, based on the requirements resulting from T4.1. AIT, NTUA, NISV and NET7 will work in close cooperation with the Europeana Office development team to integrate and deploy the modules developed in WP5 for the Europeana portal and channels back-end and front-end. Deployed modules will be adapted based on results of technical testing (such as performance and load testing) and user testing. This will be accomplished incrementally with phased releases. The task will begin in M6 with a three-month planning and prototyping phase. This will result in a technical development plan where system architecture, APIs, software choices, coding conventions and documentation practices are well defined. During this prototyping phase the technical development and testing environments will also be set up.

T4.3: External channels development, start M7, duration 30 months (EF 1M)

The aim of this task is to multiply the audience reach of Europeana Sounds and to provide a dissemination and social platform for the audio and related assets provided by the project. However, in order to ensure that this aim is achieved, we would like ensure that we have completed the necessary market research, content research and user research before selecting the final platform. WP4 researches the potential of using Spotify, SoundCloud and other audio/music platforms to multiply the audience reach of Europeana Sounds. Once that research has been completed, the project will be in a better position to decide which external platform strategy is best suited to achieve this goal. The project will then benefit from a more integrated approach towards on-Europeana and off-Europeana distribution channels and the research can be performed without added overhead or duplication of effort. We will evaluate available external distribution channels for audio/audio-related content. Spotify (service and app platform), SoundCloud, FreeMusicArchive, Internet Archive, Petrucci Sheet Music Archive, etc. will be evaluated and recommend how to prioritize our use of these platforms to multiply our audience reach. They would also be evaluated from the perspective of how easy it would be for us to provide automated upload of content to those platforms.

## Checkpoints and Milestones

- External distribution channels brief, M8
- Audio channels first prototype, M9
- Audio channels second prototype, M12
- Audio channels first production version, M18

At this point the main development ends and the Europeana channels and external distribution channels become subject to Europeana's continuous user evaluation process.

Information on the development, user surveys and usability testing work undertaken in the WP4 tasks will be provided as input on progress in the contractual annual reports, and in the interim progress reports from WP7 (in M7, M19 and M31).

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
2	BEELD EN GELUID	21.00
4	EUROPEANA	34.00
5	NTUA	14.00
7	AIT	17.00
8	NET7	4.00
9	HP	1.00
Total		91.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D4.1	Audio channels production version	4	90.00	P	PU	34
D4.2	Europeana Sounds External distribution channels report	4	1.00	P	PU	34
Total			91.00			

## Description of deliverables

D4.1) Audio channels production version: Technical report, including findings and assessment of expert review and assessment of the End User Panel [month 34]

D4.2) Europeana Sounds External distribution channels report: Final assessment of SoundCloud and other platforms for extending the reach and audiences for Europeana Sounds content [month 34]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS18	External distribution channels brief	4	8	
MS19	Audio channels first prototype	4	9	
MS20	Audio channels second prototype	4	12	
MS22	Audio channels first production version	4	18	

# WT3: Work package description

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## One form per Work Package

Work package number <sup>53</sup>	WP5
Work package title	Technical infrastructure
Start month	1
End month	36
Lead beneficiary number <sup>55</sup>	5

## Objectives

WP5 will 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.

### Specific goals

- Extend the Europeana aggregation infrastructure through the creation of tools for monitoring the aggregation process, producing detailed statistics, checking consistency, creating persistent identifiers.
- Enable metadata cleaning and normalisation.
- Create a SKOS thesaurus for classification of music content. This will be used by Europeana to ingest contextual resources and multi-lingual labels and make them available for search.
- Support the development of the crowdsourcing applications.

## Description of work and role of partners

### Approach

The aim of WP5 is to enable metadata aggregation by extending and enhancing the existing Europeana aggregation infrastructure. Europeana's tool set consists of the United Ingestion Manager that controls the harvesting process, which is done through Repox (repop.ist.utl.pt) and the mapping and transformation process, which is done through MINT (Metadata INTeroperability) platform. UIM will also control link checking, thumbnails caching and metadata enrichments processes. Regarding the technical details of the ingestion workflow the underlying data serialisation will be XML while the user's mapping actions are translated into XSL transformations. The common model (EDM) functions as an anchor, to which various data providers can be attached and become, at least partly, interoperable.

Some of the key functionalities are:

- organisation and user level access and role assignment;
- XML collection and record management;
- direct importing and validation according to a standard schema (XSD);
- OAI-PMH harvesting and publishing;
- visual mapping editing for the XSLT language;
- transformation and TMLation;
- repository deployment (XML, RDF).

### Tasks

T5.1 Aggregation infrastructure design. Start M1, duration 12 months (NTUA 7M, EF 3M, AIT 1M)

NTUA and EF will oversee the design of the revised technical architecture, will monitor the progress of development, and deploy the metadata aggregation tool set.

The proposed aggregation mechanism will extend the Europeana infrastructure toolset, allowing for the ingestion of semi-structured data and offering the ability to align and take advantage of well-defined, machine understandable schemes in an intuitive manner.

Europeana sounds will customise the MINT platform to meet the needs of sound material with respect to metadata mapping, normalisation and transformation.



# WT3: Work package description

The infrastructure will support time-based metadata, to show tags on a timeline, and to align output from speech-to-text algorithms to audio.

Semantic and syntactic interoperability will be achieved through the EDM. Specialisations in EDM for sound metadata will be defined (T1.3). The EDM profile for sound will enable richer mappings and thus richer metadata in Europeana.

This task will also create the Europeana Sounds ontology input from WP1 (T1.2). Earlier work by the DISMARC project will be taken into account.

**T5.2 Aggregation infrastructure evaluation. Start M9, duration 3 months (EF 1M, NTUA 2M)**

The approach for the evaluation will be to assess all the available software components that go into generating the user experience. This will be determined by the underlying technology and tools. The focus and aim of the chosen methodology will be on usability/satisfaction in regard to design, functionality, usability, navigation, and search.

The framework for testing will be structured so that data can be entered into an online system and reports and charts generated with a new dashboard tool to assist in the analysis. The method for receiving feedback will be twofold - data collection approach and face-to-face interview.

**Data collection approach**

For the collection of data, feedback will be gathered from a disparate set of end-users across a range of countries and languages. For this purpose a questionnaire will be sent to the Europeana Sounds Consortium and further distributed by each partner to at least five different persons. A web based survey tool will be used which has the key advantage of centralising and assimilating results into charts and tables for reports and presentations.

**Face-to-face interview**

For the face-to-face interviews users will be asked to make notes throughout. The interviewee will be encouraged to provide verbal feedback on how they found the module. Direct verbal feedback often yields high quality information from users which would otherwise not be collected in a simple 'self assessment' through an online questionnaire.

This way there will be three types of information streams received:

- observational notes taken at the session by the interviewer (noted by the interviewer);
- verbal feedback by users during the session (noted by the interviewer);
- online report form – completed by the interviewer after the tests.

**T5.3 Aggregator deployment and maintenance. Start M13, duration 24 months (NTUA 16M, EF 3M, AIT 3M)**

This task will provide technical support for the creation, management and execution of the project's ingestion plan, defined in WP1. NTUA and EF will ensure that partners understand the workflow processes necessary for the delivery of content and implementation of mappings, while the ingestion plan remains in line with the requirements of Europeana. The project's aggregator will be deployed for testing before the start of the ingestion plan and in its final version according to the ingestion plan developed in WP1 and agreed with the Europeana ingestion team. In addition, this task will guide the communication and technical interoperability with Europeana to ensure the implementation of the ingestion plan in accordance with the harvesting schedule.

**T5.4 Metadata cleaning and normalisation. Start: M5 duration 14 months (NTUA 10M, EF 1M, CNRS 1M)**

**INPUT Dependency: CP1.3 (EDM) at M4**

The Europeana Sounds repository will be populated by metadata records following the Europeana Data Model profile for sound. NTUA in collaboration with EF will provide web services for group handling and editing of records to facilitate quality control, enrichment and reconciliation with authoritative sources.

Specific modules will be developed to monitor the progress of the ingestion process and the quality of metadata. Providers will be able to clean their metadata and normalise them using selected SKOS thesauri. Before publishing metadata to Europeana, providers will have to pass a number of quality tests (e.g. view items at the Europeana test portal and check completeness of metadata).

Providers will be able to browse their contributed items in the EDM profile, filter them based on specific elements and values, and group edit the resulted item set in order to perform:

- data cleansing: correct typographical errors, conform with typographical conventions (capitalisation etc.).
- data reconciliation: align metadata elements with authority files, vocabularies or thesauri, extract terms and detect entities and concepts, link resources to external data sources and semantic binding. Special attention will be given to the reconciliation of subject concepts with the list of key concepts defined in the thesaurus.
- moderated enrichment: link and explore external data sources to extract and reuse information about resources (i.e. locations, time-spans, agents etc.) associated with provider's items; the system will suggest links to external semantic data sources (e.g. Freebase, DBpedia, GeoNames) for detected entities and concepts. The Dbpedix

# WT3: Work package description

Java code will be used for (i) building a Lucene index from DBpedia and (ii) serving fast, multi-language prefix search to power tagging interfaces with auto-completion functionality (developed by AIT in the framework of EuropeanaConnect project).

## Checkpoints

- Sounds SKOS ontology and normalisation and cleaning module beta (M11)
- Aggregation mechanism ready for use (M12)

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
4	EUROPEANA	8.00
5	NTUA	35.00
7	AIT	4.00
10	CNRS	1.00
	Total	48.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D5.1	Report on the evaluation of the aggregation mechanism	5	10.00	R	CO	14
D5.2	Deployment of fully functional updated aggregation system deployed by UIM	5	20.00	R	PU	16
D5.3	Report on Sounds thesaurus and the metadata cleaning and normalisation module	5	12.00	R	CO	19
D5.5	Final report on aggregation toolset	5	6.00	R	PU	36
	Total		48.00			

## Description of deliverables

D5.1) Report on the evaluation of the aggregation mechanism: Report with recommendations on evaluation of aggregation toolset (ready at the end of first year) and pilot phase for content provider familiarisation with the technology [month 14]

D5.2) Deployment of fully functional updated aggregation system deployed by UIM: [month 16]

D5.3) Report on Sounds thesaurus and the metadata cleaning and normalisation module: Covering methodology to build the Sounds ontology, cleaning and normalisation module with user manual [month 19]

D5.5) Final report on aggregation toolset: Covering results of evaluation process, with suggestions for new functionality needed to be developed to improve toolset efficiency and usability [month 36]

# WT3: Work package description

Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS23	Revised aggregation design available	5	4	WP1
MS24	Aggregation infrastructure prototype available	5	7	affects WP1
MS25	Sounds SKOS ontology and normalisation and cleaning module beta	5	11	WP1, WP5
MS26	Aggregation mechanism ready	5	12	WP1, WP5
MS27	Report on the evaluation of the aggregation mechanism	5	16	WP5
MS28	Sounds Thesaurus and metadata cleaning and normalisation module complete	5	18	WP1, WP2, WP5
MS30	Final assessment on aggregation toolset	5	34	

# WT3: Work package description

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## One form per Work Package

Work package number <sup>53</sup>	WP6
Work package title	Dissemination & networking
Start month	1
End month	36
Lead beneficiary number <sup>55</sup>	6

## Objectives

To work with the other work packages to 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.

This work package provides all the communication information needed to make Europeana Sounds comprehensible to its target audiences – the general public, GLAMs and other collection holders, rights holders and their representatives, policy makers, creative industries, and existing Europeana user communities.

### Specific goals

- Create a Communications Plan with a global approach, tools (communication kit) and strategies for engaging each target audience.
- Ensure the dissemination of information about the project, its objectives, approaches and results (includes public seminars, conferences, project website, social media).
- Create and support virtual communities to engage professional and end-user audiences.
- Organise 'Sound' (re)discovery events in various countries in native languages (e.g. featuring star items) with the help of local Europeana partners in each country.
- Organise two international public conferences to illustrate to all interested actors (both users and stakeholders) the guidelines and the recommendations produced by the Europeana Sounds network.
- One hackathon will also be planned to explore new approaches by the creative industries.

## Description of work and role of partners

### Approach

Dissemination to interested parties is a fundamental aspect of the success of a Best Practice Network and requires understanding of the information needs of the various target audiences and their preferred methods of engaging with the project. This is formalised in the project Communication Plan (task T6.1), to which all partners will contribute.

The initial version of the analysis of target audiences is provided in section B2.3, Wider Deployment and Use and has not been repeated here.

Our approach follows the AIDA marketing principle of making audiences Aware of the project, stimulating their Interest in the benefits offered, enabling individuals to Decide to engage and supporting their steps towards Action.

This work package manages all aspects of that approach and aims to provide a transparent interface between the activities in the other work packages and their target audiences.

Since Europeana is an online resource used by online communities, we will naturally be focussing on social media and Web-enabled events and other activities to engage with those communities, as well as using traditional offline activities to reach some of the professional audiences, such as attending their conferences and writing for their journals. During the course of the project we will identify and exploit our audio 'masterpieces' – star items that have great public appeal.

All partners will also represent the project in relevant events and shall promote Europeana as part of their usual dissemination activities. Moreover, the project's awareness and dissemination activities shall be reconcile with Europeana and Europeana's own dissemination and awareness activities, provided by the Europeana office upon request. All partners will report to and liaise with BNF on planned activities. A special session in the project

# WT3: Work package description

kick-off meeting will ensure that each partner understands their responsibilities for dissemination and the support that WP6 will give them.

## Tasks

T6.1: Communication Plan, start: M1, duration 36 months (BNF 6M, BL 1M, EF 1M, NISV 1M)

This task will define the target audiences for dissemination activities in more detail and understand their information needs, their preferred ways of receiving information and the sources of information within the project. This plan therefore defines a dissemination strategy and the role of each partner in executing that strategy. Performance will be continually monitored and the plan updated.

This task includes creation of a common visual identity for the project, according to the guidelines of EF.

Templates and style guides will be circulated among the project partners. A communication kit will be accessible to all.

T6.2: Project website, start: M1, duration 36 months (BNF 10M with support of content providers) plus subcontracted webhost/build

This task is responsible for establishing and implementing the project website, including design and content management, in line with the Communication Plan. The website should be operational by month 4, reflecting the agreed visual identity, and will evolve in the course of the project since it will merge with the channels once they are developed. The website is primarily used for public information dissemination including project news, results and deliverables as well as online events, blog, social media. The website will also provide signposts to Europeana communities .

T6.3: Public communication and community building, start: M4, duration 33 months (BNF 15M, EF 5M, BL 4M, ICCU 4M, ONB 4M, SB 2M plus 1M for each other partner)

This task is concerned with direct communication with the stakeholder groups and target audiences who can potentially benefit from the project. This task will concentrate effort on the main social media used by specific high priority target communities. These priorities will change over the life of the project, dictated by the Communication Plan. There are two specific elements to this task:

- creation and support of virtual communities to engage specific professional and end-user audiences;
- extension of the Europeana Sounds Best Practice Network to include third parties as the project progresses.

Although they cannot be identified in advance, it is almost certain that discoveries of treasures and unknown items of great significance will be made in the course of the project. Some specific communication actions can be planned to exploit these discoveries (e.g. specific events featuring these items and inclusion in media packs). Because we are addressing a multi-cultural and multilingual audience, four 'communication zones' will be defined. These will be led by the BNF, EF, ICCU and ONB who will be responsible for the information flows within one zone. This will feature translation of materials and the use of localised channels such as the outreach programmes of national galleries, libraries, archives, museums and audiovisual collections, including the 700 members of the Europeana network

T6.4: Communication highlights, start: M4, duration 27 months (BNF 6M, with 0.5M support of all content providers)

This task will also see the development of specific communication tools that will enable users and stakeholders to understand and highlight the content to be aggregated into Europeana. Indeed, the vast scope of the material being aggregated by the project needs to be understood by the mainstream media and the public to have maximum impact. Three specific 'views' will be prepared:

- T6.4.1: Instruments: specific features and communication on the instruments of the time used to record and play the sounds corpus of the project.
- T6.4.2: Family tree of audio/sounds content will feature the whole project corpus divided into categories, in an attractive and comprehensive way.
- T6.4.3: Sound timeline will feature highlights of the project corpus, related to specific significant events. The definition of this timeline will enable us to communicate on historical sounds.

T6.5: Events, start: M7, duration 29 months (BNF 4M, BL 1M, EF 2M, NISV 1M, ONB 1M, ICCU 1M)

Planning of events will be in line with the Communication Plan and the emphasis will evolve to meet the changing needs of our various target audiences. We have initially planned four types of event:

- T6.5.1: 'Sound' (re)discovery events in various countries in native languages: presentation and listening of unknown/star items with a specialist (BNF 1M, BL 1M, NISV 1M, ONB 1M, ICCU 1M).

# WT3: Work package description

- T6.5.2: Two international public conferences: one in France and one in association with a specific Europeana event (EF 2M, BNF 2M). These will be open to all interested audiences (users and stakeholders), with special attention towards the involvement of non-Europeana Sounds Consortium members:  
Conference 1. Topics: audio heritage, copyright and sound innovations. This will provide input to all work packages.  
Conference 2. Topics: to be determined in accordance with the project's communication plan and dissemination agenda at the time of the conference.
- T6.5.3: One hackathon to explore new appropriations of sound materials by the creative industries (EF 1M)
- T6.5.4: Representation of the project at major musical events in Europe corresponding to the audio corpus of the project
- T6.5.5: Planning and promotion of training events for content providers in use of aggregation workflow tools , using content developed and delivered by the NTUA, in WP1 (Aggregation) task T1.5.

## Checkpoints

- Communication Plan in place (M9)
- Website operational (M4)
- Social media communities in place (M6)
- Initial media pack assembled (M7)
- Mid-project event (M21)
- Final project event (M36)

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	BRITISH LIBRARY	6.50
2	BEELD EN GELUID	3.50
3	KENNISLAND	1.00
4	EUROPEANA	8.00
5	NTUA	1.00
6	BNF	41.00
7	AIT	1.00
8	NET7	1.00
9	HP	1.00
10	CNRS	1.50
11	DIZI	1.50
12	DNB	1.50
13	ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	1.50
14	ICCU	5.50
15	ITMA	1.50
16	MPG	1.50
17	NLL	1.50
18	Österreichische Mediathek	1.50
19	RBB	1.50
20	SABHAL MOR OSTAIG	1.50
21	STATSBIBLIOTEKET	2.50

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
22	ONB	5.50
23	FCSH-UNL	1.50
24	Comhaltas Ceoltoiri	1.50
Total		95.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D6.1	Online presence	6	4.00	D	PU	4
D6.2	Dissemination Materials and Press Kit 1	6	9.50	O	PU	7
D6.3	Initial Communication plan	6	8.00	R	PU	9
D6.4	Communication plan and evaluation V1	6	12.00	R	PU	13
D6.5	Communication plan and evaluation V2	6	16.00	R	PU	25
D6.6	Communication plan and evaluation V3	6	19.00	R	PU	36
D6.7	Dissemination Materials and Press Kit 2	6	12.00	O	PU	19
D6.8	Dissemination Materials and Press Kit 3	6	15.00	O	PU	31
Total			95.50			

## Description of deliverables

D6.1) Online presence: The project website will by M4 have stabilised with general project information, public deliverables, dissemination material, related information of Consortium partners, blog, strong links to social media communities [month 4]

D6.2) Dissemination Materials and Press Kit 1: Communication kit/dissemination materials/press kit (includes audio samples as materials), updated yearly [month 7]

D6.3) Initial Communication plan: The Communication Plan will include types of dissemination activities, types of dissemination materials, target audiences, disclosure level of information, frequency of outputs. The deliverable will include an evaluation of the year's activity (and changes to the plan for the year ahead in the case of the first two iterations). [month 9]

D6.4) Communication plan and evaluation V1: The Communication Plan will include types of dissemination activities, types of dissemination materials, target audiences, disclosure level of information, frequency of outputs. The deliverable will include an evaluation of the year's activity (and changes to the plan for the year ahead in the case of the first two iterations). [month 13]

D6.5) Communication plan and evaluation V2: The Communication Plan will include types of dissemination activities, types of dissemination materials, target audiences, disclosure level of information, frequency of

# WT3: Work package description

outputs. The deliverable will include an evaluation of the year's activity (and changes to the plan for the year ahead in the case of the first two iterations). [month 25]

D6.6) Communication plan and evaluation V3: The Communication Plan will include types of dissemination activities, types of dissemination materials, target audiences, disclosure level of information, frequency of outputs. The deliverable will include an evaluation of the year's activity (and changes to the plan for the year ahead in the case of the first two iterations). [month 36]

D6.7) Dissemination Materials and Press Kit 2: Communication kit/dissemination materials/press kit (includes audio samples as materials), updated yearly [month 19]

D6.8) Dissemination Materials and Press Kit 3: Communication kit/dissemination materials/press kit (includes audio samples as materials), updated yearly [month 31]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS31	Website operational	6	4	
MS32	Social media communities in place	6	6	
MS33	Initial media pack assembled	6	7	
MS34	Communication plan in place	6	9	
MS35	Mid-project event	6	21	
MS36	Further dissemination materials and press kit distributed	6	19	
MS37	Communication plan update	6	25	
MS38	Further dissemination materials and press kit	6	31	
MS39	Final project event	6	36	



# WT3: Work package description

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## One form per Work Package

Work package number <sup>53</sup>	WP7
Work package title	Project management & sustainability
Start month	1
End month	36
Lead beneficiary number <sup>55</sup>	1

## Objectives

Management of the whole project, according to agreed methods, structures and procedures as described in section B3.2c, including administrative management, reporting to the EC and performance monitoring. Provide leadership and guidance for the Best Practice Network (BPN) in the directions set out in this proposal, 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.

### Specific goals

- Efficient and effective management and decision-making procedures;
- Successful delivery of the expected results within time, budget, resource and quality control constraints and according to performance indicators;
- Compliance of project deliverables and reports with the Commission's requirements;
- Efficient and effective communication and information sharing among partners;
- Efficient financial management and timely payment procedures;
- Define suitable business models for the BPN needed to sustain the platform and services after the project duration;
- Project evaluation;
- A set of specific progress reports on Europeana Sounds produced as part of good practice in project management.

## Description of work and role of partners

### Approach

The project management will comprise all administrative and financial obligations to EC and an efficient and effective organisation of the work to be done, together with the Project Management Board and the WP leaders. It will include the formulation of yearly work plans and the deliverables, the distribution of finances to all partners and the budget control, and the preparation of the periodic management and financial reports obligatory under the contract, including the final report and audit.

### Tasks

Task 7.1 Project and Financial Administration. Start M1, duration 36 months (BL 30M, 23x1M or 0.5M all other Consortium members)

This task will provide support for project and financial administration as well as the monitoring of appropriate and adequate resource allocation of all partners.

To facilitate project and financial administration a Consortium Agreement will be set up to be signed by partners when they accede to the ECGA. Agreements about IPR ownership, protection and exploitation will be defined in the Consortium Agreement, with procedures for implementing these.

Interim Reports will be produced between the annual reports to give 6-monthly updates to the Commission.

These will contain a management-level overview of the activities carried out, a description of progress toward the objectives, a description of progress toward the milestones and deliverables foreseen, and identification of problems encountered during the project and actions taken to correct them. (D7.3/7/8) Results of the progress made will also be reported to the EC in two Annual Reports and one Final Report, according to the Grant Agreement.

# WT3: Work package description

A Financial Report will be produced every twelve months containing a summary cost statement prepared by each participant and a cost certificate per participant, a management-level justification prepared by each participant of its overall costs incurred, linking these costs to the resources deployed and activities carried out by the participant. The financial report will also contain a summary financial report prepared by the coordinator and the administrative coordinator, bringing together the incurred costs of the Consortium and the requested Community contribution. A Final Financial Statement will be produced at the end of the project.

Task 7.2 Quality Assurance and Risk Management. Start M1, duration 36 months (BL 5M, EF 1M)

This task addresses all the issues related to Quality Assurance, Risk Management, and Self-Assessment. Quality Assurance is the joint responsibility of all partners and will be applied at all levels of the project's activities. A User Advisory Panel will be installed to monitor all major user-related decisions. This task involves the following activities:

- A Quality Assurance Plan and Reviewing Schema with a set of rules for the organisation of the day-to-day cooperative work, including the procedures to be used, and the reporting mechanisms to ensure that all planned deliverables and milestones are achieved according to the agreed time schedule. (D7.1)
- Organising reviewing and auditing according to the Quality Assurance Plan including monitoring a Risk Plan with the help of a risk register and issue log, identifying threats and describing necessary countermeasures. (D7.2)

Task 7.3 Internal communication and meetings. Start M1, duration 36 months (BL 6M, all other Consortium members 23x1M)

This task entails organisation of kick-off meeting in month 1 and Project Management Board meetings every six months, as well as organising meetings for all projects partners when and if necessary.

Structuring communication involves setting up a communication system and a website, as well on regular team meetings. This will ensure effective communications and information flows between management, work package leaders and project participants. An agreed communication mechanism and collaborative workspace (expected to be Basecamp) will be established by M2. WP leaders will see to aligning decision-making with agreed processes.

T7.4 Exploitation planning, sustainability and governance. Start M18, duration 18 months (BL 7M, EF 1M, NISV 2M, KL 1M)

This task will define suitable business models for Europeana Sounds and will develop models needed to sustain the platform and services after the project duration. An effective exploitation plan will be defined, based on the so-called Business Model Canvas methodology. Market analyses will be executed and serve as input for the exploitation planning and to assess the overall work plan. The exploitation plan will be maintained and updated throughout the entire project period to reflect possible refocusing of user-oriented and industrial work. Target groups from the creative industries and memory institutions will be reached via the relevant umbrella organisations represented in the project. This task will also oversee the creation of a European Section of IASA, working closely with IASA's executive board (see Section B2.2.2). (D7.5)

T7.5 Project Evaluation, Start M12, duration 24 months (BL 2M)

This task will entail evaluating each of the Work Packages against a set of criteria produced in consultation with the User Advisory Panel (see Project management, B3.2c). An external independent expert will be sub-contracted to assess project performance and the impact of the project from users' perspectives. The task will include a co-ordinating role for the evaluation elements of WPs 2, 4, 5 and 6. Evaluation Reports will be issued in M12 and M31. (D7.4, D 7.7)

Checkpoints

- Project kick-off (M1)
- First exploitation plan (M20)
- General Assembly meeting (M13)
- Advisory Board meeting (M15)
- Advisory Board meeting (M25)
- General Assembly meeting (M25)
- Final exploitation plan and governance (M33)
- General Assembly meeting (prior to submission of final reports)

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	BRITISH LIBRARY	50.00
2	BEELD EN GELUID	4.00
3	KENNISLAND	3.00
4	EUROPEANA	4.00
5	NTUA	2.00
6	BNF	2.00
7	AIT	1.50
8	NET7	1.50
9	HP	1.50
10	CNRS	1.50
11	DIZI	1.50
12	DNB	2.00
13	ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	1.50
14	ICCU	1.50
15	ITMA	1.50
16	MPG	2.00
17	NLL	1.50
18	Österreichische Mediathek	1.50
19	RBB	2.00
20	SABHAL MOR OSTAIG	1.50
21	STATSBIBLIOTEKET	2.00
22	ONB	2.00
23	FCSH-UNL	1.50
24	Comhaltas Ceoltoiri	1.50
Total		94.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D7.1	Quality Assurance Plan	1	2.00	R	PU	2
D7.2	Risk Plan	1	2.00	R	PU	2
D7.3	Interim Progress report 1	1	2.00	R	PU	7
D7.4	Evaluation Report 1	1	4.00	R	PU	12

# WT3: Work package description

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D7.5	Market Survey and Exploitation planning	1	7.00	R	RE	24
D7.6	Interim Progress report 2	1	3.00	R	PU	19
D7.7	Evaluation Report 2	1	3.00	R	PU	31
D7.8	Interim Progress report 3	1	4.00	R	PU	31
D7.9	Final Exploitation plan and Sustainability strategy	1	12.00	R	PU	36
			Total			39.00

## Description of deliverables

- D7.1) Quality Assurance Plan: The Quality Assurance Plan will be presented and approved at the kick-off meeting [month 2]
- D7.2) Risk Plan: All partners will contribute to the initial version of the Risk Plan at the kick-off meeting [month 2]
- D7.3) Interim Progress report 1: A half-yearly internal progress monitoring report to be presented to the General Assembly and submitted to the EC Project Officer [month 7]
- D7.4) Evaluation Report 1: Initial project evaluation in consultation with User Panel [month 12]
- D7.5) Market Survey and Exploitation planning: First version of the exploitation plan to be written, based on the Business Model Canvas [month 24]
- D7.6) Interim Progress report 2: A half-yearly internal progress monitoring report to be presented to the General Assembly and submitted to the EC Project Officer [month 19]
- D7.7) Evaluation Report 2: project evaluation including an external impact assessment [month 31]
- D7.8) Interim Progress report 3: A half-yearly internal progress monitoring report to be presented to the General Assembly and submitted to the EC Project Officer [month 31]
- D7.9) Final Exploitation plan and Sustainability strategy: Exploitation plan and Sustainability strategy including the final establishment of the IASA-supported network [month 36]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS40	Project kick-off meeting	1	1	
MS41	Quality Assurance Plan issued	1	2	
MS42	Risk Plan issued	1	2	
MS43	Interim progress report	1	7	
MS44	Plenary consortium meeting	1	13	
MS45	Annual Report	1	14	

# WT3: Work package description

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS46	Advisory Board meeting	1	15	
MS47	First exploitation plan	1	20	
MS48	Interim progress report	1	19	
MS49	Advisory Board meeting	1	25	
MS50	Plenary consortium meeting	1	25	
MS51	Annual Report	1	26	
MS52	Interim progress report	1	31	
MS53	Final exploitation plan and governance	1	33	
MS54	Plenary consortium meeting	1	36	
MS55	Annual Report	1	36	

# WT4: List of Milestones

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

## List and Schedule of Milestones

Milestone number <sup>59</sup>	Milestone name	WP number <sup>53</sup>	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial selection policy published	WP1	1	3	WP1
MS2	Rights labelling guidelines available	WP1, WP3	3	3	WP1, WP3
MS3	Initial ontologies selected	WP1	1	5	WP1, WP2, WP5
MS4	Preparation of training courses and materials complete	WP1	5	9	
MS5	First tranche of content and metadata ready for ingestion	WP1	1	12	
MS6	Final tranche of content and metadata ready for ingestion	WP1	1	30	
MS7	End-user contributions defined	WP2	2	9	WP2, WP4
MS8	Functional design of semantic enrichment	WP2	2	9	
MS9	First GLAM-wiki edit-a-thon	WP2	2	12	
MS10	Evaluation of Linking Music to Scores Pilot	WP2	2	13	
MS11	Evaluation of first deployment of the crowdsourcing infrastructure	WP2	2	16	
MS12	Evaluation of MIR pilot	WP2	4	21	
MS13	Music Information Retrieval Pilot complete	WP2	7	22	
MS14	Final GLAM-wiki collaboration	WP2	2	34	
MS15	Workshop with content partners	WP3	3	5	affects WP1
MS16	Stakeholder workshop	WP3	3	14	WP1, WP3, WP6

# WT4: List of Milestones

Milestone number <sup>59</sup>	Milestone name	WP number <sup>53</sup>	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS17	policy recommendations drafted	WP3	3	22	WP1
MS18	External distribution channels brief	WP4	4	8	
MS19	Audio channels first prototype	WP4	4	9	
MS20	Audio channels second prototype	WP4	4	12	
MS22	Audio channels first production version	WP4	4	18	
MS23	Revised aggregation design available	WP5	5	4	WP1
MS24	Aggregation infrastructure prototype available	WP5	5	7	affects WP1
MS25	Sounds SKOS ontology and normalisation and cleaning module beta	WP5	5	11	WP1, WP5
MS26	Aggregation mechanism ready	WP5	5	12	WP1, WP5
MS27	Report on the evaluation of the aggregation mechanism	WP5	5	16	WP5
MS28	Sounds Thesaurus and metadata cleaning and normalisation module complete	WP5	5	18	WP1, WP2, WP5
MS29	Crowdsourcing infrastructure	WP2	4	24	
MS30	Final assessment on aggregation toolset	WP5	5	34	
MS31	Website operational	WP6	6	4	
MS32	Social media communities in place	WP6	6	6	
MS33	Initial media pack assembled	WP6	6	7	
MS34	Communication plan in place	WP6	6	9	
MS35	Mid-project event	WP6	6	21	

# WT4: List of Milestones

Milestone number <sup>59</sup>	Milestone name	WP number <sup>53</sup>	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS36	Further dissemination materials and press kit distributed	WP6	6	19	
MS37	Communication plan update	WP6	6	25	
MS38	Further dissemination materials and press kit	WP6	6	31	
MS39	Final project event	WP6	6	36	
MS40	Project kick-off meeting	WP7	1	1	
MS41	Quality Assurance Plan issued	WP7	1	2	
MS42	Risk Plan issued	WP7	1	2	
MS43	Interim progress report	WP7	1	7	
MS44	Plenary consortium meeting	WP7	1	13	
MS45	Annual Report	WP7	1	14	
MS46	Advisory Board meeting	WP7	1	15	
MS47	First exploitation plan	WP7	1	20	
MS48	Interim progress report	WP7	1	19	
MS49	Advisory Board meeting	WP7	1	25	
MS50	Plenary consortium meeting	WP7	1	25	
MS51	Annual Report	WP7	1	26	
MS52	Interim progress report	WP7	1	31	
MS53	Final exploitation plan and governance	WP7	1	33	
MS54	Plenary consortium meeting	WP7	1	36	
MS55	Annual Report	WP7	1	36	



# WT5:

## Tentative schedule of Project Reviews

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

### Tentative schedule of Project Reviews

Review number <sup>65</sup>	Tentative timing	Planned venue of review	Comments, if any
RV 1	13	Hilversum, Netherlands	
RV 1	13	Hilversum, Netherlands	
RV 2	25	Brussels or Luxembourg	
RV 2	25	Brussels or Luxembourg	
RV 3	36	Brussels or Luxembourg	
RV 3	36	Brussels or Luxembourg	

## Project Effort by Beneficiary and Work Package

Project Number <sup>1</sup>	620591	Project Acronym <sup>2</sup>	Europeana Sounds
-----------------------------	--------	------------------------------	------------------

### Indicative efforts (man-months) per Beneficiary per Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	Total per Beneficiary
1 - BRITISH LIBRARY	48.00	8.00	3.00	0.00	0.00	6.50	50.00	115.50
2 - BEELD EN GELUID	13.00	53.00	1.50	21.00	0.00	3.50	4.00	96.00
3 - KENNISLAND	0.00	0.00	18.00	0.00	0.00	1.00	3.00	22.00
4 - EUROPEANA	7.00	28.00	8.00	34.00	8.00	8.00	4.00	97.00
5 - NTUA	18.00	25.00	0.00	14.00	35.00	1.00	2.00	95.00
6 - BNF	17.00	12.00	6.50	0.00	0.00	41.00	2.00	78.50
7 - AIT	2.00	52.00	0.00	17.00	4.00	1.00	1.50	77.50
8 - NET7	4.00	39.00	0.00	4.00	0.00	1.00	1.50	49.50
9 - HP	0.00	36.50	0.00	1.00	0.00	1.00	1.50	40.00
10 - CNRS	21.00	6.00	1.00	0.00	1.00	1.50	1.50	32.00
11 - DIZI	14.00	4.00	1.00	0.00	0.00	1.50	1.50	22.00
12 - DNB	12.00	4.00	7.00	0.00	0.00	1.50	2.00	26.50
13 - ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ Τ	12.00	4.00	1.00	0.00	0.00	1.50	1.50	20.00
14 - ICCU	18.00	4.00	1.00	0.00	0.00	5.50	1.50	30.00
15 - ITMA	12.00	4.00	1.00	0.00	0.00	1.50	1.50	20.00
16 - MPG	15.00	4.00	1.00	0.00	0.00	1.50	2.00	23.50
17 - NLL	14.00	4.00	1.50	0.00	0.00	1.50	1.50	22.50
18 - Österreichische Mediathek	12.00	4.00	1.00	0.00	0.00	1.50	1.50	20.00
19 - RBB	22.00	4.00	1.00	0.00	0.00	1.50	2.00	30.50
20 - SABHAL MOR OSTAIG	17.50	4.00	1.00	0.00	0.00	1.50	1.50	25.50
21 - STATSIBLIOTEKET	14.00	4.00	4.50	0.00	0.00	2.50	2.00	27.00

# WT6:

## Project Effort by Beneficiary and Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	Total per Beneficiary
22 - ONB	13.00	4.00	1.00	0.00	0.00	5.50	2.00	25.50
23 - FCSH-UNL	15.00	4.00	1.00	0.00	0.00	1.50	1.50	23.00
24 - Comhaltas Ceoltoiri	12.00	4.00	1.00	0.00	0.00	1.50	1.50	20.00
<b>Total</b>	<b>332.50</b>	<b>315.50</b>	<b>62.00</b>	<b>91.00</b>	<b>48.00</b>	<b>95.50</b>	<b>94.50</b>	<b>1,039.00</b>

## 1. Project number

The project number has been assigned by the Commission as the unique identifier for your project. It cannot be changed. The project number **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

## 2. Project acronym

Use the project acronym as given in the submitted proposal. It cannot be changed unless agreed so during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

## 53. Work Package number

Work package number: WP1, WP2, WP3, ..., WPn

## 55. Lead beneficiary number

Number of the beneficiary leading the work in this work package.

## 56. Person-months per work package

The total number of person-months allocated to each work package.

## 57. Start month

Relative start date for the work in the specific work packages, month 1 marking the start date of the project, and all other start dates being relative to this start date.

## 58. End month

Relative end date, month 1 marking the start date of the project, and all end dates being relative to this start date.

## 59. Milestone number

Milestone number: MS1, MS2, ..., MSn

## 60. Delivery date for Milestone

Month in which the milestone will be achieved. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

## 61. Deliverable number

Deliverable numbers in order of delivery dates: D1 – Dn

## 62. Nature

Please indicate the nature of the deliverable using one of the following codes

**R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

## 63. Dissemination level

Please indicate the dissemination level using one of the following codes:

- **PU** = Public
- **PP** = Restricted to other programme participants (including the Commission Services)
- **RE** = Restricted to a group specified by the consortium (including the Commission Services)
- **CO** = Confidential, only for members of the consortium (including the Commission Services)
- **Restreint UE** = Classified with the classification level "Restreint UE" according to Commission Decision 2001/844 and amendments
- **Confidentiel UE** = Classified with the mention of the classification level "Confidentiel UE" according to Commission Decision 2001/844 and amendments
- **Secret UE** = Classified with the mention of the classification level "Secret UE" according to Commission Decision 2001/844 and amendments

## 64. Delivery date for Deliverable

Month in which the deliverables will be available. Month 1 marking the start date of the project, and all delivery dates being relative to this start date

## 65. Review number

Review number: RV1, RV2, ..., RVn

**66. Tentative timing of reviews**

Month after which the review will take place. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

**67. Person-months per Deliverable**

The total number of person-month allocated to each deliverable.

## Table of Contents of Part B

---

<b>Project profile</b>	<b>2</b>
<b>B1. Project description and objectives</b>	<b>4</b>
B1.1. Project objectives	4
B1.2. Contribution to the European Digital Library Initiative	8
<b>B2. Impact</b>	<b>10</b>
B2.1a. Target outcomes and expected impact	10
B2.1b. Underlying content	16
B2.2. Long term viability	32
B2.3. Wider deployment and use	38
<b>B3. Implementation</b>	<b>44</b>
B3.1. Consortium and key personnel	44
B3.2a. Chosen approach	74
B3.2b. Work plan	89
B3.3. Project management	96
B3.4. Security, privacy, inclusiveness, interoperability, standards and open source	104
B3.5. Resources to be committed	107
B3.6. Dissemination/Use of Results	113
<b>Appendix 1: Europeana Sounds' wider network</b>	<b>117</b>

## Project profile

---

### Objectives

Europeana Sounds creates 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 have great value for 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 (equally true of the Web as a whole), it represents just 2% of Europeana overall. This project will bring together for the first time major European audio collections and specialist technologists to solve the problem. The project has six specific objectives which will result in delivery of the measurable outcomes listed below.

- **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.
- **Enrichment:** support discovery and use by improving metadata through innovative methods including semantic enrichment and crowdsourcing.
- **Access:** work with our content 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.
- **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.
- **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.
- **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.

### Activities and Outcomes

The Best Practice Network (BPN) programme of work is organised to deliver the project objectives.

- WP1 (Aggregation) will aggregate **more than 545,000 new sound items and 225,000 supporting items into Europeana**, using ontologies and metadata profiles dedicated to time-based media.
- WP2 (Enrichment and participation) will provide tools for metatagging and contextualisation using a combination of semantic web technologies and crowdsourcing. It will collaborate with Wikimedia chapters and explore mechanisms for linking between collections. The results will **add meaningful contextual knowledge to 2m items in Europeana's audio and related collections**.
- WP3 (Licensing guidelines) will identify approaches for access to out-of-commerce and domain-constrained audio. It will initiate dialogue with rights holders and deliver **recommendations for improving access and re-use to at least 1.5m additional audio tracks held by Consortium partners**.
- WP4 (Channels development) will develop and deploy a mechanism for user-configured channels for enhanced access to the Europeana collections with annotation/discovery tools, multilingual browse and search, plus APIs or 'connection kits' for **federating discovery and delivery over third-party platforms**.
- WP5 (Technical infrastructure) will extend the Europeana aggregation and access infrastructure to support the processing of time-based and multilingual metadata and provide **access to all the components being developed in WP2 and WP4**.
- WP6 (Dissemination and networking) will ensure dissemination of information about the projects, especially through professional and end-user virtual communities and 'sound (re)discovery' events. There

will be mid-project and end-project conferences for actors throughout the audio-media value chain with anticipated audiences of **200 potential participators in the Best Practice Network**.

- WP7 (Project management and sustainability) will co-ordinate the project activities and ensure cohesiveness between and timely delivery of the various strands. Business models for sustainability will be developed including potential of the **International Association of Sound and Audiovisual Archives to be the facilitator of long-term viability**.

### Consortium

The Consortium has 24 partners from 12 countries selected for their content, technical, delivery and impact expertise. The core group of six are all active contributors to initiatives such as Europeana Creative and EUScreenXL and includes the Europeana Foundation (EF) itself. This will ensure maximum synergy with other Europeana initiatives and all the work proposed is foreseen in the Europeana business plan. The British Library (BL), Netherlands Institute for Sound and Vision (NISV) and Bibliothèque nationale de France (BNF) are three core content-providers joined by a further 15 sources of high-quality material, including ten that have not previously submitted audio material to Europeana. They include partners from Italy, Portugal, Greece, Latvia and the UK, Member States prioritised by Europeana because of their disproportionate under-representation.

### Impact

#### Aggregation

The Europeana Sounds network has already received commitments to aggregate at least 530,000 rights-cleared audio and audio-related items from national libraries and archives, specialist sound archives, research institutes and non-profit foundations. This project will within three years more than double the amount of audio content aggregated in Europeana over the past seven years. Providers have also committed to develop solutions for IPR issues to increase that amount further and will work with users to improve the delivery of audio content. By forming a Best Practice Network including internationally renowned institutions we can give these issues the high visibility required. We anticipate working with new content providers who will become associated members of the network. These relationships will result in a total inventory of sound and sound-related content by the end of the project of at least 1.5m items and much more if rights are cleared for access to additional content. We shall also work with commercial organisations including Historypin and SoundCloud, to bring in their existing audiences and extend further the public reach of Europeana's rich sound collections.

#### Metadata

We need to address the current lack of specific metadata in two areas: description of characteristics of time-based media to allow, for example, searching *within* a recording, and multilingual capabilities. We must focus on enriching existing metadata as well as facilitating the generation of new metadata. The scale of the problem (potentially more than 1.5m items of metadata describing just the audio content) means that we need to exploit techniques for automation, based on semantic web technologies, a potential 'quick win' for the project. We will also instigate work with Wikimedia chapters and exploit the experience gained from participatory projects such as<sup>1</sup> the Google/HistoryPin collaboration for Pinning the Queen's History Pundit, Europeana 1914-1918 and the BL's award-winning Map Your Voices and UK Sound Map. User participation provides access to the vast knowledge that resides in each partner's community of interest and helps GLAMs<sup>2</sup> to redefine their role as custodians of knowledge transfer in the digital domain. This step-by-step approach will allow incremental improvement of the search, usability, visual design and accessibility of the Europeana portal and in particular lead to significant improvements in the existing search engine.

<sup>1</sup> <http://www.historypin.com/project/11462012-DiamondJubilee>; <http://thepund.it/>;  
<http://www.europeana1914-1918.eu>; <http://www.bl.uk/evolvingenglish/mapabout.html>;  
<http://sounds.bl.uk/Sound-Maps/UK-Soundmap>

<sup>2</sup> Galleries, Libraries, Archives, Museums



## B1. Project description and objectives

---

### B1.1. Project objectives

#### Introduction

Sound is fundamental to how we understand our world. It is the primary means of communication, it is a vital component of the performing arts, and is central to our sense of place and belonging. Sounds define us as belonging to a particular grouping of society, but equally they help us transcend national, racial or regional barriers by offering that which is common to all. Languages classify us; music and natural sounds unite us.

Sounds connect the past to the present. Recordings of our audio heritage through their immediacy make us keenly aware of where we have come from, and where we feel that we belong. The sounds of Europe bind us in a common heritage, be it the Indo-European family tree of languages, the shared experience of wildlife and environmental sounds, or the common heritage of music and dance that for many defines the European ideal. Sounds have immediate meaning for us; we cannot be indifferent about something that so profoundly shapes our lives.

#### Approach

Europeana Sounds will create a gateway for access to Europe's rich sound and music heritage, to the 500,000 items already in Europeana's content base as well as to the new material being offered by our content partners. Our approach is one of integration and consolidation of new content and metadata with the material already within Europeana. This will allow discovery of and access to a mass of audio and related material from across the entire European community, much of which has not yet been explored as potentially valuable content. In doing so, we bring into the network collection-holders who have never contributed to Europeana before.

We will **aggregate** a significant corpus of digital content in several thematic areas with significant appeal for the general public: Classical and Contemporary Music, Traditional and Folk Music, the Natural World, Oral Memory and Languages and Dialects. However, aggregation alone does not lead to discovery and use.

In order to make this content more readily accessible, therefore, we will **enrich**, looking at new ways of improving the metadata through which high-quality discovery mechanisms can be supported.

Finally, we will **collaborate** with content providers and rights-holders to address territorial rights and geographical locking (geo-locking) that prevent content being accessed across borders. This will be one of the lasting legacies of the project Consortium to Europe's Digital Library and to European culture.

## Quality and quantity

The Europeana Sounds project will be led by the British Library and a core team of organisations with extensive experience of working with Europeana. It brings together memory institutions from across Europe with highly significant and distinct collections of audio and audio-related content. For example:

Max Planck Gesellschaft (TLA) – examples of languages from around the world, including the Documentation of Endangered Languages corpora

l'Instituto Centrale per il Catalogo Unico (ICCU) – historic recordings of Enrico Caruso

The British Library (BL) – includes one of the world's leading collections of wildlife sounds

Deutsche Nationalbibliothek (DNB) – some of the world's earliest sound recordings made by Emile Berliner and Thomas Edison

National Library of Latvia (NLL) – Latvian folk music recordings from the 1930s and '40s

In terms of **scale**, the project will make a valuable contribution to the growth of audio material aggregated by Europeana. Sound recordings currently (2013) represent just 2% of the 28m items now accessible. Europeana Sounds will, by 2015, significantly increase the proportion of new audio content being aggregated, working for the first time with 10 content providers which have not previously contributed any audio to Europeana: NLL, ICCU, TLA, Centre de Recherche en Ethnomusicologie (via CNRS), Sabhal Mor Ostaig (TAD), Deutsche Nationalbibliothek (DNB), Music Library of Greece 'Lilian Voudouri' (FMS), Lithuanian Academy of Music and Theatre (via DIZI), Statsbiblioteket (SB), and Faculdade de Ciências Sociais e Humanas (FCSH).

In terms of **scope**, we will work with copyright holders and other content providers and publishers to seek ways to make more material, especially out-of-commerce content, accessible as demonstrated by the British Library *Sounds* website of 50,000 recordings which has been made possible by licensing arrangements.

In terms of **adding value** to existing material, partners such as Nederlands Instituut Voor Beeld en Geluid (NISV), and the Oesterreichische Nationalbibliothek (ONB) have collections of music scores and manuscripts as well as large sound collections, providing a rich body of inter-related audio-related material. For example, at least 190,000 music scores linked to recordings of performances will be added to the Europeana portal by this project. By connecting related media types, we will broaden our response to the public appeal of digital content and at the same time improve discoveries across heritage collections – bringing us closer to a common digital heritage for Europe.

In terms of **legacy**, the Best Practice Network (BPN) consists of the key stakeholders in the digital-content value chain. Within the scope of the project, a European section of IASA (International Association of Sound and Audiovisual Archives) will be set up. This will be managed in WP7 as part of the project's long-term sustainability planning. The project will result in a sustainable channel infrastructure for reaching specific communities of interest. This will improve the cost-effectiveness of future innovative projects and is aligned to the concept of Europeana as a Core Service Platform under the proposed Connecting Europe Facility (CEF).

### The channels concept

As a cross-domain 'aggregator of aggregators', Europeana serves millions of records ranging across all themes and subjects broadly within the scope of Europe's cultural and scientific heritage. This is both its strength and weakness. The broad nature of the content greatly increases the complexity of delivering an excellent user experience and also makes it difficult to focus on specific target groups. However, developing a large number of unique, themed and targeted micro-sites is clearly out of scope.

A core strategy for the European Foundation is therefore to balance the need for a coherent technical platform and the need to theme content and user experience for specific target groups. This project will adopt Europeana's channels concept of community-specific channels, defined by their audience, as a way of improving relevance and user experience. This will also help deliver the enrichment activities described above, using our user communities to provide expert knowledge about the digital objects in our collections. The aggregated material will be served through a number of thematic channels featuring the records aggregated by Europeana Sounds. The channels, based on the existing Europeana portal, will allow users to browse content via genres and type of content, browse music by creators/composers, play and share links in music and video and annotate music and sound related metadata and content.

### **The fifth domain aggregator**

Europeana is connected to national aggregators, thematic aggregators<sup>3</sup> and domain aggregators. The domain aggregators are crucial pillars to the Europeana infrastructure and regarded as integral parts of the Europeana ecosystem.

They bring together and represent all collections within a domain:

- APEX: archives
- EUScreen: television
- EFG: film
- TEL: libraries (including research libraries)

Europeana Sounds represents the fifth and final domain.



**Figure 1: the five domain aggregators**

<sup>3</sup> e.g. Europeana Fashion for Fashion; ECLAP for Theatre; Open Up! for natural history.

Our level of ambition is:

- Short-term (2014 - 2015): to have identified and negotiated access to material (listed in Table 0) for harvesting from members of the BPN;
- Medium term (2015 - 2016): To have enhanced and improved the ingestion process for audio and to have demonstrated the importance of the novel techniques underpinning our work on the enrichment of Europeana metadata;
- Long-term (2020): To have acted as a catalyst for the inclusion of material from additional collection-holders joining the existing base of 2,200 Europeana content providers, and to have created new user-oriented channels for users to access our cultural heritage.

The success criteria we set ourselves for the project (detailed indicators can be found in Section 3) are:

- The number of newly aggregated digital audio and related items submitted to Europeana (especially the number of items of significant historical, cultural and scientific interest to a broad audience) from a range of content providers in different Member States.
- Improved discoverability of all audio content in Europeana, both added and existing, by enrichment of metadata and the creation of links between new and existing audio and audio-related material.
- The contribution we can make to lower the legal (licensing, rights) constraints that prevent pan-European access to audio recordings.
- Improved usability and accessibility through user-configured and third-party delivery channels.
- Sustainability of the Europeana Sounds Best Practice Network as the fifth domain aggregator for Europeana.

We have six explicit objectives:

- 1 To provide a critical mass of digital audio tracks and supporting objects through Europeana to meet the needs of public audiences, the creative industries and academic researchers.
- 2 To support discovery and use by improving metadata through innovative methods including semantic enrichment and crowdsourcing.
- 3 To work with our content providers as well as publishers, the recorded music industry, rights holders, and libraries to improve access to out-of-commerce content and increase the opportunities for creative re-use of Europeana content.
- 4 To 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 can be extended to address other communities of interest and other media.

- 5 To 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 To work with the other work packages to 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.

## B1.2. Contribution to the European Digital Library Initiative

Europeana Sounds makes vital contributions to four Europeana strategic tracks as outlined by Europeana in its 2013 Business Plan:

Track	Europeana Sounds Contribution
Aggregate	<p>Access to 1,240,000 records related to much wanted audio and associated content, closing the content gap for multimedia content. Selection criteria will ensure this collection is well balanced.</p> <p>The aggregation infrastructure of Europeana will be enhanced to include large-scale, targeted crowdsourcing activities.</p> <p>All digital objects will have proper rights labels. A substantial number of objects will be made available under open licences.</p> <p>Create public-private partnerships with creative industries for aggregation and distribution of content, notably through leading platforms such as Historypin and SoundCloud.</p> <p>The project will make crucial enhancements of the Europeana Data Model to support time-based media.</p>
Facilitate	<p>The Europeana business model states <i>“Develop and submit one new project proposal targeting audiovisual and publishing partners to focus on collections in the out-of-commerce timespan.”</i> Europeana Sounds is that project.</p> <p>Develop advocacy positions to influence rights-related policies and regulatory initiatives that affect digitisation and online access to and digital re-use of cultural information and of out-of-commerce works.</p> <p>Contribute awareness-raising of the Europeana service through focussed dissemination activities that will have a broad appeal to the general public.</p> <p>Share knowledge with the wider Europeana network on key topics of interest, including: crowdsourcing for enrichment, IPR policy on out-of-commerce works. This will be done through publications (including the Europeana Pro website), organising events and active participation in conferences and trade fairs.</p> <p>Research and Development in three specific areas: linking scores to recording; audio feature extraction; and semantic enrichment. These technologies will be developed as open source technologies and will be made available to the wider GLAM community.</p>

Distribute	<p>A highly anticipated new feature will be added to the Europeana platform: Europeana channels. This will enable Europeana to target different user groups with appropriate content and features. This is expected to increase both user satisfaction and user reach and is regarded as a crucial feature for Europeana.</p> <p>The direct and indirect reach of partners' content through Europeana websites, and strategic non-Europeana platforms, through a number of partners, including:</p> <p>Historypin – the popular social platform connecting the past to the present  SoundCloud – a popular and high-profile music distribution service  Wikimedia – the media repository of Wikipedia, one of the top destination sites on the Web</p> <p>The Europeana API will be used in a targeted hackathon, aimed at the music industry specifically. This will result in a number of services that can grow to marketable products.</p> <p>Special emphasis will be on using open licences where possible, to stimulate distribution.</p> <p>A direct collaboration is foreseen with Europeana Creative, to demonstrate the ways in which Europeana can facilitate the creative re-use of cultural heritage metadata and content.</p>
Engage	<p>End-user engagement lies at the very heart of the project. Europeana Sounds will create the technology necessary to support crowdsourcing in the Europeana context. This will be built on existing technologies, and will differentiate between expert and general public tasks.</p> <p>Crowdsourcing will be used to enrich the metadata on Europeana.</p> <p>The social media impact of the Consortium is massive, with a combined 474,616 Twitter followers, 145,045 Facebook 'friends', and 54m annual online visits. It will ensure the successful execution of the envisioned crowdsourcing efforts.</p> <p>Special collaborations with the Wikimedia community are foreseen, with a special focus on adding contextual metadata on the collections aggregated by Europeana Sounds.</p>

## B2. Impact

---

### B2.1a. Target outcomes and expected impact

#### Introduction

There are three aspects of EU policy related to digital content and, specifically, digital cultural content. The first is recognition of the impact of access to cultural heritage on society (and the corresponding danger of exclusion from that heritage); the second is the impact of a digital society, particularly on the creative sector; and the third is the impact of exclusion from that society.

Neelie Kroes, Commission Vice-President for the Digital Agenda, referred to these when she launched the Commission Recommendation *“Encouraging digitisation of EU culture to help boost growth”*, 27 October 2011:<sup>4</sup> *“Europe has probably the world’s greatest cultural heritage. It cannot afford to miss the opportunities offered by digitisation and hence face cultural decline”*.

That Recommendation was the result of work by a ‘Comité des Sages’ whose report ‘The New Renaissance’ says: “Our goal is to ensure that Europe experiences a digital Renaissance instead of entering into a digital Dark Age”.<sup>5</sup>

Europeana, the former European Digital Library, was established to provide access to European digital cultural content and was set some challenging targets such as aggregation of 30m items by 2015.

The significance of an initiative such as Europeana Sounds is not just about redressing geographical imbalance or sectoral coverage of Europeana. It has an important pan-European role in stimulating and sustaining the cultural heritage sector. Traditional cultural sectors perform cultural, political and social functions and generate an important indirect economic impact throughout the Member States as well.

#### Anticipated impacts

The current Europeana Business Plan<sup>6</sup> identifies three specific problems that the Europeana Sound Best Practice Network has been set up to address.

---

<sup>4</sup> [http://ec.europa.eu/information\\_society/activities/digital\\_libraries/index\\_en.htm](http://ec.europa.eu/information_society/activities/digital_libraries/index_en.htm).

<sup>5</sup> [http://ec.europa.eu/information\\_society/activities/digital\\_libraries/doc/refgroup/final\\_report\\_cds.pdf](http://ec.europa.eu/information_society/activities/digital_libraries/doc/refgroup/final_report_cds.pdf).

<sup>6</sup> <http://pro.europeana.eu/documents/858566/9d4632d3-3f6d-4162-ba29-27a9a739946d>

*Problem 1: accessible audiovisual material is an under-represented area in Europeana.*

*As of 14 April 2013, Europeana holds less than half-a-million sound objects. 75% of these were aggregated by the DISMARC<sup>7</sup> project (2007-2008) and the follow-up EuropeanaConnect<sup>8</sup> (2009-2011). The ICT PSP Work Programme for 2013 anticipates that the successful project will “Increase quantity and quality of digital content available through Europeana (towards the 30M objects by 2015 target) from across Europe and associated countries.”*

There are two barriers to be overcome to achieve this goal.

Firstly, new content providers currently have to submit their metadata through the existing aggregation workflow which is labour-intensive and not designed to handle audio, either logically (in terms of metadata) or physically (in terms of transferring data onto Europeana’s servers). There is currently limited incentive to aggregate time-based media and we will undertake enhancements to the Europeana infrastructure to improve throughput and provide new tools to enhance quality.

Importantly, the Europeana Sounds content providers include ten smaller collection-holders who have not previously submitted audio material to Europeana. Their experience will be of significant value in evaluating the new service and ensuring it can be utilised by similar institutions in future.

The second barrier is the extent of constraints on gaining permission from rights-holders for pan-European digital distribution. Some material is domain-restricted (e.g. for use in one territory or for one category of use, possibly dating from before the introduction of digital media) while in other cases, the cost of making material available online may be prohibitive in comparison with potential revenues, creating the class of ‘out-of-commerce’ material. Our response is to work with content providers and other actors in the value chain to identify possible approaches and remedies, such as is happening with orphan works under the auspices of DG Internal Market.

#### Assumptions and risks

The primary concerns are:

- Whether key collection-holders who have already submitted material to Europeana see the business benefit of contributing further material. This has been partially mitigated during the pre-proposal period through dialogue with the Europeana Network and related projects.

---

<sup>7</sup> <http://www.dismarc.org>

<sup>8</sup> <http://www.europeanaconnect.eu>



- Whether the enhancements to the Europeana infrastructure to support the aggregation of time-based media can be completed on schedule and whether the harvester has the capacity to process the material being aggregated by this project in addition to other material. These are technical risks that cannot be resolved by the BPN in isolation and mitigation requires transfer of the risk to the Europeana operational team working in close conjunction with the project.
- We have identified non-compliance of catalogue records with European standards and failure to secure access and re-use rights as the key content-related risks. To address the former, we plan an extensive support programme for new content providers. The latter will be helped by clear guidelines and support from the European Commission. Europeana together with DG Internal Market are already working on getting stakeholders together to discuss a Memorandum of Understanding similar to that between publishers and libraries for out-of-commerce works.

We further assume, necessarily, that Action 79 on the Digital Agenda succeeds in establishing a sustainable funding model for Europeana and that there are no major legal or commercial threats on the horizon with the significance of last year's putative Copyright Arbitration Royalty Panel (CARP) report.<sup>9</sup>

*Problem 2: not all objects are fully described in Europeana.*

*Descriptive metadata is essential to discovery of content and also how, if at all, it is to be used. For example, less than two-thirds of Europeana content has a preview (e.g. thumbnail). The situation for time-based media is particularly challenging. The ICT PSP Work Programme for 2013 anticipates that the successful project will: "Improve the quality of Europeana metadata for increasing the performance of Europeana search engine".*

Again, there are two barriers to be overcome to achieve this goal.

The first barrier is one of scale: based on half a million items already accessible to the Europeana user, and another half a million to be generated during the project, plus associated non-audio objects. A high degree of automation will be required to augment and enhance existing metadata and we will, in particular, deploy semantic web technologies to extrapolate and interpret information about the underlying objects. However, real insight and wider benefits come from the human expert (professional or end-user) and we will also undertake focussed campaigns to gather crowdsourced metadata, encouraging each partner institution's community of users to provide expert knowledge about the digital objects in their collections. The strategy is to support crowdsourcing where the users are: on the institutional websites, and on the Historypin and Europeana websites

---

<sup>9</sup> [http://www.copyright.gov/carp/webcasting\\_rates.html](http://www.copyright.gov/carp/webcasting_rates.html)

The second barrier is one of quality brought about by the scale of the task. We will be deploying new ways of creating and using metadata for audiovisual material accessed through Europeana. The outcomes of semantic enrichment must be validated and so must the outputs from crowdsourcing before crowd and semantically-enriched data can be used to improve discovery of content via Europeana, on search engines and within providers own sites. This will be just one of the layers of evaluation and validation that must be undertaken. Another crucial impact factor is that user participation provides access to the vast knowledge that resides in each partner's community of interest and helps GLAMs to redefine their role as custodians of knowledge transfer in the digital domain.

### Assumptions and risks

The primary concerns are:

- Crowdsourcing requires a crowd – not just one or two enthusiasts – to generate and, more importantly, to validate the tagging and other annotation. This is mitigated by the following five actions:
  - setting up a distributed infrastructure that enables crowdsourcing to happen in online environments with an existing crowd;
  - linking to and working with existing communities, for instance volunteers of GLAMS, the Historypin community, the Wikipedia chapters (see the overview of social media outreach in B1.2);
  - stimulating interest by using the power and reach of Europeana and the Europeana Network to encourage user participation;
  - differentiating between expert and non-expert users in order to maximise impact of user contributions. Simple tasks (e.g. tagging emotions to music) can be executed by large groups of non-expert users, while identifying composers will require access to users with more domain knowledge);
  - design for success: making sure the micro-tasks to be carried out as part of the crowdsourcing activity are engaging (see Approach section).
- The tools for feature extraction and semantic enrichment are less mature than most of the technologies deployed within Europeana and the BPN needs to work with organisations with a new set of skills.
- We further assume that work on linking data progresses in parallel with the crowdsourcing and semantic enrichment work.

*Problem 3: improve the search, usability, visual design and accessibility of the portal.*

*Users' expectations of the performance and behaviour of online services and the tools for online communities are very high. There are many mature solutions available to people wanting audio (such as Last.fm and Spotify) and as identified by the ICT PSP Work Programme 2013: The future of [the cultural] industry is 'digital', and its positioning world-wide depends on whether it can embrace ICT and make the best use of it.*

Once again, we have identified two barriers. The first is that Europeana has to serve many audiences, not only geographically, thematically and socially but increasingly having to respond with a range of media.

Creating an end-user channel, whether for professionals or the lay user will enormously increase use of cultural heritage material held in Europeana. It allows a level of curation of the data and the delivery of tools and services that are of use to the audience using audio material. One of the ways Europeana Sounds might be able to enrich the user experience, for example, is to link an orchestral performance to a digitised score and possibly a video masterclass for student musicians. This segmentation will also be important in terms of engaging audiences in crowdsourcing activities

The second barrier is about the need for pan-European, even global, harmonisation of factors that affect the user experience such as limited multilingual search facilities and legal or regulatory differences which mean that content may be available in one territory but not in another. This is recognised by Europeana as a need for advocacy regarding “*policies and regulatory initiatives that affect digitisation and online access to and digital re-use of cultural information and of orphan and out-of-commerce works*”.

#### Assumptions and risks

The primary concerns are:

- Difficulties of reaching agreement on cross-border rights. This will be mitigated following the methods deployed and lessons learned that lead to the release of 20m metadata under CC0 in September 2012.
- The need to be able to provide for reuse and sampling of the data, in line with user expectations. There is thus a strong link with licensing and policy.
- We assume that the Europeana channel strategy is successful in establishing relationships with key business partners such as SoundCloud and that these are strong enough to provide Europeana with a sustainable ‘market share’ and a critical mass of users commensurate with its role as a core service platform.

- There is one other factor outside of the project's control which is the significance of Europeana's contribution to the Connecting Europe Facility and, in particular, the proposed funding of new digitisation projects which is expected to increase the need for Europeana as a core service platform.
- Clarification of this inter-dependency (by a Council and Parliament decision on the CEF proposal) is unlikely to happen until the end of 2013, roughly coinciding with the start of the Europeana Sounds project.

**Other considerations**

The material being aggregated by Europeana Sounds will be predominantly (c.75%) digital audio, with the balance being associated photographs, manuscripts, and videos. There are 12 countries providing material, from a mix of publicly and privately owned collections.

The selection policy will be developed at the beginning of the project in WP1 Task 1.1. This will be available publicly for transparency and will include technical considerations such as compliance with the EDM and pan-European access rights, as well as focusing on achieving a representative balance of material of general public interest and geographical/cultural diversity.

The aggregation process includes training and other support for content providers to ensure they meet quality criteria during selection and submission. Logs, data sampling and a new dashboard tool will be used to verify the quantity and quality of material harvested.

Europeana's technical and legal requirements will form part of the selection policy.

The Consortium includes memory institutions and existing national and thematic aggregators.

## **B2.1b. Underlying content**

### **i) Content**

Europeana Sounds will make a significant improvement in the quality and quantity of content accessible via Europeana, in the following ways:

#### Focus on audio aggregation

The content selection policy largely focuses on the medium of sound recordings in order to remedy a content gap. Two related aggregator projects for Europeana, namely EUscreenXL and the European Film Gateway, focus on television and film respectively, but there is currently no audio aggregator for Europeana. This absence is a serious obstacle to the strategy to increase the amount of audiovisual material in Europeana. This project will address that gap and will therefore complete the range of audiovisual media – sounds and moving images – identified in the Europeana business plan that require special emphasis. By the end of the project, Europeana Sounds will have more than doubled the amount of audio currently accessible via Europeana.

Some of the national library content providers have contributed content via The European Library (TEL), but have been unable to contribute audio to date, because of the special conditions for metadata profiling required and/or lack of resources. This project will enable those institutions to overcome those barriers. For example the British Library (BL) has contributed less than 1,000 audio tracks to Europeana, but as one of the content providers in this project will be able to add 76,000 tracks.

#### Aggregating related content

Texts, videos and images that are related to audio content will also be aggregated by some content providers. For example the Deutsche Nationalbibliothek (DNB) and Oesterreichische Nationalbibliothek (ONB) will provide images of manuscripts by classical composers that will be presented in the Europeana Sounds channel. Each manuscript image will appear alongside a selection of recorded performances from different providers, allowing comparison of performance styles and in different countries and tracking changes in interpretations and playing styles over time, while comparing with the original scores created by composers.

#### Complementing existing content in Europeana

Recordings of music performance will additionally be linked to existing visual content in Europeana, including song-sheets and scores; such contextualisation will enhance the appreciation and value of items that until, now have been presented as isolated objects.

#### Extensive network of content providers

The project brings together a range of institutions from across Europe that hold audio collections: national libraries, research institutes, broadcasters, music libraries and media centres. Together these will act as centre of expertise for other audiovisual repositories in Europe, stimulating future aggregation and as catalysts for aggregating additional content, through training activities under WP1, T1.5.

Among the content providers in this project are five of the ten 'Tier1' countries highlighted in the Europeana content development plan 2013 where the gap between target and actual content provision exceeds 50%: Greece, Italy, Latvia, Portugal and the UK.<sup>10</sup>

As well as the items coming in from Consortium members, over the course of the project Europeana as a partner will bring in additional audio content from around 15% (40) of existing providers. This should generate at least 200,000 further items, according to the research undertaken for the Europeana V2 deliverable, "D2.1, Europeana Partner Development Strategy", in 2012. It will use the experience and knowledge and new systems generated by the Consortium partners to make sure that this data can integrate into the Europeana Sounds channel.

Europeana and TEL between them already provide a base of audio-related content of 499,000 items now and further 223,000 audio related items will be added during the project. This will be updated by Europeana's ingestion and scientific coordination teams during the project to enrich the data and to comply with the requirements of Europeana Sounds as an audience channel.

*Taken together, all content providers including Europeana will increase the amount of audio on Europeana from 0.5M to 1.23M items and will put in place measures that ensure continued growth as the BPN expands.*

In addition to the content that will definitely be added during the project, several content providers have significant collections of digital content that are online with access currently restricted, but may become accessible through Europeana if access conditions can be altered. These include collections that are online but only on-site to listeners within the premises of their institutions (DNB, BL), online to national users only (SB, DIZI), or behind password protected services (SB, BL and others). As part of the work being undertaken in WP3 we expect to be able to make available some of the collections identified in Table (c) below. An example is the music collections of SB which could deliver around 250,000 additional tracks of contemporary music to Europeana Sounds via the website BibZoom<sup>11</sup> as 30-second snippets free to play for everyone. Together these additional restricted collections amount to over 1.5m items. We expect much more 'hidden' content of this kind will be revealed in the project.

---

<sup>10</sup> Europeana Version 2, D3.8: *Collections and Metadata Analysis, Strategy and Plan 2013.*

<sup>11</sup> <http://www.bibzoom.dk>

**Table (c): Examples of 'locked' content from content providers**

Partner	Quantity of audio & associated content	Subject	Constraints
DNB	6,500 digitised photographs; 400,000 digitised text documents; 2,250 digital audio files	Archive of German Democratic Republic's Association of Composers and Musicologists 1949-1990	Out-of-commerce
DNB	450,000 digital audio files	All music published in Germany since 2010	In commerce
SB	500,000 digital audio files	Classical Music, Traditional Music, Uncategorised (other music)	In commerce/ out-of-commerce
SB	1m hours	Radio broadcasts	Geo-locked: Danish listeners only
CCE	13,285 digital audio files	Traditional music	Geo-locked: audible watermarks in certain countries
CCE	300 digital audio files	Oral memory	Geo-locked: audible watermarks in certain countries
BL	2,700 digitised audio files	Classical music 78 rpm recordings	Geo-locked: EU access only
BL	10,000 digital audio files	Traditional music	Password protected: UK university access only
BL	40,000 digital audio files	Classical and traditional music, spoken word, oral memory	Out-of-commerce and orphan works
DIZI	10,000 audio files	Lithuanian traditional music	Geo-locked to Lithuania
NISV	14,000 digital audio files	Classical and traditional music	Out-of-commerce
TLA	3,900 digital audio files	Language files	Password protection for academic access only

### Quality of recordings

70% of the sound recordings available via Europeana are previews of longer recordings. Most of the recordings added by Europeana Sounds will be full-length recordings, including individual tracks lasting over one hour. While it is difficult to estimate the duration of existing and new content, this project is expected to more than *quadruple* the number of *hours* of audio available.

All recordings will be available as high quality MP3 files or as fully uncompressed 'mastering quality' WAV files.

### Broad appeal

Sound reaches out powerfully to European audiences. 40% of the population of the EU are regular radio listeners; in the UK the figure is 90%. Over 391m music tracks were sold in Europe in 2012, and over 75m tracks were played on European radio in the same year. Moreover this demand for sound is increasingly online: 49% of global online music consumers access their music this way several times a week, while 28% access digital music in this way on a daily basis.<sup>12</sup>

Europe also values sound as cultural and commercial heritage: there are an estimated 9.4m hours of audio held in Europe (equivalent to over 1,000 years of non-stop listening).<sup>13</sup>

The level of interest in sound recordings on Europeana specifically is indicated by audience research showing that time-based media such as audio and moving images receive ten times as many hits on the site compared to images and texts. Sounds have a powerful way of bringing past events back to life, as well as providing entertainment and educational value for a broad range of audiences and enquirers.

The sounds selected for this project embrace a range of popular subjects: (a) classical music and contemporary performances with timeless and universal appeal; (b) traditional and folk music and storytelling; (c) sound effects, environmental sounds and noises of the natural world; (d) languages, accents and dialects and oral recollections, all with particular resonance in different regions. Together these reflect the diverse cultures, histories, languages and creativity of the peoples of Europe over the past 130 years.

Examples of some of the sound recordings in different subjects are summarised below.

---

<sup>12</sup> Manuel Fernández Sande and J. Ignacio Galleco Pérez, 'Euranet: a Case Study of Pan-European Radio' (2012); <http://www.rajar.co.uk>; Midem/Nielsen, 'Digital music consumption and digital music access' (2011).

<sup>13</sup> 'Tracking the reel world - A survey of audiovisual collections in Europe', 2008 TAPE survey, [http://www.tape-online.net/docs/tracking\\_the\\_reel\\_world.pdf](http://www.tape-online.net/docs/tracking_the_reel_world.pdf)



### Classical music

The range of classical music includes in-depth examples from the major European composers and performers. The Ruben cylinder collection, comprising Denmark's oldest sound recordings, consists of 160 phonograph cylinders, among the oldest in the world, recorded in Copenhagen between 1889 and 1897 and represent unique recordings from the period with great Danish actors and singers of the day such as Peter Schram (with possibly the very first recording from Mozart's *Don Juan*), Louise Phister, Frederik Jensen and Niels Juel Simonsen. The significance and pan-European appeal of some of Europe's primary composers and performers is highlighted with, for example, early recordings of Giuseppe Verdi's operas, notably from 1952 of Maria Callas in *La Traviata* (from the NISV collection) and of the ever popular Enrico Caruso (from ICCU).

### Traditional music and oral testimony

The content selection for Europeana Sounds includes a particularly rich collection of folk and traditional music that not only documents the richness and diversity of Europe's cultural heritage but also provides a view of European exploration, scientific, business and scholarly endeavours over the past 130 years. Thus, the earliest recordings and related material from the Outer Hebrides (dating from 1937 and provided by TAD) will be presented alongside contemporary recordings of Acritic songs from Thrace in Greece that point back to the Byzantine Empire of the 9th century (provided by FMS). The BL will provide recordings from the earliest British scientific expedition to the Torres Strait in 1898 that at once established the scholarly discipline of anthropology in the United Kingdom and documented sacred and secular songs from the islands that have long since ceased to be performed.

The Comhaltas Traditional Music Archive (CCE) contains some of the most iconic recordings of Irish traditional music, such as the McDonagh Brothers of Ballinafad collection and early recordings of piping legend Willie Clancy. Unique to the Comhaltas collection, these recordings also follow the evolution of traditional tunes to the present day, showing the contemporary practice of Irish performers in detailed videos that have attracted millions of online viewers. The NLL's contribution will include recordings and documents relating to the Bellaccord Electro company that operated from 1930 to approximately 1944, informing not only of Latvian folk music tradition but also of important record business activity. Within this package, the Latvian song, 'Kara laiku brūte' (War-time bride), is a characteristic soldier's song of the first half of the 20th century, reminding of Latvia's involvement in both World Wars. The recordings thus also highlight Europe's past by conjuring up memories of major, pan-European events.

### Popular and contemporary music

We define popular music as a generic term for music of all ages that appeals to popular tastes, a genre going back to the early 1900s. DNB will offer access to recordings of the 1920s, with Marlene Dietrich and Margo Lion as most famous cabaret singers of the period. The FMS collection will include the Greek 'rebetiko' urban folk music performers of the 1930's and 1940's, Markos Vamvakaris and Yiorgos Batis. RBB will contribute many recordings of contemporary music including jazz, rock/pop, and electronic music from many artists. NISV will contribute recordings of revue artists Louis Davids and Willy Derby, and, in collaboration with the Internet Archive, a collection of live pop and rock music recordings. LMIC, ITMA, RBB, SB are amongst the others that will provide popular music to Europeana Sounds.

### Natural sounds

Sound effects and sounds of the natural world include a wide variety of popular birdsongs and other natural history recordings; location ambience and actuality (rainstorms; contemporary street sounds in towns and cities), and sounds of weather and wild places.

The BL's unrivalled natural sounds collection includes recordings of great scientific, cultural and historic interest. Made for the most part in nature reserves and wild locations, the recordings often have special significance in documenting ancient habitats that are gradually vanishing. Some of the species featured have already become extinct - the red-backed shrike from Norfolk, for example, and the Worcestershire marsh warbler.

### Languages and oral testimony

Accents and dialect and languages from the UK, Ireland and most parts of the English-speaking world and of non-native speakers speaking English (BL), and samples of world languages (TLA), including the Documentation of Endangered Languages corpora, with many retellings of old legends, descriptions of rituals or traditional music, all of it in languages that are endangered and spoken by few people alive today. Many language collections contain also ritual music, oral history, and recordings of special cultural events.

Oral memories of national events, interviews with people from all walks of life about daily life from time gone by, or historic speeches by national figures, e.g. a 1912 Paris recording of Alfred Dreyfus speaking (BNF); the Jubilee disc released for the event of the silver throne jubilee of the German emperor Wilhelm II in 1913 (DNB); Margaret Thatcher discussing the moral dimension of politics in 1969 in London, or the pioneering oral history collections of George Ewart Evans (BL); and thousands of records covering daily news, culture and politics, an essential source for the political, social and cultural development, public opinion and lifestyle of 1960s life in Denmark (SB).

**Table 0: Underlying content**

Quantity and quality of the Content							
Provider	Quantity & type	Subject matter	Format	IPR (content)	Current use	Existing metadata	Language
BL	79,000 audio files	Classical Music, Traditional Music, Language/Dialect, Oral Memory, Natural Sounds, including "Endangered Archives" collections	MP3	Rights cleared for free online access; 10% for download and re-use	50,000 files online, remainder to be added in 2014-2015. General public worldwide: 1,200,000 page views/year; UK academic users: 270 UK universities and colleges	MARC21-lite (XML exportable)	English
BL	36,000 images	Classical music manuscripts	JPG	Rights cleared for free online access	Widely used accessible online to scholars and general public at Early Music Online. 5,000 monthly visits from	50% in AACR2 MARC21 format; 50% ISAD(G)	English
NISV	6,170 audio files	Classical music, nature sounds, oral memory	WAV, MP3	Rights cleared for free online access		100% in proprietary format, mappable to Dublin core	Dutch
NISV	50 video files	Oral memory/newsreels	MPEG	Rights cleared for free online access	None, will be made available for the first time through Europeana Sounds.	100% in proprietary format, mappable to Dublin core	Dutch

Quantity and quality of the Content							
Provider	Quantity & type	Subject matter	Format	IPR (content)	Current use	Existing metadata	Language
NISV	10,000 images	Music-related stills	JPG	Rights cleared for free online access and download	Partly available through the Sound and Vision wiki. One million page impressions every year.	100% in proprietary format, mappable to Dublin core	Dutch
NISV	80,000 audio files	Popular live music recordings from the Internet Archive's Live Music library via the Dutch national aggregator operated by NISV.	Lossless download	Rights cleared for free online access and download	Available through Archive.org. Several million page impressions annually. Registration is not required.	100% in proprietary format, mappable to Dublin core	English
NISV	4,000 text files	Digitised music scores from Musopen.org via the Dutch national aggregator operated by NISV.	PDF	Rights cleared for free online access	Available through Musopen.org	100% in proprietary format, mappable to Dublin core	English
BNF	10,000 audio files	Classical Music, Traditional Music, Language/Dialect	MP3	Rights cleared for free online access	Some available via Gallica	100% Dublin Core	French
BNF	10,000 image files of disc labels	Classical Music, Traditional Music, Language/Dialect	JPG	Rights cleared for free online access	Some available via Gallica	100% Dublin Core	French
TAD	38,000 audio files	Traditional Music, Language/Dialect, Stories, Oral Memory	MP3	Rights cleared for free online access	General public worldwide: approx 84,000 views/year	100% in proprietary format, mappable to Dublin core	English, Scots, Gaelic

Quantity and quality of the Content							
Provider	Quantity & type	Subject matter	Format	IPR (content)	Current use	Existing metadata	Language
ITMA	1,200 audio files	Audio recordings of Irish traditional musicians & singers, 1890s–2010s	MP3	Rights cleared for free online access	Users: General public, national & international. ITMA current online annual footprint is 240,000.	100% Dublin Core	English & Irish
ITMA	1,200 texts	Printed items of Irish traditional music, song & dance: books, booklets, sheet music, ballad sheets, etc., 1800s–2010s	PDF	Rights cleared for free online access	Users: General public, national & international. Current online use as above.	100% Dublin Core	English & Irish
ITMA	1,200 video files	Video recordings of Irish traditional musicians, singers & dancers, 1960s–2010s	MP4	Rights cleared for free online access	Users: General public, national & international. Current online use as above.	100% Dublin Core	English & Irish
ITMA	1,200 image files	Drawings, photographs, paintings etc. of Irish traditional musicians, singers, dancers, 1500s–2010s	JPG	Rights cleared for free online access	Users: General public, national & international. Current online use as above.	100% Dublin Core	English & Irish
DNB	500 audio files	Classical Music, Traditional Music, Language/Dialect from phonograph cylinders or shellacs	WAV	Rights cleared for free online access	currently none, being in preparation for online access at 2014 mid-year	MARC21	German

Quantity and quality of the Content							
Provider	Quantity & type	Subject matter	Format	IPR (content)	Current use	Existing metadata	Language
NLL	2,000 audio files	Classical Music, Traditional Music, popular, dance and film-music of the first half of the 20 <sup>th</sup> century	MP3	Rights cleared for free online access	None (planning to launch the collection at the end of October 2013)	100% Dublin Core	Latvian
NLL	2,000 image files	Classical Music, Traditional Music, popular, dance and film-music of the first half of the 20 <sup>th</sup> century	JPG	Rights cleared for free online access	None (planning to launch the collection at the end of October 2013)	100% Dublin Core	Latvian
TLA	13,563 audio files	Traditional Music; Language/Dialect, Oral Memory	WAV	Rights cleared for free online access		XML-based IMDI format (moving to CMDI)	English (some Spanish, Portuguese, Russian)
DIZI	10,000 audio files	Traditional Music	MP3	Rights cleared for free online access		CC0 licence. Metadata format: in house, possible to map to DC or ECE	Lithuanian
FMS	2,500 audio files	Classical Music, Traditional Music	WMA, WAV	Rights cleared for free online access 84% (16% free on line access only for the metadata)	25,000 users for the 16% of the content; 250 limited subscribed users for the 16% of the content	CC0 licence: proprietary 84%, 16% Mods schema	Greek (some English)

Quantity and quality of the Content							
Provider	Quantity & type	Subject matter	Format	IPR (content)	Current use	Existing metadata	Language
FMS	3,300 digitised photos	Traditional Music	JPG	Rights cleared for free online access	250 limited subscribed users	CC0 licence: proprietary 100%	Greek (some English)
FMS	500 video files	Traditional Music	WMV, MPEG	Rights cleared for free online access	250 limited subscribed users	CC0 licence: proprietary 100%	Greek (some English)
FMS	2,830 sheet music files	Traditional Music	RTF	Rights cleared for free online access	250 limited subscribed users	CC0 licence: proprietary 100%	Greek (some English)
CNRS	37,600 audio files	Traditional Music, Language/Dialect, Natural Sounds, Oral Memory	MP3	Rights cleared for free online access (35%)	250 subscribed users; General public worldwide: approx 34,000 users/year	Dublin Core	French
SB	11,900 audio files	Classical Music, Traditional Music, Uncategorised (other music)	WAV, MP3	Rights cleared for free online access for parts of the collection	None	Dublin Core	Danish
OeM	12,000 audio files	Classical Music, Traditional Music, Oral Memory including radio news	MP3	Rights cleared for free online access		Dublin Core	German
ICCU	80,000	Classical Music, Oral Memory, Uncategorised		Rights cleared for free online access		100% MAG metadata (Italian library standard)	Italian

Quantity and quality of the Content							
Provider	Quantity & type	Subject matter	Format	IPR (content)	Current use	Existing metadata	Language
RBB	105,000	Music: 30 % Classical; 30% World and traditional; 20% Jazz; 20% alternative Rock / Pop (30-second clips)	MP3	Rights cleared for free online access		ESE or EDM	English
ONB	150,000 image files	Music manuscripts from composers from 17-19th century (Mozart, Salieri, Haydn, Schubert, imperial court music chapel etc.)	JPG	Rights cleared for free online access		MAB2 (or DC or simple MARCXML)	German
FCSH	39,000 Audio files	Classical music, traditional music, language and dialects, oral memory, uncategorised sounds	MP3	Rights cleared for free online access		UNIMARC (XML exportable)	Portuguese
FCSH	2,700 Texts	Classical music, traditional music	PDF	Rights cleared for free online access		UNIMARC (XML exportable)	Portuguese
CCE	15,800 audio and video files	Irish Traditional music	MP3 audio and H.264 video	Rights cleared for free online access		Dublin Core based	English/Irish



## ii) IPR issues

The proliferation of digital technologies and widespread availability of digital objects and resources has greatly raised public expectations of access to such content, and a consequent frustration when access is constrained by IPR concerns. To have value in a digital age, IPR management must aim to find a satisfactory balance between protecting the legitimate interests of rights owners and the opportunities for greater public engagement with its cultural heritage that the digital environment provides.

### Legal framework for access to audio

A consensual legal framework for access to audio content is the theme of Work Package 3, led by Kennisland. Making audio heritage material available online presents numerous challenges related to copyright law. Sound recordings have several types of copyrights, each with their own complexities. This may include the rights owned by performers, interviewees, recordists, composers, writers, producers, publishers and broadcasters, and can comprise copyright in a performance and/or in the recording itself and moral rights (particularly important for oral history materials).

Such rights can vary across different European countries, while the rights that have been cleared for their re-use to date may not cover access via the Internet, requiring their re-negotiation. In many cases, rights owners cannot be identified or traced (orphan works), rights may have been assigned to a particular territory only (geo-locked), while there is a further tier of content which is technically in copyright but is deemed out-of-commerce.

**Table (d): Access rights to Europeana Sounds material** <sup>14</sup>

Material	Principles	Constraints
Metadata	All metadata that is published by Europeana must be made available under the terms of the CC0 Public Domain dedication that allows reuse by anyone for any purpose	Some providers are reluctant to provide rich metadata under these terms (out of scope of this proposal)
Content	Each digital object that is available via Europeana must carry its own rights statement that expresses how it can be accessed and (if applicable) how it can be reused	The actual rights clearing that allows offering the content online needs to be done by the data providers
Previews	Previews (short clips) are treated as an instance of the Digital Objects that they belong to.	See above

### Managing IPR issues: metadata and content

Europeana Sounds will take the pragmatic approach where IPR is concerned and aggregation will focus on sound recordings which have already been cleared for online access across European territories.

<sup>14</sup> Paul Keller, 'Discussion Paper: Extending the Europeana Licensing Framework' (2013).

### **IPR of metadata and previews**

All beneficiaries submitting metadata to Europeana shall do so pursuant to the Europeana Data Exchange Agreement<sup>15</sup> (hereinafter 'DEA'). Metadata submitted to Europeana shall be released as Open Data in accordance with the terms of the DEA. This requires that the IPR status of the digital objects thus made accessible is described by appropriate rights labels attached to them to allow users to know what uses they are allowed to make of the object. Such objects shall be labelled in accordance with the 'Europeana Rights Guidelines' available at <http://pro.europeana.eu/web/guest/technical-requirements>.

Guidelines for content providers will be delivered under WP 1 (Aggregation), following standards established by Europeana.

Where rights clearances are required, the previous examples of EUscreen and individual project members' own experience (e.g. the British Library's Sounds<sup>16</sup> website,) demonstrate that clearing rights for substantial numbers of in-copyright audiovisual content is possible, without running to excessive expense. Content providers have been invited to include an element of rights clearance in their project work, i.e. time spent in rights clearance, but not payments to rights owners, which the project does not cover.

The approach is two-fold – to ensure that the greatest number of audio and audio-related objects can be made available through Europeana by ensuring that IPR measures are fully understood and properly implemented by all project partners (WP1); and by the use of case studies to provide guidelines for opening up audio collections whose IPR status is currently unclear or contentious (WP3). The latter will focus on making domain constrained and out of commerce works available across Europe (and the entire internet) by exploring effective cross-border copyright rights clearance mechanisms.

### **IPR of content**

While most rights-holders are reluctant when it comes to the downloading or re-use of audio content, a considerable amount of content held by Providers participating in the project is available in the Public Domain and thus available for reuse. Partners including the BL and NISV are able to guarantee a minimum of 90,000 items from their collections to be made available as Freely Reusable Content (available under a rights statement that allows anyone to reuse them for any purpose). These will play an important role in the hackathon aimed at promoting reuse by the creative industries.

In most other cases, rights-holders are expected to permit users to personalise content by creating playlists and adding comments (based on the experience and research undertaken by EUscreen). This will in turn influence the enrichment and participations tools to be developed under WP2. Guidelines will be established under WP1 which will ensure that such tools respect the specific access rights that the content providers give, and in effect therefore determine the type of user interactions that can be supported.

---

<sup>15</sup> <http://pro.europeana.eu/web/guest/data-exchange-agreement>

<sup>16</sup> <http://sounds.bl.uk>

### Licensing

WP3 is dedicated to identifying and reducing barriers to access to Europe's audiovisual collections by working with rights owners and publishers. Working via case studies and best practice models, it will establish the preconditions for offering online access to out-of-commerce works, focussing on sound recordings and related documents (e.g. music scores) held by the project's content partners; work with rights holders and their representatives on models for extraction, access and re-use; and engage with recording industry stakeholders to deliver policy guidelines to Europeana, which will be beneficial in building a single market for content in Europe. The Consortium has received Letters of Intent from both GESAC (Authors collecting Societies) and ICMP (Music Publishers) expressing their intention to contribute to the Licensing related work (WP3) of the Europeana Sounds project. The involvement of these partners significantly increases our ability to arrive at a solution for cross border copyright clearance.

WP3 lead Kennisland has worked extensively with Europeana and content providers in the Europeana ecosystem to create the Europeana Licensing Framework and develop Europeana's open data strategy. Case studies will be produced examining the rights issues addressed by content providers involved in the aggregation in WP1.

### **iii) Multilingual and multicultural aspects**

The Europeana Sounds BPN is multilingual and multicultural by definition. It aims to harvest and provide enriched access to a common European heritage of audio content from a core of 18 sound collections from 12 Member States. To facilitate multicultural and multilingual use of the underlying content, the general strategy will be to augment existing infrastructure and features, by utilising generic existing Europeana features and adding specialised capabilities for the music and audio domain.

#### Multiple language content

The table below gives the languages of the Europeana Sounds content providers, noting language content for metadata and relevant content (speech, vocal music or text-based).

**Table (e): Multilanguage content**

Institution	Audio language	Audio metadata	Content type
Statsbiblioteket	Danish	Danish	Music
Stichting Nederlands Instituut Voor Beeld en Geluid	Dutch (inc. Flemish)	Dutch (inc. Flemish)	Music, speech, music scores
British Library	English (& many African and Asian languages in the world music collections)	English	Music, speech, music scores
Rundfunk Berlin-Brandenburg	English	English	Music
Bibliothèque Nationale de France	French	French	Music, speech

Institution	Audio language	Audio metadata	Content type
Centre de Recherche en Ethnomusicologie	French	French	Music, speech
Irish Traditional Music Archive	Gaelic (Irish)	Gaelic (Irish)	Music, speech
Tobar an Dualchis	Gaelic (Scots) / English	Gaelic (Scots) / English	Music, speech
Deutsche Nationalbibliothek	German	German	Music, speech
Oesterreichische Nationalbibliothek	German	German	Music scores
Ostereichische Mediathek	German	German	Music, speech
ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ ΤΗΣ ΜΟΥΣΙΚΗΣ	Greek	Greek	Music
Instituto Centrale per il Catalogo Unico	Italian	Italian	Music, speech
National Library of Latvia	Latvian	Latvian	Music
DIZI/Lithuanian Academy of Music and Theatre	Lithuanian	Lithuanian	Music
Faculdade de Ciências Sociais e Humanas da Universidade Nova de Lisboa	Portuguese	Portuguese	Music, speech
Max Planck Gesellschaft	Multiple languages	Danish	Music, speech

### Multilingual access and interface

The multilingual interface will be based on the Europeana portal. The Europeana portal accommodates around 30 languages and uses commercial translation APIs (Microsoft Translator, with Google Translate planned for the future) which permit users to translate search results. The ability for query translation is also planned to be developed during the lifetime of the project, as part of the Europeana V3 project proposed for the 2013 ICT PSP call. Europeana Sounds will take advantage of this feature.

### Use of multilingual controlled vocabularies and open thesauri

We will be using vocabularies available as Linked Open Data in SKOS (Simple Knowledge Organization System) format to enable our metadata to be connected and enriched. Europeana uses the structured information source DBpedia<sup>17</sup> to enrich content semantically.

<sup>17</sup> [http://dbpedia.org/page/Sheet\\_music](http://dbpedia.org/page/Sheet_music)

Matched terms typically have labels in about 10-20 languages which can be stored in Europeana and indexed for search in the portal, and by search engines via the sitemap and semantic markup, Schema.org, a collection of schemas (HTML tags) that can be used to mark-up pages in ways recognised by major search providers. One element of the channel development in WP4 will be to utilise the special classes that Schema.org has for marking up music content.

Multilingual labels resulting from vocabulary-based enrichments will be indexed for search and will be presented to end-users of the Europeana portal in a language-contextual manner (so that, for example, if the user has the portal UI set to Italian then Italian descriptors are displayed).

We will build upon and adapt the DISMARC music genre classification, to create a multilingual ontology for music content as part of a common ontology development for audio. This will be used by Europeana to ingest contextual resources and multilingual music labels and make them available for search.

#### Entity extraction

Entity extraction is the process of automatically extracting document metadata (e.g. person names, places, events) from unstructured text documents. As one of its features, the Europeana platform automatically performs entity extraction based on particular EDM fields, though not yet on the free text option (this may be achieved by Europeana within the lifetime of this project). Europeana Sounds will make use of this feature as it becomes available.

#### Language-independent searching

Under WP2 (Enrichment) we will examine the possibilities of music information retrieval to support innovative, language independent exploration of audio collections through a Music Information Retrieval Pilot.

## **B2.2. Long term viability**

The achievements of Europeana Sounds will strengthen Europeana's ability to provide access to audio and related objects and allow diverse user groups (including the creative industries) to exploit an efficient model for the collation of sound content on a European level that brings real benefits to stakeholders. The project will leave a legacy that is self-sustaining for as long as memory institutions exist to utilise the results. In marketing terms, it is a solid value proposition.

### **B2.2.1 The connection between viability, sustainability and scalability**

To remain viable after the funding period, the results from the Europeana Sounds project need to be self-sustaining. That is, there needs to be a business case to continue making those results available. The business case for a non-profit organisation like the EF is that the operational costs can be justified in terms of the benefits accruing to the stakeholders. We list potential benefits below. The transition from project-funding to self-funding requires that there will be a viable critical mass of beneficiaries; that is, the services must be scalable. Because these requirements for sustainability and scalability are dependent on the nature of the product or service being considered, we differentiate between the viability of the Europeana Sounds BPN (B2.2.2, below), and the viability of Europeana Sounds as part of the integral Europeana Service (B2.2.3). The latter depends on on-going EU policy decisions.

The value proposition of Europeana Sounds can be found in six types of activity:

#### Actions that improve the environment in which Europeana operates

These include the work on understanding licensing constraints, developing models and recommendations for best practices across Europe to enable more liberal access to audio content and, by implication, other media-types. The creation of policies and initiatives for improving access and re-use of out-of-commerce and orphaned digital cultural assets will contribute towards a unified common digital EU market in which Europeana will play a key role. Support for that unified market will be enhanced by the engagement, through Europeana Sounds, of stakeholders who have no previous exposure to Europeana and have been brought into partnership with the network as, for example, content-owners or rights-holders.

#### Actions that provide greater operational efficiency

These are mostly technological, such as the open-source tools for semantic enrichment and the EDM profile implemented to support aggregation of sound. Metadata enrichments achieved during the project can be re-ingested back into host institution databases and can thus inform cataloguing practices and contribute to the development of standards for a common European approach.

#### Actions that contribute to the quality of Europeana services

These include improvements made to the aggregation functions that are used during pre-ingest and ingest and are essential to assist in building the corpus of audio and related material.

Another area where quality can be enhanced is in development of thematic channels to complement the current search interface. This will not only improve the user experience but the channels to be launched in this project will act as models from which other Europeana projects will be able to learn.

#### Actions that result in new and improved audio aggregation services

Harvesting of metadata remains a central function within Europeana which will not stop when the Europeana Sounds project ends. The project will augment the existing Europeana aggregation infrastructure and workflow, rather than develop a stand-alone 'dark aggregator'. The proposed enhancements to the Europeana infrastructure are designed to make aggregation more efficient and more cost-effective.

#### Actions that expand the community of strong content providers

These are typically themselves permanent institutions (such as national libraries and archives) and/or new contributors to Europeana (such as CNRS). The project will provide them with best practices, tools and infrastructures to continue to provide content to Europeana beyond the project funding for Europeana Sounds. Improved access to and discovery of the digital collections will increase the awareness of the importance of digital curation and therefore the need for sustained investments in a robust infrastructure for service delivery. This will be helpful for the content providing institutions in their quest for national/local/regional financial support.

#### Actions that provide means for engagement with users for crowdsourcing and contextualisation

Europeana Sounds has value for parties not directly involved in the proposal. It will improve the visibility of Europe's sound heritage and the richness of the collections for specialists and general public alike. This will lead to improved awareness of the importance of our heritage as unique evidence of Europe's past and present identity. It will create new opportunities in new markets where the creative industries can develop new services with this rich content.

### **B2.2.2 Viability of the Best Practice Network**

The BPN will consist of many of the key stakeholders in the digital-content value chain and most Europeana Sounds partners are members of IASA (International Association of Sound and Audiovisual Archives). IASA is focussed particularly on sound, is supported financially by its membership and has existed for 44 years. It represents sound archives, broadcast and research collections, promoting best practices worldwide. 50% of IASA members are from European institutions. It is logical, therefore, to see IASA as a potential facilitator of long-term viability of the BPN should Europeana be unable to perform that role, given our shared interest in online dissemination of audio heritage.

Within WP7, task T7.4 (Exploitation planning, Sustainability and Governance), Europeana Sounds will take the initiative to establish a European Section within IASA that will be given the remit, within the legal and other constraints being investigated by WP3, to manage the BPN and define policy and subsequent actions in seven key areas:

- Acquisition and exchange
- Documentation and metadata
- Resource discovery and access
- Copyright and ethics



- Preservation and conservation
- Research, dissemination, and publication
- Digitisation of media content

The level of commitment of Consortium members to sustain the work of the BPN after the project funding ends can be summarised as follows:

- All partners including those contributing content have ongoing commitments to improve online access to digital collections. This project provides the much-needed channel to fulfil that objective.
- Nearly all content providers are long-standing and active members of IASA. IASA, which is represented on Europeana's governing board, exists to support the seven aforementioned key areas of activity. Content providers in this project will become members of the new European section of IASA, specifically created to extend the work of the BPN into the future in all European nations.
- All content providers are long-standing and active members of other national and international bodies, including the International Association of Music Libraries, The Baltic Audiovisual Archives Council, British and Irish Sound Archives, the International Council for Traditional Music, International Society for Music Education, and many others, and are members of the Europeana Network itself, which all include the activities described above in their statements of purpose.
- Partners are active members of other initiatives (e.g. ARROWplus, working on rights identification tools) that will have long-term influence on extending the successes of the work carried out in this project.
- Europeana fully intends for both the "Channels" capability developed in the Sounds project and for all of the many content and technical developments of the project to be available for many years to come.
- Partners will further the work carried out in the BPN to share know-how (via future workshops, training events, conferences etc), to work together to bring in other AV institutions that are not yet contributors to Europeana.

### **B2.2.3 Viability of Europeana**

Access to cultural heritage is one area in which a trans-European service platform (Europeana) has gained support from all Member States and participating institutions. As mentioned earlier, five aggregators will be core to the Europeana Ecosystem. Europeana Sounds will be one of them. The long-term future for the project is therefore inseparable from consideration of the future of Europeana itself.



Over the past five years, and with an investment of 150m Euros, Europeana, together with all the related projects, has established an interoperable infrastructure and a thriving cross-border network for digital cultural heritage that will allow Europe to capitalise on existing investment in digitisation (estimated to be between 1.2 and 1.6bn Euros) and to create the conditions to drive innovation and growth.

The need for a sustainable funding model for Europeana is recognised in Action 79 in the Digital Agenda for Europe<sup>18</sup>. One potential source for funding has been proposed by the EC, the €1bn Connecting Europe Facility (CEF) which comprises funding for Core Service Platforms as well as co-funded service development. A decision on the CEF proposal is possible by the end of 2013, establishing a new initiative which would increase demand for Europeana aggregation and access services within the e-Infrastructure of Europe. From the completion of the Europeana Sounds project, until 2020, the baseline infrastructure (ingestion and playout, including Europeana channels) will be supported by the Europeana as part of CEF funding.

Business planning in Europeana follows a not-for-profit derivative of the Business Model Canvas (Osterwalder 2005<sup>19</sup>) where revenues are replaced by benefits. The Europeana Sounds Business Plan will follow the same methodology.

Following this model, “key product offerings” constitute the initial portfolio of exploitable outcomes from the project are listed below. The data in the right column give some insight in the potential, but are rough estimates. This will be expanded and elaborated on in the scope of D7.5: Market Survey and Exploitation planning based on the Business Model Canvas<sup>20</sup> model used by the Europeana Foundation.

**Table (f): Key product offerings**

Product/service type	Potential customers	Potential value
Unified access through Europeana to collections with enriched metadata currently not online	The general public, researchers, creative industries (publishers and media outlets specifically)	Metadata records of over 750,000 items will be enriched and shared under CC0. The creation and curation of this data represents a value of many millions of Euros.
Improved Europeana API with access to time-based media and Improved Europeana service with channels	The creative Industries (software developers, game developers specifically).	The Europeana business model 2014-2020 states the total benefits of Europeana are 540m in that six-year period. The improved API and the channels will play a key role in reaching these benefits, as this is the connection to third parties

<sup>18</sup> <http://ec.europa.eu/digital-agenda/en/pillar-vii-ict-enabled-benefits-eu-society/action-79-propose-sustainable-model-financing-europeana>

<sup>19</sup> Osterwalder, A., Pigneur, Y., & Tucci, C. L. (2005). Clarifying business models: Origins, present, and future of the concept. *Communications of the Association for Information Systems*, 16(1), 1-25

<sup>20</sup> <http://www.businessmodelgeneration.com/canvas>

Product/service type	Potential customers	Potential value
Europeana Sounds SoundCloud channels, a discovery interface for sounds collected and ingested within the scope of the project	The general public (music and audio enthusiasts). Over 40m people have a SoundCloud account. SoundCloud have expressed strong interest in collaborating with the BPN	SoundCloud has 200 million listeners.. The exposure of the collection owners represents a value of tens of thousands of Euros
SoundCloud integration to third parties through a reusable connection kit	The general public (music enthusiasts mostly). 1m registered users are registered to SoundCloud.	Open source software component Estimated 10k Euro value
Improved Historypin website with an intuitive user interface for crowd-based annotations	The general public. Historypin today has over 45,000 registered users	Will be an improvement to the overall Historypin service. Impact between 150k-200k
Reusable software components for crowdsourcing (based on the existing Annotorious and Pundit solutions)	The GLAMs in the Europeana Network (2,000+ members) that would like to start crowdsourcing projects	Open source software component built in existing code, collated 350k <sup>21</sup> euro value. Will be part of the product portfolios of AIT and NET7. The impact that improving metadata by end-users brings to GLAMs is enormous, potentially measured in millions of Euros
Reusable software components for annotation (based on the existing MINT platform)	The GLAMs in the Europeana Network (2.000+ members) that would like to contribute audio	Updated version of the MINT open source software platform, collated 600k Euro value. Will be part of the product portfolio of NTUA

*Our conclusion is that the sustainability of Europeana as a Core Service Platform must be addressed independently of the longevity of the Europeana Sounds Best Practice Network which has a transient role in developing that core platform. Members of the BPN are members of the broader Europeana developer community and IASA (which could provide another umbrella to cover some of the work started in Europeana sounds). The know-how they acquire from this project is, of course, transferable to other development projects in which they participate.*

<sup>21</sup> i.e. combining earlier investments with Europeana Sounds improvements.

### **B2.3. Wider deployment and use**

The Europeana Sounds BPN brings together organisations and users from the broad spectrum of interests in the digital audio ecosystem. Interested communities include audiences (general public, researchers), memory organisations (archives, galleries, audiovisual collections, libraries, museums), the creative industries (represented by publishers, music distribution platforms) media, funders (actual and potential) and policy makers. Its mission is to promote the maximum public visibility of audio heritage and its policies for wider deployment and use reflect this central wish and the range of stakeholders we want to see enthused by and engaged in Europe's sound heritage.

There are three broad areas of information need:

- Information about the project (to stimulate interest in potential communities of interest)
- Information about the content (to promote use by existing and new communities)
- Information about the services being developed (to promote use in the wider European GLAM sector)

Dissemination work for Europeana Sounds is coordinated by Work Package 6, led by the Bibliothèque nationale de France (BNF). This will provide the interface between the Best Practice Network and its various stakeholders, communicating project values as well as the specifics of actual content. The focus is on targeting particular user communities (sectoral, national, linguistic), which will include translation of materials and use of localised channels such as the outreach programmes of national galleries, libraries, audiovisual collections, archives and museums.

The information needs of our various stakeholder groups will be defined and addressed by the project's Communication plan. The scope of the plan which will be continually updated is indicated by the table below, explaining the significance of the target audiences as actors in the Europeana sounds value chain. The full plan will be used to identify and deliver the dissemination and networking activities in WP6.

**Table (g): Customer segments**

<b>Target user description</b>	<b>Needs</b>	<b>Involvement &amp; Role</b>	<b>Country coverage</b>
General public	Availability, range of content, relevance to personal interests	Key audience for Europeana, seeking to improve user engagement. Europeana channel, social media campaign, local 'sound' events, content highlights, focussed actions directed at mainstream press and broadcasters	All Europe
Creative industries (specifically software developers, media outlets)	Availability, information on rights, access to the Europeana API, ease of use.	Promote use of the Europeana API. Targeted events including hackathons, case studies, cross-fertilisation with Europeana Creative dissemination plans. Europeana channel, local 'sound' events, content highlights. Demonstration of viability of commercial models for content available through Europeana	All Europe
Researchers	Availability, range of content, scholarly value, names of participating collections	Link Europeana to academic infrastructures (Europeana Cloud project).  Europeana channels, local 'sound' events, highlights of key content, project conferences. Demonstration of scholarly engagement with content, places high value on heritage content	All Europe
Publishers	New markets, interest in licensing/rights issues	Providers and potential providers of valued content. Project website and channel, target key publishers, invite into working groups and/or project conferences	All Europe
Media	Clear information on project aims and content, reusable content for publication	Promotion to general public, other stakeholders. Project website and channel, inventories of key content, invite to project conferences	All Europe

Target user description	Needs	Involvement & Role	Country coverage
Funders	Value of their investment, audience reach, future potential	Sustainability for project overall or individual elements. Project website and channel, target key funders, invite to project conferences	All Europe
Policymakers	Value for money, strategic planning	Key in providing support for cultural heritage and memory organisations. Project website and channel, target key figures, invite to Europeana events	All Europe

As third-parties become more aware of the benefits being created we will endeavour to bring them into the sphere of the Best Practice Network, increasing membership without expanding the core project Consortium. The inclusion of experts with specific contributions to make to the project objectives contributes to a critical mass within the BPN.

#### Social media outreach and (online) visits

For the crowdsourcing campaigns and for general awareness raising, the Europeana Sounds BPN can build on the huge number of end-users already engaged with the Consortium partners. Some key figures:

- The **collection owners** have a combined number of 474,616 Twitter followers and 145,045 Facebook 'friends'. These will be leveraged to attract the maximum amount of users to participate in the crowdsourcing campaigns. The cumulative number of unique annual visitors to websites of the collection owners is an impressive 54m (excluding 43m visits to the RBB website). Some of the collection owners also manage physical exhibitions, totalling 8.2m annual visits<sup>22</sup>.
- **Historypin** has over 1,100 institutional partners contributing content from around the world, over 45,000 registered users, more than 235,000 contributed pieces of content and stories, and over half a million app downloads. The average number of visitors is 45,000 per month and about 1.5m page views, with an average site visit of over 6 minutes. We have a wide reach through our institutional partners, who for instance, give us a potential reach of over 1.6m social media impressions through Twitter alone;
- The **Europeana** website has 6m unique visitors per annum, a number that is steadily growing. Further to this, Europeana has 18,352 Facebook followers and 10,260 followers on Twitter. In 2012, Europeana had 4.2m impressions on Facebook and the content gathering campaign for the 1914-1918 project received 600 media mentions;

<sup>22</sup> A detailed numerical tabulation collated from Consortium members is available at <http://bit.ly/102hQnh>

- Our external partners also have a massive reach. **SoundCloud** has 1.72 m Twitter Followers and 6m Facebook friends; the SoundCloud platform has 40 million registered users and 200 million listeners.
- **Wikipedia** is the world's most visited non-commercial web site. Europeana will engage with the community of active contributors through the national Wikimedia chapters. Some chapters have already indicated their support and this number will grow within the context of Task 2.3.

The ability to use these existing outreach platforms will help to ensure the success of the crowdsourcing campaigns. We will also leverage this significant asset in disseminating the results of the project to the various target audiences (see B2.3).

#### Cross fertilisation

A key driver for the project is that development work in Europeana Sounds will be taken up by other projects. Information on metadata modelling for audio content, on enrichment of such content to increase the attraction of Europeana for a range of users, and the studies into IPR, particularly relating to out-of-commerce works, will have great interest for many across the Europeana network. These Work Packages have been constructed not simply to benefit the project alone, but to be a significant contribution to Europeana overall, and beyond to any memory organisation that faces similar challenges.

Equally, Europeana Sounds is certain to benefit from the outcomes of other, ongoing Europeana projects:

**Europeana Creative** (2013-2016) aims to facilitate the creative re-use of digital cultural heritage content and associated metadata available through the portal, and its findings will prove crucial in understanding how increase use of cultural heritage audio content among the creative industries.

**Europeana Cloud** (2013-2016) promises essential information on the legal, strategic and economic issues of the cloud-based storage system.

**Europeana Awareness** (2012-2015) is driving understanding and appreciation of the resource among users, policy makers and cultural heritage institution, and in particular raising awareness of the opportunities provided by the new Europeana Licensing framework. Sharing in, and working symbiotically with, these fellow projects greatly strengthen the Europeana Sounds proposition.

**EUscreenXL** (2013-2016) is demonstrating an excellent model for presentation, contextualisation and sharing of transnational television content, with links to the broadcast sector which point to the direction in which a complementary audio resource can be built.

Consortium members are also involved in Europeana 1914-1918, Europeana Newspapers and Europeana V2.

### Networking and contribution towards clustering activities

There are more than 2,000 content providers in the Europeana network, making it a considerable force in the cultural heritage sector, both as technological linchpin and as a focal point for engagement across the sector. It is a portal for content providers no less than it is a portal for content. This network will enable Europeana Sounds to feed into and derive benefit from cultural heritage institutions and other stakeholders, who will receive (through mailing lists, press releases etc.), share and distribute further information about the project and the Europeana Sounds channel, both as standalone and as an integral part of the Europeana network.

This network can be used as a forum for the discussion of issues and the sharing of information on such key matters as content aggregation, IPR, interoperability, enrichment, user engagement and user experience. It can be used to share ideas, and joint opportunities, for increasing knowledge about Europeana within the general public, researchers, creative industries, other memory organisations, and the media.

The Europeana Sounds Consortium also has considerable potential for strong and effective networking across the audiovisual sector. It comprises national libraries and archives, specialist sound archives, research institutes, non-profit foundations, and commercial organisations, who collectively represent most of the ways in which sound content is produced, distributed, preserved and made accessible, making the Consortium a particularly powerful voice not only for promoting Europeana Sounds but the value of sound as a cultural artefact generally.

Europeana Sounds has close links with key international audiovisual bodies through institutional and personal membership among the Work Package leads, including the following:

- The **International Association of Sound and Audiovisual Archives (IASA)** was established in 1969 in Amsterdam to function as a medium for international co-operation between archives that preserve recorded sound and audiovisual documents.
- The **Association for Recorded Sound Collections (ARSC)** is a non-profit organisation dedicated to the preservation and study of sound recordings, in all genres of music and speech, in all formats, and from all periods. ARSC is unique in bringing together private individuals and institutional professionals – everyone with a serious interest in recorded sound.
- The **Co-ordinating Council of Audiovisual Archives Associations (CCAAA)** represents the interests of global professional archive organisations with interests in audiovisual materials including films, broadcast television and radio, and audio recordings of all kinds. Although predominantly working in the public sector, it reflects a broad range of interests across the broadcast media, arts, heritage, education and information sectors.
- The **International Association of Music Libraries, Archives and Documentation Centres (IAML)** promotes the activities of music libraries, archives and documentation centres in support of projects in music bibliography, music documentation and music library and information science at national and international levels.

- The **European Broadcasting Union** (EBU) is the world's foremost alliance of public service media organisations, with Members in 56 countries in Europe and beyond. The EBU's mission is to defend the interests of public service media and to promote their indispensable contribution to modern society. It is the point of reference for industry knowledge and expertise.
- The **PrestoCentre Foundation** is a non-profit organisation that brings together a global community of stakeholders in audiovisual digitisation and digital preservation to share, work and learn. PrestoCentre works with experts, researchers, advocates, businesses, public services, educational organisations and professional associations to enhance the audiovisual sector's ability to provide long-term access to cultural heritage.
- The **International Association for Media and History** (Iamhist) is an organisation of filmmakers, broadcasters, archivists and scholars dedicated to historical inquiry into film, radio, television, and related media.
- A more exhaustive list of professional audiovisual associations, rights bodies, standards organisations and other national and global institutions with which the Consortium has professional connections, and their connection with the project is given in Appendix 1.

#### Dissemination and awareness activities

Some dissemination activities and events will necessarily have to be reactions to particular opportunities as they emerge (e.g. sectoral conferences that have yet to be announced, news stories relating to a particular sound object), but these are the general and specific events planned for so far:

#### Project events:

- Sound discovery events in various countries in native languages: presentation and listening of unknown/star items with a specialist presenter
- Two international public conferences in association with Europeana
- One hackathon to explore new appropriations by the creative industries
- Representation of the project at major musical events in Europe corresponding to the audio corpus of the project

#### Key conferences for extending the BPN (initial targets):

- IASA annual conferences: 2014 (South Africa), 2015 (Paris), 2016 (Vancouver)
- British & Irish Sound Archives, May 2014, Ireland, held annually
- IAML annual conference, Antwerp, July 2014 and following years
- ASRC annual conference, May 2014-17, host to be announced
- Iamhist bi-annual conference, 2015, 2017, host to be announced

Planning of all events will be in line with the Communication Plan. The emphasis of this will necessarily evolve as new opportunities emerge and as the project adapts to meet the changing needs of our various target audiences. Alertness to the diverse audiences for sound, and their diverse needs, is fundamental to our dissemination strategy. Further details of dissemination activities are given in section B3.6.



## B3. Implementation

### B3.1. Consortium and key personnel

Europeana Sounds has built a strong network of libraries, sound archives, research institutes, non-profits and commercial organisations; 24 partners from 12 different countries. Particular attention has been given to new content providers and to the cultures and countries which are currently under-represented in Europeana, such as those of Lithuania and Latvia. The Consortium has a strong connection with Europeana coordination activities through the presence of research centres, universities, stakeholders and industrial partners that are involved in Europeana Creative and EUscreenXL. The Consortium has both the range of membership and the depth of relevant experience to deliver the project.



**Figure 2: Europeana Sounds Consortium**

The members of the Europeana Sounds Consortium have to fulfil several roles. There is a core team of six work package leaders, all of whom have extensive experience of collaboration with Europeana. For the aggregation aspect of the project, there are 18 collection-holders (memory institutions) who will collectively provide the half-million audio recordings and 225,000 related items described in Table 0. Three of the content providers are members of the core team.

For the enrichment side, there are seven technology partners with expertise in specific open-source tools, four of which are members of the core team and two have specific expertise in developing the Europeana platform.

Furthermore, we have secured the collaboration with a key player of online music delivery: SoundCloud. They have specific responsibilities in the workplan, for creating an app and work to create a connection kit respectively. Other entities that play a role in executing the workplan are Wikimedia Chapters, UNESCO, ARROW, IVIR, GESAC, IFPI, Internet Archive and Musopen.

The roles taken by each partner are defined in the table below. Content providers are not listed here, but the details of the content they are offering can be found in the section on underlying content.

**Table (h): Partner competences and roles**

Partner	Primary role	Competence	Motivation
BL	Coordinator, technologist and memory institution Manages WP1 and WP7	Experience in managing large-scale collaborative projects Long standing member of IASA, which will be core to the sustainability of the BPN	Understanding of out- of-commerce opportunities Distributing BL audio collections through new channels
NISV	Core team, technologist and memory institution Manages WP2	Ample experience in running large-scale participatory projects Expertise on interoperability and business model innovation. Direct contact with Internet Archive and Musopen.	Contribute to the European infrastructure to support crowdsourcing of enrichment
KL	Core team, manages the WP3 on legal issues. Liaise with external stakeholders (including active participation in Licences for Europe)	KL is a main player in EU policy making on online access to cultural works Member of Licences for Europe, Creative Commons, COMMUNIA	Expand policy making in the context of Europeana to also include in-commerce works

Partner	Primary role	Competence	Motivation
EF	Core team and Europeana services technologist Manages WP4	Running the Europeana service, including the Europeana API. Support the Europeana Network and its task forces  Reference point for the EU on key policy issues relevant to online access to cultural heritage.	Transforming Europeana to a Core Services Platform, including: - integrating aggregation services for audio content; - deploy the distributed crowdsourcing infrastructure; - oversee development of Europeana channels.
NTUA	Core team and Europeana infrastructure technologist Manages WP5	NTUA provides key technologies for the aggregation function of Europeana	Complement the aggregation function with key services, including full support of time-based content
BNF	Core team and memory institution Manages WP6	Knowledge of successful public-private partnerships  Experience in managing dissemination efforts	As a founding member of the European Library, forge a link between the audio and library domains  Give access to the audiovisual content through innovative channels
AIT	Technical partner Manages the two innovative exploration pilots and implement methods and tools for interlinking content  Contribute to the enrichment infrastructure	Considerable experience in the area of digital libraries and digital preservation  Commitment to develop open source software	Expand the portfolio of software solutions managed by AIT for knowledge extraction and dynamic linking

Partner	Primary role	Competence	Motivation
SHIFT	Technical partner Historypin will co-define detailed specifications for the infrastructure that will support crowdsourcing of metadata in the context. Historypin will be used as a platform for enrichment.	Historypin is a free website with over 1000 institutional partners, over 45,000 registered users, more than 200,000 contributed pieces of content, and over half a million app downloads	Expand the Historypin platform with crowdsourcing components  Further the collaboration with Europeana that started in Europeana Creative
NET7	Technical partner Will enable semantic enrichment of all audio related content on Europeana	SME with industry leadership on semantic web technologies	Customising and extending NET7's Pundit server, which will support users in linking media objects to the Linked Data Web

### Collaborators

Below, we outline the roles of key Collaborators that are not part of the Core Consortium but will contribute to executing the work plan.

**Table (i): Collaborator competences and roles**

Organisation	Primary role	Competence	Motivation
SoundCloud (DE)	Content will be made accessible in the connection kit for federated search  SoundCloud will provide technical support	Operating one of the World's primary audio distribution channels.	Strengthen collaboration with the GLAM sector
Wikimedia chapters (NL, FR, UK, SE)	Organise the hackathons that will be organised as part of the enrichment work package	Access to a vast, international network of Wikipedia volunteers	Further the successful collaboration with Europeana
UNESCO	Investigate how parts of the Europeana Sounds collections can be linked to the UNESCO Atlas for Endangered Languages	Host to the 'World Digital Library' and the UNESCO Atlas for Endangered Languages	Strengthen the impact of the UNESCO Atlas for Endangered Languages

Organisation	Primary role	Competence	Motivation
ARROW (through ICCU)	Liaise between Europeana Sounds and the ARROW platform	Knowledge on managing rights	Expand work on ARROW Plus to include multimedia content
IVIR (NL)	Execute a study on the legal implementation of the approaches identified enabling cross border access to domain constrained (audio) works	One of the largest research centres in the field of information law in the world	Greater understanding of legal issues relating to audiovisual media
GESAC, European Grouping of Societies of Authors and Composers (BE)	Contribute to the report on identification of barriers to online access as part of WP3	GESAC groups together 33 of the main authors' societies of Europe	Create a link between the Europeana infrastructure and in-commerce works
IFPI (UK)	Contribute to the report on identification of barriers to online access as part of WP3	Representing publishers of musical works	Identify opportunities of distributing in-commerce works through Europeana
Internet Archive (USA)	Contribute 100,000 objects to the infrastructure (through the Dutch aggregator for Europeana)	Internet Archive is host to the largest repository of open audio recordings	Establish link to Europeana, benefit from the semantic enrichment processes
MUSOPEN (USA)	Contribute 4,000 objects to the infrastructure (through the Dutch aggregator for Europeana)	Musopen provides recordings, sheet music, and textbooks to the public for free	Establish link to Europeana, benefit from the semantic enrichment processes

SoundCloud will be used for third party playouts, for embedding European audio clips in blogs, and web pages and also for making available selected content for creative re-use. For Spotify, there are several options being considered. The Consortium has met with Business Development and European Marketing Directors of Spotify who are keen to work with partners in the project. Spotify provides instant playability of 20 million audio tracks using a peer-to-peer system. There are three ways Europeana Sounds will explore working with Spotify. Firstly, we could use Spotify's API to feed relevant content into the Europeana Sounds channel and include selected Spotify tracks in Europeana search results using their API for dynamic searches. Secondly, we could create a Europeana-curated channel (App) within Spotify. The channel could include links, playlists and added descriptions and theming of any of the 20m tracks in Spotify, with links to the Europeana Sounds channel. Selected Europeana tracks could be added to Spotify, and could 'highlight' those along with images, other Spotify content in our app. The benefits to Europeana would be profile raising for the Sounds channel among a very large listener base. An example of a Spotify channel is the BlueNote jazz label. Finally we shall also explore the possibility, to provide access, perhaps the Europeana Sounds Spotify app, to in-copyright content. This could help overcome a major obstacle to increasing aggregation in our project in that some potential content owners have significant quantities of digitised commercial releases that are excluded from contributing because of copyright. Spotify already has licences with most of the world major record labels, so there might be an opportunity to make such content available.

Further to these partners and collaborators, Europeana Sounds will collaborate with a range of external entities and has installed an Advisory Board (see Section B3.2c) that represents expertise in core areas relevant to the BPN; for instance, representatives from the industry fair WOMEX, Digital Public Library of America, Music Data Geeks and academics in the areas of computer science and humanities.



## British Library (BL)

### Introduction

The British Library is the national library of the United Kingdom and one of the world's greatest libraries. It has played an important role as a partner in many projects funded at national, European and international levels, an example being The European Library (TEL), which began as a British Library led, European Commission funded project. It also led the PLANETS project to enable long-term preservation of Europe's digital content, and is a founding member of DataCite, which assigns persistent digital object identifiers (DOI names) to research datasets. It holds the UK's national collection of sound recordings, among the largest sound collections in the world.

### Roles and competences

The British Library is the project coordinator and lead for WP7 and WP1. It is also a content provider in WP1 (aggregation), for which it will provide audio content along with related images of music manuscripts, record labels, and transcripts of speech. The Library is in the forefront of digital content delivery to researchers and the general public, with an increasing emphasis on digital access and innovation, in establishing new models for the creation, delivery and re-use of digital audio content. Examples include its *Sounds* website of sound recordings online, and the award-winning, *Map Your Voices* and *UK Sound Map* crowdsourced public **projects**.

### Key personnel

**Richard Ranft**, Head of Sound and Vision at the British Library with responsibility for the Library's audiovisual strategy, will be project coordinator. He managed the Library's Archival Sound Recordings project that placed 50,000 recordings online, he is an Executive Board member and National Archives Section chair of the International Association of Sound and Audiovisual Archives (IASA) and member of the EF Board and EUscreenXL Advisory Board.

**Richard Chesser**, Lead Curator of Music, is Secretary of the Copyright Committee of IAML, Chair of the Trade and Copyright Committee of IAML (UK&Irl), and represents IAML on the Library and Archives Copyright Alliance. Digitisation projects include Chopin First Editions Online Project, Digital Image Archive of Medieval Music and Early Music Online (EMO). Content and copyright specialist.

**Janet Topp Fargion** is an ethnomusicologist and Lead Curator of World and Traditional Music at the BL, where she has responsibility for the collection, preservation and dissemination of recordings of traditional music from all around the world. She has served on the boards of professional bodies including the British Forum for Ethnomusicology and the International Association of Sound and Audiovisual Archives (IASA). Content specialist.

Other staff will be hired for WP1 and Wp7.

## Netherlands Institute for Sound and Vision (NISV)



### Introduction

The Netherlands Institute for Sound and Vision maintains and provides access to 70 per cent of the Dutch audiovisual heritage, comprising approximately 750,000 hours of television, radio, music and film and web video, making Sound and Vision one of the largest audiovisual archives in Europe. Sound and Vision is the business archive of the national broadcasting corporations and is also engaged in large-scale digitisation efforts of its analogue holdings.

The Research and Development department focuses on a number of key research topics, including: digital durability ensuring long-term access, understanding user requirements, new annotation approaches, (semi)automatic or using crowdsourcing, contextualisation, semantic interoperability and visualisation. Sound and Vision R&D is an experienced partner in national and European research projects and active in the international organisations FIAT/IFTA, IASA, EBU and UNESCO. Recent research projects include AXES (FP7), LinkedTV (FP7), LiWA (FP7), CoSyne (FP7), DigiBIC (FP7), PrestoPRIME (FP7), EUscreen (eContentplus) and Europeana V2 (ICT-PSP). Sound and Vision is host to the EU PrestoCentre competence centre for audiovisual digitisation and digital preservation, and technical co-ordinator of the EUscreen Best Practice Network on access.

### Roles and competences

NISV is one of the core content partners, contributing music and sounds to Europeana Sounds. Johan Oomen will be technical coordinator of the project. NISV will also be responsible for aggregating the metadata of the Internet Archive sound collection.

NISV will lead WP2. The institute has much experience in running crowdsourcing projects, e.g. in the crowd-tagging game Waisda?, 1.5m tags have been gathered to date.

### Key personnel

**Johan Oomen** (project manager, technical coordinator) is head of the Netherlands Institute for Sound and Vision R&D Department and researcher at the Web and Media group of the VU University Amsterdam. He mainly works on externally (FP7, ICT-PSP, CATCH) funded research projects that focus on providing access to digital heritage on the web. He holds an MA in Media Studies and has worked for the British Universities Film and Video Council and RTL Nederland.

**Roeland Ordelman** is senior researcher and project manager for R&D at NSIV and researcher in Speech & Language Technology and Multimedia Retrieval at the University of Twente (PhD 2003). He works on a number of national and international projects in multimedia retrieval and speech and language technology.

**Erwin Verbruggen** works at the Research & Development department of the Netherlands Institute for Sound and Vision. He is in charge of communications for EUscreen and oversees the technical development of the *Journal of European Television History and Culture*. He also works on a number of projects related to digitisation and search in audiovisual archives.

Other staff will be hired for the project.



## Stichting Nederland Kennisland (KL)



### Introduction

KL is an independent think-tank based in the Netherlands. Its mission is to make society smarter. KL develops solutions for the issues that crop up during the transformation to a knowledge society, and it plays a pioneering role in this process. Two key fields of work for KL are copyright and digital heritage. KL has been the public project lead of Creative Commons in the Netherlands since 2005 and one of the founders of the COMMUNIA Thematic Network (eContentplus). Within the EuropeanaConnect project (ICT PSP), KL was co-author of the Europeana Public Domain Charter, co-developed Public Domain calculators for 30 European countries and co-developed a licence framework for the Europeana DEA. As partner in Europeana Awareness (ICT PSP) Europeana Cloud and Europeana Creative, KL works on increasing compliance with the Europeana Licensing Framework and increasing the amount of content available via Europeana that can be freely re-used. KL is partner in Europe's largest digitisation effort, Images for the Future, focusing on knowledge sharing, copyright and business model innovation.

### Roles and competences

KL will lead WP3. KL has extensively worked with Europeana and content providers in the Europeana ecosystem to create the Europeana Licensing Framework and develop Europeana's open data strategy. The work planned for WP3 builds on top of this framework. KL understands the public value of digital cultural resources and believes that a powerful knowledge society can only exist if everybody has access to information. Europeana Sounds will be an important effort to realise this. KL's activities in Europeana Sounds are concerned with leading the work package on a legal framework for access to audio content, that deals with specific questions related to the (cross border) accessibility of sound collections held by Europe's cultural heritage institutions.

### Key personnel

**Paul Keller**, Vice-chair of KL. As senior copyright policy advisor Paul initiates new projects, advises governments, cultural heritage institutions and other organisations on open approaches to copyright policy, new media and innovation strategies. He is public project lead for Creative Commons Netherlands, Collecting Societies liaison for Creative Commons international and a board member of iCommons.

**Lisette Karlshoven** is Open content and licensing specialist in Kennisland's copyright team and she specializes in facilitating rights clearance and licensing processes. She currently works on the Europeana Awareness and Europeana Cloud projects.

## Europeana Foundation (EF)



### Introduction

The Stichting Europeana (Europeana Foundation) is a cross-domain foundation, under Dutch law, set up for the purpose of fostering collaboration between museums, archives, libraries and audiovisual collections in Europe. It also provides a legal framework for use by EU funded projects to bring their research or content into Europeana. The EF governs Europeana and employs its staff.

Europeana is an online portal that contains over 28m digitised objects from Europe's museums, libraries, archives and audiovisual sources. It connects to Europe's cultural heritage by providing access to items from over 2,200 heritage collections. Europeana is supported by funding from the European Commission and member states. Originally known as the European digital library network – EDLnet – it is a partnership of 500 representatives of heritage and knowledge organisations and IT experts from throughout Europe. The Europeana Office has more than 40 staff led by the Executive Director of the EF, Jill Cousins.

### Roles and competences

EF is heavily involved in several work packages of the Europeana Sounds project, including leading WP4 (channels development). EF will bring crucial specialist knowledge to the aggregation, enrichment, IPR, networking and dissemination work streams, while taking a leading role in the coordination of technical extensions to the core Europeana Repository and API data services to support the needs of the project.

As a recognised leader in the development and maintenance of metadata standards and enrichment, and as the core of the Europeana family of projects, the EF brings unique expertise in the federation and presentation of cultural heritage materials. Areas of expertise include marketing and communications, technical development, user experience design and testing, business strategy development, project and knowledge management, operations & ingestion, metadata mapping and data modelling.

### Key personnel

**Harry Verwayen** (manager) is Deputy Director at Europeana. His main focus is the design and implementation of new business models and strategies for Europeana to fulfil its mission as a driver of innovation in the cultural heritage sector. Prior to this position he worked at the Amsterdam based think-tank Knowledge where he was responsible for innovation and positioning of the project Images for the Future.

**Els Jacobs** (manager) is Programme Manager at the EF. Her background is in managing cultural heritage institutions and she previously worked at UNESCO, the Rotterdam Maritime Museum and the Koninklijke Bibliotheek.

## National Technical University of Athens (NTUA)



### Introduction

The Image, Video and Intelligent Multimedia Systems Lab (IVML, [www.image.ntua.gr](http://www.image.ntua.gr)) was established in 1988, in the School of Computer and Electrical Engineering of NTUA. The members of the Lab (which are about 35, including research scientists, researchers, Ph.D students, programmers, and supporting staff) are active members of the research community having published more than 100 journal and 200 international conference contributions. IVML has been involved in about a hundred European R&D projects.

### Roles and competences

The main role of NTUA in Europeana Sounds is to lead WP5 (Technical Infrastructure). In particular, NTUA's role is to extend and enhance the Europeana infrastructure for content aggregation to deal with sound-related metadata.

IVML has been a key technological member in Digital Libraries and particularly in Europeana developments. IVML has participated in the ICT E-Culture Imagination project, on knowledge-based access to historical content, in the Videoactive and EUscreen projects, in Michael Plus, Minerva-ec. EDLNet NoE, Europeana v1.0 Network, Europeana Connect, ATHENA, Judaica, Carare, E-CLAP, Linked Heritage and, DCA. IVML developed the MINT tool for metadata interoperability used by Europeana and has been selected as one of six beta sprints by the evolving Digital Public Library of America.

NTUA is also participating in standardising organisation and activities. In particular, NTUA participates in the Media Annotations Working Group of W3C. One of the main issues of this task force is semantic interoperability in different metadata schemas.

### Key personnel

**Prof. Stefanos Kollias** (manager) is Professor of NTUA and Director of IVML. He has a Diploma in Electrical Engineering from NTUA, an M.Sc in Communication Engineering from Manchester University, UK, and a Ph.D in Signal Processing from NTUA. In 1987-88 he was a Visiting Research Scientist in the Department of Electrical Engineering and the Centre for Telecommunications Research, Columbia University, New York.

**Dr Vassilis Tzouvaras** (senior researcher) is active in Europeana developments and related projects (Athena, Videoactive, EUscreen, EuropeanaConnect); and a member of the Core Expert Group of Europeana Thematic Networks v1.0, v2.0. He has a B-Eng in the Dept. of Electronic & Systems Engineering of Essex University, M-Eng in the Dept. of Automatic Control & Systems Engineering, Sheffield University, UK, and a Ph.D. in knowledge technologies.

## Bibliothèque nationale de France (BNF)



### Introduction

The BNF is one of the largest public and research libraries in the world with patrimonial collections in all areas of culture and knowledge and in a great variety of languages. The BNF began digitising its collections in the early 1990s and today, its digital library Gallica contains more than 2m digitised documents: manuscripts, sound materials and music score, books, images and over 800,000 newspapers issues, in French and other languages. With over 1m documents, the BNF's sound recordings collection is one of the oldest and most important in the world. The oldest recordings are cylinders recorded by Gustave Eiffel and his close relatives between 1889 and 1891. The collection is remarkable due to its size but also the richness and variety of its contents ranging from classical to popular music, jazz, world and traditional music. It also includes theatre performance. All eras, all musical repertoires and spoken word recordings published between the end of the 19th century and today are present.

### Roles and competences

The BNF leads WP6 (Dissemination and Networking). It is also a content provider in WP1 for which it will provide audio content and related images.

The BNF is a founding member of The European Library (TEL) and is a major contributor to Europeana. It is involved in several European projects: IMPACT, BHL-Europe, Europeana Collections 1914-1918, European Newspapers and Europeana Awareness. The BNF was in charge of the coordination of KEEP as well as Europeana Regia until June 2012.

### Key personnel

**Lionel Michaux** has been a curator at the Audiovisual Department at BNF since 2008. He takes special charge of the acquisition of the shellac and vinyl discs. He was previously involved in municipal libraries and as an historian he is a specialist in French song and phonographic publications. He oversees BNF activities related to WP1 and WP2.

**Marion Ansel**, European projects coordinator at the BNF since 2012 in charge of the BNF's participation in the Europeana Newspapers and Europeana Awareness projects. She has been involved in project management as a Project Assistant in EU policies in DG CONNECT where she supported the project officers on research programme implementation actions and on communication activities (including event organisation, website management). In addition to overseeing BNF's participation in the project as a whole and in WP6 especially, she will be in charge of financial and progress reporting.

A Communications Officer will be recruited.

## **AIT Austrian Institute of Technology GmbH (AIT)**



### Introduction

AIT is Austria's leading research and technology establishment and a key player on the European research landscape where the exchange of knowledge between universities and companies is central to the successful development of industry. The mission of AIT's Department of Safety and Security (DSS) is to make a significant contribution to ICT and to devote concerted efforts for guaranteeing operational efficiency and reliability of all critical infrastructures – both private and public – especially in times of potential ecological, economic and political crisis. DSS is committed to fostering the roll-out of national infrastructures as well as the deployment of state-of-the-art technologies with a view to positioning Austria at the forefront of the European ICT industry.

The AIT Next Generation Content Management Systems group brings several years of experience in the area of digital libraries and digital preservation, in particular through work in the BRICKS, TELplus, EuropeanaConnect, ASSETS, Planets, Europeana Creative, and SCAPE projects. In addition, the group provides professional software development competence (Java, SCALA, Python) in the areas of semantic web technologies, web applications (including JSP, JSF, and Google Web Toolkit, Javascript, Play), web services (in particular RESTful web services), scalable computing, and text and content-based information retrieval.

### Roles and competences

AIT will contribute primarily in WP2 expertise and development effort to Semantic Enrichment and MIR tasks, implement methods and tools for interlinking content of different media types (e.g. audio and sheet music/scores), and contribute to the crowdsourcing infrastructure (Annotorious, semantic tagging infrastructure). It will also provide technical expertise for WP4 and WP5.

### Key personnel

**Dr. Sergiu Gordea** has developed software products for the banking sector and at Next Generation Content Management Systems group at AIT, led the technical coordination of the ASSETS project and contributed to the creation of the Europeana Creative project. He will coordinate AIT effort in the EU Sounds project and contribute to the music information retrieval tasks.

**Dr. Rainer Simon** has experience in multimedia and user interface design, multimedia information management and multimedia computing with a focus on applying semantic technologies in digital libraries. In the EuropeanaConnect project he led R&D work on collaborative semantic media annotation. He will contribute to the crowdsourcing infrastructure in EU Sounds.

## NET7 (NET7)



### Introduction

NET7 is a SME based in Pisa, Italy. Its core business is development and consultancy on Web and semantic web technologies, including digital humanities and cultural heritage. NET7 had been giving applied research activities a central role, participating in several EU projects (eContentPlus Discovery, FP6 Websicola, FP7 SEMLIB, ICT-PSP Agora, ICT- PSP DM2E) and collaborating with academic institutions, among which the COST action A32 (Open Scholarly Communities on the Web). From such projects NET7 developed an extensive know-how in the area of semantic web digital libraries and annotation tools.

NET7 is co-founder and maintainer of the Linked Open Data Italia association<sup>23</sup>, devoted to promoting Linked Data technologies and to offering storage, consulting and facilities. In 2008 NET7 has been selected among the 50 most innovative SMEs in Europe by the French Presidency of the EU and presented its work at the Research for SMEs – Innovation in Motion – conference. In 2010 NET7 launched the Muruca project, producing and maintaining a set of open source innovative tools for digital libraries<sup>24</sup>.

### Roles and competences

NET7 will contribute to WP2 by assisting in the development of a collaborative annotation and augmentation environment by customising and extending NET7's Pundit server, which will support users in linking media objects to the Linked Data Web (e.g. DBpedia, Freebase, MusicBrainz) as well as to some well-known music related services and social networks such as Reverbnation and Bandcamp. Net7, in collaboration with AIT and NISV will put in place a software environment to enable semantic enrichment of different kind of media related to the Europeana Sound content.

### Key personnel

**Simone Fonda** (manager) is currently leading the development of Pundit. He has strong skills in Javascript, front-end and web development in general and teaches advanced Javascript and HTML5 programming and agile software development methodologies in enterprise oriented courses in the area of Pisa.

**Alessio Piccioli** (manager) is one of the founders and the President of NET7. During his graduation thesis and Ph.D thesis in Physics, he worked on data analysis for a ground based Astroparticle experiment. He also worked on medical physics and image analysis. He published several articles on leading international journals. Since 2005 he has been project manager at NET7 in both commercial and research projects.

---

<sup>23</sup> <http://linkedopendata.it>

<sup>24</sup> <http://www.muruca.org>

## Shift (SHIFT)



### Introduction

Shift (previously We Are What We Do) is a London and San Francisco based non-profit with a distinct approach to behaviour change and social impact, and a simple mission: to create ways for millions of people to do more small, good things. We make stuff that people want to buy or use and which have positive behaviours built in, aiming to reach massive audiences and help address major social and environmental issues. Among our recent accomplishments are the creation of Historypin, which is a massive public history project created to connect people across generations and cultures to foster learning and understanding.

### Roles and competences

Historypin will work in WP2 with EF, NISV, AIT and NTUA to define detailed specifications for the infrastructure that will support crowdsourcing of metadata in the context.

Historypin is a free website with over 1,000 institutional partners contributing content from around the world, over 45,000 registered users, more than 200,000 contributed pieces of content and stories, and over half a million app downloads. In addition to our toolset that accommodates the collection of User Generated Content on a massive scale and user-led curating of all of the content available on the site, we are currently in advance R&D phase of crowdsourcing, annotation, and User Enriched Metadata.

### Key personnel

**Jon Voss**, Project Manager. Jon is Historypin's Strategic Partnerships Director. Working with our vast network of cultural heritage, academic, and technology partners, Jon leads our development of institutional infrastructure (like Linked Open Data, and the convening of game-changing conferences and working groups) and advises on our consumer-facing web and mobile products.

**Alex Stanhope**, Technical Lead. Alex leads technical strategy and development at Shift, and has served as a technology consultant to the UK creative industries for over a decade. Most recently, he served as the Digital Director at the Bridgeman Art Library.

**Rebekkah Abraham**, Operations. Rebekkah is Historypin Operations Director and as such supports hundreds of archive partners to share their collections on Historypin. She manages the content team who pin content, moderate contributions and run Historypin's social media channels.

**Kate Ferrier**, UI/UX Design. Kate is our principle graphic designer and works across a wide range of projects from brand identities to exhibition design, web interfaces to infographics. She has experience designing and art-directing for a wide range of non-profit and corporate clients, including the Victoria and Albert Museum, Comic Relief, The Epilepsy Society, Sophy Robson, The Go Team, Ted Baker and D&AD.

## Centre National de la Recherche Scientifique (CNRS)



### Introduction

The CNRS has a rich collection of sound archives. Two of them can contribute to Europeana, with the *Huma-Num* service support (<http://rechercheisidore.fr/>). The **Research Centre of Ethnomusicology** (CREM) is one of the greatest repositories of traditional music in Europe, founded in 1932 by A. Schaeffner at Musée de l'Homme, Paris. It preserves historical archives, more than 5000 hours of music and oral traditions from all over the world (records and tapes, 1900-2013). CREM disseminates this heritage to a global audience. Currently, 43,000 items are available (22,000 sounds on line). CREM is part of the Comparative Ethnology and Sociology Laboratory, Paris Ouest-La Défense University. The **Phonothèque Maison méditerranéenne des sciences de l'homme** (MMSH, Aix-en-Provence) as a place of living memory collects recordings with historical, ethnological, linguistic, musical or literary value from the Mediterranean area. Now, more than 8 000 items have been deposited since the late 60's, the work of researchers, cultural institutions and freelance collectors willing to make their collections accessible.

### Roles and competences

CREM and MMSH will provide audio content in WP1 and is involved in WP2 and WP6 for enrichment, participation and dissemination. CREM designed Telemeta, a web audio CMS introducing backup, index, transcode, analyse and publishing of audio files with metadata. This tool delivers controlled online access over a MySQL database in accordance with open standards. It includes geolocation, search capabilities, dynamic audioplayer, DublinCore and OAI-PMH compatibility. MMSH's database joined the *Oral Heritage Portal* which gives access to multiple Sound archive centres. Its sound collections have been digitized since January 2000; more than 2000 hours are online in accordance with legal and ethical rules.

### Key personnel

**Véronique Ginouvès**, research engineer, directs the Sound Archives Center of the MMSH. She contributed to numerous publications and training courses. The documentary processing of MMSH sound library follows the rules synthesized in the *Manuel d'analyse des archives sonores* (AFAS: Modal, 2001) from the experience of many sound archive specialists.

**Josephine Simonnot** started her career as a sound engineer. Since 1999, she is appointed at Musée de l'Homme, in Ethnomusicology Lab (CNRS), responsible for audiovisual production and digitising. Now she is the project manager of the web platform Telemeta. Her research focuses on advanced tools for sound analysis and semi-automatic indexing of audio data.

**Aude Julien**, engineer in charge of documentary resources for the CREM. After training in ethnomusicology, Aude Julien participated in various projects specialising in sound and audiovisual archives of traditional music for preservation and dissemination in scientific and cultural institutions in France (Musée du Quai Branly, BnF, CNRS).



**UAB DIZI (DIZI)**Introduction

UAB DIZI operates in ICT sector and focuses on medium-sized memory institutions (libraries, museums and archives) and other institutional archives. Its digitisation and consulting services include long-term preservation and access strategy, development of metadata management tools and online educational user services. In daily workflow it respects international archival standards and recommendations, provided by experts and professional organisations. Online user services are always tested by accessibility and usability experts.

Roles and competencies

DIZI is a primarily content provider in WP1 for which it will provide audio content. It will also participate in WP2 and WP6 for enrichment, participation and dissemination

DIZI was regional coordinator for EuropeanaLocal (Lithuanian content was provided to Europeana for the first time) and is a technical partner of the National Library of Lithuania and regional libraries network, Vilnius University, Information Society Development Committee under the Ministry of Transport and Communications.

Key personnel

**Tomas Kartašovas** is project specialist at 'Dizi'. He has experience in developing information systems for memory institutions and is responsible for managing digital collections and metadata. He is interested in application of open source platforms, metadata mapping, interoperability issues and responsive mobile friendly applications.

**Tadas Valatkevičius** is project assistant at 'Dizi'. He has considerable experience in developing and implementing digital cultural heritage projects. His main areas of interest are collection management, development of online access, crowd sourcing, accessibility.

## Deutsche Nationalbibliothek (DNB)



### Introduction

The Deutsche Nationalbibliothek is the national library and national bibliographic information centre for Germany. It is responsible for the collection, processing and bibliographic indexing of all German and German-language publications issued since 1913 and all German and German language media works issued in public networks. As the legal deposit music archive of Germany, the Deutsche Musikarchiv, part of DNB, holds a significant music collection comprising more than 2m items of sheet music, books on music as printed and electronic publications, sound recordings and audio books. The DNB collection policy covers sound recordings of all genres, such as classical, popular or traditional music, spoken and natural sound. Most of the recordings themselves are not yet out of copyright. Since the emergence of electronic publications in the 1990s, the DNB has enhanced policies and procedures for its digital collections both for preservation and for access. Our digital music collection grows rapidly. All c.150,000 CDs migrated so far are available in different levels of quality for professional work or casual listening in our reading hall.

### Roles and competences

The DNB will provide content in WP1 in terms of metadata and objects, copyright permitting. DNB also has an important role in WP3 on licensing of audio and audio-related objects.

### Key personnel

**Reinhard Altenhöner**, head of the IT-department of the DNB, is responsible for conservation and preservation of physical media units as well as long-term digital archiving. He has built up digital library services and infrastructure in leading positions at different locations in Bonn, Münster and Mainz. Role in E-Sounds: Technical coordinator

**Robert Luckfiel**, responsible for digitisation projects since 2008, especially with regard to work processing and workflow development, is project leader in a digitisation project for audio content from the Deutsche Musikarchiv (DMA) in DNB. Robert represents DNB in several national projects. Role in E-Sounds: Technical and workflow developer.

**Wibke Weigand** is deputy head of Deutsche Musikarchiv, a department of DNB. She is in charge of organising working processes, projects and personal resources in the Deutsches Musikarchiv. This includes acquisition processes, cataloguing standards and metadata. Role in E-Sounds: Managing specialist librarian.

**Michael Fernau** is head of the German Music Archive and the Leipzig representative of the Director General of the DNB, and responsible for the collection policy of the DNB. He covers a wide range of governmental and legal issues. Role in E-Sounds: Administrative coordinator.

## ΣΥΛΛΟΓΟΣ ΟΙ ΦΙΛΙΟΙ ΤΗΣ ΜΟΥΣΙΚΗΣ (Music Library of Greece 'Lilian Voudouri' Friends of Music Society) (FMS)



### Introduction

The Music Library of Greece 'Lilian Voudouri' was created under an initiative of the Friends of Music Society. Their vision was that the Library would act as a pool of information for music and the arts, capable of supporting a full programme of research and education. The Library opened to the public in February 1997, and since then has functioned as an important centre of study. The Library's collection is constantly expanding and has a principle focus on western European music alongside all types of Greek music (ancient, Byzantine, traditional and contemporary). The Greek Music Archive was created in order to fulfil the requirement for an official body specialising in the collection, processing and documentation of all material relevant to Greek music, with the eventual goal of creating a centre for the preservation and study of this material. The collection contains rare documents, manuscripts, archives and both current and historical publications, all related to ancient, Byzantine, traditional and contemporary Greek music. The archives of Greek composers and artists constitute a particularly significant part of this collection.

### Roles and competences

Music Library of Greece "Lilian Voudouri" of the Friends of Music Society (FMS) is a content provider in WP1, for which it will provide online access to its collections of audio and audio-related content on Greek traditional music. FMS is also involved in WP2 and WP6 for enrichment, participation and dissemination.

The Library has delivered numerous research and educational programs, and has collaborated with several institutions in Greece. As part of its international presence, Music Library contributes to Europeana with selected content through Athena and Europeana Local, and was awarded with the ISME Gibson Award 2012 for Music Education for its educational program 'MelOdyssey: a music history for the young'.

### Key personnel

**Stephanie Merakos**, holds a B.A. from the State University of New York at Buffalo and an M.A. in musicology from the University of Connecticut, USA. Since 1995 she has been working at the Music Library of Greece "Lilian Voudouri" where she has been responsible for the Greek Music Archive.

**Kosmas Karakatsanis** obtained a B.Sc. Hons in Electronic Engineering from Southampton University and a M.Sc. in Digital Systems from Brunel University. For the last 18 years he has worked for Friends of Music Society as IT manager, responsible among others, for the IT systems, the internet and all ICT projects.

## Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche (ICCU)



### Introduction

ICCU was created in 1951 with the task of producing the entire national bibliographic record. ICCU is an Institute of the Ministry for Cultural Heritage and Activities; it manages the National Library Service and the union catalogue of over 4,000 Italian libraries, and it is responsible for providing the standard rules and regulations for cataloguing all types of materials ranging from manuscripts to multimedia documents.

### Roles and competences

ICCU will provide audio content of the Istituto centrale per i beni sonori e audiovisivi – ICBSA aggregated through the library aggregator Internet Culturale. ICCU has deep expertise in digitisation standards and guidelines, collaboration for integrated access to Digital Cultural Heritage resources. ICCU's staff built the knowledge in project coordination and networking with a series of successful European projects: MINERVA (2002-2008): MICHAEL and MICHAELplus (2004-2008). The expertise of ICCU's staff is also on the coordination of top level European initiatives in DCH related to the implementation of Europeana including ATHENA – Access to Cultural Heritage Networks across Europe: 2008-2010; Linked Heritage: 2011-2013; AthenaPlus: 2013-2015. ICCU currently participates as partner in other projects of the Europeana ecosystems: Partage Plus, Europeana Collections 1914-1918, EuropeanaPhotography, Europeana Awareness, ARROW Plus. ICCU coordinates other European initiatives in the field of DCH and research e-Infrastructures: DC-NET - Digital Cultural Heritage Network: 2009-2011, DCH-RP – Digital Cultural Heritage Roadmap for Preservation: 2012-2014. Based on the above expertise, ICCU will be a valuable asset for the Dissemination activities in the Europeana Sounds project.

### Key personnel

**Rosa Caffo:** Librarian and ICCU Director. From 2001 the Italian representative to the European National Representatives Group on Digitisation, and from 2007 to the Member States' Expert Group on digitisation and digital preservation set up by the European Commission; coordinator of the above mentioned national and international projects. Role in the project: coordinator of ICCU's activities.

**Massimo Pistacchi:** From 2004 is director of Italian national sound archive. Role in the project: content provider.

**Andrea Tempera:** consultant, financial and administrative manager of EU projects (MINERVA, MINERVA+, MINERVAeC, MICHAEL, MICHAEL+, MEDCULT, STACHEM, ATHENA); Technical assistance for servers and websites of many EU projects including MINERVA, MICHAEL, STACHEM, ATHENA, LINKED HERITAGE, PARTAGEPLUS, ARROWPLUS, EUROPEANA COLLECTIONS 1914-1918. Role in this project: technic and administrative coordinator.

## Irish Traditional Music Archive (ITMA)



### Introduction

The Irish Traditional Music Archive (ITMA), founded in 1987, is the Irish national reference archive and resource centre for the contemporary and historic traditional music (song, instrumental music, and dance) of Ireland, of its diaspora, and of other practitioners of this art form world-wide. It documents and promotes this music by the acquisition and creation of its multimedia materials – sound recordings, books and serials, sheet music and ballad sheets, photographs, videos and DVDs, ephemera, etc. – and with information about the music. It holds the largest collection in existence of these materials and information. ITMA is a hardcopy publisher of print and audiovisual materials in its own right, organises exhibitions, and also publishes through a wide variety of partnerships. Particularly noteworthy are archival television broadcasting partnerships with the national broadcasters RTÉ and TG4 which have been running since 1994.

### Roles and competencies

ITMA is a content provider in WP1 for which it will provide audio content and related images of Irish traditional music, song and dance. It has a systematic programme of national and international Internet outreach in progress through the digital publication of audio and video recordings, printed items, photographs and other images, interactive music scores and a mass of catalogue and contextual information on the website and through social media.

### Key personnel

**Nicholas Carolan**, general manager of project: ITMA Co-founder in 1987 and Director since of its acquisition, preservation, information control, dissemination and fund-raising programmes; lecturer in Irish traditional music, Trinity College Dublin 1985–98; hon. D.Litt. National University of Ireland Galway 2007; radio and television broadcaster, lecturer; author; musician.

**Grace Toland**, metadata and library requirements manager of project: Librarian, ITMA; Europeana Co-ordinator, ITMA. Former Assistant Librarian, Dublin Institute of Advanced Studies; former Information Officer, Irish Fisheries Board; PRO MusicPal; Inishowen Traditional Singers' Circle Policy Development & Festival Organiser; singer.

**Treasa Harkin**, technical manager of project: IT Officer, ITMA; Melodies & Images Officer, ITMA. Graduate in communications, postgraduate in ethnomusicology, information technology. Former computer programmer, Hewlett Packard Group; former professional musician.

**Áine Ní Bharáin**, cataloguer for project: Archive assistant, ITMA. Graduate in music and English, postgraduate in library and information studies; musician.

## The Language Archive (TLA)



### Introduction

The Language Archive (TLA) at the Max Planck Institute for Psycholinguistics has a large data archive holding resources on languages worldwide. Many of the data are (partially annotated) audio and video recordings. Part of the archive concerns data on smaller languages and cultures as typically obtained in field work. We have currently data on about 200 languages, where data on some 60 languages come from research projects of the program 'Documentation of Endangered Languages' (DOBES). Our long-term expertise with archiving and software development has provided the background and basis for our participation in trend setting international projects and collaborations; for example, ISLE, DOBES, CLARIN (EU, D, NL), EUDAT, DASISH, Radieschen, TextGrid, AVATech, INNET, and now iCORDI (RDA-Europe). We also support institutions worldwide that want to establish a LAT-based repository on their own.

### Roles and competences

Providing access in WP1 to relevant recordings in the archive, as far as access rights (due to IPR and privacy concerns) allow (metadata is always open and can be harvested via OAI-PMH). Providing expertise on metadata formats (e.g., IMDI, CMDI) and annotation / tagging (e.g., ELAN). The project would give TLA the opportunity to engage one person full time for metadata curation and completion, even visiting individual researchers and renegotiate the current access levels, also to make the metadata compliant with the Europeana and EDM requirements.

### Key personnel

**Alexander König** (data curator) studied German and English linguistics in Bochum which he completed in 2005 with a master's degree (Magister Artium). From 2007 to 2008 he was employed as a software developer in Dortmund, programming in Magik and C#. In 2009, he went back to linguistics and has since then worked as an archive manager at The Language Archive.

**Paul Trilsbeek** (archive manager) is a sonologist. Since 2009 he has been the principal archive manager and head of archiving group in The Language Archive. He is part of the Data Seal of Approval initiative, leader of the DELAMAN (endangered languages and music archive network) board, and Member of the Alliance for Linguistic Diversity Advisory Committee.

**Sebastian Drude** (scientific advisor) is originally a field linguist interested in language documentation, linguistic typology and language technology. He obtained his Ph.D degree in 2002 at the Freie Universität Berlin and was a Dilthey-Fellow 2008 to 2011 at the Institute for Comparative Linguistics at the Goethe-Universität Frankfurt. From November 2011, he was Scientific Coordinator of TLA; since January 2013 he has been the head of this group.

## National Library of Latvia (NLL)



### Introduction

The National Library of Latvia (NLL) is the largest research library in the country. The Library has been engaged in building the Latvian National Digital Library 'Letonica' since 2006. Besides digitising the collections of the National Library of Latvia and partner organisations, and making them accessible, its research is focused on the interoperability of large-scale multi-format digital resources. Additionally it works on the support of searchability and content clustering of different format multi-faceted digital content. In 2012 NLL finished a large scale digitisation project that processed OCR and OLR of around 4m pages of books and newspapers. New e-services were also provided to the public.

The Library is the national content aggregator and provider to Europeana and has been a partner in projects such as TEL-ME-MORE, and project TELplus, EuropeanaLocal and Europeana Travel financed by the European Commission under the eContentplus Programme, and is a partner in Europeana Awareness and European Newspapers Online projects. The Library is the Legal Deposit receiver of all kinds of materials, published in Latvia, including audiovisual materials, such as sound and video recordings, and other multimedia materials. It has one of the largest collections of published sound recordings in Latvia, dating from the beginning of the 20th century.

### Roles and competences

The National Library of Latvia's main contribution will be in WP1 – content selection, description, metadata transformation, but also in WP6 – dissemination, especially in Baltic states and possibly Scandinavia, through its personnel's active involvement in the Baltic Audiovisual Archival Council (BAAC). As a continuation of this project, NLL could build a support community and encourage other memory institutions from Latvia and Baltic states to submit their audio and video material according to the best practice guidelines created during this project.

### Key personnel

**Zane Grosa** - Head of Audiovisual Reading Room, responsible for the management of the audiovisual collection at the NLL. Board member and current president of the BAAC; board member of the Latvian Music Information Centre (LMIC). Responsibilities in the project: content selection, metadata, dissemination.

**Artūrs Žogla** - Head of Digital Library, Lecturer at University of Latvia. Participated and managed ERDF funded digital library projects, European Newspapers project, internal NLL projects. Areas of expertise: digital libraries, digitisation, semantic web technologies, system analysis and development.

**Juris Lubējs** – audio/video collection specialist with extensive experience in digitising audio and video materials from different formats, as well as creating metadata and databases for the objects. Many years' experience in museums and libraries. Responsibilities in the ES project: content description, metadata transformation.

## Österreichische Mediathek (OeM)



### Introduction

The Austrian Mediathek (Österreichische Mediathek) is Austria's national archive for sound recordings and video (music and spoken word of diverse subjects). It was founded in the Sixties and has built up a collection of 1.6m recordings. Besides collecting, Mediathek also used to produce source material itself; that is, sound and video recordings of cultural and political events.

The Austrian Mediathek is a division of the Technisches Museum Wien and has a staff of about 25 persons. Since 1999 a digital preservation and access system for sound was installed and is now operational (NOA digitisation stations, mass storage system with several security features, special multimedia database, automatic procedures), since 2011 a complete solution for digitising video for archival purposes (DVA-Profession) was developed. Currently about 60,000 recordings have been digitised so far and can be played back locally with help of a catalogue database, a significant part is also available online via our Website (several online-platforms and media exhibitions: [www.mediathek.at](http://www.mediathek.at)).

### Roles and competences

The Austrian Mediathek is a content provider (audio, video) and will participate in WP1, WP2, WP3, WP6, WP7 and has many years' experience in metadata-aggregation, digitalisation of audio- and video material and digital audio and video content on the internet

### Key personnel

**Dr. Gabriele Fröschl** is Head of the Austrian Mediathek, historian; media exhibitions, project management of scientific projects in the Mediathek, chairman of maa (media archives Austria, national branch of IASA,). Role in the project: national dissemination strategy, project management

**Mag. Johannes Kapeller** is Media archivist at the Austrian Mediathek, with responsibility for project management of scientific projects in the Mediathek, web-exhibitions and PR. Role in the project: national dissemination strategy, project management

Other staff will be hired for the project.



## Rundfunk Berlin-Brandenburg (RBB)



### Introduction

Rundfunk Berlin-Brandenburg (RBB) is the public service broadcaster for the federal German states of Berlin and Brandenburg. It produces and broadcasts one television channel and six radio channels and provides a range of interactive multimedia services including websites, teletext and HbbTV-based connected TV services. As member of the ARD (Association of Public Service Broadcasting Corporations in Germany), RBB contributes to nationwide television and radio channels and multimedia services.

From its broadcast centres in the capital Berlin and the media city Potsdam-Babelsberg, plus various regional studios and offices RBB provides services for almost 6m inhabitants in a transmission area of 30,000 km<sup>2</sup>.

### Roles and competences

RBB is a content provider in WP1 for which it will provide audio content. RBB will participate by assisting in the provision of recommendations for the adaptation of the EDM profile for audio and audio-related objects to ensure richer digital records and enhanced discovery.

RBB has special experience in cooperating with Europeana, having coordinated the biggest audio source in Europeana via the Audio-Archive-Project DISMARC (2006-08) and EuropeanaConnect (2009-11). The DISMARC database for audio metadata and referenced audio files derives from radio archives, universities, museums, academies of sciences, private collections and more and has multilingual search and display functions in 32 languages.

### Key personnel

**Johannes Theurer**, (senior project manager) RBB staff, is editor and program presenter on the radio channel Funkhaus Europa. He was project manager of eContentplus project DISMARC, technical manager in EU projects CARO, eContent project EMUCAST, and recently WP-leader in the eContentplus project Europeana Connect. He chairs the World Music Workshop of the European Broadcasting Union (EBU).

**Prof. Dr. Walter Koch** (technical project manager), director of AIT (Angewandte Informationstechnik Forschungsgesellschaft mbH), professor at Graz University; has extensive project experience focused in cultural heritage, bibliographic information, information systems, IT-management, including in many EU Projects: COVAX, OpenHeritage, CULTIVAT, REGNET, MEDIA.ALP, DISMARC, EuropeanaLocal; Europeanav01, EuropeanaConnect, BHL Europe, OpenUp.

## Tobar an Dualchais/ Sabhal Mòr Ostaig (TAD)



### Introduction

Sabhal Mòr Ostaig is the managing partner of the Tobar an Dualchais project and employer to all TAD staff. It is Scotland's only Gaelic college, a National Centre for Gaelic Language and Culture and part of the University of the Highlands and Islands.

Tobar an Dualchais (Kist o Riches in Scots) was set up to preserve, digitise and make available online a wide variety of sound recordings in Scottish Gaelic and Scots. The recordings come from the School of Scottish Studies (University of Edinburgh), BBC Scotland and the National Trust for Scotland's Canna Collection.

The Tobar an Dualchais website was set up in December 2010 and currently contains 32,896 recordings, with content including folklore, songs, music, history, poetry, traditions, stories and other information collected from all over Scotland from the 1930s onwards. The website has a number of unique features, such as the scale and quantity of the recordings included, the geographical spread, including all parts of Scotland from Shetland to the Borders and the Western Isles to the East Coast, and the inclusion of both Gaelic and Scots traditions.

### Roles and competences

TAD is a content provider in WP1. Tobar an Dualchais has expertise in digitising, creating metadata, cataloguing, copyright issues, project planning and delivery, technical skills and marketing. It also has expertise in Gaelic and Scots language and song. In addition it has the support of specialist colleagues such as archivist Dr Cathlin Macaulay at the School of Scottish Studies Archives and technical experts at EDINA, and back-up from colleagues at Sabhal Mòr Ostaig, University of Edinburgh, National Trust for Scotland and the BBC.

### Key personnel

**Mairead MacDonald** (manager) is Director of Tobar an Dualchais and managed the project to digitise, catalogue and publish the recordings now available on the website. She continues to be involved in developing Tobar an Dualchais and also has responsibility for the Uist Digitisation Centre. With a background in librarianship and Gaelic publishing, she was previously Director of the National Gaelic Resource Centre.

**Kenny Beaton** (technical manager) is a native Gaelic speaker from South Uist in the Western Isles. He was responsible for all technical aspects of the Tobar an Dualchais project, including designing the workflow process, disk storage, cataloguing system and website. He previously worked for the entertainment retailer HMV as a software analyst and developer.

**Ross Campbell** (technician) worked for Becogent and Dell before joining Tobar an Dualchais in 2010, where he trained as a digitiser of audio materials. For the last three years he has worked in TAD's office in South Uist, where he digitises materials from a wide range of analogue formats, as well as providing network support to colleagues on the Tobar an Dualchais project.

## Statsbiblioteket / State and University Library, Denmark (SB)



### Introduction

The State and University Library (SB) is a public institution under the Danish Ministry of Culture. The Library has three main tasks, being a national library, a university library and a service provider for the Danish public library sector. As a national library with legal deposit obligations SB collects, preserves and makes available a considerable part of the Danish cultural heritage. The Library is particularly responsible for Danish newspapers, audiovisual media and web-based material. The audio collections comprise: 1) a complete collection of phonograms published in Denmark since 1901; 2) a collection of unique cylinders with some of the earliest sound recordings in the world, and various other speech collections; 3) Danish radio from the 1950s and onwards, complete from 1984 onwards. All radio programmes from 1989 till today – in total 1m hours – are online available for research and study purposes. SB is a member of the International Internet Preservation Consortium (IIPC).

### Roles and competences

SB is a content provider in WP1 for which it will provide audio content from its music and historical sound collection. Digitisation of analogue media and handling of digital born materials has been in the library's focus for several years, both for preservation and access purposes. SB has built an elaborate, digital storage, which presently holds more than 1 petabyte. SB is the main leader of bibzoom which provides online access for public library users to more than 10m music tracks with 30-second snippets, available globally. It will also contribute to WP3.

### Key personnel

**Ditte Laursen**, senior researcher and curator. As a researcher, she is participating partner in RESAW (Research infrastructure for the Study of Archived Web materials) and DigHumLab (Digital Humanities Lab Denmark). She has been curator of radio, television and Internet collections since 2007, and metadata specialist for digital heritage collections since 2011.

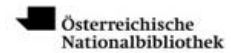
**Gry Vindelev Elstrøm** is Digital Collections Manager. She is responsible for formulating and implementing the Library's digital preservation strategy and is working with management of the digital collections, audit procedures and dissemination of the digital preservation work.

**Bjarne Andersen** (IT) has worked within digital library technology the last 12 years. focusing on development of workflow system, digital repository systems and web archiving and since 2008 head of Digital Preservation Technology – an IT development department in charge of digital preservation, digitisation and digital acquisition.

**Eva Fønss-Jørgensen** (manager) is chief consultant. She has a comprehensive knowledge about the Library's collections and was among other things project leader of the former EU project JUKEBOX and Secretary General of IASA 2002-2005.

**Hanne Johansen** is special consultant and has a masters degree in law and diploma in journalism. She is primarily working with copyright, licensing and legal deposit. She also works with projects and business development.

## Oesterreichische Nationalbibliothek (ONB)



### Introduction

The Austrian National Library (ONB) is the main scientific library of Austria. With a history dating back to the 14th century, the Library holds a significant part of the world's cultural heritage. ONB's Music Department is Austria's largest archive of music material. Music manuscripts, printed music, textbooks of operas and vocal works, musicological writings, recordings and the estates of important composers are conserved and made available for study. The music manuscripts are of particular importance and comprise original material of composers like Mozart, Haydn, Beethoven, Schubert and Bruckner. The collection of around 130,000 music prints represent the entire history of music.

In addition to its role as a deposit library ONB acts as a research and innovation centre and has been involved in numerous R&D projects and initiatives. ONB has been a project partner in the EC's FP4, FP5, FP6, FP7, eContent, eContentplus and ICT PSP programmes, recently including PLANETS, IMPACT, SCAPE, APARSEN, EDL, EDLnet, TELplus, Europeana v.1.0, Europeana v.2.0, Europeana Awareness, Europeana Travel, Europeana Collections 1914–1918, Enumerate, Europeana Newspapers, and DM2E. Recently ONB coordinated EuropeanaConnect which built core services for Europeana. Currently ONB acts as project coordinator of the Best Practice Network Europeana Creative which works on re-use scenarios for digitised cultural content with the creative industries.

### Roles and competences

ONB has been conducting large scale digitisation programmes since 2003, including the Library's newspaper, image and poster collections. In 2010 ONB announced a public private partnership with Google where the Library's complete holdings of public domain books are being digitised (600,000 volumes). Recently ONB has been digitising significant manuscript holdings of its Music Department which will be made available to Europeana via the Europeana Sounds project.

ONB's R&D department has been involved in EU research projects since FP4. ONB has contributed to the European Digital Library initiative on a strategic and operational level from the beginning and is one of the main content contributors to Europeana.

### Key personnel

**Max Kaiser**, Head of R&D at ONB, has many years of R&D experience in digital libraries, digital preservation to digital humanities. His involvement in EU projects, includes project coordinator of EuropeanaConnect and Europeana Creative, board member of Europeana v1.0 and v.2.0, WP lead of Europeana v.2.0, and leading roles in PLANETS, IMPACT, and SCAPE. He is project director of Austrian Books Online, ONB's PPP with Google.

Other staff will be hired for this project.

## Faculdade de Ciências Sociais e Humanas da Universidade Nova de Lisboa (FCSH)



### Introduction

The Faculty of Social Sciences and Humanities (Faculdade de Ciências Sociais e Humanas - FCSH) at the Universidade Nova de Lisboa serves to improve the academic level of citizens and, in particular, Portuguese citizens, in the areas of social sciences and humanities. The Instituto de História Contemporânea (IHC) is a research unit of FCSH-UNL for the study, education and dissemination in Contemporary History in general and Portuguese Contemporary History in particular. As a partner in Europeana 1914-1918, the IHC is a data-provider of Portuguese historical contents, such as historical documents, images, sounds, movies and objects related to Portugal's participation in World War I.

### Roles and competences

IHC (FCSH, UNL) will work principally in WP1 and brings together experts from the fields of institutional, political, cultural, social and economic history in Portugal, also several networks and partnerships with institutions such as the Portuguese Archives and Museums, the National Archives, the Portuguese National Library, the Institute of Ethnomusicology – Centre for the Studies of Music and Dance, the Museum of Music, the Museum of Fado, the Radio and Television and Museum and Archives, Portugal's Institute for Language and Cooperation (Camões Institute).

### Key personnel

**Maria Fernanda Rollo** is Professor at the History Department of the FCSH and President of the Instituto de História Contemporânea (IHC). As team manager, MFR will coordinate the general work of identification, selection and collection of contents, their thematic definition and the creation of databases, and work among other partner institutions in Portugal.

**Salwa Castelo Branco**, Professor of Ethnomusicology and Director of the Instituto de Ethnomusicologia, Universidade Nova de Lisboa, Portugal, Vice President of the Society for Ethnomusicology (2007 – 2009) and President of the International Council for Traditional Music. As a specialist in Ethnomusicology, SCB will be responsible for research, selection and organisation of Portuguese popular and traditional music contents.

**Rui Vieira Nery**, professor at Nova Universities, Director of the Gulbenkian Portuguese Language and Culture Program; President of the Scientific Commission for the application of Fado to the Representative List of Intangible Human Cultural Heritage (UNESCO). RVN will provide scientific support to the selection of contents related to Fado and its history.

**Ana Paula Guimarães (IELT)** Associate Professor in Faculdade de Ciências Sociais e Humanas – Universidade Nova de Lisboa. President of Instituto de Estudos de Literatura Tradicional (IELT), a partner institution of Memoriamedia project ([www.memoriamedia.net](http://www.memoriamedia.net)). APG will principally support the selection of contents regarding popular tradition.

**A junior researcher** will be responsible for complementary research, database updates and support the selection and classification of contents.

## Comhaltas Ceoltóirí Éireann (CCÉ)



### Introduction

Comhaltas Ceoltóirí Éireann (translated as the Society of Traditional Musicians of Ireland) is the primary organisation dedicated to the promotion of the music, song, dance and language of Ireland. The organisation comprises a network of more than 400 local branches representing 75,000 members. Comhaltas coordinates a programme of traditional festivals, including Fleadh Cheoil na hÉireann, an annual music festival attracting 250,000 visitors, and supports an active recording and archiving programme of work.

### Roles and competences

Comhaltas brings to WP1 a unique community archive perspective to the Europeana Sounds project. Comhaltas began recording and archiving Irish traditional music in the 1960s, and has continued to develop the Comhaltas Traditional Music Archive (ComhaltasArchive.ie) through a distributed network of Regional Resource Centres around Ireland. The ComhaltasLive video series focuses on capturing individual and small-group performances at traditional music festivals and concerts, and plays a key role in the ongoing transmission of Irish traditional culture. In the project, these videos, audio recordings, sheet music transcriptions and related commentary, photographs and publications will be ingested into the Europeana repository. Because of the intense widespread participation in this art form, and given the number of active online communities, the connection and presentation of these traditional music items presents an excellent opportunity to develop new forms of community tagging, distributed metadata enrichment and educational applications.

### Key personnel

**Jim McAllister** is the Director of the Clasaic Regional Resource Centre in Dublin, overseeing a performing arts archive, an active concert and festival series and regular classes in Irish traditional music, dance, singing and language. A long-time Project Officer in Comhaltas, he was a key force in the creation of the Development Programme for the Irish Traditional Arts. He is a former Sales & Marketing Director of Marconi Data Systems.

Other staff will be hired.

## B3.2a. Chosen approach

### Overview

The work plan of Europeana Sounds is organised in seven interlinked work packages as shown. They map directly into the project objectives as listed in section B1.1.

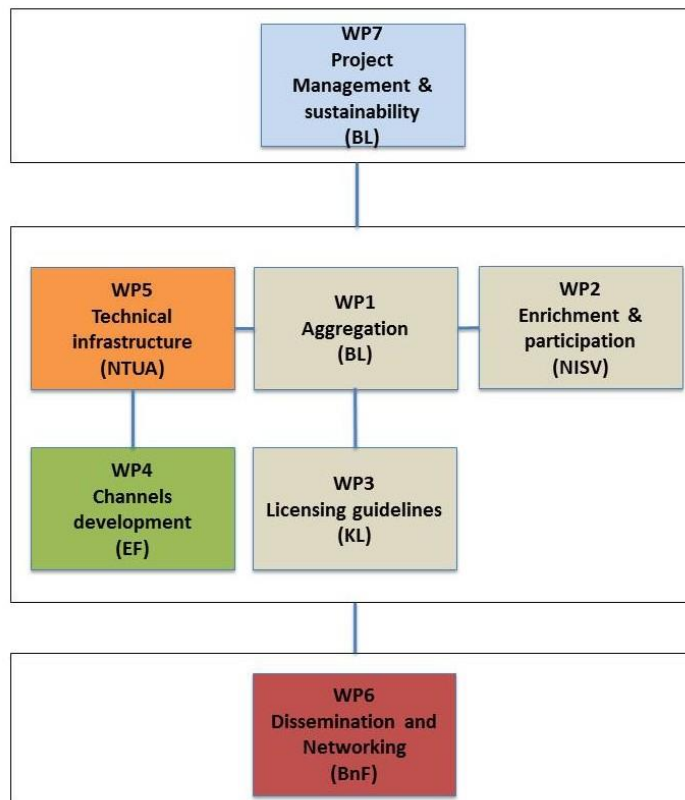


Figure 3: Work plan architecture. WP1, WP2 and WP3 all contribute directly to Aggregation and Enrichment.

Work Package 1 will provide a **critical mass of digital audio tracks** and supporting objects through Europeana to meet the needs of public audiences, the creative industries and academic researchers.

Work Package 2 will support discovery and use by **improving metadata** through innovative methods including semantic enrichment and crowdsourcing.

Work Package 3 will work with our content providers as well as publishers, the recorded music industry, rights holders, and libraries to **improve access to out-of-commerce content** and increase the opportunities for **creative re-use of Europeana content**.

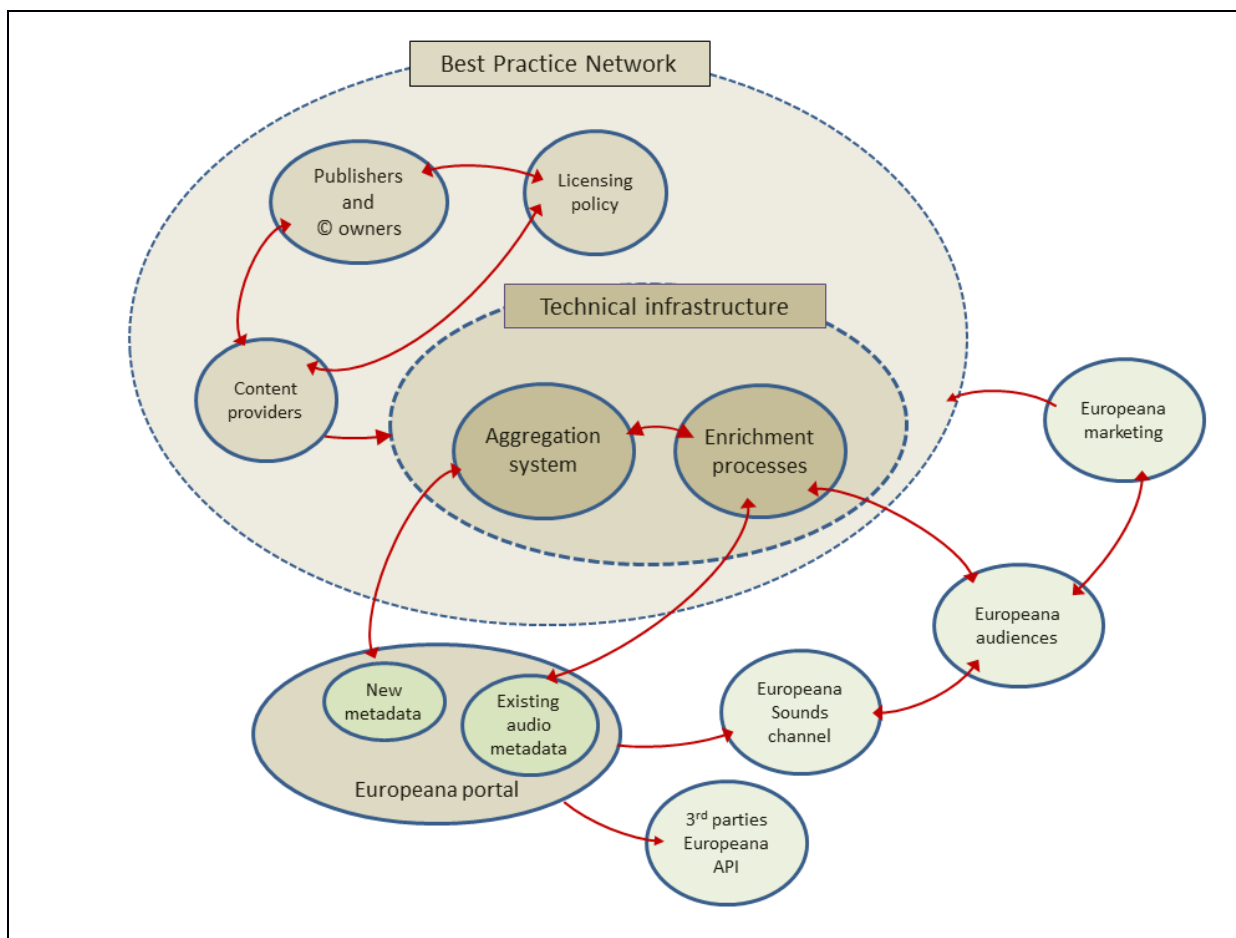
Work Package 4 will **enhance the existing Europeana portal** by implementing a mechanism for providing channels that allow specific user communities to discover, share and annotate digital audio content that can be extended to address other communities of interest and other media.

Work Package 5 will **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.

Work Package 6 will work with the other work packages to make the Europeana Sounds Best Practice Network comprehensible 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.

The Europeana Sounds Best Practice Network is part of the Europeana family and our proposed developments are integral to the planned evolution of the Europeana service.

In our discussion of objectives (Section B1.1) we explained how we need to aggregate, enrich and collaborate in order to provide this much-needed gateway to European aural culture: AGGREGATE in order to be able to harvest metadata that provides access to the material, ENRICH in order to improve discovery of the material and COLLABORATE with the many different stakeholders in Europeana's eco-system by bringing them into the best practice community, especially publishers, rights-holders and third-party 'playout' channels. These inter-relationships are represented diagrammatically below.



**Figure 4: Best Practice Network Inter-relationships**

There are many technical and business/operational issues for the BPN to resolve.



In terms of **aggregation**, we need to (a) improve the efficiency and the level of automation of the current Europeana platform and (b) broaden its ability to handle time-based media and metadata.

In terms of **enrichment**, we need to (a) develop ways of making the assignment of metadata more robust and more scalable, both through automation using semantic web technologies and through crowdsourcing as well as (b) delivering the benefits of enrichment which are to be found in improving discovery and user experience.

In terms of **collaboration**, we need to (a) reduce some of the non-technical barriers through collaboration with content providers and rights-holders (amongst others) and (b) work with third-party partners to trigger a range of opportunities for providing enhanced access through dedicated sound channels.

The three themes of aggregate, enrich and collaborate are echoed in the way we approach the parts of the workplan that supply the technical framework of Europeana Sounds. It divides architecturally into (a) aggregation and back-end services to support search and channels programmes, (b) support for enrichment (c) front-end components that allow linking with third-party collaborators. Functionally these correspond to the ingest, query and access (re-use) phases of the information life-cycle. This is summarised in the following diagram.

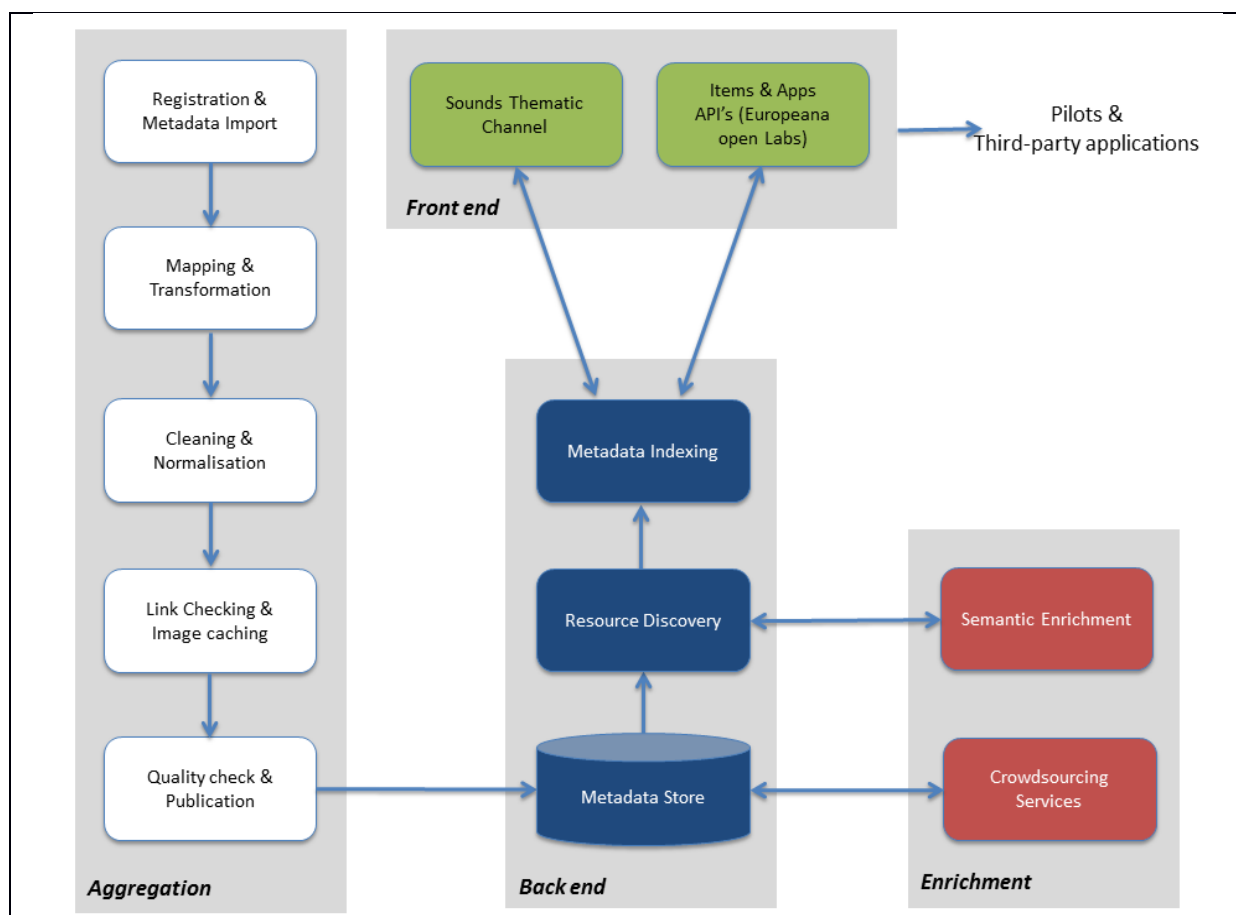


Figure 5: Proposed technical approach

## **Aggregation and ‘back end’**

Europeana Sounds will focus specifically on audio and audio-related content, primarily music and speech audio, including out-of-commerce recordings and a large number of unpublished works from Europe’s major sound archives that are not widely available. Europeana Sounds will therefore fill a significant gap in content aggregation.

The Europeana Data Model Model (EDM) functions as an anchor, to which various data providers can be attached and become, at least partly, interoperable. In WP1, we will expand the current EDM profile to ensure it meets the requirements for accessing time-based media through Europeana. To maximise the effectiveness of the aggregation mechanism, the EDM will be specialised to incorporate sound-specific metadata and enable time-based annotations. The EDM profile for sound will facilitate richer mappings and thus richer metadata for Europeana. A task force will be formed including experts from within and outside the Consortium that will work to define the EDM profile for sound.

We will also define controlled vocabularies (ontologies) to be used in the enrichment processes, building on earlier work such as the genre classification from DISMARC. The vocabularies will be converted to SKOS (Simple Knowledge Organization System), a W3C recommendation designed for representation of structured controlled vocabulary on the semantic web that is already in use within the Europeana Sounds content provider community (e.g. the French and German national libraries).

Efficient ingest requires a framework for aggregating metadata for audio and related digital objects by defining and maintaining a content selection policy. It also requires improvements in all aspects of the technical infrastructure for aggregation within Europeana. This will cover registration and metadata import, mapping and transformation, cleaning and normalisation, link checking, thumbnail caching and quality checking prior to publication as part of WP5, as described below.

### Aggregation-related technical services

Europeana Sounds will enhance and extend the existing Europeana infrastructure for metadata aggregation which is a set of tools that are controlled by the United Ingestion Manager (UIM). For metadata harvesting, the Repox tool ([rebox.ist.utl.pt](http://rebox.ist.utl.pt)) is used. The MINT platform<sup>25</sup> is used to map, transform, normalise and preview the metadata. UIM also controls link checking, thumbnails caching and enrichment. The aim is to extend the existing infrastructure by providing customised views specifically for sound material and direct access for read and write at the Europeana servers. The proposed approach will deliver a sustainable core part of the Europeana infrastructure, efficiently and transparently integrating aggregation functions into an aggregation workflow.

### Registration & metadata Import

Registered users will be able to upload their metadata records in XML or CSV serialisation, using the HTTP, FTP and OAI-PMH protocols. XML records will be stored and indexed for statistics, previews, access from the mapping tool and subsequent services.

---

<sup>25</sup> <http://mint.image.ece.ntua.gr>

### Mapping & transformation

A visual mapping editor for the XSL language will be used. Mapping will be performed through drag-and-drop and input operations, which will be translated to the corresponding XSLT code. It will support string manipulation functions for input elements, structural element mappings, constant or controlled value (target schema enumerations) assignment, conditional mappings and value mappings between input and target value lists.

Handling of metadata records includes indexing, retrieval, update and transformation of XML files and records. XML processors will be used for validation and transformation tasks as well as for the visualisation of XML and XSLT. For issues of scalability with respect to the amount of data and concurrent heavy processing tasks, parts of the services are multi-threaded and queue-processing mechanisms will be implemented.

The figure below shows a screenshot of the visual mapping editor.

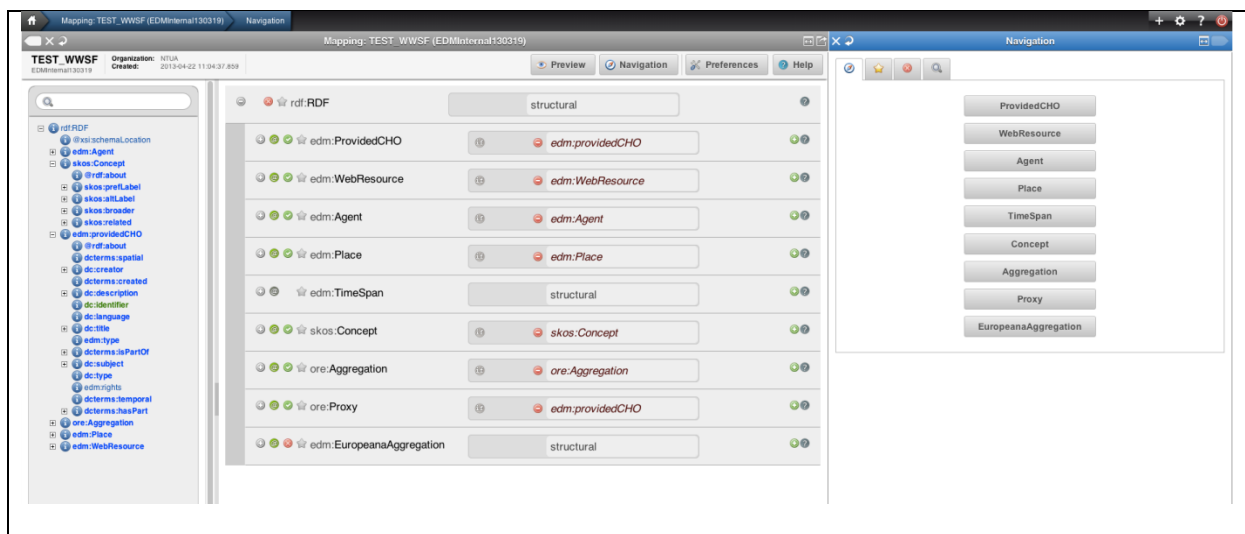


Figure 6: MINT mapping editor

### Cleaning and normalisation

Users will be able to transform their selected collections using complete and validated mappings in order to publish them in the EDM SP (sound profile) for the required aggregation and remediation steps. Various additional resources such as terminologies, vocabularies, authority files and dictionaries will be used to reinforce an aggregation's homogeneity and interoperability with external data sources. A typical usage scenario is the connection of a local (server) or online resource with a metadata element in order to be used during mapping/normalisation. These resources can be XML, RDFS/OWL, SKOS or even proprietary systems accessed through APIs.

### Quality check & publications

In order to publish metadata to Europeana, providers will have to pass a number of quality checks. Structural validity, completeness of metadata elements, use of controlled lists and thesauri are among the checks that will be applied.

State of the art technologies will be used to allow for a reliable, scalable and portable messaging and processing system, used in and between different services. Metadata will be published in XML, JSON or RDF according to the mechanism and usage. Typical scenarios include an OAI-PMH repository for XML records, SPARQL endpoints for triple stores, Lucene-based indexes for search engines and RESTful or RESTless APIs for third party services.

#### Back end services

##### Application APIs

This divides architecturally into (a) aggregation and back-end services to support search and channels programmes, (b) support for enrichment (c) front-end components that allow linking with third-party collaborators. WP5 can then specify and implement the APIs and the messaging protocols used for remote service invocation. The input and the output of each service will be represented by business messages that standardise the interaction within the Europeana APIs (the type of application, user session control, authentication and authorisation information).

##### Resource discovery and enrichment

semantic web technologies will be used to transform metadata records to Web resources in order to participate in the emerging web of data that promotes transparency and interoperability between trusted sources.

One of the main points is the apparent need for preservation and alignment of as much of the original data richness as possible. Aggregation is only the first effort made on the part of providers and aggregators towards the efficient mediation and reuse of their knowledge bases. The support for semantic data models such as the EDM enables the repository for deployment and, most importantly, information reuse through knowledge modelling and data interoperability research activities. The aim is to support reconciliation across the repository and with external authorities, and enrichment of the information resources.

##### Metadata indexing

Structural and semantic interoperability is achieved through the use of the EDM, which is an established standard in the area of cultural metadata. Retrieval will be performed using the Solr framework. Its major features include powerful full-text search, hit highlighting, faceted search, dynamic clustering, database integration, and rich document handling. Solr is highly scalable, providing distributed search and index replication. Solr uses the Lucene Java search library at its core for full-text indexing and search, and has REST-like HTTP/XML and JSON APIs that make it easy to use from virtually any programming language.

### **Enrichment through crowdsourcing, semantics and Wikipedia**

As of 14 April 2013, Europeana holds less than half-a-million sound objects. 75% of these were aggregated by the DISMARC<sup>26</sup> project (2007-2008) and the follow-up EuropeanaConnect<sup>27</sup> (2009-2011).

---

26 <http://www.dismarc.org>

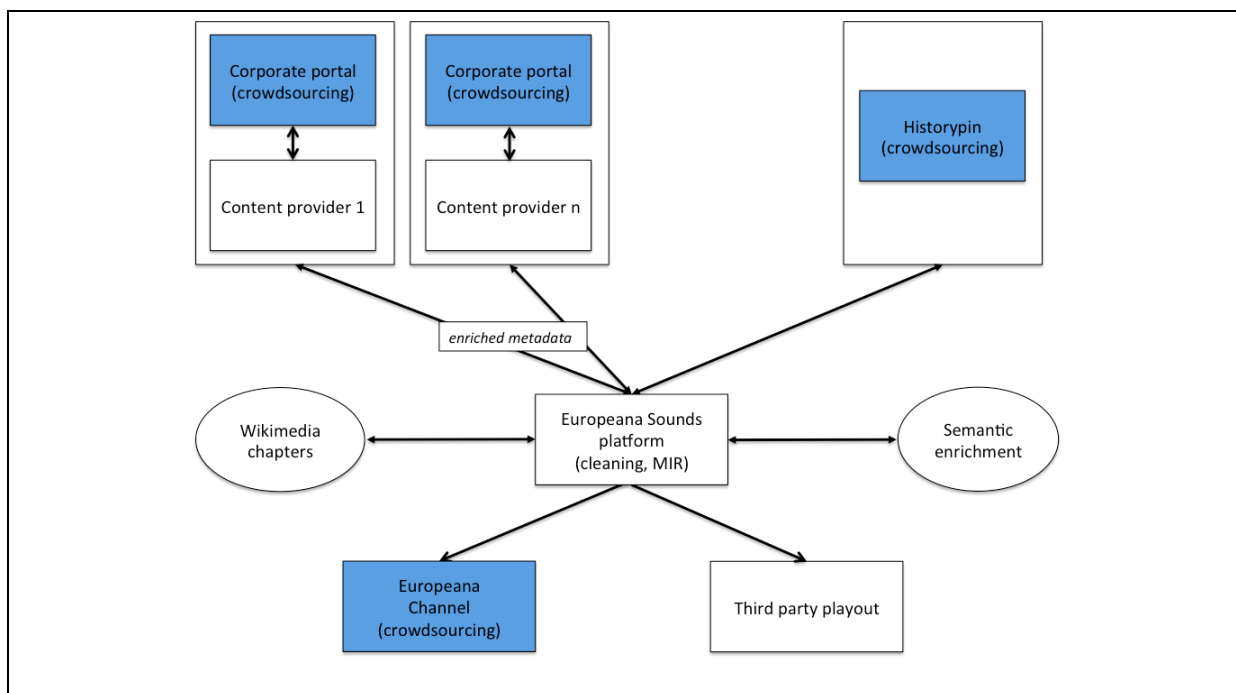
We will build on those projects, not only by bringing in metadata from new partners with major collections of audio content but also by enriching existing metadata through semantic web techniques, automatic feature extraction and crowdsourcing.

These are all areas where significant research has taken place and we intend to incorporate some of the more promising techniques into our planned enhancements to the Europeana infrastructure and provide a means of passing the results of enhancement through crowdsourcing back to content providers

Europeana Sounds has designed an ambitious multi-tier strategy to enrich metadata. User participation (including crowdsourcing) plays an important role in this strategy. Enrichment activity will be executed in four areas:

1. Enrichment through crowdsourcing
2. Semantic enrichment
3. Collaboration with Wikimedia chapters
4. Innovative exploration pilots

The high-level approach is represented in the figure below (fig. 7). The shaded boxes signify the three end-user spaces where crowdsourcing activity will happen: Europeana Sounds channel, institutional portals and on Historypin. Third party playout (bottom right) will include SoundCloud and possibly Spotify.



**Figure 7: Europeana enrichment and participation concept**

We now provide a detailed description of the enrichment strategy to be executed in WP2.

### Enrichment through crowdsourcing

The crowdsourcing infrastructure to be developed in conjunction with WP5 will consist of functionalities that will support two types of users, the general public and experts. This approach makes it possible to differentiate between relatively simple tasks that do not require domain knowledge and tasks that do.

Based on the Annotorious crowdsourcing platform, from project partner AIT, Europeana Sounds will create a web-based game that allows the general public to add tags to the objects contributed by the project.

A collaborative annotation and augmentation environment will be built using Pundit<sup>28</sup> from Consortium partner NET7, which will support users in linking media objects to the Linked Data Web (e.g. DBpedia, Freebase, MusicBrainz) as well as to some well-known music related services and social networks (e.g. Bandcamp).

Crowdsourcing tools will be embedded on project partners' corporate portals, on the Europeana Sounds channel and on Historypin. This distributed approach will ensure maximum impact in terms of users; the strategy is to go to where the crowd is as much as possible and facilitate enrichment activities there.

### Enrichment on institutional portals

Contributing partners (within the Consortium, but potentially all members of the Europeana network) are encouraged to integrate crowdsourcing tools on their respective portals. This will allow the flexibility to showcase their audio content. Based on successful projects in the context of Europeana Awareness, WP2 will create 'crowdsourcing campaign packs' with operational tips to support the partners running campaigns.

### Enrichment on Europeana Sounds channel

The crowdsourcing tools will be made available on the Europeana Sounds channel. This will need to take into account the IPR situation of the content. Software development to allow the Europeana channel infrastructure to support crowdsourcing will be executed in WP5 and will be closely monitored by WP2 to ensure the crowdsourcing tools comply with Europeana standards regarding metadata modelling.

Part of the development will be to help sound partners make embeddable widgets out of their media players. The widget will then be embedded on the Europeana Sounds channel (and elsewhere) and will be user-annotatable at that point without any need for the sound file to be moved from its original site. This scenario is comparable to the popular and successful SoundCloud widget. The metadata of the object can be user annotated in multiple ways without the need for direct access to the media file, a logistical consideration that should not be disregarded.

---

<sup>28</sup> <http://www.netseven.it/portfolio/pundit/>

### Enrichment on Historypin

Historypin is a digital, user-generated archive created by the Consortium partner Shift in 2010. The website has over 200,000 assets and recollections 'pinned' to the Historypin map around the world. The integration of crowdsourcing tools will enable metadata and assets to flow onto Historypin via the Historypin/Europeana database integration. This will allow Europeana Sounds partners and the wider Europeana network to:

- design projects on Historypin (e.g. based on themes, events, locations, dates etc) and add crowdsourcing tasks within these projects around the sound assets (e.g. geo-tag, date, link, time-stamp, tag, curate, contribute assets etc.);
- engage the public in crowdsourcing activities in a variety of social network environments, including Facebook, Twitter, SoundCloud and others, and experiment in a variety of ways with harnessing user enriched metadata.

All contributions will be stored on a central platform, according to Europeana standards and the infrastructure will provide support for crowdsourced (semantic) enrichment plugins that can be distributed and used as widgets on the target web sites.

### Semantic enrichment

The second strand of work on enrichment exploits semantic web technologies rather than the willingness and competence of a community of interest. This will include mining Europeana query and access logs to identify the music related concepts (e.g. names of musicians, instruments, songs) that are often used by the portal users, reusing the Semantic Shortcuts algorithm developed in the Assets project.<sup>29</sup> These concepts will be linked with the Wikipedia/DBpedia entries by using the statistical data analysis and named entity extraction functionalities provided by the Wikipedia Miner toolkit. The strongest semantic relationships between the extracted named entities will be searched using graph search algorithms. In this way the hidden semantic information that is most useful for the Europeana users will be identified and used for the enrichment of the metadata describing the audio content. This will be used to:

- uncover/highlight connections between recordings and extract knowledge from musical relationships;
- suggest collections based on artists' collaborations, influences, shared members, genres etc.;
- mine into Europeana system logs and linking with external resources (e.g. DBpedia) to identify relationships between music related concepts (i.e. make use of Relfinder<sup>30</sup> and the Semantic Shortcuts algorithm developed in Assets);
- link with music domain data clouds (e.g. SoundCloud) and music-centric social-networks such as Reverb Nation<sup>31</sup> and BandCamp<sup>32</sup>).

<sup>29</sup> [http://ec.europa.eu/information\\_society/apps/projects/factsheet/index.cfm?project\\_ref=250527](http://ec.europa.eu/information_society/apps/projects/factsheet/index.cfm?project_ref=250527)

<sup>30</sup> <http://www.visualdataweb.org/relfinder.php>

<sup>31</sup> <http://reverbnation.com>

<sup>32</sup> <http://bandcamp.com>

This technology will be applied to all Europeana audio related content, thus improving the quality of Europeana metadata significantly.

#### Collaborating with Wikipedia chapters

Collaborations between Wikipedia chapters and GLAMs have proven very valuable for forging connections with end-users. Recently, such collaborations have become one important focal area of the Wikipedia chapters across the globe.<sup>33</sup> The missions of Europeana and Wikipedia overlap, and this has resulted in a number of successful collaborations; for instance the pan-EU photography campaign Wiki Loves Monuments and its successor Wiki Loves Public Art. These efforts result in significant contributions of digital objects that are now available through Wikimedia and can be used widely.

In Europeana Sounds, the focus of the collaboration with Wikipedia will be on enriching the collections with contextual information contributed by Wikipedians through hackathons. We anticipate that at least 5,000 music-related wiki pages will be enriched as part of this activity. Context-aware accesses to these pages will be an important feature of the Europeana channel interface as it will offer visitors a layer of additional information.

#### Innovative exploration pilots

Two pilots will showcase innovative ways to explore audio heritage. Results will be embedded in the Europeana Channels (WP4) and shared with the Europeana Network. Results will be included in the Europeana Open Lab, as launched in Europeana Creative by project partner EF.

#### Dynamic linking

The first pilot will focus on the creation of links between segments of audio content and related image content (images of sheet music) and/or digital scores stored in MusicXML or a similar format. AIT will re-use, customise and extend existing technology (such as the methods and tools from the Pelagios project<sup>34</sup>), and develop a model of interlinking based on established standards such as Open Annotation and W3C Media Fragments.

As an example, a musical score from a collection such as the ONB's music manuscripts could form the link between an audio recording of a performance originally aggregated into Europeana by the DISMARC project in 2008 and a video masterclass aggregated by Europeana Sounds in 2015. This in turn could be linked to additional information extracted automatically, such as the instruments being played, using melody recognition to match related music clips, and automated feature extraction to show time signatures, pitch and instruments.

---

<sup>33</sup> <http://outreach.wikimedia.org/wiki/GLAM>.

<sup>34</sup> [pelagios-project.blogspot.com](http://pelagios-project.blogspot.com)



### Music information retrieval

The second pilot will implement the indexing and retrieval of audio content based on existing music information retrieval technology. This will provide alternative means to explore the Europeana Sounds collection. The development is led by AIT, in collaboration with EF.

Two areas of work will be explored:

- the extraction of indexable features from the audio material - e.g. timbre, chords, harmonies, melody, main pitch, beats per minute or rhythm. This will initially be based on existing open source audio processing and feature extraction libraries such as Marsyas<sup>35</sup> and, JMIR-JAudio<sup>36</sup>;
- indexing, search and ranking. High scalability and retrieval performance will be obtained by implementing specific music retrieval algorithms on the top of Lucene open source search.

Audio similarity search algorithms based on high level audio features can be applied for all formats used for music representation, while the exact matching of music fragments can be performed on music scores represented in MIDI or MusicXML formats.

The results will be integrated in the Europeana front-end and the resulting service will be made available to the wider Europeana network as part of the Europeana Labs environment, developed in Europeana Creative.

### **Improved collaboration with third-parties**

The popularity of radio in its broadcast and online forms (e.g. Live365, LastFM, Spotify, Pandora and SoundCloud) is an indication of the importance of audio as an online medium and its role in encouraging the use of the internet.

The Digital Agenda for Europe recognises the potential of a trend where citizens can interact not only with other individuals but also with all kind of content providers<sup>37</sup>. A hackathon will be organised within the Best Practice Network to explore new opportunities for the creative industries. Developers will be invited through the Europeana network, the LODLAM community and the OpenGLAM community.

### Intellectual Property Rights

WP3 will cover IPR issues that arise from the activities undertaken by the project partners building on the Europeana Licensing Framework. This requires that all metadata that is made available via Europeana can be published by Europeana under the terms of the CC0 public domain dedication ensuring that it can be reused by anyone for any purpose. The primary goal is improving cross-border access to audio material held by the content partners through Europeana.

---

<sup>35</sup> <http://marsyasweb.appspot.com/>

<sup>36</sup> <http://jmir.sourceforge.net/jAudio.html>

<sup>37</sup> <http://ec.europa.eu/digital-agenda/en/creativity-media-0>

The project will have to deal with two different types of audio content: content for which copyrights and related rights have been cleared for making those works available online (guaranteed content, see Table 0 for an overview) and content that has been identified for possible integration into Europeana under the condition that specific copyright related obstacles can be overcome (see Table (c)). With regards to the latter, WP3 will address two specific types of obstacles: out-of-commerce works and domain-constrained content.

### Out-of-commerce works

Cultural heritage institutions including many of the content partners involved in the Europeana Sounds Best Practice Network hold unique collections of audio works that are no longer in commercial circulation and that are unlikely to return since the investment to digitise and contextualise them cannot be justified by the expected revenues.

On the other hand cultural heritage institutions are ideally positioned to digitise these works and make them available online as part of their public mission. In many cases this also means preventing them from becoming inaccessible due to formats becoming obsolete or storage materials degrading. These works present special problems with regards to rights clearance as rights holders may not be able or willing to cost-justify granting of licences given the limited revenue expectations.

As part of this project we will explore approaches for reconciling the interest of cultural heritage institutions in making these types of works accessible with the interests of rights holders (publishers and collective management organisations) in limiting the focus of their activities to content that is commercially attractive.

### Domain-constrained content

Over the years, cultural heritage institutions such as our content-partners have managed to clear rights to works in their collections in order to make them available in specific contexts (such as educational use) or territories (for example, limited to users in the country in which the institution is located). Such collections are problematic since they cannot usually be integrated into Europeana, which requires that all content that is made available via the platform can be, as a baseline, freely accessed from all types of users across all of Europe.

Given that domain-constrained content is especially prevalent in the audio (and audiovisual) sectors, we will explore approaches for broadening access to domain-constrained content. A special focus will be on cross-border access to collections that are currently available in specific jurisdictions as the result of national licensing schemes such as extended collective licences.

Both of these obstacles will be addressed in WP3. An initial survey among the content providers within the Consortium will provide an overview of these issues (the results of which will be needed by WP1) which will be used to identify elements of these issues that can be addressed on a Consortium-wide level.

After formulating proposals for addressing these issues we will invite representatives of rights holders to provide their analysis of the proposed solutions. Based on this dialogue, approaches acceptable to all relevant stakeholders will be defined and transformed into policy recommendations. Where possible these approaches will be applied to collections that are held by content partners participating in the project and the impact will be assessed by WP1 in its final report. This approach aimed at addressing the issue of cross-border rights clearance is in line (and builds on) the stakeholder driven approach employed by the European Commission as part of the Licenses for Europe initiative. The Consortium has confirmed that important stakeholders who are not represented within the Consortium such as GESAC and ICMP are willing to contribute to this. As such the European Sounds project is well positioned to explore the possibility of multi-stakeholder driven approaches to the problem of cross border rights clearance.

### **Europeana Channels**

It will be possible to embed specific channels on institutional or corporate sites to reach beyond the Consortium participants. These activities contribute to one of the key tasks for end-user product development in Europeana: incrementally improving the Europeana user's experience of search, usability, visual design and accessibility.

Through the introduction of channels, the Europeana Sounds BPN, together with the Europeana network of projects and partners, will be able to target different user groups with appropriate content and features collaboratively. This is expected to increase both user satisfaction and user reach. The channels concept in effect turns the Europeana portal into a portal engine. While retaining a common layout and interaction model it allows customisation of user experience features (including branding) based on themes of content.

In Europeana Sounds the themes of the channels will be related to music and audio; the exact channels segmentation will be an outcome of the user research. Other themed channels will be developed in other Europeana related projects appropriate to the thematic nature of those projects.

*To summarise: European Sounds will make a significant contribution to the aggregation, discovery, access and usability of audio for the user of Europeana and has an implementation plan covering all six of its specific objectives.*

Summary of technical challenges

The following table summarises our development goals in this project to address known limitations.

**Table (j) Technical challenges**

Module	Limitation	Development goal	Approach
Mapping and transformation	Currently available only to Europeana ingestion team EDM / MINT do not support time based annotation	Customised MINT functionality and views for sound	Provide MINT functionality to providers EDM SP (EDM Sound Profile) task force
Cleaning and normalisation	Labour-intensive	Complete and validated mappings reinforce aggregation's homogeneity	Support for resources such as terminologies, vocabularies, authority files and dictionaries
Link checking and thumbnail caching	Labour-intensive	Optimise and customise	Make this functionality available to providers
Quality check and publication	Services are not scalable	Reliable, scalable and portable messaging and processing system, used in and between different services	Metadata will be published in XML, JSON or RDF according to the mechanism and usage. Development of dashboard tool to verify the quantity and quality of material harvested.
Metadata Store	Supports only EDM	Extend it to support EDM SP (Sounds Profile)	Metadata will be available for indexing in EDM SP
Resource discovery and enrichment	Not available for sound material The process is not transparent.	Support of enrichment platforms that are tuned for sound material Provide interfaces for providers to refine the results	All metadata are resource based and metadata are enriched using related resources on the Web
Metadata indexing	Supports only EDM	Extend it to support EDM SP	All metadata elements will be indexed and published in the portal
Sound thematic channel	Does not exist	Define the wireframes and develop the HTML	Support of HTML5 technologies and customised views for sound related items

### Software development methodology

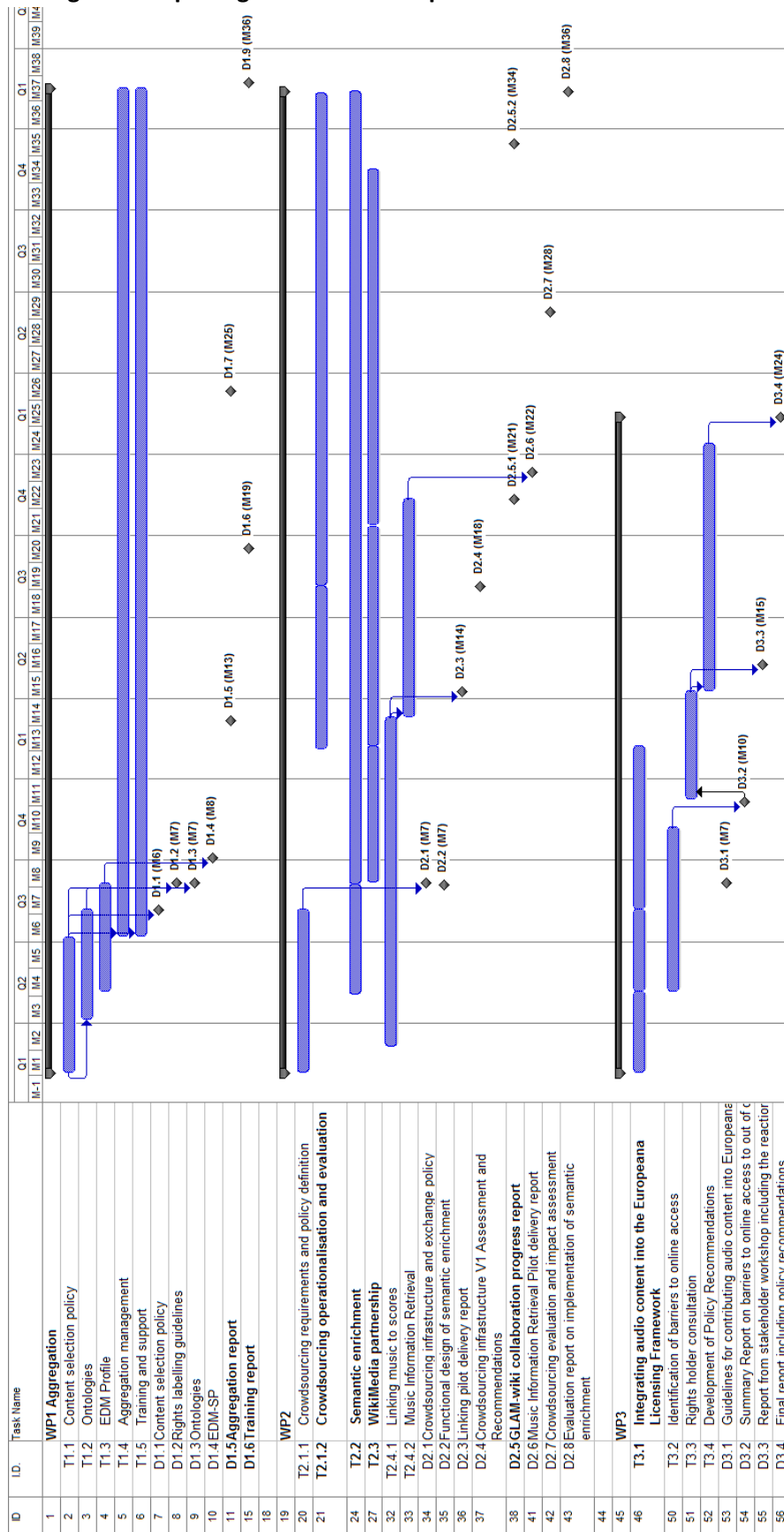
The development methodology will be based on the principles of the Agile software development method for iterative and incremental development, where requirements and solutions evolve through collaboration between cross-functional teams. It enables adaptive planning, evolutionary development and delivery and encourages rapid and flexible response to change.

The technical partners in the project have ample experience with applying Agile software development. The aim is to break tasks into small increments with minimal planning and do not directly involve long-term planning. Iterations are short time frames that should last from one to four weeks. Each iteration will involve a team working through a full software development cycle, including planning, requirements analysis, design, coding, unit testing, and acceptance testing. This minimises overall risk and allows the project to adapt to changes quickly.

Specific tools and techniques will be examined, such as continuous integration, automated or xUnit testing, pair programming, test-driven development, design patterns, domain-driven design and code refactoring, to improve quality and enhance project agility.

## B3.2b. Work plan

### Timing of work packages and their components





**B3.2b 2. Performance monitoring table**

Indicator No	Relating to objective/ result	Indicator name	Expected progress		
			Year 1	Year 2	Year 3
1	Aggregation (WP1)	Number of audio items aggregated	50,000	250,000	500,000
2	Aggregation (WP1)	number of other items aggregated	30,000	90,000	225,000
3	Aggregation (WP1)	number of items freely available for re-use	10,000	40,000	90,000
4	Aggregation (WP1)	Number of content providers using new EDM profile	50%	100%	100%
5	Aggregation (WP1, WP5)	Number of Consortium partners to have made use of training sessions	33%	66%	100%
6	User engagement (WP4)	User satisfaction. Channels will be evaluated annually in a user survey where the KPI is that 70% of users rate the channels as Good or Excellent	NA	70%	70%
7	Technical platform (WP5)	Number of services developed and implemented in the Europeana infrastructure	3 Registration, Mapping and Publication	3 Cleaning, Normalisation and channels	2 Quality checking, and Resource discovery
8	Enrichment (WP2)	Number of metadata records enriched through semantic enrichment	10,000	500,000	2,000,000 (all audio-related records in Europeana, today 450,000, but this will grow)
9	Enrichment (WP2)	Number of annotations (e.g tags) added by users	0	200,000	1,500,000



Indicator No	Relating to objective/ result	Indicator name	Expected progress		
			Year 1	Year 2	Year 3
10	Enrichment (WP2)	Number of new connections among records established by users and automatically	0	5,000	10,000
11	Enrichment and contextualisation (WP2)	Number of participants in the GLAMwiki edit-a-thons	50	100	200
12	Music Information Retrieval (WP2)	Number items accessible through the music retrieval service		15,000	25,000
13	Dissemination (WP6)	Participation of programmers in the hackathon (PM24)		40	
14	Dissemination (WP6)	Publications about the project (incl. external blogs)	200	500	800
15	Dissemination (WP6)	Number of events where the project is presented	10	20	40
16	Policy (WP3)	Number of publishers added to the Europeana Network and actively engaged in the stakeholder dialogue	3	5	5

**Table k: Risk assessment**

Note: these are the assessments prior to mitigation. Where a probability has been mitigated in the design of the project, the real risk will be lowered.

Description of possible risk		Impact L/M/H	Probability L/M/H	Mitigation <sup>38</sup>
Content-related risks	Use of metadata schema that are incompatible with Europeana ESE and EDM standards	Medium	Low	Reduce impact by verifying compliance with ESE before accepting content from a provider or external aggregator
	Failure to clear copyright means that affected content cannot be accessed through Europeana	Medium	Low/medium	Reduce probability by providing training and procedures for content providers that are inexperienced in clearing copyright Reduce impact by replacing with alternative content where that is feasible
	Failure to clear copyright for metadata and keyframes means that a provider cannot sign the DEA	Medium	Low/medium	Reduce probability by ensuring that all content providers are obliged to sign the DEA Reduce impact by replacing with alternative content where that is feasible
	Delay of aggregation of items leads to late publication on Europeana	Medium	Low/medium	Reduce probability by working to improve content provider workflows Reduce impact by scheduling completion of all pre-harvesting activity by the mid-point in the project

<sup>38</sup> Accept, Reduce, Contingency, Avoid

Description of possible risk		Impact L/M/H	Probability L/M/H	Mitigation <sup>38</sup>
Technical risks	Delay to aggregation of items and publication on Europeana due to problems with aggregator tool development of the portal back-end	Medium	Medium	Reduce probability through pro-active monitoring role of technical co-ordinator Reduce impact by adoption of Agile software development methods
	Delays in the planned functionalities in the portal front-end lead to limited evaluation of the pilots	Medium	Medium	Reduce probability through pro-active monitoring role of technical co-ordinator Reduce impact by adoption of Agile software development method.
	Inefficient integration with ongoing audiovisual digitisation actions due to lack of clarity regarding the formats and standards used in digitisation	Medium	Low	Reduce impact by working with the IASA and the PrestoCentre competence centre to ensure knowledge transfer
	The critical path to assessment, evaluation and dissemination of project results is dependent on progress with Europeana development projects	Medium	Medium	Reduce impact and probability by inclusion of Europeana Foundation as a project partner contributing to progress monitoring activities and planning of remedial actions
	Poor user experience on Europeana due to use of non-persistent links	Medium	High	Reduce probability by raising awareness of growing body of knowledge and PID standards (notably the Handle system) Reduce impact by ensuring that users understand that they are contributing to experimental aspects of the project
Operational risks	Delay in approval of content selection policy reduces time available to work with communities of interest	Low	Low	Accept risk and monitor carefully

Description of possible risk		Impact L/M/H	Probability L/M/H	Mitigation <sup>38</sup>
	Delay to delivery of aggregated content due to breakdown in communication with content provider network	Medium	Medium	Reduce probability by giving a formal role in the project team to the various communities of interest. Reduce impact by engaging with each content provider/aggregator on a case-by-case basis
	Unrepresentative sampling of user groups involved in test trials and user-oriented evaluations	Medium	Medium	Reduce probability and impact by correlating and validating early results with other relevant projects
	Not enough participation in the crowdsourcing activities	High	Low	The crowdsourcing will be networked; it will happen where users are. The content partners have access to sizable audiences, in the millions Historypin also has a lot of traffic to their site. Europeana's traffic is increasing gradually. With the Europeana channels, this will grow substantially
Perception risks	Lack of engagement with the creative industries	Medium	Low	Reduce impact by identifying and working with commercial and academic 'thought leaders'
	Lack of uptake of strategic policy recommendations	Medium	Low/medium	Impact cannot be fully mitigated as lack of uptake becomes an issue beyond the life of the project However, probability can be reduced since all relevant stakeholder groups are represented in this project and policy recommendations will be built on successful previous work

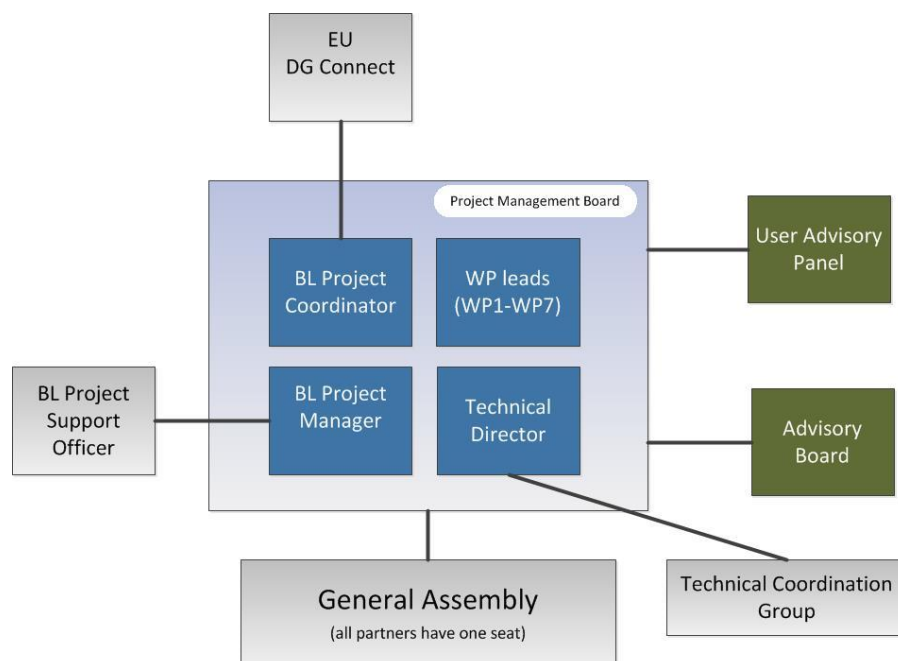
### B3.3. Project management

Europeana Sounds is an ambitious project and the Consortium is substantial. The British Library (BL) will manage and coordinate the project, following its in-house methodology based on PRINCE2 and assure timely progress at all stages. This WP will include oversight of project and financial administration, quality assurance, risk management, internal communications and meetings and project evaluation.

To ensure effective project management, a governance structure must be in place with clear division of responsibilities and rules for its operation. The Europeana Sounds Consortium has combined a considerable experience in EU project participation and the agreed governance structure for Europeana Sounds reflects structures well known to the Consortium partners and which has worked very effectively in past R&D projects. Key tasks are assigned to the experienced administrative infrastructure provided by the BL.

#### Management structure

The structure of project management in the Europeana Sounds project can be seen below.



**Figure 8: Project Management structure**

#### Main actors

The main actors of the overall management process are:

- Project Management Board (PMB)
- Work Packages (WPs)
- Project manager (PM) and Project Support Officer (PSO)
- Advisory Board (AB)

- User Advisory panel (UAP)
- General Assembly (GA)

### Project Management Board

The **Project Management Board** is empowered to take decisions for the project as a whole. It comprises the Project Coordinator, the Technical Director and all Work Package leaders. The PMB will meet physically bi-annually, and via Skype and/or teleconference on a monthly basis.

The PMB will negotiate and finalise a Consortium Agreement for all project partners and support the BL in creating and maintaining a Project Guide that will detail the course and all tasks of the project over time, and will administer changes to it as is necessary. The PMB will also support the BL in preparing review meetings. The BL will chair and minute all plenary meetings including the kick-off meeting and will represent the project at high level events such as project review meetings.

### Project Coordinator

Richard Ranft, Head of Sound and Vision at the British Library, will be Coordinator with overall management of the project in WP7, with support of a Project Manager and Project Support Officer. Mr. Ranft manages the UK national collection of sound recordings at the Library and the Library's Archival Sounds Recording project that provides web access to 50,000 audio recordings. He serves on the Executive Board of the International Association of Sound and Audiovisual Archives (IASA) and on the EF Board and Advisory Board of the EUscreenXL project.

The Coordinator and BL support staff between them will have the following responsibilities:

- Manage all communication with the EC.
- Draft, negotiate and maintain the Consortium Agreement.
- Handle all administrative and financial responsibilities in the project.
- Maintain oversight of the project's finances, process partners' financial statements, receive pre-financing and grant payments from the EC and distribute it to project partners.
- Ensure timely delivery of the project's progress reports.
- Monitor and review the completion of milestones and deliverables.
- Formally submit deliverables and other official communication to the European Commission.
- With support the Project Management Board manage the quality assurance procedure for deliverables.
- Maintain and if necessary update the Project Plan with support of the Project Management Board.
- Ensure that the project plan and the project's deliverables are aligned as far as possible to the needs of Europeana.
- Organise and chair General Assembly and Project Management Board meetings.

- Represent the project Consortium in high level events and bodies.
- After the end of the project, archive necessary project records for the period required by the European Commission.
- Ensure that overall documentation of the project is available and meets stakeholders' needs.

#### Technical Director and Work Packages

The role of the **Technical Director** is to facilitate technical coordination and integration between the work packages and with Europeana. The Technical Director is Johan Oomen of NISV, who has ample experience in EU funded projects since 2001, and expert knowledge on the technology behind Europeana. He will report to the Coordinator and the Project Management Board of which he is a member.

Day-to-day management of the work is delegated to leaders of the work packages.

#### User Advisory Panel

This will consist of five experts, representing the target groups of the project: consumers, creative industries, publishers, researchers and memory institutions. This group will be installed in M2 as part of Task 7.2. Three members will be drafted from within the Consortium; two (consumers, publishers) will be external. They will meet face to face once, as part of the Project Management Board meeting at the end of year 1, in time to reflect on the Europeana channels approach, T4.1.2. They will be consulted in other key phases of the project, with the explicit request to judge whether the project delivers results relevant to the users represented by the user group. They will be asked to assess watch of the development method adopted by the project. As part of the Quality Assurance procedure of the project, the Panel will be asked to review all deliverables relevant to end-user services, notably WP2 and WP4.

#### Advisory Board

In addition, the project has agreed on the installation of an Advisory Board. This board will meet face to face twice: after the first project review and before the second project review, with a formal agenda related to the project progress, exploitation trends and policy. The board members have been carefully selected for their specific expertise and for the networks they represent, including: digital music distribution, machine-led music information retrieval and search; crowdsourcing and public participation in online digital platforms. Acting as advisors to the project is mutually beneficial for both the project and the Advisory Board members:

- it provides Advisory Board members with first-hand information on the project. The envisioned dialogue will influence the strategic decisions taken by Europeana Sounds.
- it provides the project with external knowledge on trends that will be valuable in informing and positioning Europeana Sounds for the project and the longer-term durability of the BPN after the project ends.

The following have accepted to be Advisory Board members:

- Professor Mark Plumbley, Director, Centre for Digital Music and Professor of Machine Learning and Signal Processing, Queen Mary, University of London, UK
- Professor Martin Kürschner, composer and musicologist, Hochschule für Musik und Theater, Leipzig, Germany
- Amy Rudersdorf, Assistant Director for Content, Digital Public Library America, USA
- Dr. Alexandre Passant, Music Data Geeks, Ireland
- Prof. Dr. Eggo Müller, Professor of Media and Communication and director of the School of Media and Culture Studies, Utrecht University, and manager of EUscreenXL project, Netherlands
- Ben Fawkes, Audio Manager, SoundCloud, Germany.
- Bettina Schasse de Araujo - Director of sync global and art-e-fait platforms, WOMEX, Germany.

### General Assembly

One representative from each partner organisation will comprise a **General Assembly**, which will meet annually to:

- ratify any proposed changes to the Project Plan and Budget;
- approve any proposal to the EC for modification of the Grant Agreement or the Description of Work including Consortium membership;
- approve all progress reports prior to submission to the EC.

### Consortium Agreement

Prior to the start of the project, the Coordinator will prepare and sign with the Consortium the *Consortium Agreement* that will reflect the main guidelines for the cooperation and conflict resolution among project partners, and the definition of rights for exploitation of the value generated within the project (IPR handling). The *Consortium Agreement* will be based on a standard model e.g. DESCA<sup>39</sup>. During the project all partners will have the obligation (according to the *Consortium Agreement*) to protect the required confidentiality and the IPRs contributed to or produced by project. Apart from the generated know-how from which all partners will benefit equally, the exploitation of the overall system by each one may depend on the type of their future cooperation.

---

<sup>39</sup> DESCA (Development of a Simplified Consortium Agreement) - <http://www.desca-fp7.eu>



### Decision making in the Consortium

The **decision process** will be structured regarding the nature, sensitivity and speed requirements of the decisions to be taken. For the decision process, two kinds of inquiries are recognised: inquiries of a technical nature and inquiries that are related to the overall competence of the management, for instance time scheduling, financial / contractual matters, organisation / planning, information, controlling/quality of the project. The former case is handled at regular periods within the Project Management Team, while the latter cases requires a General Assembly decision.

### Conflict resolution in the case of minor conflicts

Minor conflicts and technical divergences within given contractual commitments that do not involve a change of contract, a change of budget and/or a change of resources or of the overall focus will be discussed and solved within the PMB. Decisions will normally be taken by seeking consensus and based on the *Consortium Agreement*.

### Conflict resolution in case of major conflicts

Major conflicts that involve the change of the contract regarding budget and effort will be solved within the PMB based on the *Consortium Agreement*. The Coordinator will inform EC in writing and will discuss the topics with the EC before a final decision is made. Any Consortium partner can ask the Coordinator to hold a PMB meeting to initiate the conflict resolution procedure.

### Risk management

As part of WP7 the project will monitor a Risk plan with the help of a risk register, identifying threats and describing necessary countermeasures. (D7.2 delivered in M2) and issue log recording responses to risks that occur.

## **Communication infrastructure and meetings**

It is important for the success of the overall project that each project member is kept up to date on the present status of the project, work completed, the next steps, the outcome of meetings, the allocation of tasks as well as has access to all official documents/information. Therefore efficient and continuous communication is vital for any project. Europeana Sounds will make extensive use of modern, Web 2.0 based communication and cooperation tools to support and enhance the collaboration of distributed research teams, e.g. Google Docs, Basecamp, blogs, wikis, Skype etc.

An internal communications platform will be used as a safe and secure archive of all project documents and as a system which makes all relevant information available and project procedures transparent. Regular project reporting will be supported by a professional, fully web-based tool (based on EuresTools Reporter<sup>40</sup>).

---

<sup>40</sup> <http://www.eurescom.eu/EuresTools/ResourceManagement/reporter.asp>

Next to electronic communication, personal contacts and face-to-face meetings remain an important instrument for successful cooperation. Telephone (Skype) conferences will be used regularly in order to maintain teamwork between physical meetings and to limit travel costs.

### Meetings and internal communication

Meetings and conferences will be an integral part of the communication strategy and the Consortium will meet, at a minimum, every three months. Efforts will be made to reduce travel costs without compromising the integrity of the communication strategy. Additional phone conferences and online meetings will be called if and when useful, as a suitable way to reduce travel costs and to exchange information about the progress within single tasks. Apart from that, ICT tools will be the day-to-day mechanisms for project communication, either internally or externally. These tools include electronic facilities such as email lists, a Wiki site for transparent cooperation and a documentation management system for updating and versioning of documents.

The professional organisation of the first project meeting (Kick-off meeting) is of particular importance for the whole project because within this meeting not only the project content, the administrative issues and cooperation rules are settled but also a good project culture have to be initiated which will influence the future project work/project results.

For all meetings a clear and well-structured agenda will be circulated among the participants to allow them to prepare themselves for the meeting. After each meeting minutes will be distributed within the project Consortium. The chairperson of the meeting will also be responsible to create a productive working environment.

### **Financial management**

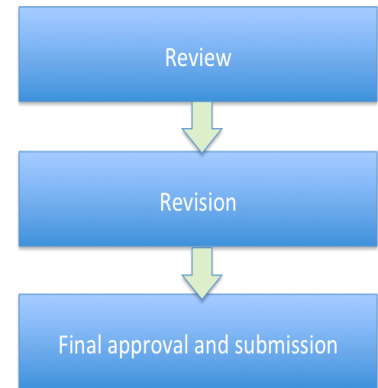
Financial management covers all areas of financial planning, budgeting, accounting, auditing (including the provision of Audit Certificates where required), submission of Cost Statements, receipt of funds from the European Commission and financial transfers between the coordinating party and partners, and the handling of income and expenditure for any items that are centrally managed on behalf of the Consortium as a whole.

As Coordinator the BL will be responsible for the distribution of funds to participants in line with the contract and Consortium Agreement. A Financial Report will be produced every twelve months containing a summary cost statement prepared by each participant and a cost certificate per participant, a management-level justification prepared by each participant of its overall costs incurred, linking these costs to the resources deployed and activities carried out by the participant. The financial report will also contain a summary financial report prepared, bringing together the incurred costs of the Consortium and the requested Community contribution. A Final Financial Statement will be produced at the end of the project.

## Quality management and self-assessment

All Quality Assurance procedures will be summarised within a so-called 'Quality Assurance Plan' (D7.1) at the beginning of the project. These quality assurance procedures will be applied to all internal and external results and Deliverables.

Regarding quality assurance activities, it has been proven valuable to introduce a three-step quality check (see Figure 9) for contractual deliverables. In the first step the deliverable is checked by a member of the Consortium who did not participate in the creation of that deliverable. The first review happens one month prior to the planned delivery date. The outcome of this first step is a review document containing recommendations for the revision of the deliverable. These recommendations are ranked on a scale from low via medium to high. After implementing the recommendations the authors create a document describing how they implemented the recommendations or why they decided not to implement some recommendations.



**Figure 9: Three-stage quality check**

They send the revised deliverable and the document containing their comments on the recommendations to the Work Package Leader and the Technical Director in order to be re-evaluated before submission to the European Commission. The review process is transparent for any member of the Consortium, since deliverables, recommendations and comments are accessible through the project's internal communication.

## Exploitation and intellectual property provisions

IPR management will be treated as part of the Consortium management activities. One of the most important aspects will be to agree, at Consortium level, which knowledge or inventions should be placed in the public domain (for example as the basis of standards, open source tools or public APIs), and which may be protected by patents or other means as the basis of commercial products. Europeana Sounds has a strong commitment to the development of open interfaces, standards and open code, and will make use of open source technologies wherever possible (see B3.5).

The parties of the Consortium will respect the individual IPRs. If, in the course of carrying out work on the project a joint invention is made and more than one partner are contributors to it, the participants concerned may jointly apply to obtain and/or maintain the relevant rights together. Each party has the right to limit or exclude specific background know-how from the other participants, but such restrictions should be stipulated in the Consortium Agreement. Such background know-how shall be used only for the execution of the project's objectives. The Consortium Agreement will also specify the rights to foreground know-how.

The Consortium will agree upon and institute an active patent and licensing policy, and the Consortium Agreement will address the patent policy. It will also secure the use of existing patents by other partners of the Consortium, during the time of the project.

## **B3.4. Security, privacy, inclusiveness, interoperability, standards and open source**

### **Security and privacy**

Europeana Sounds will be built as a channel of Europeana, and will therefore fully comply with the security and privacy policies<sup>41</sup> already in place for Europeana.

Europeana collects log files (IP address, the date and time of accessing the website, page requests etc.), cookies (to manage access privileges, such as preferred language) and information which it explicitly requests users to provide about themselves upon registration or upon using any electronic forms to communicate with Europeana staff. The minimum information required for the latter is name and email. Personal information is not used for direct mailing or for any other reason except to answer a user's request. Europeana does not sell, trade or rent such information to others. On occasion it will collaborate with public organisations such as universities that conduct research on its behalf on usage patterns and behaviour to help it improve the content and the services it offers. In these cases personal information (e.g. names or addresses) is not disclosed.

Information collected automatically from users is used only for the following:

- to monitor and to administer traffic to the website in a better fashion;
- to assess and improve usability, services and content;
- to identify technical shortcomings and to troubleshoot;
- to develop personalised services;
- to develop efficient marketing tools.

The Europeana Sounds project Consortium recognises the importance of ethical issues related to technological developments. It will fully respect ethical principles such as data security and the right to privacy. The project partners will respect and strictly adhere to current national and international regulations and laws in all conduct with human participants.

### **Inclusiveness and accessibility**

Europeana Sounds will fully comply with the accessibility policy already in place for Europeana<sup>42</sup>. This states

*Europeana.eu features and content have been designed to be universally accessible by users and user agents/devices. We strive to meet the WC3 Web Content Accessibility Guidelines Version 1.0. Our User Centred Design team frequently conducts usability testing of Europeana.eu navigation, flow, labels, and consistency. Furthermore, we will produce a version – post this prototype phase – for blind individuals.*

---

<sup>41</sup> <http://www.europeana.eu/portal/rights/privacy.html>

<sup>42</sup> <http://www.europeana.eu/portal/rights/accessibility.html>

Some of the accessibility features of our site include:

- Meaningful page titles to help with orientation
- Almost all images have either a meaningful alt-text (text equivalent)
- Minimal use of frames
- Use of resizable fonts
- Use Cascading Style Sheets (CSS) to separate content from presentation
- Notifying a user when a link opens a new window
- The (core) functionalities are usable without JavaScript

Europeana Sounds is committed to the democratised access to culture which is the core vision that underpins the Web. Potential barriers to this vision include users' geographical location, language, age and skills. As such, Europeana and Europeana Sounds will continue, wherever possible, to overcome such barriers through a strong policy of inclusivity which will direct all technical developments and user engagement. The continued development of semantic web technologies within the Europeana Sounds project, giving information better-defined meaning, will not only better enable computers and people to work in cooperation, but will also support future extensions into Linked Open Data access models.

### **Interoperability and standards**

Europeana employs the OAI-PMH communication protocol for host repositories or aggregation services for to contribute metadata. Europeana Sounds will provide an aggregation service for Europeana, and will therefore use OAI-PMH to harvest metadata from its content providers. This brings benefits for content providers as it can be implemented on many systems using open source software. Barriers to its implementation are low, which has helped make it one of the key standards that have been promoted to culture sector stakeholders.

Structural and semantic interoperability will be achieved through the use of the Europeana Data Model, which is an internationally recognisable framework that content providers comply with and one which the BPN can use to augment the scope of metadata to support improved discovery and user experience. The extension of the EDM profile (under WP1) to incorporate sound specific metadata and enable time-based annotations with involve the implementation of various terminologies, vocabularies, authority files and dictionaries to ensure the aggregated content's homogeneity and interoperability with external data sources. This will be managed through the established, open source MINT (Metadata INTERoperability) platform.

Semantic web technologies will be used to transform metadata records to web resources in order to participate in the emerging web of data that promotes transparency and interoperability between trusted sources. Other standards that have been identified and will be adopted or trialled in Europeana Sounds include:

- EDM – Europeana Data Model – emerging standard in aggregating metadata
- HTML5 – markup language with improved features for opening up access to multimedia content without requirement for proprietary plugins

- JSON – JavaScript Object Notation – data representation standard used by web services to provide information to client applications
- OWL – Web Ontology Language – used to define the semantic web representation of EDM data
- RDF – Resource Description Framework – family of W3C standards used for semantic representation of data connected by open internet protocols
- SKOS – Simple Knowledge Organization System – W3C standard used for representing categorisation schema such as taxonomies, classifications, thesauri, etc.
- XML – Extensible Markup Language – data representation standard used by web services to provide information to client applications
- XSD – (XML Schema Definition) – XML-based language used to describe and control XML document contents
- XSLT – Extensible Stylesheet Language Transformation – language used to support transformations from EDM to specific formats required by client applications

## Open source

In general, the standards and protocols used by Europeana Sounds are available as open source. Proprietary resources may be employed in specialised areas such as ontology management, where the speed and efficiency of such tools outweighs the value of using open source tools to achieve the same end.

All software developed within the project will be made available under an accepted open source licence<sup>43</sup>. Specifically:

- The open source MINT platform will be used as underlying infrastructure for metadata management (mapping to EDM, enrichment). MINT has been successfully used by many projects to aggregate material to Europeana. It is also part of Europeana's United Ingestion Manager (UIM) and this will ensure technical interoperability with Europeana.
- Pundit of NET7 and Annotorious of AIT are available under the GNU Lesser General Public License (LGPL).
- The two enrichment Pilots in WP2 will be based on open source components. The code will be contributed to the community.

All software developed by EF is available under the free software licence 'European Union Public Licence', version EUPL v1.2. This applies to the current baseline, and to the extensions (Europeana Channels, the crowdsourcing infrastructure) development in Europeana Sounds

---

<sup>43</sup> <http://www.opensource.org>

### B3.5. Resources to be committed

#### Human resources

As described in section B3.1, Consortium partners can be thought of in terms of their primary role based on competences. Work packages 1-4 are concerned with aggregation, enrichment legal and delivery issues, respectively. WP5 provides the underpinning infrastructure shared by WP1, 2 and 4. Figure 10 shows the balance between effort provided by the core group of six work package leaders and specialist input from collection holders and technology providers, predominantly in the aggregation and enrichment areas which are our primary areas of focus.

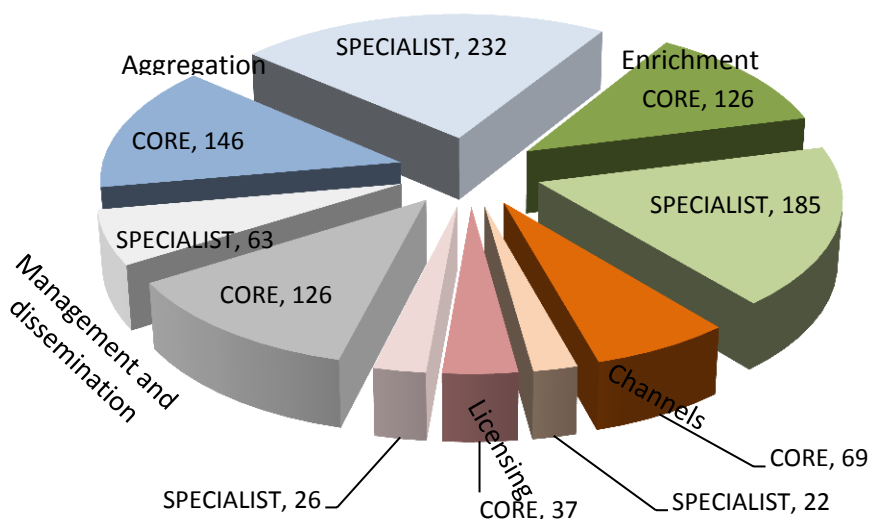
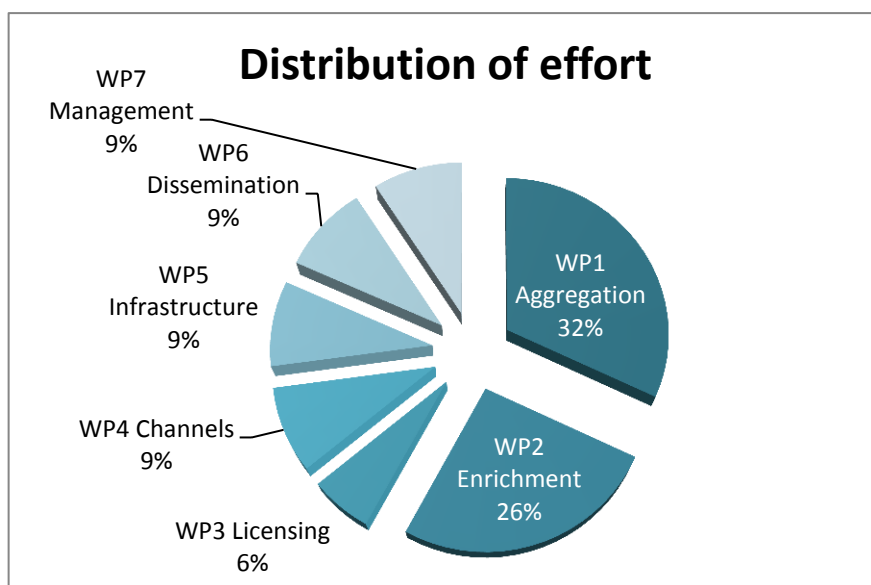


Figure 10: analysis of effort by activity type



In terms of the seven work packages, the distribution of effort is divided as shown in Figure 11.

Figure 11: distribution of effort between work packages



## Financial resources

In terms of budget, our expenditure is allocated as follows:

### Summary budget breakdown

Personnel	Subcontracts	Other direct costs	Total costs
€5,448,569	€ 238,453	€ 454,876	<b>€6,141,898</b>

These figures are justified as follows:

### Personnel costs:

Participant no	Participant short name	Average monthly rate	Total PMs	Total personnel costs
1	BL	€ 5,053	115.5	€ 583,589
2	NISV	€ 7,636	96	€ 733,011
3	KL	€ 6,405	22	€ 140,900
4	EF	€ 5,800	97	€ 562,608
5	NTUA	€ 3,651	95	€ 346,836
6	BNF	€ 5,870	78.5	€ 460,830
7	AIT	€ 7,793	77.5	€ 603,958
8	NET7	€ 3,757	49.5	€ 185,972
9	SHIFT	€ 4,567	40	€ 182,680
10	CNRS	€ 4,883	32	€ 156,254
11	DIZI	€ 1,801	22	€ 39,618
12	DNB	€ 4,990	26.5	€ 132,230
13	FMS	€ 4,205	20	€ 84,100
14	ICCU	€ 3,882	30	€ 116,445
15	ITMA	€ 4,122	20	€ 82,444
16	TLA	€ 5,198	23.5	€ 122,150
17	NLL	€ 1,616	22.5	€ 36,364
18	OeM	€ 3,892	20	€ 77,848
19	RBB	€ 7,483	30.5	€ 228,240
20	TAD	€ 4,465	25.5	€ 111,647
21	SB	€ 6,671	27	€ 180,106
22	ONB	€ 5,000	25.5	€ 127,500
23	FCSH	€ 2,461	23	€ 56,599
24	CCE	€ 4,832	20	€ 96,640
	TOTALS		1039	€ 5,448,569

**Subcontracting:**

3.5% of the budget has been allocated to specialist sub-contracts for specific tasks. EF has found subcontracting to be cost-effective for specialist skills requiring less than a single full-time equivalent of effort on previous projects, including Europeana Awareness, Europeana Version 2 and Europeana Creative. Additionally, asking subcontractors to submit fixed-price bids for work in these areas minimises the risk of scope creep and resource exhaustion, while allowing the Consortium to better predict and manage the costs of these services across the lifecycle of the project.

Participant no.	Short name	Purpose	Explanation	Amount
1	BL	Project evaluation	Independent project assessment from external assessor (see WP7 T 7.5 description)	€5,000
1	BL	Audit	Independent auditor fees	€4,300
2	NISV	Audit	Independent auditor fees	€3,000
4	EF	Audit	Independent auditor fees	€3,000
4	EF	Channels UX testing	In WP4, a provision (€40,000) has also been made for user testing and expert heuristic review. Here, there are quality advantages in the use of independent experts for testing and evaluation who are unconnected to the daily work and goals of the project and can therefore approach their evaluation completely free from bias. External reviewers' reports, similarly, are sometimes perceived as more credible than similar evaluations performed by fellow members of project consortia.	€40,000
6	BNF	Website hosting, design	BNF will work in WP6 with a subcontractor for the development of the website. This activity (definition of the architecture of the website, layout, setup of audience statistics, etc.) requires specialist skills. Furthermore the website has to be operational rather soon after the start of the project. €5,000 are planned to be used for the setup of the website and €2,000 for the update during the project	€7,000

Participant no.	Short name	Purpose	Explanation	Amount
6	BNF	Audit	Independent auditor fees	€5,000
7	AIT	Audit	Independent auditor fees	€3,000
4	EF	Channels user design	In WP4, EF proposes to initiate subcontracts for user experience design and user testing, where specific areas of expertise are needed for short periods of time. Past experience with similar projects has shown that experts in particular areas are too expensive to employ long term and often only needed for short bursts of time. The estimated development subcontracting cost (overall €75,000, in 3 production cycles x €25,000) provides for this and EF will subcontract according to need. Specialist skills needed include User Experience skills in research, design, wireframing, mobile design.	€75,000
1,2, 6	BL, NISV, BNF	Rights policy document	In WP3, KL will work with a legal expert as a subcontractor to transform the outcomes of the stakeholder dialogue into concrete policy recommendations. <i>Note:</i> this amount will be split among three major content partners: BL, NISV, BNF (€10,000 each)	€30,000
10, 12, 19, 21, 22	CNRS, DNB, RBB, SB, ONB	Rights clearance advice	KL will commission two industry bodies (e.g. GESAC and ICMP) as subcontractors to provide rights holder perspectives on the recommendations for rights clearance work developed in WP3 T3 (€20,000 each). <i>Note:</i> this amount will be split among five major content partners: ONB, SB, RBB, DNB, CNRS (€8,000 each)	€40,000
9	SHIFT	Technical development	Technical development subcontracting	€23,153
			<b>TOTAL</b>	<b>€238,453</b>

The subcontracts mentioned above will be awarded in a transparent bidding procedure according to the principle of best value for money (best price-quality ratio), under conditions of transparency and equal treatment. Partners will take care to avoid any conflict of interest in awarding a subcontract.

**Other direct costs:**

An allocation to each partner of (on average) 6% of their personnel costs, or €7,500, whichever is the greater, has been assigned to cover travel-related costs and includes the cost of attending all Consortium meetings, and inviting experts to meetings (such as the task on developing EDM SP, T1.3). Some partners with smaller personnel costs have greater than 6% to reflect higher travel costs for attending essential partner meetings.

To minimise travel costs, where possible Board and other meetings will be scheduled adjacent to other assembly meetings.

The table below itemises specific costs additional to the above.

<b>Participant No</b>	<b>Short name</b>	<b>Purpose</b>	<b>Costs</b>	<b>Total other costs</b>
1	BL	Organisational costs, 1x kick-off and 2x plenary consortium meetings @ 50 persons x 2 days @€3,400 = €10,200	10,200	
1	BL	Hosting of a Sound Rediscovery Event	1,000	
1	BL	Organisational costs, Project Board, 3x additional meetings = €900	900	
1	BL	User Advisory Panel Group, 1 meeting travel and subsistence = €3500	3,500	
1	BL	IASA-Europe committee meeting x2, 4 persons travel and subsistence @ €2,400	4,800	
1	BL	Organisational costs, 2x Advisory Board meetings *	7,200	
1	BL	Management/collaboration software/hosting = €50/month x36 months/15GB storage) = €1,800	1,800	
1	BL	6x guest speakers travel expenses €4,200	4,200	<b>€33,600</b>
2	NISV	Hosting of a Sound Rediscovery Event	1,000	
2	NISV	Wikimedia chapter awards (WP2)	8,000	<b>€9,000</b>

<b>Participant No</b>	<b>Short name</b>	<b>Purpose</b>	<b>Costs</b>	<b>Total other costs</b>	
3	KL	Stakeholder workshop WP3	6,000	<b>€6,000</b>	
4	EF	Hackathon	2,000	<b>€12,000</b>	
4	EF	international conference 2	10,000		
5	NTUA	Training event 1	2,500	<b>€5,000</b>	
5	NTUA	Training event 2	2,500		
6	BNF	Organisational costs, 1 x plenary consortium meeting @ €3,400	3,400	<b>€28,350</b>	
6	BNF	international conference 1	10,000		
6	BNF	Hosting of a Sound Rediscovery Event	1,000		
6	BNF	Production of two videos @ €5,000	9,000		
6	BNF	Printing of promotional materials	1,000		
6	BNF	Leaflets (5,000 * 2): €1,800	1,800		
6	BNF	Postcards (1,000 * 5): €1,500	1,500		
6	BNF	Posters (50 items): €150	150		
6	BNF	2 pull-up banners: €500	500		
9	SHIFT	Promotional materials	600		<b>€600</b>
14	ICCU	Hosting of a Sound Rediscovery Event	1,000		<b>€1,000</b>
22	ONB	Hosting of a Sound Rediscovery Event	1,000		<b>€1,000</b>
<b>TOTAL</b>					<b>€96,550</b>

\*Note: Advisory Board members will receive financial compensation only for travel and subsistence costs. Actual working hours spend on Europeana Sounds is paid for by the organizations the Board members represent.

### B3.6. Dissemination/Use of Results

The Work Package on Dissemination and Networking, WP6, to be led by BNF, involves all partners. Dissemination and experience transfer can be seen both as an activity external to the Consortium, addressing other organisations, as well as an internal process of improving knowledge among partners. External dissemination activities will be focused on targeted groups such as GLAMs, collection holders, policy makers, creative industries and general public. Promotion within the wider Europeana Network is ensured by the strong involvement of EF.

The first goal of WP6 will be to create a communication plan that will define a dissemination strategy to be implemented in the course of the project (see WP6 for more details).

Project dissemination at various levels will consist of the following main activities:

- Development and maintenance of an official project website, which will provide project information and highlight achievements,
- Stimulation of contacts with scientific and technological entities, external to the project, potentially interested in the project outcomes,
- Participation at conferences, workshops, etc.,
- Organisation of events, conferences and a hackathon,
- Use of social media which will improve the awareness of the project,
- Creation of communication material by the project.

The events listed below are indicative. Not all of them shall be financed by the Europeana Sounds project since some partners will be attending them in the course of their other activities.

Where costs are incurred by the project, events taking place outside of the EU will be subject to validation by the Commission's Project Officer prior to their attendance or participation.

<b>Meeting</b>	<b>Date (Project month)</b>	<b>Participants</b>	<b>Location</b>
Kick-off (WP7)	1	All Consortium partners	London, UK
British & Irish Sound Archives - May 2014 (WP6)	4		Ireland
Internal workshop with, all content partners (could be combined with another event) WP3	5	all content partners	TBC, probably in the Hague or Amsterdam, Netherlands

<b>Meeting</b>	<b>Date (Project month)</b>	<b>Participants</b>	<b>Location</b>
IAML (International Association of Music Libraries, Archives and Documentation Centres) annual conference - July 2014 (WP6)	5		Antwerp, Belgium
LIBER 43rd Annual Conference July 2014 (WP6)	6		Riga, Latvia
Europeana V3 Conference - Autumn 2014 (WP6)	6	EF, ONB, BNF	Paris, France
IFLA 2014 16-22 August 2014 (WP6)	7	BNF	Lyon, France
IASA annual conference	9		South Africa
WOMEX 14 (World music industry event) October 2014	10		Santiago de Compostela, Galicia, Spain
GLAM-wiki edit-a-thon (WP2)	12		TBC
Plenary Consortium meeting (WP7)	13	All Consortium partners	TBC
Advisory Board Meeting 1 (WP7)	13		TBC
Stakeholder Workshop (WP3)	14	all content partners + external stakeholders (rights holder representatives)	TBC (Amsterdam, Brussels or London)
IASA section planning meeting (WP7)	15		France, TBC
British & Irish Sound Archives - May 2015 (WP6)	16		TBC
IAML annual conference, June 2015 (WP6)	18	Any partner already attending	USA, New York
Advisory Board Meeting 2 (WP7)	25		TBC
Plenary Consortium meeting (WP7)	25	All Consortium partners	TBC
British & Irish Sound Archives - May 2016 (WP6)	28		TBC

<b>Meeting</b>	<b>Date (Project month)</b>	<b>Participants</b>	<b>Location</b>
IASA section launch (WP7)	30		Germany, TBC
Sound rediscovery event 1 (WP6)	TBC	BNF	France
Sound rediscovery event 2 (WP6)	TBC	BL	UK
Sound rediscovery event 3 (WP6)	TBC	NISV	Netherlands
Sound rediscovery event 4 (WP6)	TBC	ONB	Austria
Sound rediscovery event 5 (WP6)	TBC	ICCU	Italy
Public conference 1 (WP6)	TBC	BNF and all Consortium partners	France
Public conference 2 (WP6)	TBC	EF and all Consortium partners	TBC
Hackathon (WP6)	TBC	EF	TBC
LIBER 44th Annual Conference	TBC		TBC
LIBER 45th Annual Conference	TBC		TBC
IFLA 2015	TBC	Any partner already attending	Cape Town, South Africa
IFLA 2016	TBC	Any partner already attending	TBC
ASRC annual conference 2014 (WP6)	TBC	BL	North Carolina, USA
ASRC annual conference 2015 (WP6)	TBC		USA
ASRC annual conference/2016 (WP6)	TBC		USA
Iamhist bi-annual conference 2015/2017 (WP6)	TBC		TBC
Digital Strategies for Heritage Conference (DISH 2015)	TBC		Netherlands, TBC



Europeana branding and promotion:

The Consortium shall put a standard Europeana logo with a link to the Europeana portal in a visible area of the project website. All beneficiaries providing content, services or technology to Europeana shall put a standard Europeana logo on their organisation's home page with a link to the Europeana portal.

Beneficiaries shall follow the provisions of the 'Guide to Usage of the Europeana Brand' published at <http://pro.europeana.eu/web/guest/about/comms-tools/brand-guidelines>.

Beneficiaries shall promote Europeana as part of their usual dissemination activities. Moreover, they shall reconcile the Consortium's awareness and dissemination activities for the project with Europeana and Europeana's own dissemination and awareness activities, provided to them by the Europeana office upon request.

## Appendix 1: Europeana Sounds' wider network

Audiovisual associations, rights bodies, standards organisations and other national and global institutions with which the Consortium has professional connections.

Organisation or network	Short description	Link with Consortium	Connection to Project
Accademia nazionale di Santa Cecilia	Library and archive of one of the major Italian music academy and concert society	ICCU is the aggregator	WP2
Agorà	Scholarly communities are experimenting with Pundit in annotating online resources	NET7	WP1,WP6
Archives and Records Association	The lead professional body for archivists, archive conservators and records managers in the United Kingdom and Ireland	BL on ARA committees Europeana Sounds will be promoted at annual ARA events and on mailing list	WP3
ARROWplus	A tool to assist libraries and others in identifying rights, authors and publishers and rights status in copyright text and image based works in a streamlined and automated way through querying a network of data sources	ICCU is a partner	WP6
Association of Lithuanian Archivists	Non-profit NGO. About 80 individual and two institutional members from Lithuania, representing wide range of state archives	A representative of DIZI is member of ALA	WP1,WP2, WP5,WP6
Baltic Audiovisual Archival Council (BAAC)	Independent non-profit voluntary association to foster cooperation between public and private archives, broadcasting and TV archives, libraries and museums that possess collections of audiovisual materials about the Baltic States, Scandinavian countries and the worldwide Baltic diaspora	NLL is BAAC president. Europeana Sounds will be promoted at annual BAAC conferences, and on mailing list DIZ is BAAC vice-president	WP1,WP2, WP5,WP6
British & Irish Sound Archives (BISA)	Exchanges information on and co-ordinates activities in support of practical aspects of audio archiving in the United Kingdom, the Republic of Ireland, the	BL is represented on the BISA committee. Europeana Sounds will be promoted at annual BISA events and on	WP2,WP6

	Channel Islands and the Isle of Man	mailing list	
British Forum for Ethnomusicology	The lead professional body for ethnomusicologist in the United Kingdom and Ireland	Several Consortium partners are members	WP3
Bundesverband der Musikindustrie e.V., BVMI	The German Section of the IFPI (International Federation of the Phonographic Industry) which represents the recording industry worldwide.	Representatives of the BVMI are members of the Advisory Board of the DNB German Music Archive. Annual meetings will give opportunities to promote Europeana Sounds	WP2,WP6
CDNL	Conference of Directors of National Libraries	BNF, BL, DNB, ONB are members of CDNL	WP2,WP6
CENL	Conference of European National Librarians	The President of the BnF is the chair of CENL. BL, DNB and ONB are members	WP6
CLARIN	Common Language Resources and Technology Infrastructure (ESFRI Project for Humanities, in Germany funded by BMBF, see also CLARIN-ERIC)	NISV is CLARIN data provider This will be a good network to present the project in the context of Digital Humanities	WP2,WP6
Committee for Linguistics in Education	A joint committee of the two main professional linguistic associations in the UK: Linguistics Association of Great Britain and British Association of Applied Linguistics	BL is member	WP3,WP6
COMMUNIA	A European point of reference for theoretical analysis and strategic policy discussion of existing and emerging issues concerning the public domain in the digital environment	KL and NISV are members of the COMMUNIA Network COMMUNIA will be invited to participate in the WP3 stakeholder dialogue	WP3
Co-ordinating Council of Audiovisual Archives Associations	Represents the interests of worldwide professional archive organisations with interests in audiovisual materials including films, broadcast television and	BL founder member	WP1,WP6

(CCAAA)	radio, and audio recordings of all kinds		
DELAMAN	Digital Endangered Languages and Musics Archive Network	TLA is Board member	WP2,WP6
Deutsches Musik- Informationszentr um (MIZ)	The German Music Information Centre is the central institution for information on music and musical life in Germany.	DNB is member of the MIZ Advisory Board EU Sounds will be promoted at annual meetings and occasionally via mailings	WP1
Digital Repository Ireland (DRI)	Digital repository for social and cultural data held by Irish institutions	ITMA member of stakeholder consultancy body of DRI	WP2,WP6
DM2E, Digitised Manuscripts to Europeana	European project working, among other things, on semantic enrichment of texts and digital manuscripts	ONB, Net7 are members of the core Consortium	WP2
European Broadcasting Union (EBU)	World's foremost alliance of public service media organisations, with members in 56 countries in Europe and beyond	RBB is a chair of World Music Workshop	WP1, WP6
European String Teachers Association, ESTA, German branch	ESTA is a European association for violin, viola, cello and double bass teachers who are committed to improve the quality of music education	DNB can provide Europeana Sounds promotion to the ESTA-Nachrichten which is the German ESTA publication	WP1,WP2, WP3,WP4, WP5,WP6, WP7
Europeana Network	Open forum for experts across Europe, from content providers and aggregators to providers of technical, legal and strategic knowledge	Several Consortium partners are members	WP3,WP6
FOCAL	Professional not-for-profit trade association founded to facilitate the use of library footage, images, stills and audio in all forms of media production and encourage good practice in the research, licensing, copyright clearance and use of footage	NISV is member of FOCAL and will present the project at their annual conference	WP3

Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte e.V., GEMA	A legally authorised collecting society which represents in Germany the copyrights of more than 64,000 members (composers, lyricists, and music publishers (not of artists which are represented by the GVL), as well as over two million copyright holders all over the world	A representative of the GEMA is member of the Advisory Board of the DNB German Music Archive. Annual meetings will give opportunities to promote Europeana Sounds	WP3
Gesellschaft zur Verwertung von Leistungsschutzrechten mbH, GVL	The German institution for the commercial exploitation of both sound recordings and public performances of music	A representative of the GVL is member of the Advisory Board of the DNB German Music Archive. Annual meetings will give opportunities to promote EU Sounds	WP1,WP6
Iamhist – international Association for Media and History	Organisation of filmmakers, broadcasters, archivists and scholars dedicated to historical inquiry into film, radio, television, and related media	BL represented on its Council	WP6
IAML - International Association of Music Libraries, Archives and Documentation Centres	Encourages and promotes the activities of music libraries, archives and documentation centres to support and facilitate projects in music bibliography, music documentation and music library and information science at national and international levels	BL on International and UK Committees, will promote BPN to members	WP6
iCORDI / RDA Europe	International Collaboration on Research Data Infrastructure, European branch of the worldwide Research Data Alliance, funded by the EC	TLA member	WP1,WP6
INNET	Innovative Networking in Infrastructure for Endangered Languages, funded by the EC	TLA member	WP1,WP2, WP5,WP6, WP7
International Association of Sound and Audiovisual Archives (IASA)	The leading international body for audiovisual archivists	BL is represented on the Exec Board; most content providers are IASA members. Europeana Sounds will be promoted at annual IASA events and on mailing list. IASA to develop BPN outputs	WP2,WP6

International Bioacoustics Council (IBAC)	Promotes international participation throughout the entire field of bioacoustical research activity	BL on Committee of IBAC, will promote BPN to members	WP2,WP6
International Council for Traditional Music	A leading international body for ethnomusicologists	Several Consortium partners are members	WP1
International Council on Archives	Dedicated to the effective management of records and the preservation, care and use of the world's archival heritage through its representation of records and archive professionals across the globe	BL on Committee, will promote BPN to members	WP6
International Federation of Library Associations and Institutions (IFLA)	The leading international body representing the interests of library and information services and their users	BL on several IFLA committees, will promote through its multimedia section; BNF on several IFLA committees	WP2,WP6
International Linked Open Data in Libraries, Archives, and Museums Summit (LODLAM)	Informal international network including all of the major national and international cultural heritage data aggregators	SHIFT is the driving force behind LODLAM Europeana Sound will be featured in the annual LODLAM summit	WP1,WP2,WP6
Istituto centrale per i beni sonori e audiovisivi (Icbsa)	Central Institute for sound and audiovisual heritage; it collects and provides cataloguing and preservation guidelines on AV and sound material	ICCU is aggregator	WP1,WP2,WP6
Latvian Music Information Centre (LMIC)	The LMIC is a non-governmental organisation focussing on Latvian contemporary and classical music, composers, performers, concert organisers and devotees	NLL board member from the NLL; BPN can be promoted to several organisations represented on the board	WP2,WP6
Linked Open Data Italia	Non profit association that publishes Linked Data and promotes its adoption	NET7 are founders of the association	WP2,WP6
MusicPal	Network of Irish music libraries and archives for facilitation of public access	ITMA founding member, PR position	WP2,WP6
National Conservatory of Greece	One of the oldest and major conservatories in Greece	FMS is aggregator	WP2,WP6

National Folklore Collection	Holds Irish national collection of folklore audiovisual, print and manuscript materials	ITMA position on NFC supervisory council	WP1,WP2, WP5,WP6
National Library of Scotland	National Sound Archive for Scotland pilot project	TAD is partner on this pilot project	WP6
Open Planets Foundation	Addresses the core digital preservation problems and to ensure the long term access to digital content	Several Consortium partners are members/founders	WP2,WP6
OpenGLAM	An initiative run by the Open Knowledge Foundation that promotes free and open access to digital cultural heritage held by GLAMs	KL, NISV are active members of this network. This network will be addressed in the scope of the WP7 hackathon	WP1,WP6
Oral History Society	Leading role in the development of oral history, both in Britain and internationally	BL on OHS committee, will promote the project to national organisations	WP3
Phononet GmbH Deutschland	Offers commercial services for the music industry and retailers, especially providing solutions for data processing	A representative of Phononet is member of the Advisory Board of the DNB German Music Archive Annual meetings will give opportunities to promote EU Sounds	WP1,WP2, WP6
PrestoCentre	A global community of stakeholders in audiovisual digitisation and digital preservation to share, work and learn	PrestoCentre is hosted by NISV. Europeana Sounds will be featured in the bi-annual magazine, <i>AV Insider</i> and the PrestoCentre blog. The BPN will be presented in the annual conference series: Screening the Future	WP6
Radió Telefís Éireann (RTÉ)	Irish national radio and television broadcaster	ITMA broadcasting & publishing partner since 1994; ITMA holds programme copies for public access	WP6
Repertoire International de Literature Musicale	World's most comprehensive music bibliography database	BL on Commission Mixte (= Advisory Council)	WP1,WP2, WP6

Répertoire International des Sources Musicales (RISM)	International Consortium of music information professionals which collaborates to locate and provide access to historic music materials in all formats	Several Consortium partners are members of the Board, will promote BPN to members	WP6
SCAPE project	EU-funded project directed towards long term digital preservation of large-scale and heterogeneous collections of digital-objects	AIT is the coordinator of the SCAPE project	WP2,WP6
Society for Ethnomusicology	The leading international body for ethnomusicologists	Several Consortium partners are members	WP2
TGIR HUMA-NUM	Very large research infrastructure for digital humanities, CNRS, France (TGE Adonis)	Huma-Num & TGE Adonis are linked with DARIAH-EU. This infrastructure manage open data of sciences in France, harvested by 'Isidore'	WP2,WP6
United Kingdom and Ireland Soundscape Community	Affiliated with World Forum for Acoustic Ecology; brings together diverse disciplines concerned with soundscape studies	BL on Committee, will promote BPN to members	WP3,WP6
Verband unabhängiger Musikunternehmen e.V., VUT	The German organisation of some 1,300 independent music labels, of producers and retailers	A VUT representative is on the Advisory Board of the DNB German Music Archive. Annual meetings will give opportunities to promote Europeana Sounds	WP2,WP6
ViFaMusik, Virtuelle Fachbibliothek Musikwissenschaft, Deutschland	The central portal for music and musicology in Germany	DNB Music Archive is partner of the ViFaMusik, member of the Advisory Board. EU Sounds will be promoted at current meetings	WP3,WP6
WOMEX	An international networking platform for the world music industry	Partner with RBB in E Content project	WP1,WP3,WP6
World Music Workshop, European Broadcasting Union (EBU)	The biggest network of public service broadcasters, focused on World Music radio presentation	BL, RBB representing, will promote BPN to members.	WP1,WP6