

# **Annex 1**

## ***Description of Work*** ***(Best Practice Networks)***

Grant Agreement 517005

ATHENA - Access to cultural heritage networks across Europe



***eContentplus***

## Table of contents

0	PROJECT SUMMARY.....	3
1	RATIONALE AND OBJECTIVES.....	3
	1.1 Description of the issue addressed and the current situation (baseline).....	3
	1.2 Description of the project objectives.....	4
	1.3 Expected results.....	5
	1.4 List of participants.....	6
2	CONTRIBUTION TO PROGRAMME OBJECTIVES.....	8
3	EUROPEAN DIMENSION.....	8
4	CONTENT.....	10
	4.1 Underlying content.....	10
	4.2 IPR issues.....	34
	4.3 Multilingual and/or multicultural aspects.....	34
5	IMPACT.....	37
	5.1 Analysis of demand.....	37
	5.2 Target users and their needs.....	38
	5.3 Critical Mass.....	40
	5.4 Added Value.....	40
6	NETWORKING.....	41
	6.1 Networking Capacity.....	41
	6.2 Clustering Activities.....	43
7	PERFORMANCE MONITORING.....	44
	7.1 Success indicators.....	44
	7.2 Performance measurement and evaluation.....	44
8	PROJECT WORK PLAN.....	45
	8.1 Description of work and roles.....	45
	8.2 Technologies and Standards.....	47
	8.3 Project plan.....	47
	8.4 Work package and labour effort overview.....	49
	8.5 Work package description.....	51
	8.6 Deliverables List.....	66
9	PROJECT MANAGEMENT.....	69
	9.1 Project Management Structure and Responsibilities.....	69
	9.2 Project communication mechanisms.....	70
	9.3 Risk Analysis and Risk Management.....	70
	9.4 Quality Assurance.....	71
10	DISSEMINATION AND AWARENESS.....	72
	10.1 Events and Meetings.....	73
11	OTHER CONTRACTUAL CONDITIONS.....	74
	11.1 Subcontracting.....	74
	11.2 Other specific costs.....	74
	11.3 Indicative budget distribution & pre-financing schedule.....	75
12	APPENDICES.....	77
	12.1 Consortium description.....	77
	12.2 Background and reference documents.....	112

## 0 Project Summary

ATHENA is developed as a project to specifically tackle the gap in existing content provision to the European Digital Library (Europeana). An analysis of the current situation shows that the target set for Europeana can best be met with targeted support for museums and audiovisual archives. This project is developed from the sound existing network of Governmental bodies began in 2001 with the MINERVA project, and continues with “Europeana: the European digital library network”. ATHENA has the objective to:

- reinforce, support and encourage the participation of museums and other institutions coming from those sectors of cultural heritage not fully involved yet in Europeana;
- coordinate standards and activities of museums across Europe;
- identify digital content present in European museums;
- contribute to the integration of the different sectors of cultural heritage, in cooperation with other projects more directly focused on libraries and archives, with the overall objective to merge all these different contributions into Europeana;
- develop a plug-in to be integrated within Europeana, to facilitate the access to digital contents belonging to European museums.

ATHENA will also produce a set of scalable tools, recommendations and guidelines, focusing on multilingualism and semantics, metadata and thesauri, data structures and IPR issues, to be used within museums for supporting internal digitisation activities and facilitating the integration of their digital content into Europeana. All these outputs will be based on standards and guidelines agreed by the partner countries for the harmonised access to the content, and will be easily applicable.

The final aim of ATHENA is to bring together relevant stakeholders and content owners from all over Europe, evaluate and integrate standards and tools for facilitating the inclusion of new digital content into Europeana, so conveying to the user the original and multifaceted experience of all the European cultural heritage.

ATHENA will work in close cooperation with existing projects (eg “Europeana: the European digital library network” and Michael, both present in ATHENA) and develop intense clustering activities with other relevant projects.

## 1 Rationale and Objectives

### 1.1 Description of the issue addressed and the current situation (baseline)

The project ATHENA, presented as a Network of Best Practice within the eContentplus Programme, takes its origins from the existing MINERVA network, which includes Governmental bodies and major European content providers. A large experience in all the different domains of cultural heritage and at cross-domain level was developed in recent years, mainly thanks to the MINERVA projects, launched since 2001 under the joint initiative of the European Commission and the Member States.

The harmonisation activities carried out by the MINERVA network in the last years produced several guidelines, contribution to standards, events and publications which paved the way to a large involvement of governmental bodies and cultural organisations from all the EU Member States, that actively cooperated in defining a joint European policy for digitisation of cultural heritage.

The importance of the role performed by the MINERVA project for the inter-ministerial coordination and harmonisation of national and European policies has been well acknowledged by the reviewers. The working groups set-up by the project developed important outputs, such as the technical guidelines for the digitisation chain, the study on IPR issues and the common meta-data standard for inventories of digitisation projects which originated the spin-off project MICHAEL – the Multilingual inventory of cultural heritage in Europe, that launched an online service for accessing information on digital collections.

Following this experience, the direct motivation that moved the project partners to propose the ATHENA project comes from the two main documents appeared in 2006:

- the recommendation on the digitisation and online accessibility of cultural material and digital preservation, issued on 24th August 2006 by the European Commission, and
- the decision of the Council of the European Union, during its meeting on “Education, Youth and Culture” held on 13-14 November 2006 in Brussels, that endorsed the strategic objectives and main elements of the EC Recommendation as well as the vision of a European Digital Library (Europeana) as

a common multilingual access point to Europe's distributed digital cultural and scientific heritage. In the conclusion of the meeting, the Council underlined the instrumental work of CENL, through the TEL and EDL initiatives, and the work ongoing in MICHAEL and MichaelPLUS.

Also thanks to the direct involvement of several key staff of the project partners, requested to provide their contribution to the development of both these documents, it clearly emerged that a special attention must be still reserved to museums, cultural landscapes, audiovisuals, archaeological sites, monuments, contemporary art and architecture, where major efforts in standards and metadata are still needed. For this reason the ATHENA proposal has three main objectives:

- to reinforce, support and encourage the participation of museums and institutions coming from the sectors of Cultural Heritage not fully involved yet in the discussion about the development of Europeana;
- to contribute to the integration of the different sectors of cultural heritage, in strict cooperation with other projects more directly focused on libraries and archives, with the overall objective to merge the different contributions into Europeana;
- to develop a plug-in to be integrated within Europeana, to facilitate the access to digital contents belonging to European museums;
- to integrate the plug-in into Europeana to ensure delivery of the museums content for cross domain search and retrieval.

## 1.2 Description of the project objectives

The overall goal of ATHENA is then to bring together relevant stakeholders and content owners from museums all over Europe and to evaluate and integrate specific tools, based on a common agreed set of standards and guidelines to create harmonised access to their content.

In line with the work done by the MINERVA initiatives (MINERVA, MinervaPLUS and the ongoing MinervaEC), ATHENA recognises the major role that an integrated approach to the cultural heritage sectors, namely museums, archives and library sector has played and will play for moving the European cultural heritage into the digital era.

It is commonly acknowledged that the library sector has made a significant amount of work, specifically the National Libraries within The European Library and its follow-up projects, mainly "Europeana: the European digital library network", that poses them on a more advanced position towards Europeana. Archives already started to move towards the definition of common tools, and this is the reason why ATHENA intends now to put a particular focus on museums in order to contribute to accelerate their contribution to the construction of Europeana, in the respect however of the integrated approach mentioned before.

The involvement in the project of the just born Stichting European Digital Library (EDL Foundation), created last 12th September 2007, guarantees that the integrated approach, as thought and applied within ATHENA, will start from the results already agreed at European level and will include contributions from the other ongoing initiatives.

The concrete aim of ATHENA is to bring together stakeholders and to build a set of tools and common agreed plug-in, as well as to define guidelines for the harmonised access to the content of the participating museums and content owners. These 'plug ins' will contain content from the museums, using the standards and interoperability recommendations for implementation in Europeana. This implementation will be part of the deliverables of ATHENA.

The results of ATHENA will be made available to the EDL Foundation as a concrete contribution to the actual implementation of Europeana. The relationships between the ATHENA content providers and the Stichting European Digital Library will be regulated via a set of specific agreements to be defined within the project, in the respect of the national laws about the exploitation of the digital cultural content. When Europeana content is covering and has multiple heritage sectors present, it will convey to the user the original and multifaceted experience of the European cultural heritage.

ATHENA will enhance national and European inter-institutional co-operation by contributing to the intensification of networking and will produce a set of scalable and very adaptive recommendations and guidelines for use within memory institutions, to support their internal digitisation activities while at the same time also facilitating their content integration into Europeana.

Since Europeana is made of digital content, users and services, ATHENA will concentrate on the identification of services well responding to the actual needs and requirements of the users, by exploiting

content and technologies already existing and by identifying the standards that best apply to the identified ways of use.

### 1.3 Expected results

With regard to the areas of technologies, standards and content, ATHENA will:

- work in joint cooperation with the other ongoing trans-European and national projects, to fully support the development of Europeana;
- survey and look for the most advanced available technologies suitable for museums and will experiment their integration into concrete services;
- identify the existing digital content listed in section 4.1 to be granted to Europeana and under which condition;
- establish the conditions for more museums and cultural institutions to join the ATHENA network;
- analyse the existing standards and the applications that are already in use or are under development by the partners and will create a shared, agreed, consistent and comprehensive set of recommendations/standards for the content providers who are willing to participate in Europeana, but are not yet ready for it. ATHENA will especially look into upcoming standards in the museum field (like museumdat) and will analyse how they relate to those already in use in the library and archive world - developing tools to cross-walk between the standards;
- increase interconnection and interoperation of national cultural networks;
- enlarge the network of museums and cultural institutions involved.

on the contrary ATHENA will not:

- research for new technologies;
- digitise new content;
- develop new standards.

As a result of the project, any museum and other cultural institution wishing to contribute its data to and get visibility through Europeana, will be able to:

- create their own content using international standards;
- use the existing description and cataloguing standards, and map them into domain-specific and/or Dublin Core applications profiles;
- use the existing terminologies and thesauri, publish them using SKOS and achieve semantic interoperability with Europeana;
- register their own content and services and make them visible at international level using existing registries (e.g. TEL and MICHAEL).

For this reason, a number of strategic collaboration will be constructed with other projects that already started complementary activities, with particular regard to:

- “Europeana: the European digital library network”, that is expected to provide the “house” where to deliver the ATHENA results; the unique access point that “Europeana: the European digital library network” is going to provide will be the perfect place where the mass of harmonised content of ATHENA will be exposed, concretely contributing to the advent of Europeana;
- MICHAEL, that is considered as the catalogue registry of the digital cultural collections in Europe and therefore a fundamental instrument of discovery. The registry of digital cultural content and services created by MICHAEL has a key role for the discovery, the visibility and promotion of cultural content and institutions. Furthermore, it can contribute as a source of content providers and a catalogue for Europeana;
- MinervaEC, that has played an instrumental role with its guidelines and handbooks;
- MultiMatch, that is considered as one of the most challenging research projects working on the technologies supporting multilingualism for digital libraries; its results will be really important to be integrated into the ATHENA best practices and standards.

## 1.4 List of participants

Please list all participants with their full and short name and specify when they enter and exit the project.

### List of Participants

Partic. No <sup>1</sup>	Participant full name	Participant short name	Country	Role in the project <sup>2</sup>	Date enter project	Date exit project
1	Ministero per i Beni e le Attività Culturali	MiBAC	IT	content provider	Month 0	-
2	PACKED vzw	Packed	BE	dissemination	Month 0	-
3	Koninklijke Musea voor Kunst en Geschiedenis	RMAH	BE	content provider	Month 0	-
4	Централна Библиотека на Българската Академия на науките - Central Library of the Bulgarian Academy of sciences	CL-BAS	BG	content provider	Month 0	-
5	Cyprus Research and Educational Foundation	CREF	CY	content provider	Month 0	-
6	Narodni Muzeum	NM	CZ	content provider	Month 0	-
7	Cross Czech a.s.	Cross	CZ	technology provider	Month 0	-
8	Devoteam Group	Devo	CZ	technology provider	Month 0	-
9	Stiftung Preußischer Kulturbesitz	SPK	DE	content provider	Month 0	-
10	Bibliotheksservice-Zentrum Baden-Württemberg	BSZ	DE	content provider	Month 0	-
11	Eesti Vabariigi Kultuuriministeerium	EVKM	EE	content provider	Month 0	-
12	Museovirasto	NBA	FI	content provider	Month 0	-
13	Michael Culture AISBL	Michael	BE	dissemination	Month 0	-
14	Association Dédale	Dédale	FR	technology provider	Month 0	-
15	Ethniko Metsovio Polytechnio (National Technical University of Athens)	NTUA	GR	technology provider	Month 0	-
16	Panepistemion Patron - University of Patras	UP	GR	technology provider	Month 0	-
17	Petőfi Irodalmi Múzeum	PIM	HU	content provider	Month 0	-
18	Magyar Rádió Zrt.	MR	HU	content provider	Month 0	-
19	Institutul de Memorie Culturală	CIMEC	RO	content provider	Month 0	-
20	Amitié srl	Amitie	IT	evaluation	Month 0	-
21	Ministère de la Culture, de l'Enseignement	MCERS	LU	content provider	Month 0	-

<sup>1</sup> Participant number 1 is the Coordinator. The remaining participants are beneficiaries.

<sup>2</sup> The main operational role that the participant plays in the proposed project. For example: content provider, technology provider, pedagogical expert, standardisation body, evaluation, dissemination etc.

	Supérieur et de la Recherche					
22	valsts aģentūra "Kultūras informācijas sistēmas"	KIS	LV	content provider	Month 0	-
23	Stichting Rijksmuseum Amsterdam	SRA	NL	content provider	Month 0	-
24	Stowarzyszenie Międzynarodowe Centrum Zarządzania Informacją	ICIMSS	PL	content provider	Month 0	-
25	Luleå tekniska universitet	LTU	SE	technology provider	Month 0	-
26	Ministrstvo za Kulturo Republike Slovenije	MKRS	SI	content provider	Month 0	-
27	Ministerstvo kultúry SR	MKSR	SK	content provider	Month 0	-
28	Cordia a.s	Cordia	SK	dissemination	Month 0	-
29	MDA Europe Ltd	MDA	UK	content provider	Month 0	-
30	Stichting European Digital Library	EDL	NL	dissemination	Month 0	-
31	Ministère de la Culture et de la Communication	MCC	FR	content provider	Month 0	-
32	Hellenic Ministry of Culture	HMC	GR	content provider	Month 0	-
33	Makash - Advancing CMC Applications in Education, Culture and Science	Makash	IL	content provider	Month 0	-
34	Центр ПИК – Centre PIC	CentrePIC	RU	dissemination	Month 0	-
35	Azərbaycan Respublikası Mədəniyyət və Turizm Nazirliyi Ministry of Culture and Tourism of the Republic of Azerbaijan	MCTRA	AZ	dissemination	Month 0	-

The “Neumann János Digitális Könyvtár és Multimédia Központ Kht” (Neumann Digital Library) will also support the activities of the project in Hungary. They will work in close cooperation with the other two Hungarian institutions: Petőfi Irodalmi Múzeum and Magyar Rádió Zrt.

Also Makash (Israel), Centre PIC (Russia) and the Ministry of Culture and Tourism of the Republic of Azerbaijan will participate in the actions of the project with national resources.

## **2 Contribution to programme objectives**

The ATHENA consortium represents a perfect example of integration of trans-European and national policies, due to the direct involvement of national Ministries of Culture and related Agencies. Since 2001 – by creating the MINERVA network, supported and funded by the European Commission – they have been involved in a common set of initiatives to guarantee the interconnection and the interoperability of their effort, with the overall goal of contributing to make European digital content more accessible and usable.

ATHENA is a direct follow up of the previous actions run within the MINERVA and MinervaPLUS, as well as their spin off project MICHAEL and the current eContent*plus* project MinervaEC. All these steps supported the launch of the i2010 Initiative and contributed to the Conclusions of the Culture Council in November 2006, that acknowledged the importance of the Recommendations on digital libraries issued by the European Commission in August 2006.

The contribution of ATHENA to the objectives of the eContent*plus* programme is mainly in its capacity to mobilise a wide mass of digital contents coming from European museums which still have some delay in fully develop a standard approach to digitisation programmes. Thanks to ATHENA, the access, use and exploitation of their digital contents will be facilitated, and the related content stakeholders will have the opportunity to contribute to the achievements of Europeana. It must be underlined that several partners of the proposal are involved in the expert groups set up at European and national level for this purpose, as well as directly committed in the creation of the EDL Foundation that will manage the future Europeana, and in the full deployment of the potential of their digital content.

## **3 European dimension**

Due to the strategic involvement of both governmental bodies and major cultural institutions of several EC Member States, ATHENA perfectly responds to the main European policy to facilitate access to and use of European digital content. The specific objectives of the project are in fact to facilitate the development of Europeana and to improve the ways of accessing, using, reusing and exploiting digital material.

ATHENA also targets different groups of the European public, not only cultural institutions and the content industry, but also the research community, students and the ordinary public to support their need to find and use digital information in their own language, independently from the location of the sources and the original language.

The wide group of cultural institutions members of the ATHENA network will make available their digital content to the project, so developing a wide trans-European set of digital resources - but will also be asked to contribute with the expertise of their own staff. Furthermore they will be an additional resource for testing, tuning and refining other products and pilots developed in the framework of Europeana.

Starting from the best known and relevant cultural institutions in the different partner countries, it will be easier to build up a wide consensus and to mobilise new resources to touch also smaller bodies and any types of cultural organisation and collection. The contribution of ATHENA becomes particularly important in the definition of agreed trans-European standards for describing cultural and scientific resources for museums, due to the direct involvement of those governmental bodies which are requested to define the national frameworks.

ATHENA is the natural evolution of a major initiative starting from the Lund Action Plan in 2001 and still progressing through the i2010 Initiative. These policies clearly show how the Content sector is an important asset of eEurope. Cultural Content can have a major impact on education and recreation, as well as on industrial exploitation, particularly by SMEs involved in the creative industry. The manner in which ATHENA will open global, user-friendly access to important national holdings means that it has special value for the geographically and socially peripheral areas.

ATHENA is also about the interconnection and interoperation of national cultural networks. The technical work in the ATHENA centres on interoperability across national boundaries, thus enabling trans-European cultural services. ATHENA will add value to national networks of cultural bodies and projects by ‘upping the ante’ – increasing the magnitude of the scope of such networks to include other countries and other cultures.

Access to culture is an important aspect of any citizen’s quality of life, and is one of the pillars of the i2010 strategy. Exposure to the finest manifestations of art and history enriches and educates the individual, enabling him/her to find greater riches in his/her own environment as well as appreciate the culture of others. For those who do not live in the immediate vicinity of the European cultural heartlands, access to culture via the Internet is an excellent service. It allows the individual to explore and learn at his/her own pace, pursuing



detail as he/she likes, and learning and appreciating in a manner which cannot be supported by, for example, television or a limited number of books.

ATHENA will facilitate that a very large body of the most important European cultural treasures, from a high number of countries, become accessible in a simple and easy way. This lets the user explore across linguistic, cultural and national boundaries, without having to learn new technologies or interfaces. It broadens the scope of his/her cultural exploration across multiple countries. It well responds to the first and third priorities of the i2010 plan: supporting cultural diversity and digital libraries.

The ATHENA project will also contribute to expose new users to the breadth and depth of European culture. This will lead, in turn, to greater culture based tourism and so to improved employment and economic prospects for the countries involved. Thanks to the contribution of the ATHENA project, the European culture (and cultural tourism) will be broadcast to major external markets, making Europe a more attractive destination on the global travel market.

Open, global Internet access levels the playing field for SMEs who wish to create a business based on the exploitation of cultural heritage material. SMEs in design, in textiles, in printing, in graphics and in publishing have a huge new resource to draw upon, providing inspiration, ideas and raw material for new products and services. In particular, creative individuals and SMEs, often geographically peripheral, will have new material to draw upon, from a content base which spans nations, cultures, languages and centuries. ATHENA will support the access, through Europeana, to a large content base, from some of the major museums and cultural players in the world. Its government-level partners will ensure that the project has a major impact on their respective countries, so that the contribution made will be significant.

Cultural institutions in the Member States, both those already partner in the project and all the other not involved yet, will benefit directly from ATHENA. Through Europeana, their online profile will be enhanced, their ability to sell merchandise online will be enhanced by the large new audience of viewers, their visitor numbers can be expected to increase and their potential for cross-border cooperation will be enhanced.

### **Socio-economic development**

The cultural and scientific heritage of Europe has a significant impact on its social and economical development. Digitisation of these resources then becomes a major activity for increasing and improving access of citizens to information and for preserving European cultural heritage. Furthermore the cultural diversity of Europe can receive an important boost from the availability of digital assets, which can play a crucial role in several fields: education, tourism and media industries. They can also be very effective in promoting cultural diversity and enhancing understanding of different cultural, ethnic or religious backgrounds of communities across Europe.

The sector of digital cultural heritage is in fact highly promising in terms of the market opportunities. This does not only refer to commercial enterprises, but to the overall social economy directly linked to the cultural sector, and usually managed by cultural institutions or by Third System or Non-Governmental Organisations. On the other side the involvement of national Governments is able to attract other national sources of funding and venture capital interested in investing in "culture".

The cultural sector is in fact expected to attract more and more new players and interest in the near future, due to its strategic importance for economic development, tourism activities and related technological innovation, as digitisation services. The present project is expected to contribute to the definition of this scenario. To achieve these results, policy and market conditions for further diffusion of the services will be examined, in order to support interested SMEs in clearly identifying the target populations to be addressed. Several partner countries of the ATHENA project already included the cultural sector in their national priorities for employment and training policy, supporting the growth of a new market of cultural services, promoting social economy and enterprise creation, and facilitating the insertion of unemployed women in the labour market. The cultural sector has been indeed recognised as one of the main challenges for reducing the gap within more and less favoured regions of Europe.

As it has been also mentioned by recent studies run at Community level, promoting the use of digital content can play an active support to create and stimulate economic development, through job creation and promoting skills development. On the other side, the importance of business models for distribution, archiving and use of electronic information has been already the objective of several strategic activities launched at European level. In fact the contribution given by the project to the definition of joint initiatives, is strictly correlated with the i2010 Action Plan, as well as the support given to identifying the main obstacles still present for SMEs which want to engage in digitisation business.

## 4 Content

This section should identify the digital content underlying the project.

**Please** complete the detailed information requested under sections 4.1-4.3 on the digital content that will be made accessible and re-usable by the end of the project.

### 4.1 Underlying content

The following table provides a list of the digital objects which the consortium undertakes to make available:

The table below should identify the quality and quantity of the digital content (and related metadata) to be contributed to the project by each content provider. Please start a new row for each new provider, type, or language.

Quantity and Quality of the Content								
Provider <sup>1</sup>	Type <sup>2</sup>	Quantity & Definition <sup>3</sup>	Format & Quality <sup>4</sup>	IPR <sup>5</sup>	Current Use <sup>6</sup>	Existing Metadata <sup>7</sup>	Language	Additional comments
BE - RMAH, department Antiquity	TEXT	12000	XML	Licence	Internal	Inventory number, Object, Period, Date Site – location, Material Dimensions, Trade Origin, Year (commencing date) Photo (reference number) Museum, Exhibition Bibliography Restoration, File	French	This information is kept in a Access database. A migration is planned next months to a new software, MuseumPlus
BE - Royal	text, images	200.000 object	images in	partly public	no users at this	inventory number	French	digitization and

<sup>1</sup> Short name of the participant who provides the content

<sup>2</sup> E.g. Text, image, movie, sound, music etc.

<sup>3</sup> E.g. 1,000 film clips, 2 million pages, 20,000 books etc.

<sup>4</sup> E.g. Format - JPEG, MPEG, Quicktime, HTML, PDF etc., Quality – Resolution, sampling rate, colour/greyscale etc.

<sup>5</sup> Access rights to use the content in the proposed project e.g. public domain or license

<sup>6</sup> Describe current users of the content, including the number (e.g. registered users)

<sup>7</sup> Describe fields, languages and structure of the metadata

Museum for Central Africa, Tervuren, Belgium		and photograph records	compressed JPG-format	domain and partly license	moment since our database is not yet accessible; online access will be developed in 2008	object name, materials title, description acquisition method date of acquisition acquisition related person object related person ethnic origin geographic origin vernacular name date of creation	(translations in Dutch and English are being prepared)	quality control is in progress
BE - KIK-IRPA	Digital images and descriptions (in a database) of the depicted artworks	300.000 object (artwork) descriptions / Over 500.000 scanned photographs (about 90% B/W) of those objects	JPEG (B/W: 300 to 600 dpi, 1 on 1 size of original photograph / colour photographs are mostly of a higher resolution). Of all images we have thumbnails and "screen-size" copies.	Public domain for the contributed photographed artworks / KIK-IRPA for the photographs	Free accessible website www.kikirpa.be	Database (Adlib Information Systems). Can be exported in XML or tagged text format. Fields can be mapped on f.i. Dublin Core (collaboration by our own IT-section with specialists in the specific field of mapping could be helpful)	Dutch (for objects in Flanders and partly in Brussels) and French (for objects in Wallonie and partly in Brussels). Thesaurus is bilingual Dutch/French	Our federal scientific institution has the official duty of making a photographic inventory of all artworks in Belgium, or by Belgian artists.
BE - RFA (Royal Film Archive Belgium)	movie	About 300 film titles	MPEG	Public domain licence	None till now	Title(s), Credits, Description 2 keywords	French, Dutch, English	
BE - MoMu-library	Text (bibliographic descriptions)	15.000 books – 500 magazine titles – 1.000 documentation folders – 1.000 AV-media (50% analogue – 50% digital media)	Marc 21 (in XML)	Public domain	Database is accessible via the internet (no registration required)	"Regular" book descriptions (AACR-based) using Brocade-software with udc-classification and LCSH-based keyword system	Multilingual (language of the publication) except for "collation" and specific (=non generic) data.	
BE - MoMu-Museum Collection	Text + image (object-registration)	20.000 objects	Text in a sql-server database Image in jpg (72 dpi)	Public domain	Database is accessible via the internet (no registration)	The Museum System-software (object registration software) based on	Dutch (content) but with a multilingual interface.	

					required).	a Sql server-database and published on the internet via Collection Connection-tool (by mapping the sql-dB to an xml-structure). TMS-data is organised in different modules such as objects, events, persons, shipments, literature, exhibitions, etc. Each module has an extensive number of fields that are available for mostly free-text input.		
BE - PCCE	artefacts in museums and churches	about 85000 objects	rich normalized metadata, derived from inventories and converted to RDF database, often with linked digital images	rights on objects with the owners (churches, museums), data shared with PCCE for internet accessible database	database will be available on line by the end of 2007	in RDF format, data structure based on Spectrum and CIDOC-CRM	Dutch	
BE - Antwerp City Archives	Images	231380 photographs	Analogue (to be digitised outside the ATHENA project) + digital TIF	Partly public domain Copyright for last 75 years	Yearly, 5.700 users of the reference rooms + 53.000 website-visitors	Dublin Core	Dutch	
BE - Antwerp City Archives	sound	1.070	Analogue (to be digitised outside the ATHENA project) + Digital WAV	Partly public domain Copyright for last 75 years	Yearly, 5.700 users of the reference rooms + 53.000 website-visitors	No structured metadata	Dutch	
BE - Antwerp	movies	1.125 films	Analogue (to be	Partly public	Yearly, 5.700	No structured	Dutch	

City Archives			digitised outside the ATHENA project)	domain Copyright for last 75 years	users of the reference rooms + 53.000 website-visitors	metadata		
BE - Antwerp City Archives	Video	475 videotapes	Analogue (to be digitised outside the ATHENA project)	Partly public domain Copyright for last 75 years	Yearly, 5.700 users of the reference rooms + 53.000 website-visitors	No structured metadata	Dutch	
BG - IL of BAS, Department of Old Bulgarian Literature, CL of BAS	Text	“Repertorium of Old Bulgarian Literature and Letters” – description of 280 Slavic manuscripts, see <a href="http://clover.slavic.pitt.edu/~repertorium/">http://clover.slavic.pitt.edu/~repertorium/</a>	XML	Public Domain	Specialists in medieval studies from 9 countries (Austria, Bulgaria, England, Germany, Russia, Slovenia, Serbia, Macedonia, USA)	Template for Description of Slavonic Manuscripts (D. Birnbaum, A. Boyadzhiev, A. Miltenova); English, Bulgarian, Old Slavonic	English/ Bulgarian	The experimental Workstation is in Pittsburgh University, Pittsburgh, PA, USA
BG - IL of BAS, Department of Old Bulgarian Literature	Text	“Metadata and Electronic Catalogues (Multilingual Resources for Scientific Medieval Terminology)” – thesaurus of 250 terms in the field of palaeoslavistics – codicology, textology, genres, types of manuscripts, etc. (under preparing)	XML, HTML	Public Domain	Specialists in medieval studies in Bulgaria	Template for terminology (A. Boyadzhiev); Old Slavonic, Old Greek, Latin, Bulgarian, English, German, Russian, Serbian.	English/ Bulgarian	The project is supported by the National Scientific Fund (2006–2008).
BG - IL of BAS, Department of Old Bulgarian Literature	Text & Image	“Christian Hagiology and Pagan Beliefs: Computer Database on the	HTML	Public Domain	Specialists in medieval studies Bulgaria, Serbia, Macedonia	HTML database, (R. Lazov)	Bulgarian, Old Slavonic	The project is supported by the National Scientific Fund (2004–2007).

		bases of Balkan Cyrillic Manuscripts” – database of cults of saints (St. Paraskeva-Petka of Turnovo, St. John of Rila, etc.).						
BG - IL of BAS, Department of Old Bulgarian Literature	Text	“Computer Description of Slavic Manuscripts” – Bulgarian-Swedish project (University of Gothenburgh, Sweden) (2004–2007). Disk with database is available on request.	XML	Public Domain	Specialists in medieval studies Sweden, Norway, Finland, Bulgaria	Template for Description of Slavonic Manuscripts (D. Birnbaum, A. Boyadzhiev, A. Miltenova); English, Bulgarian, Old Slavonic	English	
BG - CL of BAS	Text	“3,000 Manuscripts on microfilms” – in a process of digitisation	XML	Public Domain	Specialists in medieval studies	Template for Description of Slavonic Manuscripts (D. Birnbaum, A. Boyadzhiev, A. Miltenova); English, Bulgarian, Old Slavonic	English, Bulgarian	Partially supported by the National Science fund
BG - IL of BAS, Department of Old Bulgarian Literature	Text & Image	“SLOVO-ASO: Towards the Building of Digital Library of South Slavic Manuscripts” – international project (Austria, Slovenia, Serbia, Macedonia, Bulgaria – coordinator),	XML, HTML	Public Domain	Specialists in medieval studies, culture and literature of Balkan and Central European countries	Portal: <a href="http://slovo-aso.cl.bas.bg">http://slovo-aso.cl.bas.bg</a> under preparing	English	The project is supported by ASO program

		2007–2008.						
BG -IM of BAS, Private entity	Text & Image	Bulgarian Encyclopaedia of Iconography	XML, TIFF	Public Domain	Specialists in medieval studies, students, general public	Offline	English, Bulgarian	The project is supported by LOGOS project
BG - IM of BAS, Private entity	Text & Image	Bulgarian Ethnographical Treasury	XML, TIFF, WAV	Public Domain	Specialists in medieval studies, students, general public	Offline	English, Bulgarian	
BG - IM of BAS, Private entity	Text & Image & Musical files	Bulgarian Digital Folklore	XML, TIFF, WAV	Public Domain	Specialists in medieval studies, students, general public	Offline	English, Bulgarian	
BG - IA of BAS	Text & Image & Musical files	Bulgarian Web Folk (15,000 records)	XML, GIF, RA, RM			Online: <a href="http://195.96.230.213/Default-bg.htm">http://195.96.230.213/Default-bg.htm</a>	English, Bulgarian	„Open Society“
BG – City Library of Varna, Public entity	Text & Image	Virtual image memory of the City of Varna	XML, TIFF	Public Domain	Specialists in medieval studies, students, general public	Offline	English, Bulgarian	The project is supported by local municipality
CY - Ministry of Education and Culture	Books	30,000 pages	PDF	Free	Public	No	Greek, German, English, French	
CY - Ministry of Education and Culture	Manuscripts	10,000 pages	PDF	Free	Public	No	Greek, German, English, French	
CY - Ministry of Education and Culture	Newspapers	20,000 pages	PDF	Free	Public	No	Greek, German, English, French	
CY - Ministry of Education and Culture	Magazines	5,000 pages	PDF	Free	Public	No	Greek, German, English, French	
CY - Department of Antiquities	Books	30,000 pages	PDF	Free	Public	No	Greek, English	
CY - Department of Antiquities	Magazines	15,000 pages	PDF	Free	Public	No	Greek, English	

CY - Department of Antiquities	Statues/ Artefacts	20	Point Clouds	Licensed	Public	No	Greek, English	
CY - Department of Antiquities	Ancient Jewelleries	15	Access- Database format	Licensed	Public	No	Greek, English	
CZ - National Museum Prague	image	100 images of non-European numismatic collection	JPEG/	Public	scientific, scholastic		Czech	
CZ - National Museum Prague	image	manuscripts	XML, HTML, TIFF		Website access limited (National Library)	HTML database	Czech	www.manuscriptorium.com
CZ - National Museum Prague	3D image	100 3D images of the items, which were possession of European eminent personality and now are in National museum collection	JPEG/3D view	Public Domain	Website access		Czech, English, Italian	www.peopleforeurope.cz
CZ - National Museum Prague	3D image	11 3D images of archaeological and architectural artefacts	JPEG/3D view	Public Domain	Website access	Object name, material, description, date, ethnic origin, locality	Czech	www.nm.cz/old/kvr/index.htm
CZ - National Museum Prague	image	Newspapers and journals (e.g. Politik 1862-1890) 27 843 pages	JPEG		Website access limited (National Library)	in accordance with standards for repository interoperability	Czech	http://kramerius.nkp.cz
CZ - National Museum Prague	image	Ex Libris collection –500 images of Ex Libris and 100 images of illustrations	TIFF	Public	scientific, scholastic	Inventory number, object name, date, locality, author, owner	Czech	
CZ - National Museum Prague	image	General historical catalogue – 1 200 000 items	JPEG	Public Domain	scientific, scholastic		Czech	http://listky.nm.cz/catalogue/
CZ - National	image	Autographs of A.	TIFF	License National	scientific,		Czech	



Museum Prague		Dvořák and B. Smetana (1000 pages)		Library Prague	scholastic			
CZ - National Museum Prague	image	Anthropological collection (12000 images)	JPEG		scientific		Czech	
CZ - National Museum Prague	image	Mineralogy collection (1000 images of minerals)	TIFF	Public	scientific		Czech	
CZ - National Museum Prague	Text	New fungal taxa described by Josef Velenovsky	XML	Public Domain	public	Genus, Species, Author, Infraspec. Taxon, Publication, Status, Locality, Date, Collected by, Identified by	Czech, English	<a href="http://katalogy.nm.cz/opac/houby/index.php">http://katalogy.nm.cz/opac/houby/index.php</a>
DE - Architekturmuseum	Image, Metadata	E.g. 14.000	jpg; , internet use low quality		Used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ). The number of files is growing.	XML museumdat – scheme ( <a href="http://www.museumdat.org">www.museumdat.org</a> )	German	
DE - DigiCult Museen Schleswig-Holstein (DigiCult)	Image, Metadata	E.g 14.000	jpg; , internet use low quality		Used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ) and in regional online information system of 35 museums in the region Schleswig-Holstein. The number of files is growing.	XML museumdat – scheme ( <a href="http://www.museumdat.org">www.museumdat.org</a> )	German	
DE - Stadtgeschichtliches Museum Leipzig (SML)	Image, Metadata	E.g 12.000	jpg; , internet use low quality		Used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ).	XML museumdat – scheme ( <a href="http://www.museumdat.org">www.museumdat.org</a> )	German	

					Local information system of the museum. The number of files is growing.			
Staatliche Museen zu Berlin (SMB)	Image, Metada	E,g. 14.000	jpg; , internet use low quality		Used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ). The number of files is growing.	XML museumdat – scheme in preperation ( <a href="http://www.museumdat.org">www.museumdat.org</a> )	German	
DE - Architekturmuseum der Technischen Universität Berlin in der Universitätsbibliothek	Image, description	E,g 60.000	jpg; , internet use low quality		Used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ) local information system of the museum The number of files is growing.	Local data scheme	German	
DE - Badisches Landesmuseum Karlsruhe	image, metadata	approx. 40000	jpg; , internet use high quality		partly used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ) local information system of the museum The number of files is growing.	Local data scheme; DC compatible; XML export possible	German	
DE - Württembergisches Landesmuseum Stuttgart	image, metadata	approx. 10000	jpg; , internet use high quality		partly used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ) and	Local data scheme; DC compatible; XML export possible	German	

					the local information system of the museum. The number of files is growing.			
DE - Staatliche Kunsthalle Karlsruhe	image, metadata	approx. 40000	jpg; , internet use high quality		partly used in the national internet portal BAM ( <a href="http://www.bam-portal.de">http://www.bam-portal.de</a> ) and the local information system of the museum. The number of files is growing.	Local data scheme; DC compatible; XML export possible	German	
DE - Landesmuseum Württemberg Stuttgart	image, metadata	approx. 40000	jpg; , internet use high quality		The number of files is growing.	Local data scheme; DC compatible; XML export possible	German	
DE - Agustinermuseum Freiburg	image, metadata	approx. 80000	jpg; , internet use high quality		The number of files is growing.	Local data scheme; DC compatible; XML export possible	German	
EE - MKE	Text, image	5 000 objects	HTML, JPEG	Public domain	Access will be developed in 2008	Database	EE	Common museum information system will be developed.
FI - NBA (National Board of Antiquities)	text and images of objects and photographs	13 000 images	JPEG colour 72/96 dpi	Public domain	5000 individuals/a	26 fields for structured searches	FI (searches also EN and SWE)	<a href="http://www.suomen museoton line.fi /SIR/smol/museot_etusivu_en.html">http://www.suomen museoton line.fi /SIR/smol/museot_etusivu_en.html</a>
FI - NBA	text and images of objects and photographs	15000	JPEG	Public domain			FI	120000 digitised objects and 100000 digitised photographs in

								Musketti-database will gradually be opened to Internet browser. <a href="http://kokoelma.selain.nba.fi/Alku.htm">http://kokoelma.selain.nba.fi/Alku.htm</a>
FI - NBA	metadata only, some images	25 000 sites	html	Public domain	300 registered users (extranet)	ca. 30 fields, SQL database	FI	Sites and monuments register
FI - UH.HUL (Helsinki University Library)	text, image	1 million pages	Master files: JPEG2000 Lossless Access Copies: JPEG, PNG, 400 dpi	public domain Free access to full service	Researchers, genealogist, journalists, public interested in, etc.  In 2006 3.8milj page request including Scholarly Journals and Ephemera	Object level metadata MODS Collection level Michael Collection Description Schema Image Capture Metadata (MIX) Structural Metadata (METS)	Searches in Finnish, Swedish and English  Items in the original language, Swedish and Finnish	Newspapers in Finland 1771 - 1890
FI - UH.HUL	Text Image	100 000 pages	Master files JPEG2000 Lossless Access copies JPEG PNG  400. dpi	Restricted access to parts of collection according to licensing agreement	Researchers, students, teachers, public interested in, etc.  In 2006 3.8milj page request including Newspapers in Finland and Ephemera	Object level metadata MODS  collection level Michael Collection Description Schema Image Capture Metadata (MIX) Structural Metadata (METS)	Searches in Finnish, Swedish and English  Items in the original language, in Finnish and Swedish	Scholarly Journals 1841 – 1999
FI - UH.HUL	text, image	130000 pages	Master files JPEG2000 Lossless Access copies JPEG PNG	Public domain Free access to full service	Researchers, entrepreneurs, public interested in, etc.  In 2006 3.8milj	Object level metadata MODS collection level Michael Collection Description Schema	Searches in Finnish, Swedish and English Items in the original	Ephemera Industrial price lists and catalogues 1809 – 1944

			400. dpi		page request including Newspapers in Finland and Scholarly Journals.	Image Capture Metadata (MIX) Structural Metadata (METS)	language: English, Spanish, Esperanto, Dutch Italy, Latvia, Lithuanian, Norwegian, Polish, French, Swedish, German, Finnish, Danish, Czech Russia, Estonia.	
FI - UH.HUL	text, image		Master files: JPEG2000 Access Copies: JPEG PNG 400. dpi	Public domain Free access to full service	Researchers, students, travellers, teachers, public interested in, etc.	Object level metadata MODS Collection level Michael Collection Description Schema Image Capture Metadata (MIX) Structural Metadata (METS)		Monographs Geography and travelling Future content, Underway
FI - UH.HUL	Audio Image Text	125 000 audio carriers (in Library collections)	Master files: BWF Access files: MP3 Image: PNG Text: TXT, XML	Restricted access for copyrighted material, otherwise free access	Researchers, students, teachers, public interested in, etc.	Marc, MarcXML	Finnish, Swedish	Sound recording Future content, Underway
FI – NA (Finnish National Archives)	image	40 collections, 889 435 images	JPEG, TIFF	Public Domain	Public	ca. 40 fields for structured searches	FI	<a href="http://www.narc.fi:8080/VakkaWWW/EtuSivu.action">http://www.narc.fi:8080/VakkaWWW/EtuSivu.action</a> <a href="http://digi.narc.fi/digi/">http://digi.narc.fi/digi/</a>
FI - FNG	text, image	35000	JPEG	public domain		HTML		<a href="http://kokoelmat.">http://kokoelmat.</a>

Finnish National Gallery)								fng.fi/ wandora/w?lang=fi&action=gen
FI - LCM (Lahti City Museum)	text, image	213000 objects and 99200 photographs	Tif, JPEG, xml, 300 dpi	Starting Jan, 2008 through Finnish Museums Online	Since Jan. 2008 through Finnish Museums Online		FI (searches also EN and SWE)	http://www.suomen museot online.fi/SIR/smol/museot_etusivu.html
FI - KMCH (Kuopio Museum of Cultural History)	text, image (objects and photographs)	100000	xml, JPEG	public starting Jan, 2008 through Finnish Museums Online	Since Jan. 2008 through Finnish Museums Online		FI (searches also EN and SWE)	http://www.suomen museot online.fi/SIR/smol/museot_etusivu.html
FI - TM (Tampere Museums)	text, image	5000	JPEG	public domain			Finnish (searches also EN and SWE)	http://www.suomen museotonline.fi/SIR/smol/museot_etusivu.html
FI - Lusto (Finnish Forest Museum)	images, text	6387 objects, 46582 photographs	JPEG,PDF,txt	public domain		195000 searches/year	Finnish	www.kantapuu.fi
FI - AAM (Alvar Aalto Museum)	text and image;	700 + 900	html+JPEG	public			FI + EN	net expos
FI - AAM	text and image	2000	macro media	public			Finnish	Database
FI - Sarka (Sarka - Finnish Museum of Agriculture)	text and image	2000	JPEG	public domain			FI (searches also EN and SWE)	http://www.suomen museotonline.fi/SIR/smol/ museot_etusivu.html
FR - Ministère de la Culture et de la Communication	Mainly Text and Images	2 Million images 3 Millions Records Several hundreds of texts	Picture: jpg	License	Free access for general public on www.culture.fr	Yes (several types, according from the domain) + thesaurus	French (some parts of the thesaurus translated)	Cross-domain portal : resources from museums, archives, libraries, archaeology, monuments
GR - Hellenic Ministry of Culture (HMC):	Text/Images/V ideo	~25000 digital items	PDF, WORD/ JPEG/ MPEG1, MPEG2	Public and Licensed	5000	Dublin Core, Cidoc-CRM, MARC,	Greek, English	

It will provide cultural content from HMC public Museums			Colour and Greyscale			SPECTRUM, MPEG-7		
GR - Museum of Ancient Olympia, Archaeological Ephorate	Image, Text	2000 images, 1000 text	JPEG	Public	CD-ROM	Dublin Core metadata	Greek	
GR - LSt, Archaeological Ephorate	Image	1500 images	JPEG	Public	Web Site	Dublin Core metadata	Greek, English	
GR - Museum of Cycladic Art	Text, Image	500 images, 100 pages	JPEG	Public	Web Site	Dublin Core metadata	Greek, English	
GR - University of Crete	Image, Text, 3D Representation	2000 images, 200 pages, 1 3D Repr.	JPEG, QTVR, VRML	Public	Web Site, CD-DVD Rom	Dublin Core metadata	Greek	
GR - National Museum of Contemporary Art	Image, Video, Quicktime, Text, Slides	1000 slides, 4000 images, 1000 text, 135h video	JPEG, MPEG, QTVR	Public	Database, CD, DVD ROM	CIDOC, Dublin Core	Greek	
GR - STUDIO - Filmfiles	Text, image, movie	1500 pages, 3500 images, 20h HD movies	JPEG, MPEG	Public	CD-DVD electronic editions, Web Site	Dublin Core metadata	Greek, English, French	
GR - Greek Film Archive	Text, image, movie	1000 pages, 1500 images, 10h HD movies	JPEG, MPEG	Public	CD-DVD electronic editions.	Dublin Core metadata	Greek, English, French	
GR - Solomos Museum	Image, Text, Sound	1000 images, 1000 pages, 5 sound clips	JPEG, MPEG, MP3, AVI	Public	Web Site, CD-ROM	Dublin Core metadata	Greek, English, Italian	
GR - H. Schliemman Virtual Museum	Text, image	1000 images, 200 pages	JPEG	Public	Web Site	Dublin Core metadata	Greek	
HU - Museum of Literature Petőfi (PIM)	Manuscript	2500 pages	Picture: tiff, jpg	Licence		Full bibliographic description in MARC format	Hungarian	Metadata are provided on Internet (webOPAC)
HU - Museum of Literature Petőfi (PIM)	Audiovisual documents	210 DVD: 420 hour, 1000 CD: 660	Audio CD, mp3, DVD form	Licence		Full bibliographic description in MARC format	Hungarian	Metadata are provided on Internet (webOPAC)

		hour							
HU - Museum of Literature Petőfi (PIM) – Digital Literary Academy	Text	720 volumes, c.a. 30.000 work: 30.000 files. In process: 500 volumes, c.a. 15.000 work: 15.000 file	Sgml Xhtml	Licence		From next year: Full bibliographic description in MARC format	Hungarian	Metadata and full text are provided on Internet (Full text and advanced search)	
HU - Museum of Literature Petőfi (PIM)	Digital photo	2000 photographs	Picture: tiff, gif, jpg	Licence		Full bibliographic description in MARC format	Hungarian	Metadata are provided on Internet (webOPAC)	
HU - Museum of Literature Petőfi (PIM)	Digital photos of fine arts documents	2500 photographs	Picture: tiff, gif, jpg	Licence		Full bibliographic description in MARC format	Hungarian	Metadata are provided on Internet (webOPAC)	
HU - Museum of Literature Petőfi (PIM)	Digital photos of relics	500 photographs	Picture: tiff, gif, jpg	Licence		Full bibliographic description in MARC format	Hungarian	Metadata are provided on Internet (webOPAC)	
HU - National Radio	Sound	15.000 titles	Mpeg, wav		300	30 fields, new DC-structure 52 fields	Hungarian		
HU - National Radio	Music	35.000 titles	Mpeg, wav		100	30 fields, new DC-structure 52 fields	Hungarian		
HU - National Radio	Other paper documents related to sounds and music	500.000 pages	Jpeg, Word-documents		400	30 fields, new DC-structure 52 fields	Hungarian		
IL - JNUL The National Sound Archives	Audio	6,000 Hours accessible in the library facilities; part of it is accessible in the Web	WAV & MP3	Most JNUL; some belong to creators		* and ethno musicians, music research, music creators	Enhanced MARC in English, Hebrew, and Yiddish	More than 10; include several Jewish languages	Catalogue Selection National Sound Archives
IL - JNUL Ancient maps of Jerusalem	Maps	Ancient Maps of Jerusalem 293 Maps	TIFF + JPEG + MrSID	JNUL		* and History and Geography researchers	MARC in English, Hebrew, Latin, French	English, Hebrew, Latin, French	
IL - JNUL Holy Land Maps	Maps	1,300 Maps of the Holy Land	TIFF + JPEG (MrSID)	JNUL		* and History and Geography researchers	MARC in English, Hebrew, Latin, French	English, Hebrew, Latin, French	



IL - JNUL Ancient maps of Historic Cities	Maps	Historic cities ~3,800 Maps	TIFF + JPEG (MrSID)	JNUL + HUJI Geography Department	* and History and Geography researchers	MARC in English, Hebrew, Latin, French	English, Hebrew, Latin, French	
IL - JNUL Early Hebrew Newspapers	Newspapers	150,000 pages Early Hebrew Newspapers - 6 titles	TIFF G4 Black and White	JNUL	*	Date Subjects from Yad Ben Zvi Index	Hebrew	OCR upgrade being completed with OLIVE technology and larger project on Jewish Newspaper with TAU
IL - JNUL and CALTECH (California Institute of Technology) Einstein Archives Online	manuscripts and transcription	Archival Database holds 43,000 records 900 manuscripts - 3,000 images	TIFF & JPEG Colour	Hebrew University	* and Einstein Scholars	EAD German and English	German, English	Include Gallery and search mechanism
IL - JNUL Digitized Book Repository	Rare Books	Currently: 559 titles=746 items 5 books are scanned and added each week	TIFF Gray Scale DejaVu	JNUL – copyright period of originals ended	*	MARC Hebrew, English Latin	Hebrew, English Latin	
IL - JNUL Worldwide Repository of Ketubbot	Ketubbot – Jewish Contract Marriages	3640 Ketubbot	TIFF Colour + JPEG DejaVu	Web repository JNUL main share + associated partners	* and artists, creators and new couples that prepare their marriage contracts	MARC Hebrew English	More than 10 including several Jewish languages	Model project of integration of distributed resources through digitisation
IL - JNUL and Department of Talmud, The Hebrew University Online Treasury of Talmudic Manuscripts	Talmudic Manuscripts	complete collection of all known Talmud, Mishna and Tosafot from libraries around the world	TIFF as master files and JPEG as access files	Web repository lead by JNUL and the HUJI Talmud Department with partners.	* and Jewish Studies and Talmud scholars	English Hebrew Aramaic	Hebrew Aramaic	
IL - JNUL	Treasures of the Library	Special collections of particularly valuable	TIFF + DJVU	JNUL	*and Jewish Studies scholars	Hebrew English	Hebrew	Mahzor Worms Rashi Writings of Maimonides

		resources. Include the manuscripts and texts with related documentation						Newton's Secrets - Virtual Exhibition
IL - The Israel Museum, Jerusalem	Images, texts, movies	5,000 images Textual descriptions 20 Film clips 10 VR walkthroughs	JPEG, MPEG, Quicktime, Flash, HTML, PDF 73 Dpi - Colour	Licence © The Israel Museum, Jerusalem	Web access	47 fields Mapped to DC	English Hebrew	The IMJ is an museum including art, archaeology and Judaica collections
IL - Israeli State Archive	Text	700.000	Tiff 300 dpi Black&White	Subject to copyright clearance	Foreign Ministry Documents	Four level of metadata: funds, series, file units and image	Hebrew and English	
IL - Israeli State Archive	Text	32.000	Tiff 300 dpi Black&White	Subject to copyright clearance	British mandate economic advisor documents		English	
IL - Israeli State Archive	Text	60.000	Tiff 300 dpi Black&White	Subject to copyright clearance	Immigrants list Mandate and post state		Hebrew	
IL - Israeli State Archive	Text	40.000	Tiff 300 dpi Black&White	Subject to copyright clearance	German consulates in Palestine 19 <sup>th</sup> and 20 <sup>th</sup> century		German	
IL - Israeli State Archive	Text	15.000	Tiff 300 dpi Black&White	Subject to copyright clearance	Non official German archives 19 <sup>th</sup> and 20 <sup>th</sup> century		German	
IL - Israeli State Archive	Maps	2.380	Jpeg Colour 150 dpi	Subject to copyright clearance			Hebrew and English	
IL - Israeli State Archive	Text	50.000	Jpeg Colour 150 dpi	Subject to copyright clearance	1947 documents structuring Israeli Civil Service		Hebrew	
IT-Alinari	Text and images	1000 or more	Jpeg, jpeg2000 or hd-photo if needed, 300 dpi, adobe RGB	100% own by Alinari, access rights to the project with a	Registered users, pay per use	Yes, according to IPTC, Dublin Core and Photoshop fields	Italian and English, more upon request	

			coloursync profile	specific IPR agreement				
IT – Accademia Nazionale di Santa Cecilia ANSC	Sound	To be defined	MP3 256kbit			None. To be done 2008	Italian	
IT – Accademia Nazionale di Santa Cecilia ANSC	Images / photographs	200	JPG 180 dpi			YES see example	Italian	
IT – Accademia Nazionale di Santa Cecilia ANSC	Images / musical manuscripts & programme notes	500	JPG 180 dpi			YES MAG schema 2.0	Italian	
IT – Accademia Nazionale di Santa Cecilia ANSC	Images / documents from historical archive	200	JPG 300 dpi			None. To be done 2008	Italian	
IT-Fondazione Querini Stampalia	Text and images	600 records (text and image)	Text; JPG	Low resolution: Creative Commons attribution –non commercial-no derivatives. High resolution: authorisation requested.	Italian Culture Portal users	Italian Culture Portal application profile (based on DC extended)	Italian	
IT-ArtPast	Text, images	Currently 1.6 million records (within march 2008 2 millions records). Currently 2.1 millions images (within march 2008 2,5 millions images approximately).	Images: B/W and colour JPEG, the accepted quality range is from 630X480 to 1480X148. Texts are entered in the DB in Plain Text.	Italian Ministry of Cultural Heritage and Activities (MiBAC) is the rights holder of content of the catalogue records. Each single cataloguer has intellectual rights only on the text. Restrictions to publication can depend on:	Currently digital contents can be accessed only by internal personnel of MiBAC (and its local Directorates) in charge of the Catalogue. The paper resources are usually consulted by	Provided contents consist in catalogue records pertaining to movable art works. Each record has the following groups of metadata: unique inventory codes; type of object(s); subject; current spatial coverage and ownership	Italian	ArtPast is a project elaborated by the DG for the technological innovation and promotion of the Italian Ministry for cultural heritage and activities. The full version is for an internal use; a public section is visible -

				<p>protection of personal data (e.g. name of owners of private goods); protection of goods (geographic information are restricted for movable goods).</p>	<p>students and scholars, museum and exhibitions curators, restorers, eventually by police (in event of theft of damage). Catalogue records, in their complete form, are usually addressed to an audience specialized in CH. The amount of users can be approximately defined in 20000 users per year in Italy.</p>	<p>information; physical location; alternative (usually previous) spatial coverage and ownership information; date or period of creation; creator or temporal / geographical / stylistic context of creation; relations with other (usually previous, partial or preparatory) artworks; technical data (size, material, technique); preservation status and previous restorations; rights, ownership and possible restrictions to export, loan or selling; related (photo, audio, video documents). Each field is structured in hierarchical subfields. Such metadata have already been mapped into Qualified Dublin Core, further extended in an Application Profile, specially conceived for the Italian Culture Portal.</p>	<p>through harvested metadata – via the Italian Culture Portal.</p>
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IT - SIAV (Sistema Informativo Archeologico Vesuviano) – Soprintendenza Archeologica di Pompei	Texts, images					According to the ICCD national standards.	Italian	Data bank under preparation; it will be ready in Spring 2008
LU - Musée National d'Histoire et d'Art	Text, Image, Film	Some thousands	ASCII, PDF, TIFF, PNG, SVG, MPEG	Public Domain	<a href="http://mnhal.lu">http://mnhal.lu</a>	Dublin Core	English, French, German, Luxembourg	
LV - State Authority on Museums of Latvia (Data from 110 accredited museums of Latvia)	Text, image	100 000 items descriptions from December 2007.	JPG, PDF,	Public Domain	110 museums' staff (300 users) Free access <a href="http://www.nmkk.lv">www.nmkk.lv</a> will be developed in 2008.	Dublin Core, SRU for data exchange	Latvian, but planned translate to English	Project "Join Catalogue of the National Holdings of Museums" is supported by EU.
PL - ICIMSS	Pictures	30 000 photos	JPEG, 2304x3456, colour	Public domain	Ready for download to the Website: <a href="http://www.pictures-bank.eu">www.pictures-bank.eu</a> which is under development	Dublin Core (at the moment refers to 1.000 pictures. Till the end of 2007 – should be 10.000 Some descriptions include GIS data	Polish, English	Pictures include: architecture, people, objects macros Photos, and digitised content from journals and postcards
PL - ICIMSS	Website, Photos and historical text -descriptions of the properties	500 photos and 40 descriptions of buildings available and bibliography	JPEG, text, HTML	Public domain	<a href="http://www.icimss.edu.pl/Sladami_torunskiej_scesji/">http://www.icimss.edu.pl/Sladami_torunskiej_scesji/</a> Website visited by about 60.000 users annually	history, architecture (location on the map -work in progress)	Polish	Website under development. Expected significant increase of data
PL - ICIMSS	Moodle distance learning courses	2 courses available: a) archival documentation type b) photographs 2 courses under technical	HTML	Free offer for 2 courses available after registration	<a href="http://www.icimss.edu.pl/moodle/">http://www.icimss.edu.pl/moodle/</a> Ava	Free text	Polish	Courses illustrated with the archival materials

		preparation: a) manor houses b) art of portrait						
PL - ICIMSS	game devoted to 20 century history of Poland (1917-1989)	3 paths scenario	Text, pictures, audio HTML, MPEG, MP3	Registered users: school children	www.Emapps.com - platform available at the moment for the project partners. About 100 users - mainly children working on the game, teachers and project partners	None	Polish	Game scenario and digitised historical pictures from private collections (black & white), Photos of the objects Game should be available for all interested schools after the project end i.e. March 2008
PL -PFBN		43.000 digitised books	DjVu	Public domain	<a href="http://www.wbc.poznan.pl/dlibra">http://www.wbc.poznan.pl/dlibra</a> Since June 2004 - <b>5.210.681 users</b>	Dublin Core, MARC 21	Polish, English, German, French	15 institutions (libraries, archive and publishing house) deliver the content
RO – CIMEC – Institute for Cultural Memory	image	10000	tiff, jpeg	public domain	Internal	MARC-like records	Latin, Slavonic, Romanian, German, Hungarian	Mediaval manuscripts
RO – CIMEC – Institute for Cultural Memory	image	5000	jpeg	some rights reserved	exposed on web	national standard for museum metadata	Romanian	Listed Romanian movable heritage
RO – CIMEC – Institute for Cultural Memory	text	equivalent of 600 pages	htm	public domain	exposed on web		Romanian	Classical Romanian literature
SE - County Museum Halland	Text, images	About 55 000	Database format, export will be available in CIDO CRM CORE XML, images: jpg, tiff	Currently discussed, probably Creative Commons	Open Web search	Places, Names, Objects, Outline of Cultural Materials (OCM), techniques, measure etc	Swedish	
SE - County	Text, images,	About 80 000	Database	Currently	Open Web	Places, Names,	Swedish	

Museum Västernorrland	photos		format, export will be available in CIDO CRM CORE XML, images: jpg, tiff	discussed, probably Creative Commons	search	Objects, Outline of Cultural Materials (OCM), techniques, measure etc		
SE - National Archives of Sweden	Digital images of military maps and drawings from the 1700 <sup>th</sup> century and forward	About 30 000	JPEG and PDF	Public domain	Research	Inventory number Object Period/date Site (location, country)	Mostly Swedish but also other European languages	
SE - Stockholm County Museum	Text, images, photos	About 40 000	Database format, export will be available in CIDO CRM CORE XML, images: jpg, tiff	Currently discussed, probably Creative Commons	Open Web search	Places, Names, Objects, Outline of Cultural Materials (OCM), techniques, measure etc	Swedish	
SI - Ministry of Culture of the RS / Ministrstvo za kulturo Republike Slovenije	images	30.000 photography, images	tiff, jpeg	limited free	internet use, intranet use	Core Data Index, GIS	Slovene	
SI - Archives of the Republic of Slovenia / Arhiv Republike Slovenije	digital cadastral maps	29.000 maps	jpeg	limited free	internet use, intranet use	internal	Slovene	
SI - National Museum of Slovenia / Narodni muzej Slovenije	images	11.402 images	jpeg, tiff	licence	internal use	Spectrum	Slovene	
SI - Slovenian Museum of Natural History / Prirodoslovni muzej Slovenije	images	569 images	tiff	licence	Internal use	Internal	Slovene	
SI - Slovene Ethnographic Museum /	images	700 images	jpeg, tiff	licence	Internal use, catalogue	Spectrum	Slovene	

Etnografski muzej Slovenije								
SI - Technical Museum of Slovenia / Tehniški muzej Slovenije	images	530 images	tiff	licence	Internal use	Spectrum	Slovene	
SI - Charintium Regional Museum / Koroški pokrajinski muzej	images	532 postcards	tiff	licence	Internal use	Spectrum	Slovene	
SK - Slovak National Museum	image	6 300	JPG, TIFF	www.cemuz.sk license	- 130 registered users - limited free access	metadata scheme CCO	Slovak	
SK - Slovak National Museum	3D objects	22 500	JPG, TIFF	www.cemuz.sk license	- 130 registered users - limited free access	metadata scheme CCO	Slovak	
SK - Slovak National Museum	text	18 000	DOC, TXT	www.cemuz.sk license	- 130 registered users - limited free access	Scheme CCO	Slovak	
UK - English Heritage	Images, text	50,000 image files at three sizes; a text/metadata record per image.	JPEG image files at 150x150 pixels, 450x450 pixels and 700x700 pixels colour and greyscale.	Free to view, licence required for further use.	www.english-heritage.org.uk/viewfinder 70,000 unique visitors per month, family/local historians, general public, educational users.	The following metadata formats are available in the OAI repository: oai_dc and ads_dc	English	Core records exist in collections management databases.
UK - Fitzwilliam Museum	Text and images	137,643 metadata records and images					English	
UK - Royal Albert Memorial Museum & Art	Object Records, Physical	35,000 object records, 500 images, 7000	Held in FileMaker Pro, Access, Mix of	To be made accessible			English	



Gallery	Image Records, Digital Images	records of images	TIF & JPEG – colour & high resolution					
UK - Bristol City Council	Text, images	CSV			Fawcett collection – to be launched online in 2008 Bristol photography – to be launched online in 2008	OAI-PMH, Spectrum, Dublin Core	English	
UK - Victoria and Albert Museum	Text, images	40,000 images	JPEG	Licence	Images.vam.ac.uk		English	

N.B. All the contents included in the previous table will be carefully checked, in order to avoid any duplication with the contents collected by other ongoing projects.

## 4.2 IPR issues

The content listed in the previous table is directly managed by the partner organisations, or by associated cultural bodies (e.g. national museums represented by their national Ministry or Agency for Culture). When the museums and the other content owners have an independent legal status, a declaration has been requested to them for guaranteeing the legal use of these contents within all the activities planned by the ATHENA project.

A specific WP of the proposal relates to IPR issues, for checking how existing solutions fits within the specific characteristics of museums and other cultural institutions associated to the project, and propose practical solutions when needed.

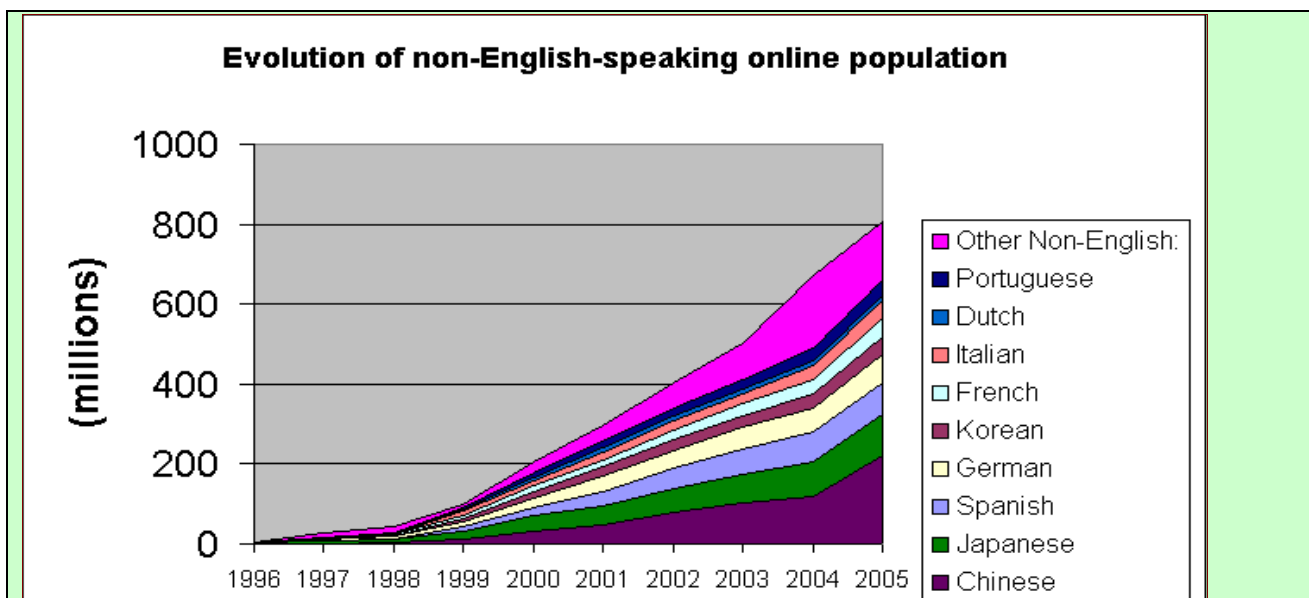
On a wider dimension, the specific contributions that ATHENA will provide to the knowledge of IPR consist of:

- surveying the existing practice and legislation concerning the museum sector in the partner countries and, more broadly, to investigate IPR and other legal issues that could be involved in the creation and activity of Europeana. Besides Intellectual Property rights, the survey might take into account the following issues: privacy, authenticity of information, data protection, reproduction rights, re-use of public sector information, safety of cultural property not kept under direct safeguard by cultural institutions. Previous studies and analyses carried out (e.g. TEL, “Europeana: the European digital library network”, the IPR guidelines set-up by MINERVA and MinervaEC projects) will constitute the starting point for any further detail specific for the museums. The overall work will be kept aligned with reports or other practical tools that might be produced by the Copyright subgroup of the High Level Expert Group on Digital Libraries set up by the European Commission. It will be addressed the issue of rights clearance for digitisation and digital access to cultural content;
- investigating usefulness and practical use by cultural institutions of new and emerging licensing and access models, including, but not limited to: Creative Commons licences, European Model agreement for the digitisation of out of print works proposed by the Copyright sub-group of the High Level Expert Group on Digital Libraries set up by the European Commission, Open Access for scholarly content and communications;
- surveying the existing metadata schemata for rights management, available terminologies and rights expression languages;
- investigating the legal framework for technical protection measures in each partner country. Preparing a DRM guide for museums, giving advice on: Definition of technical protection measures and DRM; Usefulness of DRM for authenticity and certification of cultural information, user authentication etc; “Locking” of public information caused by DRM; Business models for cultural institutions: balance between sustainability vs. circulation and dissemination of cultural content; main DRM tools currently available, with special reference to open source software.

## 4.3 Multilingual and/or multicultural aspects

In the last years the use of Internet grew considerably worldwide, together with a large diversification in the native languages of the users. The total number of people connected to the Internet more than doubled in the last years, mainly due to the increase of non English-speaking users.

The following table presents the increase in the use of non-English languages online, in the last years:



Source: Global Reach

However the top ten languages used on the web represents about 85% of the total number of users:

Top Ten Languages Used in the Web ( Number of Internet Users by Language )					
TOP TEN LANGUAGES IN THE INTERNET	% of all Internet Users	Internet Users by Language	Internet Penetration by Language	Language Growth in Internet ( 2000 - 2007 )	2007 Estimated World Population for the Language
English	31.2 %	365,893,996	17.9 %	157.7 %	2,042,963,129
Chinese	15.7 %	184,001,513	13.6 %	469.6 %	1,351,737,925
Spanish	8.7 %	101,539,204	22.9 %	311.4 %	442,525,601
Japanese	7.4 %	86,300,000	67.1 %	83.3 %	128,646,345
French	5.0 %	59,207,849	15.3 %	385.4 %	387,820,873
German	5.0 %	58,981,592	61.1 %	112.9 %	96,488,326
Portuguese	4.0 %	47,326,760	20.2 %	524.7 %	234,099,347
Korean	2.9 %	34,120,000	45.6 %	79.2 %	74,811,368
Italian	2.7 %	31,481,928	52.9 %	138.5 %	59,546,696
Arabic	2.5 %	28,782,300	8.5 %	940.5 %	340,548,157
<b>TOP TEN LANGUAGES</b>	<b>85.0 %</b>	<b>997,635,142</b>	<b>19.3 %</b>	<b>203.7 %</b>	<b>5,159,187,766</b>
Rest of World Languages	15.0 %	175,474,783	12.4 %	440.3 %	1,415,478,651
<b>WORLD TOTAL</b>	<b>100.0 %</b>	<b>1,173,109,925</b>	<b>17.8 %</b>	<b>225.0 %</b>	<b>6,574,666,417</b>

Source: Internet World Stats

The European Union includes 27 countries and 23 official languages, and – even if about half of its citizens can have a conversation in another language – linguistic competencies are not homogeneously distributed. Internet penetration in the European Union is also growing considerably, and new services and tools should consider the requirements defined by the European Charter of Fundamental Rights, and the Council resolution of 14 February 2002, which recognise the importance of linguistic diversity and support new initiatives in this direction.

The European Commission adopted in November 2005 the Communication to the Council “New Framework Strategy for Multilingualism”, which underlines the importance of multilingualism and introduces the

European Commission Multilingualism Policy, aimed, among others, at encouraging linguistic diversity in society and giving citizens access to EU legislation and information in their own language.

The Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace adopted by UNESCO General Conference in its 32nd session (October 2003) underlines the need to preserve linguistic diversity in the cyberspace and the strategic importance of the development of multilingual content and systems in order to alleviate language barriers and promote human interaction on the Internet and promoting language education.

Cultural heritage of Europe has a significant impact on its social and economical development. Digitisation of these resources becomes then a major activity for increasing and improving access of citizens to information and European cultural heritage.

The partner European Ministries and Agencies for Culture have already invested significantly in programmes for digitising cultural and scientific content. These activities have included several areas, such as museum objects, archaeological and environmentally important sites, music and audio-visual archives, bibliographic materials, documents and manuscripts. The importance of multilingual and multicultural cultural services based on digital content is at the centre of their national strategies and a priority in the common discussion set up within the Committee of Cultural Affairs.

ATHENA has the objectives to facilitating the access and making visible the existing content present in museums. The previous work carried out by other projects will be taken into account for any further improvement.

In practical terms, ATHENA will make use of existing facilities and tools and will contribute to the analysis of ontologies, sets of metadata, multilingual thesauri, and classifications in order to address semantic web issues (facetted browsing, topic maps) and to make proposals regarding the implementation of multilingual services for data retrieval. It will promote a survey on the use of controlled monolingual and of multilingual vocabulary in the museum sector in Europe and will propose recommendations regarding available multilingual vocabularies and their integration. This part of work is important in order to align the ATHENA project with the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions of 2005.

The international convergence of information services needs in fact a multilingual basis that should be either developed by folksonomy procedures or professionally organized and further developed by automatic or at least semiautomatic procedures. Starting from the analysis already carried out and the tools previous developed within Europeana, ATHENA will contribute to prove, evaluate, and recommend technical solution for websites of the museum sector for:

- the establishment and development of multilingual vocabularies having regard to the folksonomy approach;
- the integration of multilingual vocabularies into existing technical environments;
- the combination with multilingual vocabularies and for semantic web and topic map applications;
- the combination of indexing procedures with controlled vocabularies;
- ensuring stability of services including a proposal for an appropriate organizational structure.

This activity intends to explore the current practices existing in European Museums, to guarantee the complete interoperability of them with the structure of Europeana.

## 5 *Impact*

### 5.1 Analysis of demand

This section should provide an analysis of the demand based as much as possible on quantified evidence.

Museums have been developing in the last years several digital collections, most of them presented in the web site of the institutions, and linked to wider portals, which are growing numerous all over Europe, also thanks to the impulse provided by Member States and the European Commission since 2001, and the impulse given by the MINERVA project.

Following the excellent results achieved by the TEL project in the library sector, the next step for developing Europeana consists of increasing visibility of all the content from other sectors of the heritage, not fully visible yet to the European citizens, with a special focus on museums, due to their high number and the lack of a unitary strategy not only at European level but often also at national level. The main gaps still to be tackled are due to the progresses still to be achieved in providing real interoperable networks and solutions, to the different legacy systems in use in the Member States for the description of cultural resources, and to the linguistic complexity of Europe.

Since 2004 a first important contribution to this challenge was given by the Ministries of Culture of eighteen Member States with the MICHAEL and MichaelPLUS projects, which have the objective to enrich the value to the European cultural heritage collections and to encourage interoperability and the use of common standards across major national digital cultural heritage initiatives. However a major effort has still to be done, to move from the level of the digital collections to go in depth to describe the single cultural items. The main demand coming from the museums, which already (or are going to) set up digital collections, is to have at their disposal a European infrastructure able to support them in the different stages of the process, from the discovery of collections and of individual items, to the development of new tools for secure authentication of users; from multilingual thesauri and ontologies to instruments facilitating the re-use of existing contents.

The ATHENA project has the ultimate goal to contribute to the full achievement of this infrastructure, for responding to the request coming from European museums, as well as all the cultural institutions: development of an observatory of new developments and trends, creation of resource centre to facilitate the use of existing standards and promote the definition of best practices, setting-up of clearing houses for identifying solutions to legal issues and IPR, making available tutoring and expert support to provide guidance, assessment and ideas in the implementation of new content enrichment projects.

More and more in the recent years has been acknowledged that this function of monitoring the implementation of the single initiatives is essential to demonstrate the impact of the efforts and investment at European and Member State levels and to track progress towards the creation of Europeana. Changing needs and requirements can be better understood and valued by measuring from a common baseline, using agreed indicators and sharing methodologies.

A second major contribution which ATHENA can give, in order to provide an answer to the current demand, is related to the capacity of its members to contact, capture the attention and mobilise the different stakeholders involved in the process of content enrichment:

- public and private museums that create and collect their own digital content;
- private citizens, interested in receiving quality contents, reliable and directly responding to their interests;
- universities and schools, which want to use cultural contents for educational purposes, in a legal and safe environment;
- SMEs and large enterprises interested in re-use digital content for adding value in commercial activities and exploit digital content resources to create services.

Several thousands users have been already directly involved in the previous MINERVA projects, physical and virtual communities of users have been already created at national and transnational level, and all this expertise will be used and enlarged for the new ATHENA project.

Following the previous activities already carried out by the Minerva and MinervaEC projects, a third fundamental contribution provided by ATHENA is in keeping updated the description of the state of the art of digitisation programmes in the different Member States, collecting figures, data and statistics, in order to really provide all the information and tools to museum curators and public decision makers involved in management of digital repositories with cultural content.

The demand coming from the users indicates that a basic set of quantitative indicators are needed, grouped in the following categories:	
Input	budgets allocated to creation of cultural content governments – funding allocated to support digitisation museums – funding allocated from within existing institutional budgets size of workforce
Output	number of digitised items per collection type text documents images audio moving image quality measures accessibility usability sustainability
Use	use of websites user sessions average duration of user sessions average page impressions per user session

Finally, a fourth demand to which ATHENA intends to contribute is to provide the museums with standard solutions regarding the legal issues. This effort will target any kind of possible reuse of digital content present in European museums, but it will, first of all, mainly focus in the direct objective of creating the legal conditions for making available digital images to the catalogue of Europeana. The current unclear legal situation has to be avoided and tackled in time, in order to rapidly proceed to the development of Europeana, and ATHENA can well contribute to the identification of effective solutions in this field.

## 5.2 Target users and their needs

For each category of target users, describe the unmet needs of the users, the way the proposal intends to contribute to fulfilling these needs, the way the proposal will involve this category of users in the project (e.g. as partner of the consortium, as part of an external stakeholder group etc.), as well as the countries covered.

Target user description	Needs	Involvement & Role	Country coverage
Academia, Researchers, Archaeologists	Access to content to be used in university courses. Detailed information High quality of metadata Access to scientific content	Focus groups with end users and content providers Registered access on Internet Focus groups with end users and metadata providers	All the partner countries
Broad international audience of art and museum lovers	Online access to the existing materials Detailed information about collections, virtual museums Information on museums (opening hours, current events, expositions, etc...) Good quality information and images Context information Thematic information	Possibility to participate in online discussions about collection items Enjoyment and learning Supply students with textbooks Make historical sources more accessible for all people Help to build awareness on local content	All the partner countries

	Geographic clustering Background information Access to old newspapers, postal cards, old books, manuscripts, textbooks, monographies etc		
Creative industry Journalists Publishers	Commercial use of cultural content High quality Quick delivery Solutions for copyright issues Information on legal issues	Consultation of databases on the website Organisation of focus groups	All the partner countries
Cultural heritage professionals	In depth information about cultural heritage objects and their environments (cultural, historical, ...) Professional information on collection registration and related issues. Complete catalogue of works, well documented / information about collection history and provenance of the museum objects Information on legislation and solutions for discrepancies between intended use and actual IPR	Consultation of specialised pages on the internet Consultation of information in an registered environment Participating in the workgroups that produce the digital content of the website Discussion on current status of IPR. Involvement in activities to enable delivery of content	All the partner countries
Disabled people Non-governmental organisations	Accessing information in an adapted way	Involvement and trials Focus groups with end users	All the partner countries
Government and local authorities Policy makers for cultural heritage	Overview, information about conservation conditions, values Statistical data	Focus groups to identify information gaps, recognize priorities for intervention policy	All the partner countries
Schools, Students, Teachers	Information on museums (opening hours, current events, expositions, etc...) Detailed information about collection items, relationships between collection items, etc... Access to educational content for school teaching	Consultation of databases on the website. Supply students with learning materials	All the partner countries
Tourism industry	Overview, highlights, practical information about the museums Thematic information Geographic clustering	Identify information gaps Organisation of focus groups	All the partner countries

### 5.3 Critical Mass

The dimension of artistic treasures present in European museums is so wide that any sample seems to be small in comparison with the total figures. However the digital content listed in Chapter 4 – which is just a small amount in comparison with the potential that the partner organisations can mobilise - represent:

- 22 European Member States, directly represented or appointed by their national government;
- 109 top museums and other cultural institutions directly partner or associated to the project;
- 20 European languages;
- about 120 million Euro of public funds made available by the partner countries for digitisation issues in the period 2004-2008;
- 140 digital collections, without considering the several thousands digital collections already included in the MICHAEL database, managed by the project partner Michael Culture AISBL;
- more than 16 millions of digital cultural items directly referring to the museum sector, without considering the further millions already included in the TEL database, managed through the project partner Stichting European Digital Library.

As well detailed in Work Package 2 one of the main activity of the project will be the extension of the previous figures, in order to cover all the European Union and give to any single museum the opportunity to have all the information, resources and tools necessary to make its digital content accessible through Europeana. The starting figures of ATHENA demonstrate that this ambitious objective seems not to be unrealistic.

### 5.4 Added Value

As well underlined by both the EC recommendation and the decision of the Council of the European Union, the key success for the development of Europeana is the ability of rapidly delivering a critical mass of resources to the final users.

Libraries were the first sector of European cultural heritage able to achieve this goal, thanks to the central role held by the National Libraries, and also archives are rapidly moving towards common solution able to create a large consensus.

On the contrary the museum sector is still facing a delay in reaching the critical mass requested to guarantee a large impact, due to its different traditions, which create major difficulties in the identification of common technical and legal solutions. This is why ATHENA put its first strategic objective in reinforcing, supporting and encouraging the participation of museums in the discussion about the development of Europeana.

The ATHENA partnership seems to have all the characteristics requested to achieve this goal and create the added value able to harmonise the separate efforts made up to now by the single institutions and the Member States. A successful European framework often starts from its embedding into national policies and activities and this can be guaranteed by the direct involvement of the national Ministries and Agencies of Culture who participate in the project. The high added value of the project stays on its effectiveness to develop agreed evolutionary strategies, based on common shared objectives (i.e. the involvement of museums in Europeana) and focusing the national and local efforts towards this objective.

This principle was also at the basis of the previous activities carried out within the MINERVA and MinervaPLUS projects, whose importance was acknowledged by the European Commission and the Council, for its effectiveness in exchanging Member States' experiences and monitor progress, within the Community's institutional framework.

It is clear that apart the contribution requested to the European Commission for animating the network, there is a large amount of efforts which will be mobilised by the partner Ministries, and by the other museums associated in the discussion, so providing a clear example of real European added value, where the common activities supported by the European Commission are finalised to develop an integrated harmonised approach to support the full participation of museums within Europeana.

ATHENA will strongly support this activity, by organising a Network of Best Practice able to facilitate solutions to the broader issues. Harmonising national and local practice on digital contents of European museums is of prime importance for effectively move towards the development of a EDL able to integrate data coming from all over Europe.



## 6 **Networking**

### 6.1 **Networking Capacity**

Together with the project partners, which are listed in Section 1 and described in Section 9, a large number of cultural institutions have agreed to be members of the network, even without the direct role of partners, under the aegis of the related national partner. Together with their fundamental role of content providers, they also constitute a wide pool where the application of standards, the identification of models compatible with the structure of Europeana will be applied. As an additional benefit to the project, they will provide a high number of experts to be involved in the project working groups.

The museum and cultural institutions associated to the project are:

#### Belgium:

- Antwerp City Archives
- Flemish Art Collection
- Ghent Museum of Fine Arts
- Groeninge Museum
- Koninklijk Instituut voor het Kunstpatrimonium – Institut Royal du Patrimoine Artistique
- ModeMuseum Provincie Antwerpen – MoMu (Fashion Museum)
- MovE (Museum Oost-Vlaanderen in Evolutie/Museums of East Flanders in Evolution)
- PCCE (Provinciaal Centrum voor Cultureel Erfgoed – Provincial Centre for Cultural Heritage)
- Public Record Office and Archives of the City of Antwerp
- Royal Film Archive
- Royal Museum for Central Africa, Tervuren
- Royal Museum of Fine Arts in Antwerp

#### Bulgaria:

- Archives of the Academy of Sciences
- Central Library of the Academy of Sciences
- Institute of Literature of the Academy of Sciences
- Library of the City of Varna
- National Archaeological Museum
- National Botanical Garden
- National Ethnographic Museum
- National Museum of Natural History

#### Cyprus

- Ministry of Education and Culture

#### Finland:

- Alvar Aalto Museum
- Finnish National Gallery
- Helsinki University Library
- Kuopio Museum of Cultural History
- Lahti City Museum
- Lusto Finnish Forest Museum
- National Archive of Finland
- National Library of Finland
- Sarka Finnish Museum of Agriculture
- Tampere Museums

#### Germany:

- Museumverband Schleswig-Holstein
- Stadtgeschichtliches Museum Leipzig
- Landesmuseum Württemberg Stuttgart

- Staatliche Kunsthalle Karlsruhe
- Augustinermuseum Freiburg
- Lindenmuseum Stuttgart
- Badisches Landesmuseum Karlsruhe

## Greece:

- Greek Film Archive – Film Museum
- Hellenic Ministry of Culture
- H. Schliemann Virtual Museum
- LSt, Archaeological Ephorate
- Museum of Ancient Olympia, Archaeological Ephorate
- Museum of Cycladic Art
- University of Crete
- National Museum of Contemporary Art
- STUDIO – Filmfiles
- Solomos Museum

## Israel:

- Israeli State Archive
- Jewish National and University Library (JNUL)
- The Israel Museum, Jerusalem

## Italy:

- ArtPast
- Direzione Generale per l'Innovazione Tecnologica e la Promozione
- Fratelli Alinari Istituto di Edizioni Artistiche SpA Fondazione Querini Stampalia
- Galleria Nazionale di Arte Moderna e Contemporanea
- Istituto Centrale del Catalogo e della Documentazione
- Polo Museale Fiorentino

## Luxembourg:

- Musée National d'Histoire et d'Art

## Poland:

- The Poznań Foundation of Scientific Libraries, created in 1996 on the initiative of the Rectors of state universities and colleges of Poznań;

## Slovakia:

- Slovak National Museum

## Slovenia:

- Arhiv Republike Slovenije
- Koroški pokrajinski muzej
- Narodni muzej Slovenije
- Prirodoslovni muzej Slovenije
- Etnografski muzej Slovenije
- Tehniški muzej Slovenije

## Sweden:

- Länsmuseum Halmstad
- Länsmuseum Västernorrland
- Riksarkivet (only for the digital contents concerned with Digital images of military maps and drawings from the 1700th century and forward)
- Stockholms Länsmuseum

**United Kingdom:**

- Bristol City Council
- English Heritage
- Fitzwilliam Museum
- Royal Albert Memorial Museum & Art Gallery
- Victoria and Albert Museum

**6.2 Clustering Activities**

Due to the high institutional profile, from the very beginning the MINERVA Network, and consequently ATHENA which is its natural evolution, developed an intensive set of collaborations with other national and trans-European projects focusing on different aspects of the digitisation chain. These clustering activities have always created a strong cooperation with complementary projects in different areas, so developing a network of networks which has been often indicated as “the MINERVA Galaxy”, using the similitude of constellations of co-ordinated projects. The figure in the following page shows the collaborations activated in the last years with all the main European projects in the digitisation field (the cooperation activated by each member of the ATHENA network with other cultural institutions in its country are not shown).

Even if most efforts in the last years were focused on paving the way to Europeana, it is important to underline that the clustering capacity of the partners of ATHENA covers also adjacent and complementary areas, such as Research and Technology Development and the Learning and Education fields, with a particular emphasis also on extra-EU collaboration, with other ongoing projects run in advanced and less-advanced countries.

## 7 Performance monitoring

### 7.1 Success indicators

This section should describe specific indicators and quantified targets against which the state of achievement of the results can be measured over consecutive periods of 1 year.

The indicators selected should be specific to the project and should not be limited to measuring simple technical aspects (e.g. number of project web site hits) but should correspond to the concrete expected results indicated in the previous paragraphs.

Indicator Nr	Objective/expected result	Indicator name	Expected Progress		
			Year 1	Year 2	Year 3
1	Visibility of the service	Project web site hits	500 per day	1000	1500
2	Visibility of the service	Number of participants in the awareness and dissemination events	500 in total	750	1000
3	Visibility of the service	Number of publications and papers	1000 copies distributed	1500	2000
4	Visibility of the service	Number of people receiving the ATHENA Journal	-	3000	3000
5	Increasing European dimension	Number of new museums joining the network	50	100	150
6	Increasing European dimension	Number of staff participating in the ATHENA activities	100	150	200
7	Visibility of the service	Number of downloads of reports and other technical documents	1000 per document	1500	2000
8	Increasing European dimension	Number of museums and public institutions receiving the recommendations and guidelines	-	500	1000
9	Increasing European dimension	Number of countries whose museums are ready to contribute to Europeana	22	30	35

### 7.2 Performance measurement and evaluation

This section should describe the methodology (how) and the process (by whom) for applying the above mentioned performance indicators. The results of performance measurement and evaluation should be reported to the Commission in the framework of progress reporting.

Both the indicators connected to the visibility of the project and its increased European dimension will be directly measured and monitored by the project coordinator, through specific projects to count hits on the web, and recording the offline and online sending of dissemination materials. Each partner organising local awareness and dissemination events will support the project coordinator to collect indicators of performance for these events.

## 8 **Project work plan**

### 8.1 **Description of work and roles**

Please provide a detailed description of the overall methodology, approach, dependencies, strategies, rationale governing the work plan, detailing:

- the approach of the project to achieve its expected results and how this is reflected in the work packages and their organisation
- the relationship between work packages
- the milestones for major achievements and results (and the corresponding target months)
- the role each participant is expected to play in the project

The work plan is organised in 7 work-packages and three main areas of work:

- the first area concerns internal management, including monitoring and evaluation of the project results and the evolution of the network (awareness and dissemination);

The work of this area is aimed to guarantee that the operations of the network correspond to the original project plan, monitoring the use of financial and human resources and coordinating the work of the various partners and working groups. It also concerns the animation of the network and the creation of concrete opportunities to establish factual relationships with the target audience, as well as the organisation of public events (workshops, seminars, conferences), participating with papers and presentations at third parties' events, to producing guidelines, handbooks, tool-kits and other practical instrument to guide and support museums. In addition, meetings and focus groups will be organised to involve key players and stakeholders, i.e. museums and relevant national cultural institutions in the partner countries, as well as private technological enterprises, research centres, networks and centres of excellence.

This work will be done in the frame of WP1: Project management, monitoring and evaluation and WP2: Awareness and dissemination: enlarging the network and promoting the service

- the second area is related to assuring the coherence among the content provided by the partners of the project and their associated museums and cultural institutions, as well as identify suitable standards and propose recommendations for the full adoption of common metadata at European level. Existing data structure shall be analysed, to facilitate their integration within Europeana.

This wide area is organised in three work-packages: WP3: Identifying standards and developing recommendations (focusing on standards on metadata to enable access to the digital contents of European museums), WP4: Integration of existing data structure into Europeana (focusing on data structure, thesaurus, classifications and services used in museums and multilingual tools), WP5: Coordination of contents (aiming at ensuring coherence among the digital content provided by participating museums and cultural institutions).

- the third area deals with the development of specific tools (plug-in) to be integrated within Europeana, and the IPR issues which can prevent the access to digital content present in European museums.

These activities will be carried in WP6: Analysis of IPR issues and definition of possible solutions and WP7: Development of plug-in to be integrated within Europeana.

A special focus will be also reserved to the opportunities offered by Geographic Information System (GIS) to enrich the digital content present in European museums.

A special attention must be paid to the interaction among Workpackages 3, 4 and 7, which constitute the technical backbones of the ATHENA project.

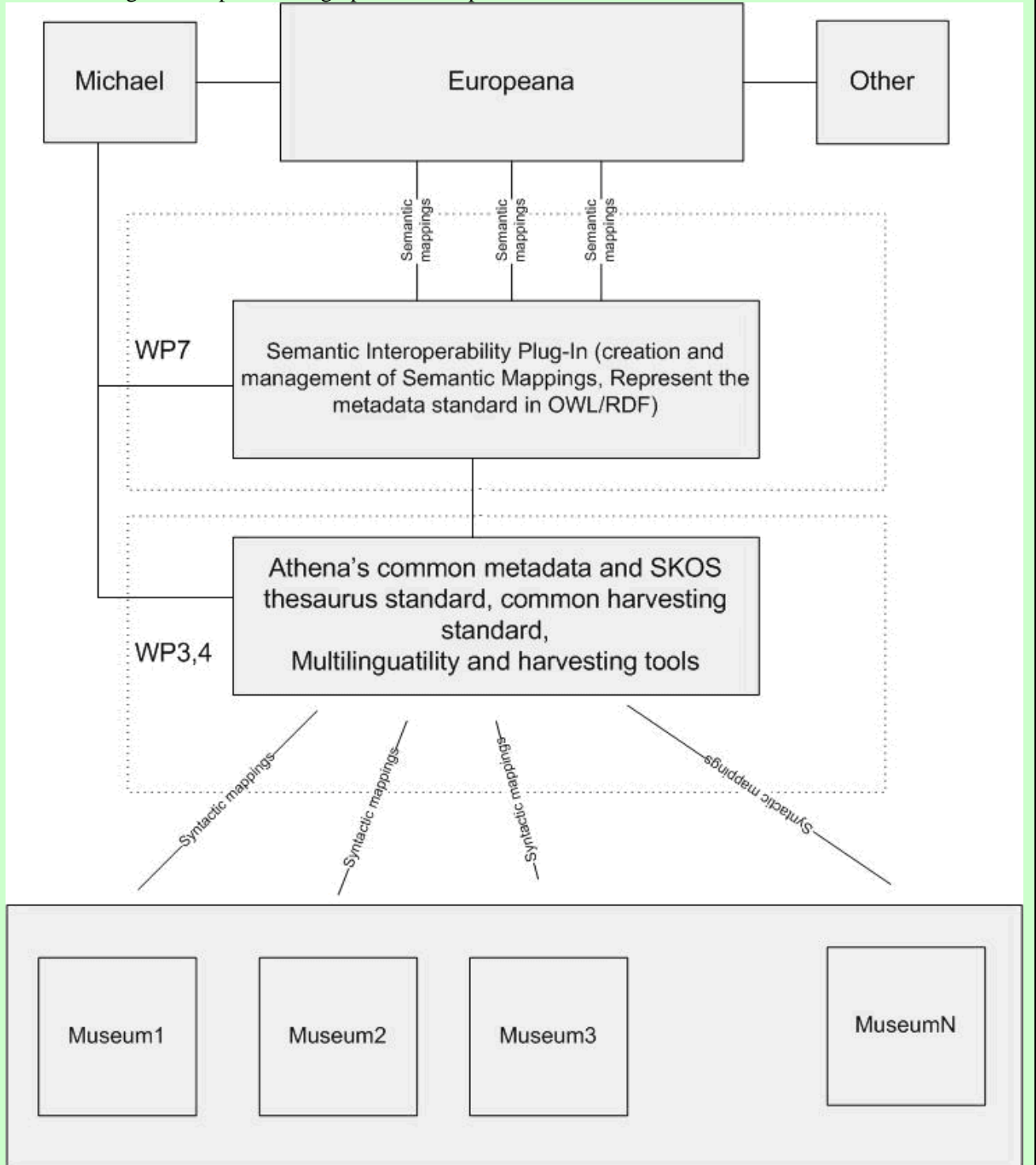
The main objective of WP3 will be to review the different standards in use by Museums and facilitate their mapping to a common metadata standard. WP3 will also produce tools to support the convention of Museums data into a common harvesting format.

WP4 will focus on the thesauri and multilingual issues. It will be responsible to align the in use thesauri by Museums to a common SKOS-based thesaurus. WP4 will also work on the integration of existing multilingual tools. WP3 and WP4 will have to work closely in order to syntactically align the metadata standards and thesauri used by the Athena partners in a common (minimum) standard facilitating the alignment with Europeana and other European and national access points.

WP7 will be responsible to semantically align the common metadata and thesaurus standards (created by WP3 and WP4) with Europeana. WP7 will be responsible for developing the plug-in that will enable the exchange of the metadata in a semantic manner.

The first step for the accomplishment of this task is the use of a representation language where both syntax and semantics are machine understandable (i.e. OWL/RDF). The developed plug-in will have the ability to exchange both structure and semantics with the interoperability manager of “Europeana: the European digital library network”. For the development of the plug-in, existing ontology matching and alignment techniques will be employed, offering the functionality for managing semantic mappings between ontologies and utilizing these mappings for integrating metadata records. Closely working with “Europeana: the European digital library network”, Athena can build one of the first vertical aggregators that will enable semantic linking between Museums and Europeana.

The following scheme provides a graphical description of the interconnections:



## 8.2 Technologies and Standards

Please describe which technologies and standards will be used/applied/exploited for achieving the objectives of the project.

ATHENA does not intend to establish new standards, however the project has a major interest in contributing to the adoption of international standards, widely accepted to guarantee interoperability across the different applications set up at local level and support ongoing developments in the museum sector and their integration in Europeana.

Main objective of the project will be to identify areas where standards are already widely diffused and there is a common understanding about metadata schemata for the description of cultural objects, controlled terminologies and thesauri, technical standards, open source software.

Besides that, it will be surveyed which standards and practical tools are already available in order to facilitate interoperability, such as: metadata registries, crosswalks between different metadata schemata, mappings of different controlled terminologies and thesauri, ontologies in the field of cultural heritage description, technical standards and protocols for data exchange etc.

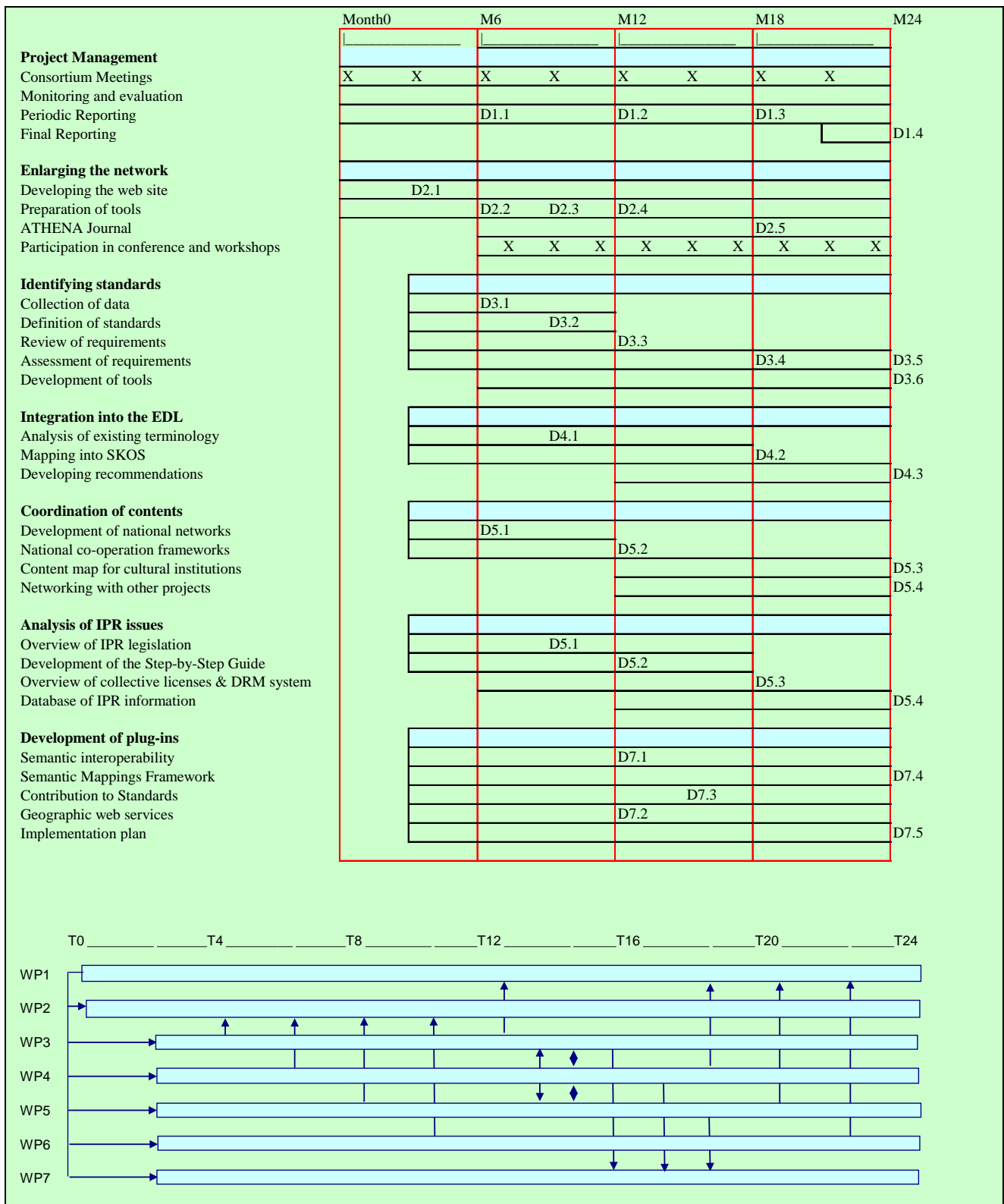
A key action for success will be a close synergism and integration with the actions promoted by trans-national organisations and the partner countries. For this reason the project already activated collaboration mechanisms with leading organisations interested in digitisation of cultural and scientific content issues.

In particular a direct link was activated during the preparation of the proposal with the World Wide Web Consortium (W3C), which is the main standardization body in the sector. W3C doesn't have a legal status for participating in proposals and projects. It was then agreed that the ATHENA project will become a member of W3C (under the project policy of W3C for membership), in order to strengthen collaboration. In this way, key staff of the project partners will participate in related W3C Working Groups (WG) and Incubator Groups (XG) presenting the work that is undertaken in the project. The main WGs and XGs related to the objectives of ATHENA are the Semantic Web deployment WG, that deals with the SKOS, and the Multimedia Semantics XG, that deals with semantic interoperability issues in the cultural domain. The coordinator of WP7, NTUA, is already participating in both efforts and in particular in the Multimedia Semantics XG, where NTUA is coordinating its efforts.

Together with national and international bodies, a special attention will also be paid to national and international professional associations of cultural operators, in order to merge the top-down approach due to the composition of the network, with a bottom-up fertilisation process. The definition of a common policy at European level will then be constantly monitored by a consensus building activity, where recommendations and guidelines will be acknowledged by operators asked to apply them. This iteration mechanism is considered to be the key issues to succeed in the definition of road maps, research agendas and in the implementation of any future strategy.

## 8.3 Project plan

This section should provide a Gantt chart showing the project milestones, the timing and interdependencies between the different work packages and the critical path. Month 0 should be the commencement date of the project.





#### 8.4 Work package and labour effort overview

The total project effort should be divided into a number of “work packages”, which should follow the logical phases of a project’s life cycle. These should be listed in the table below. A work package could only involve a single applicant, but more usually several applicants co-operate in the completion of the work, with one of them taking the lead role. Projects typically consist of four or five work packages though larger projects might contain more.

In addition to such project-specific work packages, three others should be foreseen:

- a "Project Management" work package
- an "Awareness and Dissemination" work package
- an "Assessment and Evaluation" work package which might, however, just as well be an integral part of the other work packages.

WP1 Project management, monitoring and evaluation  
 WP2 Awareness and dissemination: enlarging the network and promoting the service  
 WP3 Identifying standards and developing recommendations  
 WP4 Integration of existing data structure into Europeana  
 WP5 Coordination of contents  
 WP6 Analysis of IPR issues and definition of possible solutions  
 WP7 Development of plug-in to be integrated within Europeana

A coordinator and a co-coordinator have been identified for each WP. In particular they are:

WP1	P01 MiBAC	P20 Amitié
WP2	P09 SPK	P24 ICIMSS
WP3	P03 RMAH	P29 MDA
WP4	P13 Michael	P14 Dédale
WP5	P01 MiBAC	P12 NTUA
WP6	P02 Packed	P16 UP
WP7	P15 NTUA	P26 MKRS

### Work Package and Labour Effort Overview

WP No	Work package title	Lead Applicant No	Start month	End month	Total Person months	Person months effort per workpackage per applicant																																		
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1	Project management, monitoring and evaluation	1, 20	0	30	46	7	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1	1	8	1	1	1	1	1	1	1	1	0	1	7	0	0		
2	Awareness and dissemination: enlarging the network and promoting the service	9, 24	0	30	133	15	4	0	8	4	3	1	2	15	2	3	2	4	4	4	2	4	4	7	9	2	4	0	10	1	1	5	1	5	7	0	0	15	0	0
3	Identifying standards and developing recommendations	3, 29	3	30	133	15	0	10	8	1	3	3	0	4	5	3	1	5	4	7	1	5	6	4	13	0	4	0	2	0	0	5	1	13	10	0	0	15	0	0
4	Integration of existing data structure into Europeana	13, 14	3	30	141	15	5	2	4	1	3	1	1	4	3	3	1	33	21	4	0	2	6	8	5	2	1	0	2	0	0	2	0	0	12	0	0	15	0	0
5	Coordination of contents	1, 12	3	30	148	16	4	2	9	2	5	4	2	3	0	5	2	6	4	16	1	3	4	7	8	3	6	0	2	3	2	5	2	3	18	0	1	16	0	0
6	Analysis of IPR issues and definition of possible solutions	2, 16	3	30	115	15	13	0	10	0	6	0	0	4	0	0	1	6	6	4	11	0	3	4	13	1	3	0	1	0	1	6	1	3	3	0	0	15	0	0
7	Development of plug-in to be integrated within Europeana	15, 26	3	30	212	13	0	0	18	2	0	5	12	2	0	0	0	0	5	65	6	4	6	9	9	0	8	9	6	4	9	6	4	3	7	0	0	13	0	0
<b>Total</b>					928	96	27	15	58	11	21	15	18	34	11	15	8	55	45	102	22	19	30	40	65	9	27	10	24	9	14	30	10	28	58	0	2	96	0	0

## 8.5 Work package description

Describe each work package on one page using the format provided below. Each work package should be a major sub-division of the proposed project and should also have a verifiable end-point (normally a deliverable or an important milestone in the overall work plan). The work plan should be sufficiently detailed to justify the proposed effort and allow progress monitoring by the Commission. Day-to-day management of the project by the consortium may require a more detailed plan

### Work package Description

<b>Work package number :</b>	<b>1</b>	<b>Start date:</b>	<b>0</b>	<b>End date:</b>	<b>230</b>
<b>Work package title:</b>	Project Management, monitoring and evaluation				

#### Objectives

Workpackage 1 has the objective to:

- promote activities and exchange information and data among the members of the network;
- produce a work plan and keep it update;
- manage and facilitate the discussion among the Steering Committee;
- monitor and evaluate the progress of the project with respect to the defined objectives;
- coordinate and review the progress of the working groups;
- coordinate the activities of the other Work Packages, to assure the coherence of the proposed solutions with the overall project;
- maintain the contacts with the *eContentplus* programme, and manage the administrative and financial aspects of the project;
- coordinate the project activities with the other projects supported by the European Commission within the *eContentplus* Programme, as well as with other national and transnational initiatives;
- make provision for the future success of the ATHENA outputs;
- demonstrate the real value of the service to stakeholders and decision-makers, and so underpin future funding and extension of the products.

#### Description of work

This work package intends to guarantee the best possible administrative and organisational conditions for the project start-up, implementation and development. It aims to manage the links with the European Commission, to ensure the communication and the diffusion of information among the partners, to develop and implement a quality and assessment plan, to develop strategies to provide a wider dimension and make the target beneficiaries aware of the opportunities offered, and to diffuse the results of the project. The individual work items are:

- activation of specific working groups to meet the objectives of the other work packages;
- activation of a Steering Committee (SC) to monitor the project development
- maintaining contacts with the partners and the European Commission and develop contracts and/or agreements with partners, sub-contractors and the other projects of the *eContentplus* Programme;
- definition of the quality procedures of the project;
- development of a working plan, driving activities of the project working groups;
- participating in dissemination events organised to promote the *eContentplus* programme and the development of Europeana.

#### Approach

- The consortium will establish a project management framework appropriate for a project of this size and complexity.
- The day-to-day management of the project will be carried out by a management team consisting of personnel from the coordinator, supported by complementary resources provided by other partners. The objective is to minimise the project management distraction experienced by the other partners, by providing a very supportive project management.
- A detailed project plan will be maintained along the whole project. Using the project plan, each partner

will identify its own objectives at any given time. The project plans will also contain a risk analysis for all major tasks (what is the risk and what is the contingency action).

- A consortium agreement will be defined by the partners (coordinator and members), setting out the basic principles on which the project is being established. This includes the ground rules regarding intellectual property (foreground and background knowledge), conflict resolution and expanding the project during the lifetime of the project.
- A Scientific Board will be proposed by the Coordinator and appointed by the Steering Committee in case the members agree that it is important to review and assess some specific aspects of the project.
- The meetings of the Project Steering Committee will take place at least every six months. Hosting of the meetings will rotate between the partners, and will be preferably organised in the country chairing the EU Presidency in that semester. All the members will participate in these events..
- Communication and document sharing facilities will be established. E-mail lists and contact details will be published to each partner and maintained on the project website.
- Periodic reports will be created and provided to the European Commission, in line with the grant agreement between the consortium and the European Commission.
- A final project report will be issued by the consortium. A public version of this will also be provided, and published on the project website, as well as being provided to the European Commission.

#### **(Inter-) Dependencies, milestones and expected result**

##### **Dependencies:**

- The WP is strictly connected with all the other WPs

##### **Milestones:**

- Periodic meetings with the European Commission, in concertation with other projects
- Periodic project reviews organised by the European Commission
- Meetings of the Steering Committee: support, documentation and organisation

##### **Success indicators:**

- Number of museums and other cultural organisations touched by the project
- Number of participants in the awareness and dissemination events
- Number of hits on the Web site and cross-references in the Internet
- Number of papers and publications
- Number of distributed copies of the publications produced
- Positive feedback received by the evaluation procedure

#### **Deliverables**

D1.1	First Periodic Report, including Interim assessment of project results	Month 6
D1.2	First Annual Report	Month 12
D1.3	Second Periodic Report, including Interim assessment of project results	Month 18
D1.4	Second Annual Report	Month 24
D1.5	Final Report	Month 30

## Work package Description

<b>Work package number :</b>	<b>2</b>	<b>Start date:</b>	<b>0</b>	<b>End date:</b>	<b>30</b>
<b>Work package title:</b>	Awareness and dissemination: enlarging the network and promoting the service				

### Objectives

The WP has the objective to make European museums and other cultural institutions aware of the benefits of making available their digital contents through Europeana, identify new Best Practices, and disseminating to a larger audience the results achieved.

The activities in this WP2 will focus on enlarging the network by providing easy to handle information on how to participate and which steps to be taken to join, promoting the plug-in and tools developed within ATHENA for joining Europeana and clear presentation of the benefits that the new participants can gain by adhering to Europeana.

### Description of work

All the ATHENA partners, and particularly the WP coordinators, will put attention to the dissemination and promotion of the project.

The ATHENA partners recognise that it will add an enormous value to their efforts if other museums and cultural institutions from the participating countries, but also from other EU Member States, join the network. The aim of the WP is to give newcomers more visibility and make sure that new museums can join Europeana.

ATHENA will develop user cases in order to convince new museums why they should participate in Europeana. These user cases will be distributed as wide as possible through several instruments. ATHENA will support newcomers to take part, by promoting interoperable standards and providing a package of best practice examples to motivate new partners to take part. Through further dissemination activities ATHENA will make museums and cultural heritage institutions aware of the benefits of making available their digital contents through Europeana.

To attract new institutions the following activities are envisaged:

- Create a website with available registration forms for newcomers, and FAQs explaining its aims and those of Europeana;
- Organize ATHENA conferences and workshops;
- Present ATHENA activities on a number of conferences and workshops;
- Develop promotion material: brochure, leaflets, postcards and gadgets production;
- Produce essays to professional journals and short articles to the newspapers;
- Disseminate information about ATHENA activities through professional mailing lists;
- Develop the ATHENA journal;
- Create an ATHENA – EDL discussion list, inviting a discussion of those interested;
- Identify new Best Practices, to be disseminated to a larger audience.

The activities in WP2 will focus on establishing support material on how to participate in the network and offering support to newcomers. Clear information about the benefits that the new participants can gain by adhering to Europeana will be presented.

A detailed Dissemination Plan will be presented in the first three months, clearly identifying the main target groups.

Final Dissemination Plan will be modified according to the situation and findings and will be presented in month 12, with a list of activities and events where ATHENA plans to promote the project and enlarging the network.

It is recommended that each partner of ATHENA bring to the network 5 new institutions. This will assure a growth of the network of institutions using the same standards and methods of work: such a network has a big chance for a significant enlargement very quickly, which guarantees users satisfaction as a result.

### (Inter-) Dependencies, milestones and expected result

The first step is to build up a website of the project as a means of communication and presenting ATHENA goals and objectives to the external world.

In parallel information about the events will be collected as a base for dissemination activities. A standard

presentation, as well as brochure and leaflets, will be prepared which clearly present to the newcomers benefits and ways of participation in the ATHENA network and Europeana.

Set of leaflets describing the plugs-ins and tools developed by ATHENA will be prepared for potential partners. These materials will help to expand the ATHENA network in the museum sector where tools are mostly needed. The ATHENA journal will be a supporting tool for cultural heritage promotion. At least three issues will be developed during the project lifetime.

**Dependencies:**

- The WP is connected with all the other WPs

**Milestones:**

- Dissemination Plan
- National and International events
- Launch of the ATHENA journal

**Success indicators:**

- New museums and cultural institutions joining the network

**Deliverables**

D.2.1	Website creation and initial dissemination plan	Month 3
D.2.2	Leaflet and other promotional materials	Month 6
D.2.3	Set of instruments to support newcomers to join	Month 9
D.2.4	Final Dissemination Plan	Month 12
D.2.5	First Issue of the ATHENA Journal	Month 18

## Work package Description

<b>Work package number :</b>	<b>3</b>	<b>Start date:</b>	<b>3</b>	<b>End date:</b>	<b>30</b>
<b>Work package title:</b>	Identifying standards and developing recommendations				

### Objectives

The main objective of WP3 will be to review the different standards in use by Museums, facilitate their mapping to a common metadata standard and assess the requirements for the persistent identification of digital objects and collections. WP3 will also produce tools to support the convention of Museums data into the common harvesting format for Europeana.

### Description of work

Starting from the previous works carried out on ontologies and dictionaries by the Multimatch project and “Europeana: European digital library network”, the main tasks of this WP will then be:

WP3 will work on the identification of metadata registries, the identification of a common metadata standard and on crosswalks between different metadata schemata for museums.

Starting from the previous works carried out by “Europeana: the European digital library network”, the main tasks of this WP will be:

- Collection of data on the application of standards by European museums and other collection level access initiatives (Task 3.1),
- Identification of standards and common harvesting formats and the publication of recommendations (Task 3.2),
- Review of requirements and specification of tools to support the conversion of proprietary museum data (Task 3.3),
- Assessment of the requirement for persistent unique object, collection and institution identifiers, in concertation with Europeana (Task 3.4)
- Development of tools for the adaptation of proprietary museum formats to the common harvesting format used by Europeana (Task 3.5).

Technological development in the cultural heritage domain varies by sector (archives, libraries, museums, historic environment, national parks etc.), by size, equipment and software, by the availability of professionally trained staff and by country. Whereas the library sector developed solutions for the administration of digital resources early, other cultural institutions are further behind. European museums in particular use a wide variety of databases, data models, standards, proprietary data formats and metadata.

This activity will be closely run with the Interoperability Manager in the EDL Foundation Office, to also facilitate the adoption by museums of museum formats conform to a standard defined by ATHENA in collaboration with EUROPEANA.

Review of the different standards in use by museums and their mapping to common (minimum) data standards is a prerequisite that will enable museum data and contents to be presented through national portals and Europeana portal. This work will enable recommendations on data standards to be prepared and disseminated to museum staff and IT vendors through fact sheets. There is also a need to support the managers of the aforementioned Internet portals by supporting the harvesting of data from museums in the recommended format. This process will be facilitated through the development of tools to support the conversion of proprietary museum data into the common harvesting format.

Metadata and technological development in the cultural heritage domain varies by sector (archives, libraries, museums, historic environment, national parks etc.) by size, equipment and software, by the availability of professionally trained staff and by country. European museums use a wide variety of databases, data models, standards, proprietary data formats and metadata.

This activity will be closely run with the Interoperability Manager in the EDL Foundation Office.

Review of the different standards in use by museums and their mapping to a common data standard is a prerequisite that will enable museum data and contents to be presented through national portals and Europeana portal. This work will enable recommendations on data standards to be prepared and disseminated to museum staff and IT vendors through fact sheets. There is also a need to support the managers of the aforementioned Internet portals by supporting the harvesting of data from museums in the recommended format. This process will be facilitated through the development of tools to support the conversion of proprietary museum data into the common harvesting format.

Moreover, much of the technical infrastructure, interoperation and syndication of content from the cultural

sector depends on persistent identification. We currently have no coherent framework for how this is to be achieved: portals such as Europeana would highly benefit from such a framework. WP3 will therefore carry out a programme of work in order to assess the requirement for persistent unique object, collection and institution identifiers to facilitate the interoperability and exchange of cultural content and material.

Based on the findings of this investigation, a further programme of work will be carried on in cooperation with WP5, in order to establish a technical and policy infrastructure to support persistent identifiers based on existing standards and best-of-breed technologies, in the perspective of the integration of a consistent policy for persistent identification across the participating EU states and their constituent services.

The standards recommended will support the:

- compatibility,
- interoperability and
- long term preservation and usability of museum data.

#### **(Inter-) Dependencies, milestones and expected result**

##### **Dependencies:**

- The WP is strictly connected with all work packages, and mainly with WP3, WP7 and WP5.

##### **Milestones:**

- Completion of review of standards in use in European museums: report
- Formulation of best practice recommendations: report
- Assessment of requirements for persistent identification of digital objects, collections and institutions
- Identification of the technical and policy infrastructure to support persistent identifiers
- Production of conversion tools

##### **Success indicators:**

- Number of museums and other cultural organisations touched by the project
- Number of participants in the awareness and dissemination events

#### **Deliverables**

D3.1	Report on existing standards applied by European museums	Month 6
D3.2	Recommendations and best practice report regarding the application of standards, including recommendations for a harvesting format and fact sheets for dissemination	Month 9
D3.3	Specification for conversion tools	Month 12
D3.4	Assessment of requirements for persistent identification of objects, collections and institutions, in concertation with Europeana	Month 18
D3.5	Technical and policy infrastructure to support persistent identifiers	Month 24
D3.6	Specific tools to be used for conversion and adaptation of proprietary museum data	Month 30



## Work package Description

<b>Work package number :</b>	<b>4</b>	<b>Start date:</b>	<b>3</b>	<b>End date:</b>	<b>30</b>
<b>Work package title:</b>	Integration of existing data structure into Europeana				

### Objectives

WP4 intends to develop and broaden the integration of all kinds of resources used by museums and other heritage domains in the multilingual EDL, and in particular to focus on terminologies and semantic tools.

It will work on the thesauri and multilingual issues, taking into account results of the Multimatch project and work done by Europeana. It will be also responsible for aligning the thesauri in use by Museums and to publish them in SKOS-based thesaurus. WP4 will also work on the integration of terminologies and thesauri and of existing multilingual tools. WP3 and WP4 will have to work closely in order to syntactically and semantically align metadata schemata and thesauri used by the ATHENA partners in a common (minimum) standard - thus facilitating the alignment with Europeana and other European and national access points.

WP4 will provide:

- analysis and comparison of existing dictionaries, terminologies, thesauri, classifications, taxonomies etc. used by museums in a cross-domain perspective, to be compared with the ones adopted by the other sectors of cultural heritage, in order to facilitate their harmonisation and integration into Europeana;
- analysis and comparison of existing or possible multilingual tools (thesauri, cross language retrieval tools, technical solutions...) to access resources available in museums and other cultural heritage institutions;
- recommendations for data providers in order to facilitate semantic integration of their content into Europeana and proposals for the next developments of Europeana.

It will work jointly with the “Europeana: the European digital library network” (thanks to the participation of the Stichting European Digital Library and the Michael Culture AISBL) and the MultiMatch projects, and also the recommendations provided by the Interoperability Expert Group chaired by the European Commission.

### Description of work

WP4 will explore the current practices in the field of terminologies adopted by European museums (to be compared with those used in other sectors of cultural heritage and in cross-domain portals), in order to guarantee their semantic interoperability with the structure of Europeana. It will work on multilinguality issues by surveying and integrating existing multilingual tools and ensure alignment between the Museums terminologies and thesauri and the Athena SKOS thesaurus.

The first step is to build up an operational working group of experts belonging to the ATHENA network, ready to work together with experts working in other projects, focusing on museums and other sectors of cultural heritage. This working group will identify and describe existing terminologies and multilingual tools adopted within online services. The objective is gathering experiences from museums and other heritage domains, to be complementary to the resources already integrated by the “Europeana: the European digital library network” project. In this perspective, the focus has to be made on the identification of services providing multilingual / semantic access or providing cross-domains access.

Based on this first data collection, the WP will then provide :

- an identification and an analysis of vocabulary resources. This work will be complemented by an identification of ways and solutions for building multilingual access to these resources;
- in tight cooperation with WP3, an identification and an analysis of the different existing data structures. This work is done from the access point of view (how each data structure can be accessed in online services), in order to build on the experience of existing cross-domain services, and is complementary to the one already done by the “Europeana: the European digital library network” project and the interoperability group.

Thanks to the experience developed, a selection of some resources to be integrated in Europeana (in liaison with WP5) will be made, with a mapping exercise for its integration in Europeana.

The results developed by WP4 could be used by WP7 for the implementation of a new plug-in.

Finally, the WP will propose recommendations and guidelines:

- bringing content together from the point of view of structure developed within WP3, for multilingual access to the resources,

- for the standard terminologies to be adopted by content holders.

#### **(Inter-) Dependencies, milestones and expected result**

Close contact is kept at all points with other ATHENA WP's to harmonise the efforts made and to contribute to their success. This is specially important with WP3 and WP5.

In phase with the activities, a networking effort is made to reach all relevant bodies and projects for European networking framework, to harmonise the harmonisation advice brought with ATHENA with those provided by other projects and to harmonise these needs for the benefit of Europeana and its users. This is done through a series of discussion events and the dissemination of preliminary projects results within the framework.

#### **Dependencies:**

- The WP is mainly connected with WP3, and WP7.

#### **Milestones:**

- Creation and launch of the working group
- Identification of the mapping tools

#### **Success indicators:**

- Number of experts from different countries contributing to the activities of the working groups
- Number of institutions receiving the recommendations

#### **Deliverables**

D4.1	Identification of existing terminology resources in museums	Month 9
D4.2	Guidelines for mapping into SKOS, dealing with translations	Month 18
D4.3	Recommendation for integrating Digital resources present in museums in Europeana	Month 30

## Work package Description

<b>Work package number :</b>	<b>5</b>	<b>Start date:</b>	<b>3</b>	<b>End date:</b>	<b>30</b>
<b>Work package title:</b>	Coordination of contents				

### Objectives

This WP intends to keep under control the digital content contributed by the participating cultural institutions and to realise the full potential of the different content for their effective inclusion into Europeana. In general, one organisation per country has been chosen to manage and support the participation of the other national institutions that provide the content. One of the main objectives of the WP is contributing to identify national practices and standards, and transfer them to WP3 to check their integration into the common standard to be used for European museums.

The WP deliverables are aimed at ensuring the presence of the core European cultural heritage in digital format in Europeana.

The WP will coordinate the content in collaboration with “Europeana: the European digital library network” (thanks to the participation of the Stichting EDL and the Michael Culture AISBL), and other projects more directly focused on libraries and archives, with the overall objective to merge all these different contributions into Europeana, in a perspective of cross-domain service.

### Description of work

For the purpose of content coordination, a practical mechanism of coordination both at country level and at European level is needed. To manage the relationships with the institutions whose content are expected to be used by the project, a contact network among the institutions will be built up (Deliverable D5.1). Further, national inter-institutional cooperation frameworks, covering the different memory institutions, will be charted, analysed and benchmarked. Information about them will then be disseminated to foster cooperation and content concertation at national level (Deliverable D5.2).

To realise the potential of the different materials, the various types of content at item and at collection level need to be analysed within this cooperation framework, to ensure the presence of the core European cultural heritage in digital format, to recognise critical lacunae and to facilitate their future filling in by content owners. Bringing this information to the European level, a general content map for cultural institutions will ensure in the future the inclusion of a wide variety of quality content (Deliverable D5.3). To achieve this result, establishing a co-operation framework between ATHENA and other projects aiming at content provision or the practical operation of the European single access point to the content is essential for the success of the content inclusion (Deliverable D5.4)

Finally the ways of taking the content into Europeana will be defined, and an implementation plan will be drawn up, in cooperation with the Europeana Office (Deliverable D5.5)

All efforts are aimed at harmonising the activities run in ATHENA with the specific needs of the content providers and, beyond, for integrating the results achieved by the project into the scheme of Europeana. All efforts are realised taking maximum advantage of those efforts already taken by previous projects (e.g. Calimera, Minerva, Michael, MichaelPLUS) and in close co-operation with other ATHENA WPs and with projects working with similar and comparable aims (e.g. “Europeana: the European digital library network” and new other projects approved in the current Call of the *eContentplus* programme).

According to the specific situations in the partner Member States, the ways of taking the content into Europeana will be different case by case: where national or local aggregators, or aggregators through associations of museums already exist, a direct effort to interact with them will be made.

### (Inter-) Dependencies, milestones and expected result

#### Dependencies:

- The WP is strictly connected with all work packages, to harmonise the efforts made and to contribute to their success.

#### Milestones:

- Setting up of the operational network

#### Success indicators:

- Identification of at least one competence centre in each partner country

**Deliverable**

D5.1	First Report on the network of national coordination	Month 6
D5.2	Guidelines and Best Practises for Setting up National Co-operation Frameworks	Month 12
D5.3	Core Content Map of Digital Cultural Heritage	Month 24
D5.4	Final Report on networking framework of non-partner projects and other bodies	Month 30
D5.5	Implementation plan for taking the content into Europeana	Month 30

## Work package Description

<b>Work package number :</b>	<b>6</b>	<b>Start date:</b>	<b>3</b>	<b>End date:</b>	<b>30</b>
<b>Work package title:</b>	Analysis of IPR issues and definition of possible solutions				

### Objectives

The WP intends to verify if any legal constraints existing in the national legislations of EU Member States, might create difficulties in making available the digital contents present in European museums through Europeana, and propose solutions rapidly applicable. In practical terms, to avoid the risk of duplicating efforts and resources, its activities will consist of collecting inputs and results coming from other projects working in this area (with a special focus on “Europeana: the European digital library network” and MinervaEC), and localising and adapting these models to European museums. The WP also aims at investigating on emerging standard or collective licensing models and open access and at presenting the state of the art technologies for DRM systems for IPR protection and management by museums and other cultural organizations.

WP6 will closely cooperate with WP3 in identifying metadata for IPR management.

WP6 has then the objective to:

- create summary reports of relevant legislation in the partner countries concerning IPR and other legal issues involved in the digital access to cultural content present in European museums;
- investigate and possibly develop solutions for possible conflicts between IPR legislation, the aims of the partner and the Europeana initiative;
- investigating on emerging standard or collective licensing and open access models;
- surveying rights management metadata, specific terminologies and rights expression languages (in cooperation with WP3 and 4)
- present the state of the art technological solutions for IPR protection and Digital Rights Management
- facilitate the use through Europeana of samples and surrogates of objects belonging to European museums.

### Description of work

Initiatives like Europeana depend on the availability and use of digital content, which is not just a matter of technical issues. Reproduction and use of digital objects and information is subject to Intellectual Property Rights (IPR). Despite the harmonization of Member States IPR legislation achieved through the implementation of the European directives, some issues might still be dealt with differently by the Member States. The study will address the issue of rights clearance for digitisation and digital access to cultural content. Besides IPR, the survey could take into account other issues such as reproduction rights, privacy, data protection, authenticity, re-use of public sector information. The overall work will be kept aligned with reports and other practical tools that might be produced by the Copyright subgroup of the High Level Expert Group on Digital Libraries set up by the Commission.

Aspects of the analysis, to be checked with the results already achieved by other projects, are:

- Type of content: an original work, a reproduction, a text, a time-based manifestation (registration, production), descriptive metadata
- Type of content in technical sense: File format, size, reproduction ability
- Legislation: The legislation in the respective partner states, with specific reference to issues related with the online availability of digital cultural information and content. Evolution of the legislation and other initiatives in the field of orphan works and out of print works will be monitored.
- Licensing models: practical use by cultural institutions of standard and emerging licensing models, including Creative Commons, European Model Agreement for the digitisation of out of print works proposed by the High Level Expert Group set up by the Commission, open access for scholarly content and communications
- Adoption of copyright metadata for IPR management in the framework of Europeana (in cooperation with WP3 and WP4)
- DRM Tools, ICT tools which are able to track the use of digital objects. The focus will be given on technologies such as data encryption, watermarking, Electronic Licensing, Digital Certificates, Rights Expression Languages, Metadata Standards etc. which are used within the DRM systems. In addition, special focus will be given on implemented DRM systems which aim at supporting museums and

cultural organizations.

- More practical issues like the possibility to contact the owners of IPR.
- Workarounds and solutions

### Organisation

The work package will create an ICT infrastructure able to assimilate and disseminate information in a multitasking and multidisciplinary environment to all the partners and associated museums and cultural organisations. This infrastructure is a combination of databases and information sharing tools implemented in wiki-based technologies. Through the ICT infrastructure the network members will be able to publish and retrieve information regarding the WP's aims and deliverables, filling on-line questionnaires and searching in simple ways. The ICT infrastructure will ensure a certain level of harmonisation in information and will reduce the amount of paperwork.

Besides the partner institutes, other organisations and groups will be involved. The target groups are:

- National IPR organisations, organisations representing IPR owners
- European projects in the area of rights
- European projects in the area of culture (MichaelPLUS, MinervaEC, EDLlocal, CASPAR, MILE)
- The ATHENA Projects partners
- National Ministries of Justice
- University institutes
- Legal experts
- International IPR organisations like WIPO

As stated in the objectives above, the starting point of the action will be the information already gathered in other European projects.

The proposed solutions for IPR issues will be presented through an on-line "Step by Step IPR Guide", which will assist the partners cooperating with EDL to gradually clarify the IPR issues, ensuring that all possible conflicts and complexities are being mitigated. The on-line "Step by Step IPR Guide" will be using decision trees and graphs for the IPR issues clarification.

The WP has two distinctive phases:

- information gathering and processing
- developing and proposing solutions

Since the checking of a proposed solution is expected to take several time, the planning is to gather the information in the first 9 months of the duration of the project and to develop solutions in the last 15 months.

### (Inter-) Dependencies, milestones and expected result

#### Results:

- An inventory of current state of IPR legislation and technologies used in the member states
- An inventory of conflicts between current IPR legislation and the objectives of the Europeana initiative.
- An overview of possible solutions for each case through an on-line "Step by Step IPR Guide".

#### Milestones:

- Organisation of public events

#### Success indicators:

- Number of participants in the public events
- Number of target people receiving the report

### Deliverables

D6.1	Overview of IPR legislation in relation to the objectives of Europeana	Month 9
D6.2	Report and "Step by Step IPR Guide": applicable solutions to general and specific issues regarding IPR in relation to EDL	Month 12
D6.3	Overview of collective licensing models and of DRM systems and technologies used for IPR protection and management	Month 18
D6.4	Database containing IPR information per member state	Month 30

## Work package Description

<b>Work package number :</b>	<b>7</b>	<b>Start date:</b>	<b>3</b>	<b>End date:</b>	<b>30</b>
<b>Work package title:</b>	Development of plug-in to be integrated within Europeana				

### Objectives

WP7 will be responsible to semantically align the common metadata and thesaurus standards (created by WP3 and WP4) with Europeana. WP7 will be responsible for developing the plug-in that will enable the exchange of the metadata in a semantic manner.

The objective of this WP is to exploit and integrate existing tools and technologies in order to create a plug-in, aiming to support the access to digital contents of European museums through Europeana. This WP will also determine the operational work flow processes to bring the amalgamated content of the partner museums into Europeana and create, manage and execute, with the European Digital Library Office, the implementation plan to ensure that the content is visible in Europeana. The plug-in will mainly focus on semantic interoperability, taking into account all the technical issues which need to be addressed by the tools created by ATHENA in order to enable interoperability, disambiguation and semantic understanding of existing heterogeneous resources, including metadata schemas and terminology sets.

The first step for the accomplishment of this task is the use of a representation language where both syntax and semantics are machine understandable (i.e. OWL/RDF). The developed plug-in will have the ability to exchange both structure and semantics with the interoperability manager of “Europeana: the European digital library network”. For the development of the plug-in, existing ontology matching and alignment techniques will be employed, offering the functionality for managing semantic mappings between ontologies and utilizing these mappings for integrating metadata records. Closely working with “Europeana: the European digital library network”, Athena can build one of the first vertical aggregators that will enable semantic linking between Museums and Europeana.

In particular, the objectives of this work package are to:

- Integrate existing state-of-the-art technologies in order to create a plug-in that can be integrated in EDL portal;
- Define the requirements for achieving semantic interoperability inside and outside the tools created by ATHENA;
- Define, and analyse with other ongoing projects contributing to the development of Europeana, a framework for semantic mappings and ontology alignment;
- Investigate and use existing semantic thesauri and controlled vocabularies, the Simple Knowledge Organisation System (SKOS);
- Examine the use of semantic faceted browsers;
- Participate and contribute in related standardization activities, together with other ongoing projects contributing to the development of Europeana.

Furthermore the geographic location of cultural content as provenience, current institution, location of event, etc. is a very important part of the information on every item of cultural heritage. Therefore the formalized location attribute (e.g. geocode, geographical coordinates) will significantly enhance the power of searching and visualizing the cultural content of Europeana.

For this reason the workpackage will also:

- analyse the actual possibilities for improvement of the geographic location description of the all content provided by ATHENA network
- recommend standards and approach how to include and/or join and/or transform geographic information of the existing digital cultural content

**Description of work**

WP7 will work on the output of WP3 and WP4 and be responsible to develop the tool (plug-in) that will enable semantic linking (using SemWeb technologies) with Europeana and other access points.

The aim of this WP is to exploit and integrate existing tools and technologies in order to create a plug-in that can be integrated in the Europeana portal. Athena is not aiming to create an independent access point for its cultural content but a plug-in that will facilitate cross-domain search and retrieval of the European cultural content. In order to facilitate cross-domain search and retrieval, existing state-of-the-art technologies will be employed. Cultural heritage collections are mostly indexed on the basis of strongly divergent standards. This severely hampers the combination and opening up of such collections. Athena focuses on semantic metadata interoperability by making semantic links using existing Semantic Web technologies. More specifically, ontology alignment tools, applying reasoning algorithms using transformation rules and performing metadata validation using classical ontology validation tools, will be examined and employed. Such interoperability will enable uniform access to heterogeneous collections and contribute to the opening up of cultural heritage. Any operation based on the content of digital information objects (as opposed to operations based on purely descriptive and formal object properties) requires the common automatic interpretation of the meaning of the exchanged information and thus the ability to automatically process the object information in a machine-understandable manner. The first step of achieving a certain level of common understanding is a representation language that exchanges the formal semantics of the objects. Using such a language, systems that understand these semantics (reasoning tools, ontology querying engines etc) can process the information and provide web services like searching, retrieval etc. Semantic Web technologies provide a formal framework for the representation and processing of different levels of semantics.

**Task 7.1: Construction of the Semantic Interoperability Plug-in**

In this task, the requirements for ensuring semantic interoperability among ATHENA Museums, non-Athena Museums and “Europeana: the European digital library network” portal will be defined. Upon these requirements, a Semantic Interoperability Management System will be constructed. In order to semantically map/align two or more Museums, the metadata must have formal and machine-understandable semantics through the use of existing logic formalisms. The existence of different ways of defining semantics (set theoretic, model theoretic semantics) base on different assumptions (open and closed world assumptions), increases the difficulty of defining the requirements for achieving semantic interoperability.

**Task 7.2: Semantic Mappings framework and Ontology Alignment**

In a distributed and open system, heterogeneity cannot be avoided. Some of the heterogeneity problems can be solved by aligning heterogeneous ontologies. In this Task, the problem of overcoming heterogeneity is equated to the problem of discovering, expressing and using ontology alignments. The goal of this task is to provide a common framework for ontology alignment. In particular, aligning ontologies consists of providing the corresponding entities in these ontologies. These correspondences are called mappings. There are four levels identified at which heterogeneity occurs: syntactic, terminological, conceptual and semiotic. In this task we will focus on the terminological and conceptual levels and do not consider the other aspects. A general framework will be provided for expressing the semantics of these mappings within ATHENA.

**Task 7.3: Contribution to the Standards**

With a view to bringing new functionalities with increased performance and more flexibility and easiness, ATHENA will aim at contributing to existing and emerging standards. It is now widely recognised that the standardization of a new technology is beneficial to the industry and to the end-user. This is the reason why ATHENA will invest efforts into standards activities and will contribute wherever and whenever possible.

**Task 7.4: Guidelines for Geographic Location Description of digital cultural content**

The selected examples of ATHENA content will be examined in order to:

- identify the best cases when GIS supports a cultural content presentation
- find out the bottlenecks when enhancing the description of geographical information of cultural content as are knowledge, technological, financial, and institutional barriers
- suggest priorities for next steps implementing GIS in digital cultural content
- Recommendations for museums, other cultural institutions, content holders, curators, and information engineers will be prepared. Task will include the preparation of the answers to the following questions:
  - how to meet cultural documentation standards with the requirements of geographic information



standards (ISO, OpenGIS, ...)

- how to create the appropriate structure of geographic model for cultural content
- how to automatically encode geographic data of the cultural content
- how to exploit geographic information when using digital cultural content
- how to take the advantages of the infrastructure for spatial information established by EU Inspire Directive

#### **Task 7.5: Creation, management and execution of implementation plan**

The content amalgamated in the plug ins needs to be integrated into Europeana a plan will be devised to achieve this:

- Understanding the work flow processes necessary for the delivery of content
- Creation of an implementation plan in line with the requirements of Europeana
- Implementing the implementation plan to ensure museums content gathered during the Athena project is searchable and retrievable in a cross sector search within Europeana

#### **(Inter-) Dependencies, milestones and expected result**

The expected results of the WP is to use and integrate existing semantic web technologies in order to construct the plug-in that will provide semantic interoperability among the participating Museums and the Europeana portal.

Dependencies:

- The WP mainly receives inputs from WP3 and WP4, however is connected with all the other WPs

Success indicators:

- Effectiveness of the plug-in developed

#### **Deliverables**

D7.1	First version of the semantic interoperability plug-in	Month 12
D7.2	Guidelines for Geographic Location Description	Month 18
D7.3	Skosification of the existing metadata standards and terminology sets used by the participating Museums	Month 18
D7.4	Report on the integration of the plug-in with the Europeana portal	Month 30
D7.5	Implementation plan and access to content of museums through Europeana	Month 30

## 8.6 Deliverables List

List of deliverables in chronological order indicating deliverable number, deliverable title, nature of deliverable, dissemination level of deliverable, date to be delivered to Commission.

Each significant element of the project should conclude with a “deliverable” which is the concrete output and evidence of the work. Lengthy or complex work packages may require the production of several deliverables over the duration of the work package. However, only a reasonable number of deliverables should be foreseen.

A deliverable may be a report, a prototype, a conference or demonstration, a book, a specification, etc. Where a deliverable is not a report, but is instead some form of action, written reporting is helpful to act as a record of the work (e.g. for a conference, a collection of papers presented; for a demonstrator, a brief technical description, etc.). The titles of the deliverables should be self-explanatory.

The following deliverables must be included to the list (example for Project running 24 months):

Project Presentation	M3	PU
Project Website	M3	PU
Progress Report	M6,M12,M18,M24	CO
Pre-financing request	M12	CO
Annual Report	M12	PU
Final Report	Project End	PU
Project Presentation (results)	Project End	PU
Financial Statement	Project End	CO

### Deliverables List

Deliverable No <sup>1</sup>	Deliverable title	Delivery date <sup>2</sup>	Nature <sup>3</sup>	Dissemination level <sup>4</sup>
D2.1	Website creation and initial dissemination plan	3	P	PU
D1.1	First Periodic Report, including Interim assessment of project results	6	R	PU
D2.2	Leaflet and other promotional materials	6	O	PU
D3.1	Report on existing standards applied by European museums	6	R	PU
D5.1	First Report on the network of national coordination	6	R	PU
D2.3	Set of instruments to support newcomers to join	9	O	PU

<sup>1</sup> Deliverable numbers in order of delivery dates: D1 – Dn. Deliverable numbers must indicate which workpackage they relate to, e.g. D2.1 for the first deliverable from workpackage 2).

<sup>2</sup> Month in which the deliverables will be available. Month 0 marking the start of the project, and all delivery dates being relative to this start date.

<sup>3</sup> Please indicate the nature of the deliverable using one of the following codes:

**R** = Report

**P** = Service/Product

**D** = Demonstrator/Prototype **O** = Other

<sup>4</sup> Please indicate the dissemination level using one of the following codes:

**PU** = Public

**PP** = Restricted to other programme participants (including Commission services and project reviewers).

**CO** = Confidential, only for members of the consortium (including Commission services and project reviewers).

D3.2	Recommendations and best practice report regarding the application of standards, including recommendations for a harvesting format and fact sheets for dissemination	9	R	PU
D4.1	Identification of existing terminology resources in museums	9	R	PU
D6.1	Overview of IPR legislation in relation to the objectives of the	9	R	PU
D1.2	First Annual Report	12	R	PU
D2.4	Final Dissemination Plan	12	R	PU
D3.3	Specification for conversion tools	12	R	PU
D5.2	Guidelines and Best Practises for Setting up National Co-operation Frameworks	12	R	PU
D6.2	Report and “Step by Step IPR Guide”: applicable solutions to general and specific issues regarding IPR in relation to EDL	12	R	PU
D7.1	First version of the semantic interoperability plug-in	12	D	PU
D1.3	Second Periodic Report, including Interim assessment of project results	18	R	PU
D2.5	First Issue of the ATHENA Journal	18	O	PU
D3.4	Assessment of requirements for persistent identification of objects, collections and institutions, in concertation with Europeana	18	R	PU
D4.2	Guidelines for mapping into SKOS, dealing with translations	18	O	PU
D6.3	Overview of collective licensing models and of DRM systems and technologies used for IPR protection and management	18	R	PU
D7.2	Guidelines for Geographic Location Description (including training)	18	R	PU
D7.3	Skosification of the existing metadata standards and terminology sets used by the participating Museums	18	D	PU
D1.4	Second Annual Report	24	R	PU
D3.5	Technical and policy infrastructure to support persistent identifiers	24	R	PU
D5.3	Core Content Map of Digital Cultural Heritage	24	R	PU
D1.5	Final report	30	R	PU
D3.6	Specific tools to be used for conversion and adaptation of proprietary museum data	30	D	PU
D4.3	Recommendation for integrating Digital resources present in museums in Europeana	30	R	PU
D5.4	Final Report on networking framework of non-partner projects and other bodies	30	R	PU
D5.5	Implementation plan for taking the content into Europeana	30	R	PU

D6.4	Database containing IPR information per member state	30	D	PU
D7.4	Report on the integration of the plug-in with the Europeana portal	30	R	PU
D7.5	Implementation plan and access to content of museums through Europeana	30	D	PU

## 9 Project management

This section should describe the project management structure, the means for communicating within the consortium, for monitoring work progress, for assuring quality and resolving conflicts. It should be coherent with the summary information provided in the corresponding work package description.

### 9.1 Project Management Structure and Responsibilities

The goal of the project management is to ensure that the project objectives will be achieved within the planned time and the allocated budget. This requires a permanent and close contact with all partners of the project and a sound communication with external actors in the area of culture and/or involved in the eContentplus programme. The nature of the project itself requests an intensive work of co-ordination, to guarantee the correct achievement of the expected results.

The project will be managed by the management structure based on the following functions:

Name	Functions
Steering Committee (SC)	Participants: one representative per partner. It is chaired by the Project Co-ordinator. The Steering Committee meets periodically in occasion of the plenary meetings, and in the case of a specific call by the Project Co-ordinator. It takes strategic decisions, on the basis of majority vote. Members of the Project Management Board are invited to the SC meetings.
Project Manager (PM)	The Project Manager officially represents the consortium towards the European Commission and is responsible of the correct execution of the contract. She chairs the Steering Committee. She appoints the Technical Coordinator and an Administrative Manager to support her in the development of the project. The Project Manager is Mrs Rosa Caffo of MiBAC.
Technical Coordinator	He/She is appointed by the PM, to assure the coherence of the activities developed by the project. In particular she is responsible of the development of the Project Workplan.
Administrative Manager	He/She is appointed by the PM, to manage all the administrative issue related to the project. In particular he/she is responsible of the development of the Financial Statements.
Coordination team	It is composed by the Project Manager, the Technical Coordinator and the Administrative Manager
WP Leaders	The WP Leader will provide an orientation function to the specific Work Packages defined for the ATHENA work programme, in the frame of the general activities of each corresponding Working Groups. WP Leaders maintain regular exchanges with the Project Management Board, about results and achievements of their respective Working Groups.
Peer reviewers	They are appointed by the WP leaders and by the Coordinator to provide an independent advice on the quality of the deliverables developed by the project.
Internal Evaluator (IE)	The role of the Internal Evaluator is to define the evaluation framework to apply within the project. The IE collects and analyses the information received by each member, and produces monitoring reports, including the solutions to the problems and the corrective actions identified. This function is performed by the Coordination team composed by the Project Manager, the Technical Coordinator and the Administrative Manager.
Members of the Network	The Network included the project partners and a wide group of cultural institutions, which are the external members of its network. Their role will be to make available their digital collections in order to have a wide trans-European set of digital collections for pilot testing, tuning and refining of the proposed solutions, but will also provide the expertise of their staff.

The Project Manager has the following responsibilities:

- to run the project in a team-oriented and motivated way;
- to stay in close contact with the European Commission regarding all contractual aspects of the project, and distribute payments received by the Commission services;
- to maintain close contact with the partners and to keep them informed about all relevant developments to ensure the progress and smooth running of the project;

- to organise consortium and Steering Committee meetings.

The Technical Manager has the following responsibilities:

- to ensure proper procedures for the efficient management of the project's working groups to follow up progress related to Working Groups' action list completion, revisions and refinements to tasks allocation and scheduling, with the contribution of the Organisation Support;
- to maintain a continuous liaising with the Project Manager;
- to collect partners' reports;
- to supervise the development of the WP activities.

The Administrative Manager has the following responsibilities:

- to maintain accurate records of costs, financial and human resources and time sheets of the project, to ensure that progress and financial reports are delivered on time and to monitor time-scales;
- to maintain a continuous liaising with the Project Manager;
- to consolidate the individual cost statements of the partners and submit the consolidated statement to the EC;
- to collate, prepare and distribute all the foreseen reports and deliverables, to ensure that all documents are submitted on time and do the respective quality management.

WP Leaders

- The management of each WP will include one or two WP leaders and a group of partners supporting the leaders in the decision making process.

## 9.2 Project communication mechanisms

A Consortium Agreement will be prepared and processed by the coordinator. It will be signed by the coordinator and each member, and will contain clear indications on the criteria for membership of the network and how decisions are taken on admission to membership or suspension / termination of membership, as well as a description of the network internal rules on allocation of the travel budget.

### Communication

Meetings should be reduced to the necessary for the good management of the project.

Audio conferences and e-mail communications should replace meetings whenever it is possible.

Project web-site and groupware management will be exploited as much as possible as complementary communication services.

### Reporting

Bi-monthly reports: These are intended as a mere internal document, to be used by the partners to circulate information about their respective tasks. They are not deliverables to be sent to the European Commission.

WP Leaders collect tasks reports, aggregate them and transfer their respective reports to the Coordination Team.

**Periodical reports and cost claims:** These are the official reports to be delivered to the European Commission, as per contractual provisions.

## 9.3 Risk Analysis and Risk Management

What are the (initial) risk factors for the project, how is their probability to materialize and what would be the impact. How are risks measured, assessed and tackled within the project? Please provide strategies for managing identified risks!

The possible risk factors for a project of these dimensions are:

- The awareness and disseminations are not effective and the visibility of the project remains too low
- Technical skills for the development of the application are higher than estimated are not available in the partner group

- The progress of the project activities show incompatibilities which were not discovered at the time of the preparation of the proposal
- The testing of the outputs on a more extended sample of data shows incompatibilities which were not discovered at the time of the testing
- The partners have not a clear vision of stakeholders to involve for long term running of the service
- The partners are not committed to continue with the continuous updating of the service
- The partners are not ready to commit.

It is evident that the direct involvement of governmental bodies and top cultural institutions in all the partner countries highly reduces the risks connected to a low visibility of the project and a low level of commitment from the partner bodies.

Analogously, the partner groups was set-up also to have the technical skills to develop identified solutions and achieve the proposed objectives. However the strategies for managing the previously listed possible risks will be:

- To use the subcontracting resources to buy the service for the development of the project web site and an appropriate communication strategy.
- To use the official and institutional channels to raise visibility on the media.
- To foresee enough time for possible recycling and fixing of technical discrepancies.
- To exploit the partners network to enlarge the target beneficiaries.
- To establish agreements and cooperation with other international networks, projects, events.
- The involvement of the political sphere is expected to contribute to the continuation of the project.

#### **9.4 Quality Assurance**

Which quality-related activities are planned, how is Quality of work measured and controlled?

Each document will report the names of the readers (peer reviewers) who have assessed the quality of the deliverable and who take personal responsibility of its contents, i.e.:

- the concerned WP Leaders
- at least one second reader, appointed by the Coordination team.

The Internal Evaluator IE will develop an evaluation framework, set up and monitored centrally, but implemented in a decentralised way. Each activity and working group, according to its specific characteristics and objectives, will have its own evaluation resources, directed and customised according to emerging specificity. Periodic evaluation reports will feed back the project, together with informal presentations, workshops and working papers. The Internal Evaluator will be responsible to verify the coherence with the original project, to study conditions for further exploitations of the solutions validated within the project and to prepare an action plan to diffuse solutions adopted.

## 10 Dissemination and awareness

Dissemination and awareness have the overall objective to provide the higher visibility to the activities carried out by the project, by disseminating outputs, tools, services, recommendations, guidelines developed or proposed by the ATHENA working groups, to facilitate their introduction in the current practice.

In addition, the following dissemination activities will be carried out:

- preparation of a multimedia PowerPoint presentation of the project that can be automatically run. The presentation should be for the general public describing consortium, project objectives, challenges and benefits. The first version of the project presentation should be delivered three months after the beginning of the project and the final version at the end of the project;
- provision of links/information about activities related to the eContentplus Programme on the project web-site;
- articles, fact-sheets, project descriptions, specific PowerPoint presentations at the request of the Commission to be used for the dissemination of project activities/results;
- monitoring and updating of the project information published on the eContentplus website;
- participation to events (e.g. conferences, meetings, workshops, trade fairs, exhibitions) at the request of the Commission;
- collaboration with related projects funded by eContentplus, providing input to and taking into account relevant outcomes, with particular regard to “Europeana: the European digital library network” and MinervaEC Thematic Networks.

As a specific measure to attract new museum, ATHENA will develop cross-domain user cases in order to convince new museums why they should join the network and participate in Europeana. ATHENA will support newcomers to take part, by promoting interoperable standards and providing a package of best practice examples to motivate new partners to take part. Through further dissemination activities ATHENA will make museums and cultural heritage institutions aware of the benefits of making available their digital contents through Europeana. The following activities are envisaged:

- create a website with available registration forms for newcomers, and FAQs explaining its aims and those of Europeana;
- organize ATHENA conferences and workshops;
- present ATHENA activities on a number of conferences and workshops;
- develop promotion material: brochure, leaflets, postcards and gadgets production;
- produce essays to professional journals and short articles to the newspapers
- develop the ATHENA journal;
- create an ATHENA discussion list;
- identify new Best Practices, to be disseminated to a larger audience.

In addition, the following dissemination activities should be carried out:

- Prepare a multimedia PowerPoint presentation of the project that can be automatically run. The presentation should be for the general public describing consortium, project objectives, challenges and benefits. The first version of the project presentation should be delivered three months after the beginning of the project and the final version at the end of the project. (to be added on the deliverable list)
- Provide links/information about activities related to the eContentplus Programme on the project web-site.
- Provide articles, fact-sheets, project descriptions, specific PowerPoint presentations at the request of the Commission to be used for the dissemination of project activities/results.
- Monitor and update the project information published on the eContentplus website
- Participate in events (e.g. conferences, meetings, workshops, trade fairs, exhibitions) at the request of the Commission.
- Collaborate with related Thematic Networks funded by eContentplus, providing input to and taking into account relevant outcomes.



- Provide information to Europeana to enable the establishment of links to the project results (e.g. short description of the underlying digital content and its characteristics and hyperlink to the website where this is accessible).

### 10.1 Events and Meetings

Please provide a list of intended meetings with nature (Kick-off, conferences, dissemination events, evaluation etc.), participants and prospective locations,

#### List of Events & Meetings

Meeting	Date (Project month)	Participants	Location
(Kick-off)	1	all participants	Rome
Meetings of the working groups	2 meetings per working group	Partners involved	To be defined
Steering group meetings	Every 4 months	all participants	To be defined
National workshop	Once within the project	National partners	In each partner country
Technical review	once a year	WP leaders	To be defined
Clustering meeting	once a year	Project Coordinator	To be defined
Programme Conference and Exhibition	once a year	Project coordinator	To be defined

## 11 Other Contractual Conditions

### 11.1 Subcontracting

Please provide an overview of the Subcontracting foreseen by the partners and the respective cost estimates

MiBAC	100.000 Euro	for national experts belonging to the museum community
MKRS	25.000 Euro	for national experts in information systems
MDA	70.000 Euro	for national experts belonging to the museum community

### 11.2 Other specific costs

Please provide a breakdown of the estimated Other Specific Costs foreseen by each partner.

The following partners have a budget for other specific costs, for the organisation of local awareness and dissemination activities:

MiBAC	78.000
Packed	24.000
CL-BAS	5.000
CyI	4.000
NM	5.000
Devo	3.000
SPK	20.000
EVKM	20.000
NBA	12.500
Dédale	12.500
NTUA	3.600
PIM	5.000
MR	5.000
CIMEC	5.000
Amitie	2.000
MCERS	5.000
KIS	5.000
SRA	5.000
ICIMSS	5.000
LTU	5.000
MKRS	5.000
MKSR	5.000
MDA	20.000

EDL has a budget equal to 13.212 Euro for storage of indexed terms.

The coordinator MiBAC has also an additional budget for

Public of reports	100.000
Travel costs of external experts to the project working groups	70.000
Financial audit	2.000

### 11.3 Indicative budget distribution & pre-financing schedule

Please fill in the indicative costs and maximum financial Community contribution for the project. The maximum financial Community contribution might be reduced in accordance with the provisions set out in Article 8 and Article II.17 of this grant agreement.

The following table provides the indicative costs and maximum financial Community contribution for the project. The maximum financial Community contribution might be reduced in accordance with the provisions set out in Article 8 and Article II.17 of this grant agreement.

Part. No.	Participant Short Name	Total Costs	Community Contribution	Community pre-financing		
				First instalment	Second instalment	Third instalment
1	MiBAC	977.500	782.000	312.800	312.800	156.400
2	Packed	205.000	164.000	65.600	65.600	32.800
3	RMAH	102.500	82.000	32.800	32.800	16.400
4	CL-BAS	102.500	82.000	32.800	32.800	16.400
5	CyI	75.000	60.000	24.000	24.000	12.000
6	NM	75.000	60.000	24.000	24.000	12.000
7	Cross	75.000	60.000	24.000	24.000	12.000
8	Devo	80.000	64.000	25.600	25.600	12.800
9	SPK	237.500	190.000	76.000	76.000	38.000
10	BSZ	75.000	60.000	24.000	24.000	12.000
11	EVKM	75.000	60.000	24.000	24.000	12.000
12	NBA	75.000	60.000	24.000	24.000	12.000
13	Michael	362.500	290.000	116.000	116.000	58.000
14	Dédale	312.500	250.000	100.000	100.000	50.000
15	NTUA	437.500	350.000	140.000	140.000	70.000
16	UP	102.500	82.000	32.800	32.800	16.400
17	PIM	75.000	60.000	24.000	24.000	12.000
18	MR	75.000	60.000	24.000	24.000	12.000
19	CIMEC	75.000	60.000	24.000	24.000	12.000
20	Amitie	362.500	290.000	116.000	116.000	58.000
21	MCERS	75.000	60.000	24.000	24.000	12.000
22	KIS	75.000	60.000	24.000	24.000	12.000
23	SRA	75.000	60.000	24.000	24.000	12.000
24	ICIMSS	102.500	82.000	32.800	32.800	16.400
25	LTU	75.000	60.000	24.000	24.000	12.000
26	MKRS	102.500	82.000	32.800	32.800	16.400
27	MKSR	75.000	60.000	24.000	24.000	12.000
28	Cordia	37.500	30.000	12.000	12.000	6.000
29	MDA	300.000	240.000	96.000	96.000	48.000

30	EDL	362.500	290.000	116.000	116.000	58.000
31	MCC	0	0	0	0	0
32	HMC	12.500	10.000	4.000	4.000	2.000
33	Makash	0	0	0	0	0
34	CentrePIC	0	0	0	0	0
35	MCTRA	0	0	0	0	0
<b>Maximum Community contribution</b>			<b>4.200.000</b>	1.680.000	1.680.000	840.000

The coordinator may request the payment of the pre-financing instalments subsequent to the first according to the following schedule:

- Second instalment as of month 15, after the first review
- Third instalment as of month 30, at the end of the project, after the final review

## 12 Appendices

### 12.1 Consortium description

For each consortium partner the following information should be provided:

- The full name and short name of the partner
- A short description of the partner and its activities
- The role of the partner in the project
- A short biography of key personnel to be involved in the project, focusing on the most relevant professional experience and education.

The description of each partner and its key personnel should not exceed one page.

#### **Ministero per i Beni e le Attività Culturali - Ministry for Cultural Heritage and Activities, Italy**

MiBAC coordinated the previous Minerva and MinervaPLUS projects, where most of the partners of the present proposal were also included, and also the current MICHAEL project, born as spin-off of MINERVA, and its follow-up, MichaelPLUS. MICHAEL is an initiative shared with the French and UK ministries of culture that will build a European multilingual service for browsing and using the digital collections of 16 Member States. It also coordinated the thematic network MinervaEC within the *eContentplus* programme.

In the field of Information Society other relevant projects carried out by the Ministry for cultural heritage and activities are:

- The Italian Culture Portal
- Development of the Servizio Bibliotecario Nazionale (National Library Service)
- Carrying out of the “Piano d’azione MEDiateca 2000”
- Creation of Italian Digital Library

The activity of the Ministry mainly aims at fostering and improving integrated services among archives, libraries and museums. Some key areas for co-operation have already been identified. Cultural heritage institutions should work in order to find out tools and standards, not only for sharing their information resources but also for facilitating integrated access for end users.

The Italian Culture Portal is a project born to correlate all the ministerial initiatives in the field of the ICT, in particular the large data-bases of its institutes. The Italian Culture Portal is under construction and is based on the MINERVA achievements, in particular those ones related to the quality of the cultural web sites.

SBN - Servizio Bibliotecario Nazionale (National Library Service) - is the Italian network created by the Ministry for Cultural Heritage and Activities in co-operation with the Regions and Universities. At the moment there are about 1200 libraries participating in the SBN network. The SBN Index contains the Union Catalogue of the libraries which are part of the network. It can be consulted by users via terminals at their local library or via personal computers connected to Internet, and browse the bibliographic databases of SBN OPAC or carry out complex searches (URL: <http://opac.sbn.it>).

**Rossella Caffo**, is Director of the Library of Modern and Contemporary History in Rome and is entrusted by the DG for the Technological Innovation and Promotion of the Italian Ministry for Cultural Heritage and Activities to follow ministerial initiatives dealing with new technologies applied to cultural heritage, such as the Italian Culture Portal, and to coordinate the European projects MINERVA/MinervaPLUS/MinervaEC, MICHAEL/MichaelPLUS.

She was the Director of the Information and Statistical Service of the General Secretary of the Italian Ministry for Culture from October 2001 to December 2004 and before then was director of the University library in Cagliari.

Since September 2001, Rossella has been the Italian representative to the European National Representatives Group on Digitisation in Culture and is charged with relationships to European Commission DG INFO - Cultural Heritage Applications Unit by the Italian Ministry for Cultural Heritage and Activities.

Rossella was responsible for the CREMISI project, which realised open distance learning training courses in the field of multimedia and IT devoted to librarians, and provided libraries with multimedia services and multimedia classrooms for training.

Between 1994 and 1997 she was President of Italian Library Association (AIB) and from 1997 to 2001 was a member of the EBLIDA Executive Committee as the representative of Italian Library Association.

In April 2007 she was officially appointed by the Ministry for Cultural Heritage and Activities as Italian representative in the Member States' Expert Group on Digitisation and Digital preservation, set up by the European Commission (Commission decision of 22 March 2007 - 2007/320 EC).

**PACKED, Belgium**

PACKED vzw ([www.packed.be](http://www.packed.be)) is established in 2005, by for major institutes for Media art in Flanders, MuHKA (Antwerp), S.M.A.K. (Ghent), argos (Brussels) and MDD (Deurle). PACKED is a foundation with support of the Flanders Government.

PACKED initiates, develops and takes part in projects which cover all aspects of the preservation of media art like for example: documentation and semantics, standardization, preservation of equipment, preservation strategy development, scaling etc. technical issues. IPR issues.

Two important aspects for media art are its international orientation and the use of (digital) technology. This borderless approach and involvement of technology makes the Internet an important point of focus.

Currently PACKED is involved in international initiatives like:

The development of an organization for maintenance, support and dissemination for the Dutch-language version of the Arts and Architecture Thesaurus (AAT). The AAT, originally developed by the Getty Research Foundation is a poly-hierarchical thesaurus containing 100.000 + concepts for the documentation and description of art and architecture.

The addition of concepts for the description and documentation of media-art in the AAT: This involves the setup of an international trans-Atlantic network of stakeholders, who will develop, in a digital environment, a standard vocabulary for the description of media art.

MinervaEC. Participant in work packages 4 (European Cultural Content Operability Framework) and 6 (Best practices in content enrichment)

Examples of initiatives or projects PACKED is involved in on national level:

Creation of a web-based infrastructure for exchange, documentation and registration of video-productions. Information on documentary and artistic content and its media is combined in a system which is used by heritage- and art-institutions. The system provides triggers for basic preservation treatment for media, based on a database which contains media quality information.

Research in IPR in relation to the distribution via Internet of Media-Art.

Research into scale enlargement for cultural institutions.

PACKED is supported by the Flemish Government.

**Chris Vastenhou** (1959) studied museology, specialized in and computer based registration methods for large collections and the logistics involved. Was involved in the development of the first image databases in the Netherlands using laservision technology, later to be followed by the first databases using digital imaging and -storage. Since he has been involved in projects which follow the evolution of digital technology, both in the commercial and cultural sector. He held positions at:

1984-1987	Eastindiaman "Amsterdam", Nautical Archaeology Project, Supervisor
1987-1990	Art Data Institute, manager
1991-1999	Topdrawers Design and Electronic Arts, manager and consultant, global companies
1999-2001	VNU Publishers, head Editorial Production Services
2001-2003	Sanoma publishers, consultant
2004	Dutch Institute for Image and Sound, specialist
2005	Spring IO, consultant
2006-pres.	PACKED coordinator

## **Musées Royaux d'Art et d'Histoire - Royal Museums of Arts and History, Belgium**

The eventful history of the Museum begins formally in 1835, with the foundation of the Musée d'Armes Anciennes, d'Armures d'Objets d'Art et de Numismatique, but the heart of the collection had been put together much earlier. The most remarkable objects had been kept in the Royal Arsenal – in particular, diplomatic gifts presented to the Dukes of Burgundy and the Hapsburgs, curiosities and mementoes, including the so-called cradle of the Emperor Charles, or the mantle of Montezuma and the horse of Infanta Isabella. Upon its foundation in 1835, the Museum was installed in the Porte de Hal/Hallepoort, but it became soon apparent that the space was inadequate. The construction of two pavilions in the Cinquantenaire Park made it possible in 1889 to move part of the collections, which were set up in the north wing of the Cinquantenaire. The move contributed to the achievement of Leopold II's conception of the Cinquantenaire Park, as a place of recreation, together with a cultural centre.

The overall plans, drawn up by G. Bordiau, provided for the construction of a large museum in the south wing. It was not until 1922 however that this was achieved. However, the collections of antiquities had already left the north wing in 1905, and were installed in the Pavillon de l'Antiquité. It was entirely destroyed by fire in 1946, but was rebuilt in 1958, following the original symmetrical design. The last modification was made in 1992, when a large gallery for temporary exhibitions was built, together with an auditorium and foyer in the basement.

Over the years the Museum's collections have grown steadily, thanks to important donations, sometimes of significant private collections, by generous patrons. This heritage has also been supplemented by finds from excavations in Belgium and abroad.

Though the wealth of the collections is famous throughout the scientific world and attested to by numerous publications, the Museum still needs to be much better known amongst the general public; This is why the Museum is eager to develop a popular –scientific approach to the collections, which are open to everyone wishing to engage in the fascinating dialogue with archaeology and art history. For this reason regularly a number of exhibition rooms is now being adapted or re-organised.

The Cinquantenaire Museum is part of the Royal Museums for Art and History, together with the Porte de Hal/Hallepoort, the Japanese Pagoda - the Chinese Pavilion - the Museum for Japanese Art and the Museum of Instruments. Entering the stately building, one begins a journey through time and space, a journey through the history and civilizations of mankind. The collections on display here bear witness to virtually all the artistic disciplines (except painting) of the five continents, excluding Sub-Saharan Africa. They are divided into four large ensembles: Antiquity, National Archaeology, the Non-European civilizations and European Arts and crafts. In total some 650 000 objects are spread over 60 000 m<sup>2</sup> of exhibition galleries and in the reserves.

### **Chris De Loof**

2004-2007 IT manager at Royal Museums for Art and History, Belgium (RMAH)

- project leader for the project InfoCol (Informatisation of the museum collections)
- project leader for the internal CMS and portal site of the RMAH and sub sites
- Key member of the steering committee for business intelligence and automated management reporting RMAH
- Key member of the steering committee for federal digitalisation.

1995-2004 IT Project leader at Ministry of Finance, Belgium

- project leader for the multilingual fiscal knowledge database
- project leader for Belgium in the EU and OECD in the automated fiscal exchange of information
- Junior project leader for the executive management information systems (EMS)
- Internal Business Process Consultant

1990-1995

- Auditor at Ministry of Finance, Belgium



**Централна Библиотека на Българската Академия на науките - Central Library of the Bulgarian Academy of sciences**

The Central Library provides information services for the researchers of BAS and the country and participates in information, computer and other networks and systems of national and international agreements and projects.

It also gathers processes and provides information about science in Bulgaria for national and international institutions, editions, computer networks and systems. It carries out research, publishing and implementation activities in the field of library science, special bibliography, and library sociology, library and information technologies;

The library collaborates with scientific institutes and organizations in the country and abroad, and provides a basis for practice of students in library and information sciences. It participates in the activities of national and international organizations and maintains the book stock of the Central Library with the 48 branch libraries - 2,000,000 volumes.

**Dincho Krastev**

Director of CL of BAS

Ms and PhD (Mos. St. Univ.); Training - 1992, 1995-96 - Germany (Stuttgart); 1997 – USA..

Educational experience: Sofia University “St. Kliment Ohridski”, 1970-73; 1977-1986, Calculus, Mathematical Analysis, Differential Equations; ICIMSS (International Centre for Management Systems&Services), Torun, Poland, from 1996, Lecturing (including “distant learning” education) in Information Science and related subjects,

International projects: Tempus, 1990/91 JEP-0955 – national coordinator; EmNet, 1992-95 – national coordinator; EUROMATH, 1989-1995 – national coordinator; UNESCO – “Bulgarian Studies around the world”, 1997-1999; The 5-th FW Programme, CULTIVATE-CEE (Proposal No. IST-1999-1113), from April 2001, for a period of 24 months – national coordinator; 2003 – Bilateral Contract with British Library – “Digital and Analytical Processing of Medieval Slavic Manuscripts”

Many publications in library information science (local and international journals)

**Cyprus Research and Educational Foundation, Cyprus**

The Cyprus Research and Educational Foundation - Cyprus Institute (CREF) is a novel, non-profit, technology-oriented, interdisciplinary research and educational institution meeting world-class standards of excellence. It is designed to serve the needs of the Eastern Mediterranean region, while addressing issues of both regional and global significance. The new Institute is being developed under the stewardship of the Cyprus Research and Educational Foundation (CREF) the Board of which comprises of prominent international academic, political and entrepreneurial personalities. It comprises seven research centres, the ones relevant for the present project are the *Centre for Science and Technology in Archaeology (STARC)* that will research, develop, adopt and employ the use of modern scientific and technological techniques and novel technologies in the field of archaeology and in the preservation and presentation of cultural heritage, and the *Computation - based Science and Technology Research Centre (CSTRC)*, a state-of-art supercomputing centre. The Cyprus Institute is strongly supported by the Government of Cyprus, viewing its establishment and advancement as important to its overall policy of transforming Cyprus into a regional centre for research and education and in implementing the EU-Lisbon strategy.

**Loukas Kalisperis**

has completed research in the areas of Design Computing and Teaching Methodologies, Virtual Environments in Architecture, Cultural Heritage Visualization, Digital Fabrication and Energy Systems Simulation He is currently involved in research for immersive environments, multimodal representation, cultural heritage visualization and digital fabrication. His research has resulted in numerous papers, book chapters, and presentations. He has been on the Scientific Committees of numerous conferences and symposia on Digital Media in Architecture and Cultural Heritage. He was the recipient of the 2005 President's Award for Excellence in Academic Integration and the 2000 Apple Distinguished Educator Award. He guest co-edited special volumes of the journals Automation in Construction and The International Journal of Architectural Computing on computer-based design aids and cultural heritage. He holds visiting teaching positions in the Graduate Programs in Architecture at the University of Brazilia, the University of Cyprus, the National Technical University of Greece, and the University of Bahia. Currently, he is a Visiting Professor and Distinguished Fellow at The Cyprus Institute.

**Franco Niccolucci**

is a professor at the University of Florence and currently Visiting Professor at the Cyprus Institute. His main field of expertise concerns the applications of IT to Cultural Heritage, digitization and standardization, and has over 60 publications and several books in the field. He was a member of the ISC of several International Conferences and has chaired VAST2000, 2004, 2006 and 2007. He is one of the Executive Directors of the EU NoE EPOCH on IT applications to CH, and the scientific coordinator of CHIRON and COINS, both FP6 projects in the same area.

## Narodni Muzeum, Czech Republic

The National Museum is public scientific institution which systematically collects, researches and exhibits natural and historical collections from all over the world. It was founded through the efforts of many distinguished figures in Bohemia beginning as early as the end of the 18th century. It was constituted in 1818 in Prague by Kašpar Maria Šternberk. Historian František Palacký was also strongly involved.

The National Museum is the oldest museum in Bohemia and today the most distinguished and largest museum in the Czech Republic. It is composed from five professional institutions: Natural History Museum, Historical Museum, The Náprstek Museum of Asian, African and American Cultures, Czech Museum of Music, National Museum Library and two technical departments: Department of Deputy for Development Investments, Department of Deputy for Economy-operation and Section of the Deputy for Central Collection-building and Exhibition Activity.

At present the National Museum shelters almost 20 million of items from the area of natural history, history, archaeology, arts, music and librarianship, located in more than 15 public museums and exhibition halls all over the country which are cared for more than 500 researchers and employees.

The collection funds of the National museum represent several million items of material evidence about the inanimate and living nature and about the man and his activities in worldwide scale. These are collections of mineralogy (which belong to the most beautiful and most extensive collections in the whole world), palaeontology, mycology (the mycological herbarium is one of the most extensive worldwide), botany, entomology (which represent more than 5 million preserved specimens of insects), zoology, anthropology, archaeology. From the very beginning the collections have been regarded also as a treasury of the most important monuments of the Czech national history. Remarkable parts of the collections are the Lapidarium and the Collections of ethnography (most numerous items in the collection are folk costumes, embroideries and folk textiles). Very precious objects are kept also in the collections of pottery, folk paintings, folk furniture, folk tools and customs. Of exceptional importance is the numismatic collection, collections of documents related to the history of Czech theatre and music, collections related to physical education and sports, and collections of items of material and spiritual culture of Africa, America, Asia, Arctic regions and Oceania. The Library of the National museum keeps and administers, in addition to books of scientific literature and fiction, also a collection of manuscripts, incunabula, and old prints and documents from Bohemia documenting the development of book culture in the 19th and 20th centuries. An important part of the funds of the Archive of the National museum are documents from the estates of leading personalities of political, scientific and cultural life of the 19th and 20th centuries.

### **Pavel Douša**

Pavel Dousa is the head of the Centre for presentation of cultural heritage, which is a part of National museum of Prague and it is methodical department of Ministry of Culture of the Czech Republic. He has MA in museology and holds PhD in History from the Silesian University. He lectures the museology at Silesian University Opava and Charles University Prague as well. (Bayerische Julius-Maximilians-Universität Würzburg scholarship 2004).

He participates or manages this scientific project: Museums at network: European children, games and local cultures (methodology of presentation of game in museum), Barrande I – The Scientific-Research Centre of cultural heritage, Prague Museum Night 2006, 2007, Informational web site eMuzeum.cz, Researcher's night (member of realization team of the CR).

Dousa is board member of this institutions: Museology committee of Czech Association of Museum and Galleries, Museum education committee of Czech Association of Museum and Galleries, National jury of Gold coat of arms competition for the best City Web.

Dousa's scientific focus is the Czech and Czechoslovak history and museology: general history of collecting, history of Czech and Slovak museums, issues of preservation of cultural and natural heritage, presentation of museums' collections, study of essential museological issues from philosophical position, museum education.

He has constituted Centre for presentation of cultural heritage, which serves to the museums and galleries of the Czech Republic, helps them to presentation and communication with public and tries to mediate the best practice from abroad.

**Cross Czech a.s., Czech Republic**

Cross Czech has been intensively co-operating with Czech cultural institutions helping them to promote and present their activities on European level, to take part in EU funded projects and to handle the managerial and technical side of the work in the area of ICT in relation to culture, education and social policies. Cross Czech closely co-operates with the Ministry of Culture being the consulting company in the area of harmonization of EU strategic development. Currently Cross Czech is co-ordinating preparation of a large national project for setting up a National Digital Library and Archive bringing together digital repositories from libraries, museums, galleries and archives based on OAI PMH.

Similar activities are carried at the Ministry of Informatics of the Czech Republic where Cross Czech a.s. is a consultant in the area of EC programmes such as eTEN, *eContentplus* and Safer Internet Plus. On behalf of the Ministry of Informatics Cross Czech a.s. is the Czech representative of the European initiative related to the participation of organizations from the Czech Republic, Slovakia, Slovenia, Hungary and Austria in the *eContentplus* programme and to create new partnerships in these countries. It closely co-operates with the Ministry for Local Development which is in charge of Structural Funds implementation in the Czech Republic. Cross Czech is the expert for evaluating horizontal priorities, for the Information Society. Cross Czech experts are also project evaluators of proposals submitted to several Operational Programmes, especially those funded from the European Social Fund.

Cross Czech a.s. has a strong expertise in training activities related to implementation of ICT in educational sector through projects funded by ESF in the Czech Republic. Cross Czech a.s. is the co-ordinator of eMapps.com project funded by FP6 IST and is involved in other IST projects such as FINANCE-NMS-IST, CEEC IST NET, TransferEast.

**Mgr. Romana Křížová** is the CEO of Cross Czech a.s. and has experience in creating and realization of projects in pre-structural funds programs (PHARE), the 5th and the 6th Framework Programme, Culture 2000, eContent, eTEN, eLearning, EQUAL, Structural Funds and other financial mechanisms. She intensively co-operates with the Ministry of Culture of the Czech Republic and cultural organizations established by the ministry. She is an external expert on MinervaPLUS and Michael Plus projects. Romana Křížová also closely co-operates with the Ministry for Local Development who is in charge of Structural Funds implementation in the Czech Republic. Romana Křížová is the expert for evaluating horizontal priorities, namely Information Society.

**Mgr. Ivana Haladová** worked in both state and privately owned TV companies as script editor, Head of Depts. of Acquisition Strategies and Dubbing Dramaturgy and Programming and Scheduling Manager. In 2003 she joined Cross Czech a.s. as the Head of Department for culture, education and social policies. She is competent to develop international activities in cultural and educational sectors and enables co-operation of Czech organizations with relevant European partners. She also provides training activities in the area of fundraising for cultural and other companies and institutions.

**Devoteam Group, Czech Republic**

Devoteam Group is an IT consultancy gathering 3,550 employees in 19 countries of Europe, North Africa and the Middle-East. It has built a strong expertise in digitization matters since 15 years, in particular in Scandinavian countries (Norway, Denmark).

Established in Czech Republic since 2005, Devoteam, s.r.o aims to transfer this expertise to Central Europe, in particular in the fields of

- digitization of cultural heritage
- “cross-media” approach (Audio-visual/ static content)

Devoteam, s.r.o is the technical partner of the Czech Ministry of Culture in the frame of the project MichaelPLUS (eTEN) since February 2007.

It also advises the Ministry in the field of Trans-European projects linked with the preservation of cultural heritage (*eContentplus*, FP7, etc).

**Nathanaël Dupré la Tour**

PhD. in Political science

Master in Philosophy

« European Project Management » Practice Leader at Devoteam, s.r.o since 2006

Coordinator of the project « Michael plus » (eTEN) for Czech Republic

Particular skills linked with the project Athena:

- Digitization of cultural heritage
- communication
- project management
- Linguistic skills

**Petr Čoban, consultant**

Telecom Engineer

Deputy coordinator of the project « Michael plus » (eTEN) for Czech Republic

Particular skills linked with the project Athena:

- Digitization of cultural heritage
- Digital TV
- Project management
- Linguistic skills

**Stiftung Preußischer Kulturbesitz (SPK) – Prussian Cultural Heritage Foundation, Germany**

The Foundation is one of the world's major cultural organisations. The Staatliche Museen zu Berlin (National Museums in Berlin), the Staatsbibliothek zu Berlin (State Library), the Geheimes Staatsarchiv (Secret State Archives Prussian Cultural Heritage Foundation), the Ibero-Amerikanisches-Institut (Ibero-American Institute) and the Staatliche Institut für Musikforschung (State Institute for Music Research), all with their origins in the collections and archives of the State of Prussia, are linked to form a close network for cultural transmission.

From the beginning it was scholars and artists rather than princes and kings who gave the collections their distinctive profile. Although individual treasures such as the world-famous Pergamon Altar or the bust of Nefertiti draw the attention, the encyclopaedic range and ordered structure of the collections as a whole reflect an all-embracing interest in education.

The preservation and care of the collections, their structure and development, and the continuation of academic and scientific research form the basis for a mediation of cultures with a mission to encourage learning and understanding between different peoples.

The Foundation embodies the shared governmental responsibility for culture in Germany. The Federal Government and the sixteen individual states share the legal and financial responsibility, a living manifestation of constitutional reality.

In 2007, the Prussian Cultural Heritage Foundation celebrates its 50th anniversary.

**Monika Hagedorn-Saupe :**

Prof. Monika Hagedorn-Saupe studied mathematics, sociology, psychology, and education at the Ruhr-Universität Bochum, at Kings College London, and at the Freie Universität Berlin, with a focus on adult education. Since 1985, she has been staff member of the Institut für Museumsforschung (Staatliche Museen zu Berlin, Stiftung Preußischer Kulturbesitz), overseeing the annual visitor statistics of all German museums. Since 1994, she has been Head of the department "Visitor-related museum research and museum statistics", is responsible for several European projects and acts as the Deputy Director of the Institute. Since 1997 she chairs the Special Interest Group on Documentation (Fachgruppe Dokumentation) in the German museum association (Deutscher Museumsbund e.V.) and is Secretary of CIDOC, the documentation committee in ICOM. In 2001, she was nominated from the German Federal government to participate in the European NRG (National Representatives Group on Digitisation in Culture). She is continuously teaching museology at the University of Applied Sciences FHTW in Berlin, and in Frankfurt/Oder, and is Honorary Professor at the FHTW since 2006.

**Bibliotheks-Service-Zentrum - Library Service Centre Baden Württemberg, Germany**

The BSZ runs one of the union catalogues in Germany covering the federal states of Baden-Wuerttemberg, Sachsen, Saarland and Rheinland-Pfalz with about 1000 participating scholarly libraries and about 12 Mio. bibliographic records of scholarly libraries. Beside the union catalogue the BSZ offers several services to these academic libraries: running servers for the local systems of about fifty libraries; the digital library with several online services enriching the catalogue entries.

The BSZ has developed a platform for the long term preservation of online resources of the two regional state libraries and the regional state archives of Baden-Württemberg. The BSZ participates in the URN activities of the German National Library and works on problems of persistent identifiers in the framework of its digital library projects. The use of URN for the objects of long time preservation will be implemented in cooperation with the state archives.

Since 2000 the BSZ offers services to archives and museums in Baden-Württemberg as well. In 2000 the Museum Information System (MusIS) was institutionalized as consortium at the BSZ in Konstanz. Since then the BSZ provides technical and documentation services for the state museums in Baden-Württemberg and several others. It runs a central application server for nine institutions so far.

Beside the technical support the service comprises:

- the development of vocabulary standards for places and geographic names, persons, dates, subject headings and object titles,
- the import and maintenance of the databases,
- support for the online presentation of digitized data (e. g. texts, pictures, sounds) of museum objects with a content management system,
- development of joint projects regarding the online accessibility and presentation of information on cultural heritage.

2001 to 2007 the BSZ contributed to (with the development of the technical environment including search engine technology) and coordinated the BAM project, which was financed by the German Research Foundation (DFG: Deutsche Forschungsgemeinschaft). This project is now maintained by a consortium coordinated by the BSZ. The joint internet portal for libraries, archives, and museums (BAM: Bibliotheken, Archive, Museen) enables the user to search the data of libraries, archives, museums and other institutions simultaneously and to navigate from search results to respective digital representations of the special information systems.

**Jörn Sieglerschmidt**

1977 PhD University of Konstanz; 1986 postdoctoral lecturing qualification (Habilitation) for modern history at the University of Konstanz; since 1986 Private Lecturer at the University of Konstanz, 1995/1996 at University of Karlsruhe, since 1998 at the University of Mannheim; teaching in early modern European history, social and economic history of Europe, Russian history, electronic data processing for historians, museology and museum documentation; 1987-2003 (senior) curator at the State Museum of technology and work in Mannheim, since then at the Library Service Centre Baden-Württemberg as head of the Museum Services. Coordinator of the BAM project since 2006. Board member of the German branch of ISKO (International Society of Knowledge Organization) since 2006; member of the advisory board of the Institute of Museum Research at Berlin since 2005.

**Thomas Kirchhoff**

Thomas Kirchhoff studied physics at the University of Konstanz. After employment in several projects of commercial enterprises, he joined the Bibliothekservice-Zentrum Baden-Württemberg in 2005, in order to develop the technology of the BAM portal.

**Eesti Vabariigi Kultuuriministeerium – Ministry of Culture, Republic of Estonia**

Within the Estonian Government, the Ministry of Culture is responsible for organizing and coordinating state cultural policy. The task of the Ministry of Culture is to make sure that necessary and favourable conditions, both legislative and financial, are created for the functioning of culture, heritage and sports from the culture professionals' as well as the general public's point of view.

The mission of the Ministry of Culture is to support the maintaining of the Estonian national identity by valuing, preserving, developing, acknowledging and spreading Estonian fine arts, cultural heritage and sport in Estonia and abroad supporting both the professional and amateur activities in creativity and sport.

Ministry of Culture has participated in MichaelPLUS project and currently is participating in MinervaEC and MICHAEL Plus projects.

**Indrek Eensaar,**

Tallinn Technical University, public administration (MPA)

1999 – 2003 Harju County Government, Senior Specialist.

Since 2003 Ministry of Culture, Republic of Estonia, Head of Information Technology Division.

Fields of responsibility: coordinating the development of information technology in the administrative area of the ministry. Managing the development-plans of state priority IT-systems (the IT systems of the museums and libraries) and coordinating the IT-related fields of activities (digitalization).

**Anton Pärn**

University of Tartu, MA in archaeology

1986– 2001 National Heritage Board, area of responsibility – archaeology.

1993-2001 Deputy Director General of the National Heritage Board.

Since 2002 Deputy Secretary General of the Ministry of Culture.

Fields of responsibility: cultural heritage.



**Museovirasto – The National Board of Antiquities, Finland**

The National Board of Antiquities preserves Finland's material cultural heritage: collects, studies and distributes knowledge of it. The Board is a cultural and research institution, but it is also a government authority charged with the protection of archaeological sites, built heritage, cultural-historically valuable environments and cultural property, in collaboration with other officials and museums.

In 1870, the Finnish Antiquarian Society was formed to care for and document national historical monuments. The Antiquarian Society, by its activity, greatly influenced the development of Finnish antiquities legislation and administration. The Decree on the Protection of Ancient Monuments was given in 1883, and the next year saw the founding of the Archaeological Bureau, later renamed the State Archaeological Commission, charged with "the general care of country's ancient monuments".

The Archaeological Commission was reorganized in 1972 and became the National Board of Antiquities. The numerous functions of the National Board of Antiquities are classified under three main sections: The Cultural Environment section, the Museums and Exhibitions section and the Development of Museum Activities section. The Library of the National Board of Antiquities and the Archives for Prints and Photographs are independent units. The Department of Administration is responsible for personnel management, legal matters, finance management and upkeep of real estate.

The Board offers a wide range and diversified range of services, a professional staff of specialists, the exhibitions and collections of its several museums, extensive archives, and a specialized scientific library, all of which are at the disposal of the general public.

The National Board of Antiquities' activities are financed through budget funds. It receives an annual appropriation from the Government budget. The largest part of the National Board of Antiquities' funding comes from the Ministry of Education's administrative sector.

**Pirjo Hamari**

Pirjo Hamari is a senior planning officer at the Data management unit in the National Board of Antiquities in Finland. Graduated with an MA in Archaeology from the University of Helsinki in 1996, she has since been working with archaeological research and data management questions at the National Board of Antiquities. Since 2001 she has been responsible for the development of the national sites and monuments register for archaeological sites in Finland as well as leading other IT development projects. She has also been involved in several international projects as well as national and European cultural heritage policy issues.

**Sirkka Valanto**

Sirkka Valanto works as Senior adviser in the Knowledge Management Unit of the National Board of Antiquities since 1997.

Her studies include the degree of Master of Arts in the University of Helsinki in 1976 with Art History as the main subject as well as the degree of Information Specialist at Helsinki University of Technology in 1999.

After several years of research in the field of architectural history, she has worked as Head of the Architectural Archives in the Museum of Finnish Architecture 1982-1990, as director and senior Adviser in the Central Art Archives in the Finnish National Gallery 1990-1997.

In the NBA she has been responsible for development of a museum documentation system and a national data standard for Finland. She has also worked actively in the field of accessibility and interoperability between museums and other memory organisations in Finland and internationally.

**Ministère de la Culture et de la Communication – Ministry of Culture and Communication, France**

Since the beginning of 1996, the mission of research and technology (MRT) coordinates the activities of scientific and technical research of the directions, services and establishments depending on the ministry. It ensures the management of the interdepartmental research programs, prepare work of the ministerial Council of research. In this field, it represents the ministry for the culture in national authorities and European. It distributes the results of its activity to the attention of the principal actors of the cultural life and research.

To carry out the plan of digitisation, the mission is based on a committee of experts representing each direction of the ministry for the culture, several regional directions of the cultural affairs (DRAC) and great publicly-owned establishments concerned (National Library of France, National institute of Audio-visual, Meeting of the National Museums), the committee meets periodically to launch the calls with projects of digitisation, to select the files, to work out technical standards and to determine the schedules of conditions of the public markets.

Its coordination guarantees the coherence of the national strategies, the quality of the services of digitisation and the follow-up of the programmes for their valorisation.

A directory of all the digitised funds, consultable on line on the site "digitisation of heritage" on the server of the ministry, is available on-line.

The digital images are presented in the various data bases of the ministry, in products of electronic publishing or on CD-Rom in the places of reception of the public (files, libraries, resource centres of the regional directions, research laboratories).

### Association Dédale, France

Dédale is a French research and production agency devoted to relationships between the arts, culture and new technologies in Europe.

It encourages international exchanges between ICT specialists, artists, cultural professionals, institutions, multimedia and audiovisual production companies, research fields and academic networks. Dédale's objective builds on the following activities:

- a European media arts observatory,
- a media lab, the "D-lab", for the production and the support of innovating artistic projects
- exchange programmes, seminars, workshops
- an international digital arts festival, the festival Emergences in Paris

In addition, Dédale provides assistance to European cultural networks and public authorities in the fields of digitisation of the cultural heritage, new learning environments, digital arts and new cultural venues.

Dédale is also associated to the Ministry of Culture in the participation of France in European projects in digitisation policy and cultural heritage valorisation. In that regard, Dédale participates to the European projects Minerva +, Michael and Michael +.

In 2004 Dédale produced an important study for the European Commission (DG Culture, Multimedia Unit) in the framework of the E-Learning initiative. This study, entitled "Cultural institutions as new learning environments", aims at investigating how cultural institutions from all cultural fields in Europe use new technologies in the view of opening the access to culture and propose informal education: websites and CD Rom, virtual galleries, online libraries, multimedia workshops, multimedia exhibitions, performances and installations...

The study was achieved thanks to a network of international experts. The result is an investigation of the public policies in the 15 countries of the EU and the countries joining the EU, a thorough analysis of 15 remarkable projects, a prospective study including emerging tendencies, stakes and opportunities, and finally recommendations for actions in the European Community.

Dédale is supported by the European Commission, the Ministry of Culture (Ministère de la culture et de la communication), the Ministry for research and new technologies (le Ministère délégué à la recherche et aux nouvelles technologies), the Ile de France region and the City of Paris.

**Stéphane CAGNOT** is the Director of the non-profit association Dédale, a French research and production agency devoted to relationships between art, culture and new technologies in Europe.

Stéphane CAGNOT studied economics and completed a Master in "hypermedia: producing multimedia and electronic publishing" and a Master in "Management of cultural institutions". In the framework of the French Ministry of Culture where he worked from 1995 to 2002, Stéphane CAGNOT implemented the cultural policy in new technologies and digital arts in the Ile de France region (the DRAC Ile de France).

From 2002, when he became the Director of Dédale, Stéphane CAGNOT, has initiated and coordinated Emergences, an innovative festival dealing with new artistic forms and digital art, inviting each year numerous international and European artists. He has also developed the European dimension of the agency by providing assistance and consulting to numerous projects in the framework of European Union programmes : eLearning, IST, eTEN and *eContentplus*

**Jean-François BERTRAND** is the Head of European Projects in Dédale. Graduate in Political Sciences (Sciences Po Rennes), he went then through a master in Cultural European projects management in the University of Paris VIII. In plus of taking part to the coordination of the Emergences Festival in Paris, he has been involved in all the European projects Dédale participated to, such as MICHAEL, MICHAEL PLUS, MINERVA, MINERVAEC, or the study "Cultural institutions as new learning environments" as well as the e-Learning initiative of the European Commission. In the framework of the MICHAEL project, he has coordinated the creation of the European Portal of MICHAEL in cooperation with the French Ministry for Culture and Communication. He was namely responsible for the creation of the MICHAEL AISBL, thus participating to the technical and sustainable issues dedicated work packages of the project.

**Erevnitiko Panepistimiako Institutou Epikoinonion & Ypologiston, Ethniko Metsovio Polytechnio – National Technical University of Athens, Institute of Communications and Computer Systems, Greece**

The Image, Video and Intelligent Multimedia Systems Lab (IVML, [www.image.ntua.gr](http://www.image.ntua.gr)) was established in 1988, as one of the Laboratories of the School of Computer and Electrical Engineering of the National Technical University of Athens in Greece. Courses given in the framework of the undergraduate and postgraduate syllabus of NTUA by IVML members include Knowledge and Multimedia Systems, Image and Video Analysis and Technology, Computer Graphics, Neural Networks, Intelligent Computer Systems and Man Machine Communication. Twenty five graduate students have obtained their Ph.D working in IVML, while ten are pursuing their PhD in it. The members of the Lab (which are about 35, including research scientists, researchers, programmers, and supporting staff) are active members of the research community having published more than 100 journal articles and 200 international conference contributions.

The most important areas of R&D activities performed or supported by IVML include:

- Knowledge based multimedia analysis
- Semantic Web technologies and knowledge representation
- Uncertainty modelling, artificial neural networks, fuzzy and neurofuzzy technologies
- Content-based semantic multimedia content search and retrieval
- Interoperability and access to cultural content
- MPEG-7 , MPEG-21 standards and Semantic Web technologies
- Intelligent Human Computer Interaction and Intelligent agents
- Face, Emotion and Biometric Analysis and Recognition
- MPEG-4 and Natural - Synthetic Hybrid Coding, Augmented Reality.

IVML has been involved in eighty four R&D projects. Forty of them have been funded by the European Commission and the rest of them by Greek organisations. Sixty six of them have been completed, while eighteen are in progress. In particular:

IVML participates in the design and implementation of intelligent semantic analysis and retrieval of multimedia content, following the MPEG (4,7,21) and Semantic Web standards (being a member of W3C). The leader of the Lab, Prof. Stefanos Kollias has been one of the experts that the EC has used for defining the framework of ‘Semantic Content Analysis’ and its perspective for 2012. He is a member of the EC ‘Interoperability Group’ on Digital Libraries in 2006-2007. He is National Representative of the Hellenic Ministry of Culture since 2004, participating in the NRG, the MinervaEC and the Michael plus projects. IVML participates in the 6<sup>th</sup> framework IP ACEMEDIA on semantic-based adaptive multimedia analysis systems (2004-2007), in the NoE MUSCLE on intelligent adaptive multimedia analysis (2004-2007), in the NoE Knowledge-Web on semantic Web technologies (2004-2007), in the IP AskIT on knowledge-based assistance for mobility-impaired people (2004-2007), in the IST NoE K-Space on multimedia and knowledge technologies (2006-2009), in the IST IP Mesh on knowledge technologies for news (2006-2009), in the IP X-Media, on knowledge technologies and business environments (2006-2009), in the STREP project Boemie on ontology evolution (2006-2009), in the E-Culture Imagination project, on knowledge-based access to historical content (2006-2008), in the E-Content-Plus Videoactive project being technical leader for unified access to audiovisual archives(2006-2008), in the E-Ten Michael Plus project being technical leader for a common platform for access to European cultural content and interoperability (2006-2008), in the E-content Plus MinervaEC (2006-2008), collaborating with European libraries, museums, archives, being technical co-leader of the interoperability part of the project, in the E-Inclusion Agent-Dysl project (2006-2009). Prof. S. Kollias and Dr. G. Stamou have co-edited a book on “Multimedia and Semantic Web”, published by Wiley in June 2005. IVML is a member of the W3C, participating in the Working Group on Rule Interchange Format, in the Uncertainty Incubator Group, in the OWL 1.1 working group, in the ‘Multimedia Annotation and the Semantic Web’ Task Force.

Moreover, since 1989, IVML has led or participated in a variety of projects related to theory and applications of neural networks, fuzzy reasoning and intelligent techniques, being a Managing Node of the “NEURONET” Network of Excellence (1994-2000) and of the “EUNITE” Network of Excellence on Adaptive Intelligent Systems (2001-2004). IVML has organised ICANN-2006 in Athens in September 2006. They also organised SAMT-2006, on semantic multimedia analysis in Athens in December 2006, while they also co-organise WIAMIS-2007 in Santorini, June 2007.

<p><b>Prof. Stefanos Kollias</b> was born in Athens in 1956. He obtained his Diploma from NTUA in 1979, his M.Sc. in Communication Engineering in 1980 from UMIST in England and his Ph.D in Signal Processing</p>
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from the Computer Science Division of NTUA. He is with the Electrical and Computer Engineering School of NTUA since 1986 and since 1997 he serves as a Professor. Since 1993 he is Director of the Image, Video and Multimedia Systems Laboratory of NTUA. His research interests include image and video processing and analysis, multimedia content based retrieval, and management, intelligent and knowledge-based systems, neural networks, human computer interaction, cultural content and digital libraries, semantic web and multimedia semantics. He has published more than 200 papers in the above fields, about half of which in international journals. Since 2004 he is national representative of the Ministry of Culture in new technologies and a member of the (cultural) National Representative Group and the subsequent Expert group of the EC.

**Dr. Vassilis Tzouvaras** has received the Bachelor of engineering degree (B-Eng) in the department of electronic and systems engineering of Essex University in UK. He received the Master of engineering degree (M-Eng) in the department of automatic control and systems engineering of Sheffield University in UK. He received the Ph.D. in 2005 in Image Video and Multimedia systems Laboratory (IVML) of National Technical University of Athens (NTUA) and his research includes semantic interoperability, knowledge representation languages, extension of logic formalism with fuzzy logic operators, semantic web technologies, multimedia retrieval and neurofuzzy systems. He has been involved in 8 R&D European IST projects and in 5 National projects. He has published 6 articles in international journals and books and 30 in international conferences.

### **Hellenic Ministry of Culture, Greece**

The Hellenic Ministry of Culture is the main funding organization of content digitization in Greece. It has branches –dealing with both ancient and modern cultural content – all over the country. It supervises main activities on cultural developments, including content digitization, access and preservation, with emphasis on public museums, which belong to the Ministry, possessing a variety of content types, including monuments, sculptures, audiovisual material and books, which will become available to the ATHENA project.

The Ministry of Culture funds and supervises various projects, including digitization and generation of cultural content, digitization and cultural content organization in the archaeological domain, generation of semantic infrastructure for unified access to the Hellenic cultural content, digitisation of cultural content of Museums in extension of the on-going ones, digitisation and Intellectual Propriety Rights (IPR).

In addition, the Hellenic Ministry of Culture has pointed the generation of an ‘Hellenic Cultural Web’ as the basic strategic goal for the period 2007-2013 coinciding with the 4th Action Plan of the Greek Economy. In this framework, the Ministry will assist in generating and assisting all the necessary infrastructure for issuing a unified and efficient access to Hellenic Culture Heritage, focusing on the digitised content, to be searched and retrieved within a variety of Greek cultural sites possessing and exposing multimedia cultural information referring to ancient and modern Greek civilization. Preservation of this material will be a main issue in this attempt, together with development of the necessary technological support that will facilitate each user’s access to the content; personalizing the offering of information to users’ characteristics, while adhering to standards – especially with what refers to the syntactic and semantic information/knowledge representation – will be the tools to achieve this support.

**Thoediosios Konstandinidis** was born in Athens in 1943. He received the Bachelor of Science degree from the Department of Mathematics of the University of Athens and the Master in Numerical Analysis from University of Manchester. He is currently the Director of Informatics and Telecommunications in the Hellenic Ministry of Culture (HMC). Also, he is the coordinator of the HMC in the MichaelPLUS project and has very large experience in the cultural heritage research and applications area.

**Ms. Katerina Moutogianni** was born in Athens in 1974. She has received the Bachelor of Science degree in the Department of Informatics and Telecommunications in the National and Kapodistrian University of Athens (GREECE). She received the Master of Science degree from the Department of Computer Science in Queen Mary, University of London (UK). She has working experience as software developer in various IT companies and has also worked as research assistant in the Department of Computer Science in Queen Mary, University of London. She is currently working as a Digital Application Specialist in the Hellenic Ministry of Culture in Greece. Finally, she is participating in the MichaelPLUS E-ten project and has large experience in e-culture applications.

## **Panepistimio Patron - University of Patras, High Performance Information Systems Laboratory, Greece**

“*HPCLab*” is the original name given to the laboratory in 1990, since it developed the first in Greece activities and R&D projects in parallel systems field. These activities are carried out in Patras since 1984 and include research, the first courses in parallel computing in Greece, projects funded by the European Union and national agencies, the introduction of a commercial parallel machine for the first time in Greece (Intel iPSC/2 hypercube), as well as the organization of the first (Athens 1987) and the third (Crete 1989) ACM – ICS conferences.

The formal full name is “*High Performance Information Systems Laboratory*”.

The laboratory, as part of its research activities and the projects it has worked on, has cooperated with many organizations in Greece (Hellenic Ministry of Culture, Hellenic Ministry for the Environment Physical Planning and Public Works, National Book Centre, Melina Merkouri Foundation, Greek National Tourism Organization and others) and with many research institutes and researchers from abroad (Universitat Politecnica de Catalunya, Spain (UPC-CEPBA), Istituto di Cibernetica, Italy (CNR), Institut National de Recherche en Informatique et Automatique, France (INRIA), University of Illinois at Urbana-Champaign, Olivetti Ricerca Bari (Italy) and others).

The cooperation of the laboratory with the Hellenic Ministry of Culture has been very important. As part of this cooperation the laboratory has undertaken the role of the consultant of the ministry Information Society Technologies, while it has developed many systems and applications. Also as part of this cooperation the laboratory has access to rich cultural content for use in research and non commercial purposes.

Its research and activities have led the laboratory to a series of distinctions and awards, the most recent of which are:

- Best paper award at the IEEE/ACM Supercomputing 2000 Conference, Dallas, Texas, November 2000.
- Special award for the CD-ROM of the life of Melina Merkouri, at the Moebius international Competition, Beijing, November 2001.

The laboratory supports research and education in the software – development area and specifically in the following:

- System software for parallel time computing.
- Numerical computing and applications.
- Hypermedia & multimedia environments. Research includes hypermedia frameworks and tools, digital libraries and information repositories, content modelling and metadata, applications in Culture, computer assisted and distance education, 3D/VR systems and user interface, intranets and networking infrastructure, digitization, information systems’ and networks’ security, intellectual property rights, smart card systems, quality evaluation methods and benchmarking.

The High Performance Information Systems Laboratory, as part of its scientific and research activities, as well as a result of the projects in which it participates, has a multitude of publications in international and domestic magazines and conferences. A complete and updated list of these publications can be found at the web site of the laboratory ([http://www.hpclab.ceid.upatras.gr/publications\\_en.html](http://www.hpclab.ceid.upatras.gr/publications_en.html)).

The laboratory staff is comprised from a large group of people (more than 60) that are highly specialized and experienced in different fields, aiming at the better coverage of the laboratory needs.

The laboratory is located at Patras, at the second floor of Building B of the University Campus, at a 250 square meters place. The computing infrastructure of the laboratory is comprised of about 35 workstations, 3 central servers, 5 servers acting as test beds, 5 printers (laser and inkjet), a scanner, photocopier, fax. Also there are 7 switches 10/100 Mbps and one Gigabit Ethernet Switch. Apart from the work positions corresponding to the members of the laboratory there are about 10 public workstations at the main room of the laboratory, used by students working on their assignments. The laboratory is connected to the Internet through the high bandwidth line of the university network.

### **Theodore S. Papatheodorou**

Prof. Papatheodorou received his B.Sc. in Mathematics from the University of Athens in 1968, M.Sc. in Mathematics from Purdue University in 1971, Ph.D. in Numerical Analysis from Purdue University in 1973, and M.Sc. in Civil Engineering from Purdue University in 1975. He has held several academic and consulting positions in Greece and the United States (most recent position in the U.S.: visiting professor, department of Computer Sciences, Purdue University, 1995). Since 1984, he has been a Professor at the Department of Computer Engineering and Informatics of the University of Patras, Greece. He developed the HPC Lab of the University of Patras. Currently he is the Director of this laboratory and serves as the Technology Consultant to the Minister of Culture. He initiated the establishment of the Computer

Technology Institute (CTI). As the first Director of CTI (1985-1990) he led the Institute's organisational development and R&D work. He has authored numerous publications in several areas of computer Engineering and Computer Science.

**Dimitrios K. Tsolis**

Born in Athens (1975), Dimitrios K. Tsolis has graduated from the Department of Electrical Engineering and Computers Technology of the University of Patras in 1999. He speaks English and German. Since 1999 he is a researcher at the High Performance Information Systems Laboratory, at the Department of Computer Engineering and Informatics of the University of Patras. At March 2001 he received his M.Sc. in Computer Engineering. Since 1997 he is participating:

- In various European and National Projects (IST Projects, VHF, MUVII, MINERVA, etc.).
- In various committees, such as the council formed by the Hellenic Ministry of Culture (HMC) for the pricing of digital images of the Hellenic Cultural Heritage.
- Since 2002 he is the representative for the HMC in the National Representatives Group

He is also the advisor of the HMC in matters such as, technical means for protection and management of the Intellectual Property Rights of the digital works, digitization of cultural heritage and others.

### **Petőfi Irodalmi Múzeum – Museum of Literature Petőfi, Hungary**

The roots of the Museum goes back to 1909. As an independent institution in 1954 the Museum of Literature Petőfi was founded with the aim of collecting and preserving records of Hungarian literature.

We work hard so that the writers' and poets' legacies, correspondence, libraries, sound and video recordings, photographs, furniture, personal belongings, the documents of the editorial offices of literary periodicals and literary-type publishing houses – that is, the representatives of Hungarian literature both within and beyond the borders – should become part of our collection.

The present structure of the institution, specialized in the reception of complex authorial, literary legacies, professional processing, restoration and storage took shape in 1970. The collection departments are – the Manuscript Archive, the Library, the Art and Relics Collection and the Audiovisual Library.

The Museum's tasks have included the supervision of literary collections and exhibitions in areas outside Budapest ever since the institution was established. As a result, the Museum of Literature Petőfi has become an institution with nationwide authority in the field of Hungarian literary museology; it offers help with the organization of exhibitions in memorial houses and memorial rooms in areas outside Budapest, and also remains in touch with memorial places abroad.

Since its establishment, the Museum of Literature has organized almost 500 exhibitions and issued more than 300 scholarly and popularising publications and exhibition catalogues. We hope that our work over the past fifty years has earned us a position in scientific life. We make use of the intellectual value of our collections, catalogues and databanks in critical editions, philological and textological research. Our museologists participate in university education as lecturers, and our volumes of essays and studies appear in the technical literature of cult research and literary museology.

In the last year an integrated system has been developed that integrated the different small databases, the conversion progress has been made according to national and international standards.

We built a unified electronic service which is based on portal-technology and combined and published the digitalized content of the Museum for local and far-away customers.

#### **Zsolt Bánki**

Head of the Library and Media-Collection in the Museum of Literature Petőfi. Graduated at the Berzsenyi Dániel University (Szombathely) as Librarian and Teacher of Hungarian Grammar and Literature, then at the Pázmány Péter Catholic University (Budapest) in Theology, and at the Eötvös Loránd University of Sciences (Budapest) as Library information manager. He worked in several libraries, from 1993 to 2005 in the National Széchényi Library (Budapest) as Councillor Information Manager at Department Of Information Development, Developing integrated system and databases. He speaks German and English, held several lectures and wrote studies about library informatics.

#### **Gábor Palkó**

Researcher, Library and Media-Collection. Graduated at the Eötvös Loránd University, Budapest (Hungarian Language and Literature, MA, 1997), he defended his PhD thesis in 2002 at the Eötvös Loránd University, Budapest (Comparative Literature). He made longer study-trips in the Netherlands and in Austria. He wrote two books about the literature in the XX. century, post-modern literature and literary theory, held several lectures. He teaches at the Eötvös University. He is active as educational expert.



**Magyar Rádió Zrt. - Hungarian Radio**

Hungarian Radio is the public broadcasting radio in Hungary. It has three nationwide radio channels, a channel for ethnic minority and external programmes (MR4,) and five regional studios whose programmes cover a wide range of public service activities. MR1 Kossuth broadcast news, political, economic and cultural programmes round the clock. MR2 Petőfi targets the audience between the age of 19 and 39, and broadcasts high quality music for them. MR3 Bartók is the channel of classic music. MR5 on line broadcasts the parliamentary plenary sessions. Besides the mentioned channels the Hungarian Radio has three famous orchestras, the Symphonic Orchestra, the Choir and the Children's Choir.

One of the key tasks of the Hungarian Radio is to document historical periods and to preserve the relevant cultural values. The radio's archive is a national treasure. It keeps the voice of historical personalities, politicians, writers, poets, artists, and composers, all together over 800 000 records. Some other irreplaceable documents are also kept at this Archive, such as books, sheets of music, press cuttings, written documents (manuscripts and scripts) prepared for programs and radio historical relics. The Digital Archive has been established between 2004 and 2006, while it has been integrated into the programme making procedures in 2007. It is based on the Dublin Core metadata system.

According to its traditions Hungarian Radio has a highly qualified technical staff supporting the preparation of the programs and operating facilities in an unperturbed way.

The Hungarian Radio is highly interested in national and international cooperation aiming the integration of different sectors of cultural heritage, and working together on the solution of problems that are hindering this process in areas such as interoperability and IPR issues.

**László Sütő**, Technical Director of the Hungarian Radio. Graduated at the Department of Electrical Engineering of the Technical University in Budapest, in 1983, and he is an employee of the Hungarian Radio ever since then. First he worked as sound engineer at the Department of Outside Broadcast, in 1991 is charged with the national integration of the international programme exchange system of the European Broadcasting Union, and nominated as contact person to the Euroradio. He has been Collaborating and leading technical development projects such as the development of Euroradio satellite, and the introduction of digital telecommunication technologies and integrated programme making systems at the Hungarian Radio. In 1997-1999, he is heading the System-technical Department, and since 1999 he is the Technical Director of the Hungarian Radio.

**Hajnalka Sütő**, Deputy Director of the Hungarian Radio Archive. Graduated economist at the Department of International Communication at the Foreign Trade College, in 1996, and this year she has received her diploma of informatics librarian at the University of Szeged, too. She works for the Hungarian Radio since 1995, initially as an archivist, from 2001 as the Head of the Literal Sound Archive, and she was appointed to be the Deputy Director of the Archive this year. She has been leading the Digital Archive pilot project in 2003, the Digital Archive 2 and 3 projects between 2004 and 2006, and the integration of the Digital Archive into the broadcasting procedure. She has a number of publications on the Digital Archive and its system. Her main research fields are digitization, metadata and system integration.

## **MAKASH - Advancing CMC Applications in Education, Culture and Science**

### **Jewish National and University Library (JNUL), Israel**

The Jewish National and University Library (JNUL) operating within the framework of the Hebrew University of Jerusalem is the main storehouse of intellectual works of Israeli, Jewish and worldwide provenance, and is a research library of the highest level. It contains more than five million items and rare treasures of supreme importance for the heritage and culture of the State of Israel and the Jewish People. The Education Committee of the Parliament (Knesset) approved in September 2007 the National Library Law to be approved by the Parliament enter in force from January 1<sup>st</sup> 2008. The law will establish JNUL as the statutory National Library of the State of Israel as an autonomous authority, independent from the Hebrew University and with the means to carry out its national tasks.

#### **Orly Simon**

Head, Information Technology Department of the Jewish National and University Library. Trained in International Relations and in System Analysis. Languages: English, French and Hebrew.

#### **Dov Winer**

Trained as a psychologist (Hebrew University) specialized in Online Education and Training at the Institute of Education, University of London. He was project officer for the pilot projects of the Super Highway of Information initiative (Ministry of Science); founder of the Israel Internet Society and is his W3C Advisory Committee representative. He established in 2001 the Jewish Agency Initiative for Jewish Networking Infrastructures. Coordinator of the content work package of MOSAICA, a project supported by the European Commission demonstrating advanced Semantic Web technologies initially through an European Jewish Cultural Heritage Portal. He coordinates the MINERVA (Digitisation of Cultural Heritage) project in Israel and is one of the chairs of EVA/MINERVA Jerusalem Conferences – <http://www.minervaisrael.org.il>

### **Israel Museum Jerusalem, Israel**

Founded in 1965, the Israel Museum today has, in a relatively short time, achieved world class status with collections ranging from prehistoric archaeology through contemporary art and with a dynamic roster of temporary exhibitions, publications, and educational activities. It is the leading cultural institution in Israel and is one of the largest encyclopaedic museums in the world.

Its terraced complex, comprising nearly 50,000 square meters and a six-acre sculpture garden within its twenty-acre campus attracts over 950,000 visitors each year, about a third of them international tourists and including nearly 100,000 children in the educational programs at its Youth Wing. The Museum is committed to the preservation, study and display of its collections, fosters education for its public from within Israel and abroad, utilizing its extensive holdings of the world's pre-eminent collection of the archaeology of the Holy Land, the world's most comprehensive collections of Judaica and the ethnology of the Jewish people around the world and its fine art holdings from Old Masters in European Art through international contemporary art.

#### **Susan Hazan**

Curator of New Media and Head of the Internet Office

Masters and PhD at Goldsmiths College, University of London in Media and Communications focused on electronic architectures in the contemporary museum. Hazan has published numerous publications on new media in education, art, and museums and regularly presents at international conferences. In 2002-2003 was visiting lecturer at the Computing Department at Goldsmiths, University of London teaching Web Design and Critical E-Museology, with an emphasis on the correlation between cultural theory and contemporary practice and guest lecture in the Museology Department at Haifa University, Israel.

**Amitié, Italy**

Amitié was created in 1991 as a part of a University-Enterprise Training Partnership in the framework of COMETT Programme, sponsored by the European Commission. As a training research centre, Amitié aims to promote training activities in software and information technology in the European Community, mainly addressing the Less Favoured Regions of Europe. Its main objectives are:

- to identify training and technology needs;
- to launch actions to increase awareness of the strategic importance for industry and commerce;
- to set up an infrastructure for university-enterprise exchanges and to promote the training of trainers;
- to create working groups in specific industrial sectors to study the possible applications of software and information technology.

Amitié organise a high number of research and dissemination activities, concerning the awareness of enterprises about the introduction of new technologies in the cultural field. Seminars, courses and information days are continuously organised in order to promote the developed projects and products. Amitié intends to strengthen the exploiting of new multimedia technologies, by offering practical demonstrations of the extant multimedia products and providing the users with information services. Amitié activities are addressed to target groups active in the economic field, in particular SMEs, but also to young people in-training, either providing methodological supports, teaching materials and training courses, or orientating towards the best resources to satisfy their information needs. The Amitié training activity is based on the open and distance learning, which has the purpose to overcome the traditional role of the classroom in the training process, helping to individualise every course. Relying on the student's motivations, each course creates an open and flexible system, where a particular relief is assigned to the tutor, who has the function to follow the students during the phases of the training activity. Amitié has been co-ordinating the Italian node of the MIDAS-NET network, promoted by the INFO2000 Programme of the European Commission, focusing on the cultural sector. Starting from 1995, it launched a series of awareness, training and dissemination activities together with the Italian Ministry for Cultural Heritage, focusing on the use of new technologies in the book sector.

**Pier Giacomo Sola**, born in 1957, Maturità Classica (A level) at the Classic Licee, and Degree in Nuclear Engineering at the University of Bologna. Good conversation and reading capacity in English and French and Spanish, fair conversation in German. Currently he is President of Amitié, a research centre focusing on training in information technology. Selected in July 1993 by the EC as an expert for the diffusion of the results of Community research and technological development and their impact on industry, scientific community and society. Participant in Round Table 8, launched by the EC to discuss the problems related to the development of the Information Society. In the 4th Framework Programme he was involved, as expert for Italy, in the preparatory activities of the Programme "Training and Mobility of Researchers", and was appointed by the Italian Government as "National Focal Point" within the CRAFT Programme (telematics actions) and the Telematics Application Programme. Co-ordinator of the Italian node of the Midas-Net network, set-up by the European Commission in the framework of the Info2000 Programme. Since 1995 he is coordinating joint projects with the Italian Ministry of Culture for organising training activities to introduce information society technologies in libraries.

**Valsts aģentūra "Kultūras informācijas sistēmas" - State agency Culture Information Systems, Latvia**

The Agency is a state institution, which is supervised by the Ministry of Culture and which works on the basis of the Public Agency Law, Regulations of Agency and regulations of policy planning in this sector.

The Agency objectives are to ensure the access of society to information resources and cultural values in libraries, archives and museums, and to establish an integrated computerized information network. The main functions of the Agency are to develop the information systems of libraries, archives, museums and other institutions and to organize the processing, storing and distribution of concise information of the libraries.

According to the State cultural policy guidelines the Agency developed a new strategy "Guidelines for unified information system for cultural heritage and memory institutions 2005 – 2012", to implement the Lisbon strategy, which supposes to make the EU economy the most competitive and dynamic in the world, and which aims at the development of an information society involving libraries, archives, museums and other memory institutions, which provide information services and store information resources.

Because people are the most valuable resource in Latvia, promotion of investments in human resources is Latvia's priority in national level as well as in EU level. Archives, libraries, museums and other memory institutions as important keepers of information resources and handlers of services should actively participate in this process. Mission of integrated information system for cultural heritage and memory institutions is to promote improvement of life quality, operational activities of state and municipal institutions, development and competitiveness of knowledge-based industries, enlargement of education facilities, rising of level of knowledge and skills, providing access to information resources and cultural assets accumulated in heritage institutions through qualitative and democratic services in line with requirements of information society. Integrated information system provides all society members with the part of universal information service that refers to cultural heritage and memory institutions.

In the agency's regulations it is stated that one of its objectives is to implement state and international projects and programs. There are three very important projects financed by EU Structure Funds and the state budget: State Integrated Library Information System, National Museum Union Catalogue, State Archives Unified Information System.

**Una Balode** is Senior Desk Officer of State Authority on Museums of Latvia. In 1989 graduated the University of Latvia, Faculty of History and Philosophy (historian, lector in history and basics of society). First she worked as Research assistant in Department of Ethnography at the Latvia Academy of Sciences Institute of Latvia History. From 1991 till 2005 she worked at History Museum of Latvia as Main Specialist in Department of Ethnography, Chief of IT Department and Deputy Director in Research. She has participated in such projects:

from 2005, project "Joint Catalogue of the National Holdings of Museums", project manager;

from 2000, project "Joint Catalogue of the Latvia National Holdings of Museums" leading by State Authority of Museums of Latvia;

2000 – 2001 project exhibition "Latvia. Vēsture, māksla, tradīcijas" in Paris, head of working group.

**Laila Valdovska** studied mathematics and programming at Faculty of Physics and Mathematics at the University of Latvia, and graduated in 1982. In 2003 she got professional MA in Information and library science at the University of Latvia. From 1994 she worked at Riga Central library. Since 2003, she has been staff member of state agency Culture Information Systems. In 2006, she was nominated from the Ministry of Culture of Latvia to participate in the European NRG (National Representatives Group on Digitisation in Culture).

**Ministère de la Culture, de l'Enseignement Supérieur et de la Recherche – Ministry of Culture, Higher Education and Research, Luxembourg**

In the Grand-Duchy of Luxembourg, the Ministry of Culture, higher Education and Research is implementing the cultural policy, culture being understood as a vast factor shaping all societies, integrating at the same time the arts, literature, customs and habits, fundamental human rights, creativity and acceptance of the other.

More than 33% of those who live in Luxembourg are not "nationals". Therefore, the Ministry of Culture is conscious that culture needs to appeal to the country's many component communities.

The main objective in the Ministry's strategy is the creation of an appropriate legislative and structural framework for the development of the arts, including international and public arts and the enhancement of the national cultural infrastructure. To achieve these goals, the Ministry of Culture works in close cooperation with all public and private cultural sectors.

More concretely, the Government has implemented a law on the statute of the independent professional artist and the entertainment intermittent, as well as on the promotion of artistic creation.

The Ministry disposes of financial means to grant subsidies for artistic creation and projects, thanks to a special budgetary article valorising cultural creation and it financially assists some 50 non profit organisations and associations working in the field of culture through special types of conventions.

In Luxembourg, the cultural functions are not divided specifically between different local or regional entities and most cultural competence is thus assigned to the Ministry of Culture. As a consequence the principal cultural institutions, such as the National Archives, the National Library, the main museums, the National Audio-visual Centre, the National Sites and Monuments Service, the National Centre of Literature, the Neumünster Abbey Cultural Centre and are operating as institutes under the indirect hierarchical administration of the Ministry of Culture.

Finally, the Ministry is responsible for regional cultural initiatives (three regional cultural animation centres), for EU policy affairs, bilateral and multilateral cultural foreign affairs (Council of Europe, UNESCO, etc.). In close collaboration with the Cultural Direction of the Ministry for Foreign Affairs, the Ministry of Culture may sign international and multilateral agreements on cooperation on cultural affairs, amongst others. Special cultural cooperation on particular projects may occur between the Ministry and the different embassies representing the Grand-Duchy all over the world, as well as between the Ministry and the foreign embassies accredited in Luxembourg.

**Stichting Rijksmuseum Amsterdam, The Netherlands**

From December 2003 to 2010 the Rijksmuseum Amsterdam will undergo the biggest rebuilding, renovation and modernisation programme in its history. During this period the finest works from the 17th century in the Rijksmuseum will continue to be on view under the title The Masterpieces. The redesigned Philips Wing will provide an opportunity to see the highlights of the Golden Age together in surprising combinations. The more than 400 masterpieces will be on display in the Philips Wing from 20 December.

The famous dolls' houses, the finest Delftware, a wealth of silver, icons of Dutch history and of course the paintings by the great masters of the 17th century, Frans Hals, Jan Steen, Vermeer and Rembrandt will have a provisional new home in the Philips Wing. For many of these works this will be the first time that they have left their place in the Rijksmuseum. Rembrandt's Night Watch, for example, has rarely left the main building designed by Pierre Cuypers since it opened in 1885.

Research is the basic premise of all museum activity, from acquisition, conservation and restoration, to publication, education and presentation. In general, this research involves the object or work of art in the museum as being a source of information. In this sense historical and art-historical research in a museum context differs from university research, which has a more theoretical focus.

At the Rijksmuseum, research into objects and works of art, and in particular acquisitions, often leads to an article in the 'Bulletin van het Rijksmuseum', the museum's academic periodical. (Digitised) catalogues of the collection open the museum up to researchers, providing access to the various departments, alongside exhibition catalogues and other publications.

**Cathy Jager**

Since November 2006 Head Collection Management within the Rijksmuseum Amsterdam. Before that she worked nearly 10 years in the archival world, as head virtual reference room of the national archives in Den Haag.

**The International Centre for Information Management System, Services (ICIMSS), Poland**

ICIMSS: The International Centre for Information Management System, Services (ICIMSS), Torun, Poland [www.icimss.edu.pl](http://www.icimss.edu.pl) is a scientific association established by 62 members from over 20 countries. Its activities are oriented into information, education, and culture. Information services are delivered to the users through the 8 dedicated discussion lists that include over 2,000 addresses served. For the educational purpose a number of short courses have been organized. In addition, from 1997 to 2003 five experimental courses on a level of the postgraduate school were delivered to the students from 16 countries. Courses were devoted to modern management of the memory institutions and to modern technology. ICIMSS goals also include promotion of intercultural communication and research. ICIMSS participates in a wide selection of projects, including the EC funded projects by such programmes as TEMPUS, IST, eTEN, Leonardo da Vinci. The EC projects include: TEMPUS: training for local administration in ICT; EXPLOIT – support for specialists from memory institutions; DEDICATE – distance learning courses in information awareness; CULTIVATE – cooperation between cultural heritage institutions such as archives, libraries and museums, DELOS – digital library issues; MINERVA – coordinating digitisation in Europe; EURIDICE – pictures bank creation for distance learning courses; Training for the Stage – professional profiles in administration, management, and promotion of performed arts; EMapps.com – alternative reality educational games creation; MICHAEL – national registers of digital collections

**Maria Sliwinska**, ICIMSS director with expertise in library and information science, teaching, editing experience. Participation in a dozen of EC projects. She was a member of the Library Council serving the Ministry of Culture, and a member of the Scientific Communication Section of the Polish Academy of Sciences. In 1999 - 2001 she served as the ICT Stories Project jury member. In 1993-1999 she was the Deputy Director of the Nicholas Copernicus University Library in Torun responsible for its computerisation and modernisation.

**Piotr Kozurno**, art historian. Skilled in taking artistic photography. Administrator of Polish local Photoforum. Contributor to Wikipedia. Included into the local project devoted to architecture, and the EC EURIDICE distance learning courses.

**Sebastian Michalek**, mathematics and ICT background. Plays role of system and server administrator. ICT specialist and educator; distance learning platform administrator (Moodle). Skills in: Hardware assemble, good knowledge of operating systems (Windows family, UNIX, SUN OS), computer networks, mobile technology; all kinds of office software, server management (Windows and Linux/UNIX), SQL/MySQL, C/C++, JAVA, PASCAL, BASIC, PHP, HTML/DHTML. Basic knowledge about CAD/CAM applications (AutoCAD, ArtCam, SurfCam, EdgeCam). Included into the EC project as the application developer (Polish instances of platforms for EURIDICE, MICHAEL Plus and Emapps.com projects).

**CIMEC - Institutul de Memorie Culturala, Romania**

CIMEC is a national public institute for the documentation of cultural heritage, established in 1978. Institute's activities are:

- collects, processes, develops and disseminates information concerning movable and immovable cultural heritage, theatre performances, cultural institutions, bibliographic records and cultural events;
- maintains the national databases and other computerised cultural information resources;
- develops tools for the collections documentation (artefacts description rules, data standards, terminological thesauri, authority files, software etc.);
- is an editor of various publications, in both classical and digital formats;
- provides consulting, Internet services and technical assistance for museums, libraries and other cultural institutions.
- maintains computerised records about: movable heritage, rare books, immovable heritage, theatre performances, museums and public collections, heritage owners, theatres and musical institutions, archaeological excavations, museum specialists.

The website of the institute [www.cimec.ro](http://www.cimec.ro) is the main gateway to Romanian Cultural Heritage.

**Dan Matei**

Education: ASE Bucureşti, Fac. de Cibernetică Economică (1970-1975); University of Bucharest, School of Letters, PhD Program in library and information sciences.

1975-1979 programmer, Territorial Computer Centre Baia-Mare.

1979-1983 system programmer, Economic Cybernetics Laboratories, Academy of Economic Studies Bucharest.

1983-1986 research worker, 1986-1990 senior programmer, Information Retrieval Systems Group, Research Institute for Informatics Bucharest.

From April 1990, director, CIMEC - Institute for Cultural Memory (under the Ministry of Culture).

From 1991, vice-president of TermRom - Asociația Română de Terminologie (The Romanian Association for Terminology), and from 1994, co-ordinator of the TermRom Terminological Data Bank and designer and administrator of its web site ([www.termrom.org.ro](http://www.termrom.org.ro)).

From 2002, president "Gellu Naum Foundation" ([www.gellunaum.ro](http://www.gellunaum.ro)).



## Центр ПИК – Centre PIC

The Centre of Informatization in the Sphere of Culture of the Ministry of Culture of Russian Federation (Centre PIC) was organised in 1992 from personnel of the computer centre of the Ministry of Culture of the USSR, after the USSR was divided into independent states, to investigate new information and communication technologies and applications in the cultural area.

Centre PIC is a state non-budget research and design body subordinate to the Ministry of Culture of Russia and works under contracts with the Ministry of Culture of Russia, with the Ministry of Industry, Science and Technology of Russia, with Russian museums and other cultural institutions. In 1995 the Ministry of Culture of Russia organised the Centre of Multimedia Technologies (as a subsidiary of Centre PIC) to co-ordinate the efforts of different bodies connected with multimedia publishing and distribution in culture and art. The Centre's services include evaluation of proposed projects and works-in-process. Centre PIC monitors and analyses new information and communication technologies in culture and art (in Russia and internationally) and presents annual reports on the topic.

The Centre develops and installs archiving and retrieval systems, including images, in museums. The Centre also creates and produces multimedia CD-ROMs in the areas of culture and art. Some multimedia CD-ROM projects of Centre PIC are "West European Drawing of XIV - XIX centuries. Kunsthalle Collection in Bremen" (in Russian and German); the encyclopaedia of the works of 500 international masters in the fields of painting, architecture and other fine arts (in Russian); "A.S. Pushkin. Full Collection" (in Russian) – to the 200th anniversary. Multimedia support of the exhibition "Face Reconstruction by skull. The Method of Michael Gerasimov" was designed and installed on the computer at the exhibition hall of the State Biological Museum after K.A. Timiryazev and on the Internet.

### Leonid A. Kujbyshev

Address: Centre PIC, #5, the 5<sup>th</sup> Magistralnaia ul., 123007, Moscow, Russia

Date of birth February, 26, 1945

Education 1967 - Moscow Institute of Radio-electronics

Basic employment *Since 1992 - Centre of Informatisation in the Sphere of Culture (Centre PIC) – vice director*

Professional activities & responsibilities

12 years of work experience in informatisation of culture. Since 1998 – EU projects in IST and culture management; International conferences EVA Moscow organisation

### Nadezhda V. Brakker

Address: Centre PIC, #5, the 5<sup>th</sup> Magistralnaia ul., 123007, Moscow, Russia

Date of birth September, 19, 1946

Education 1968 – Moscow State University, Philological Faculty, structural and applied linguistics

Basic employment *Since 1992 - Centre of Informatisation in the Sphere of Culture (Centre PIC) – main specialist*

Professional activities & responsibilities

More than 25 years of work experience in informatisation of culture. Since 1998 – EU projects in IST and culture management; International conferences EVA Moscow organisation

**Ministerstvo Kultúry SR - Ministry of Culture of the Slovak Republic**

Ministry of Culture of the Slovak Republic was established in 1969. The Role of the Ministry has formed from early beginning his existence, while his field of activity was characterized by extension service, art, national monuments, environment protection, publishing of non-daily newspaper, copyright, production and trade area. At present is Ministry of Culture of the Slovak Republic the central body of state administration of the Slovak Republic for national language, preservation of monumental funds, national heritage and library science, art, copyright and copyright laws, extension service and folk artistic production, support of cultural innovation for ethnic minorities, presentation of the Slovak culture and arts abroad, relations with churches and religious societies, media and audiovisual.

**Slovenské Národné múzeum - Slovak National Museum**

The beginnings of the Slovak National Museum (SNM) are connected with the endeavour of the Slovak nation for national emancipation and self-determination. The SNM is connected to the tradition of the Matica Slovenská Museum and the Museum of the National House in Martin, which developed the Slovak Museology Society. These endeavours reached a peak in 1908 with the opening of the first permanent exhibition in Martin in a building built from a national collection. From the beginning the museum built up archaeological, ethnographic, historical, numismatic, art-historical, creative art and natural-science collections. Today the Slovak National Museum is the top state collection, scientific-research and cultural-education establishment in the field of museological activity in the Slovak Republic. Its mission is to, on the basis of research and scientific analysis, gather, preserve, scientifically evaluate, professionally process, make available and in the public interest to use collection objects as evidence of the development of the natural environment and society in Slovakia, the Slovak nation and ethnic societies. In the framework of its mission it fulfils tasks related to the creation of collections as a part of national cultural heritage, their recording and protection. In the field of its cultural-education function it presents the collections by means of permanent exhibitions at home and abroad and also realises other forms of museological communication. It resolves scientific-research tasks and makes available the results of this work by means of publishing activities. The SNM is at the same time a coordination, methodological, professional advisory, statistical, educational and information centre for the whole field of museology in the Slovak Republic. The SNM carries out all these and other tasks by means of its directorate and 16 specialised museums, which are documentary, scientific-research and methodological workplaces for the field of museological documentation in the framework of their specialisation.

**Alexandra Burianová (MKS)**, project manager working for the Ministry of Culture, department of Structural Funds. Graduated at the Faculty of Arts at the Department of the Information and Library Science, Comenius University Bratislava. She has experience in creating and managing of Phare projects in educational sector (namely Tempus/Phare), e-learning projects, project funded by the Transition Facility Fund. ESF and ERDF funded projects. She has a experience in training activities in the frame of Lifelong Learning Programme ( Socrates, Leonardo da Vinci) projects.

**Ján Jurkovič (SNM)** graduated at the Department of Art Science of Komenskeho University. After graduation he worked at heritage business as historian. Between years 1984-1989 he gathered collection from history of commerce which was basis for activity of Museum of Commerce. Since 1990 he has worked at Slovak National Museum where he went through most of the museum professional occupations. As deputy director of Historical Museum he cooperated on reorganization of management of collections, later in office of program manager of SNM he realized more then 300 exhibitions and founded Museum Salon (later Nostalgia Expo). He enforced the informatisation of SNM and all museum works. He is author of Central Evidence of Museum Collection project and now he participates as director of Centre of Informatics of SNM on its realization with aim to secure digitalization of museum collection of Slovak Republic.

**Cordia a.s., Slovakia**

Cordia a.s. was founded in 2007 as a professional interest group of project managers and consultants who are active in the field of providing consultancy and training about Community funding and participation of Slovak organizations and specialists in Community programmes covering professionally the fields of culture, education, ICT, support to SMEs, regional development, social policies, enhancement of active employment policy, social

integration and others. Cordia a.s. experts are especially very active in the area of culture and ICT. They support

participation of Slovak cultural organizations in EC funded projects and help them to get involved in European networks of key player active in cultural heritage preservation initiatives. Cordia a.s. experts have close links to the Slovak Ministry of Culture, which helps to find appropriate cultural organisations to be involved in particular European events and activities. Cordia a.s. also assists with Structural Funds implementation in the Slovak Republic. Currently Cordia a.s. is involved in setting up long term national strategies in the area of digitization, accessing, sharing and long term preservation of cultural heritage. It is involved in development of Slovak Digital Library and its harmonization with i2010 principles.

Michal Čudrnák graduated from the Comenius University in Bratislava, Slovakia, Faculty of Philosophy in 2006 and has an Master degree Library and Information Science. Currently he works as IT project coordinator and digital curator at the Slovak national gallery, overseeing and working on projects related to digitisation, digital archiving and visual resources cataloguing.

He has been actively working in the library field (library cataloguer in the Central Library of Slovak Academy of Science and Municipal Library of Bratislava), culture and arts sector (PR assistant for a4 cultural space and Slovak national gallery, music events promoter for several organisations, curator and event manager for several NGOs – Burundi, 13kubikov and recently Itchy Bit, of which he is statutory representative).

## **Ministrstvo za Kulturo Republike Slovenije - Ministry of Culture of the Republic of Slovenia**

The Ministry of Culture is the part of the Government of the Republic of Slovenia responsible for regulating those matters in the sphere of culture which are in the public interest. These include involvement in the co-ordinated cultural development of Slovenia, protection of the cultural heritage, ensuring the plurality of the media landscape, providing suitable conditions for the creation, communication and accessibility of cultural assets, guaranteeing the special cultural rights of minorities, international co-operation in the sphere of culture and the promotion of culture at home and abroad.

The Ministry for Culture performs administrative, expert and other tasks in the area of:

- Art
- Cultural Heritage
- Media
- European Matters and Cultural Development
- Minority Cultural Rights and Development of Cultural Diversity
- Slovene Language
- Promotion of Slovene Culture and International Co-operation

Supervision of the performance of statutory and regulative provisions in the area of culture and media is done by the Inspectorate of the Republic of Slovenia for Culture and Media, a body incorporated within the Ministry.

Tasks concerning archive and documentary material are performed by the Archive of the Republic of Slovenia, a body incorporated within the Ministry.

The Directorate for Cultural Heritage within Ministry of Culture covers the following areas:

- Immovable cultural heritage
- Movable cultural heritage
- Archives

The Directorate for Cultural Heritage performs administrative tasks in the area of cultural heritage, monitors the development of the complete system on the protection of cultural heritage, prepares system solutions on the protection of heritage, manages the register, and ensures the development of an information system and the documenting of the cultural heritage.

### **Franc J. Zakrajsek**

His expertise includes information modelling of cultural heritage, development of geographical information systems, and research on cultural heritage accessibility. He is one of the founders of the Register of the Cultural Heritage in Slovenia. At the time being he is acting as national representative for inclusion of culture in information society and coordinating the preparation of the strategy and action plan for e-culture and digitalization in Slovenia. He is also a project leader and main developer of the several web II projects concerning digital cultural content.

### **Jelka Pirkovič, PhD**

She has been appointed state secretary at Ministry of Culture of the Republic of Slovenia since 2004 and is teaching conservation at University of Ljubljana. Her expertise includes archaeological conservation, protection of natural and cultural heritage. From 2004 to 2005 she was a chair of the Cultural Heritage Steering Committee of the Council of Europe and a vice-Chair of Cultural Heritage Steering Committee of the Council of Europe (2002-2004). She is a member of different expert groups of the Council of Europe in the field of cultural heritage (member of the Committee of Experts for drafting the new Framework Convention on the role of Cultural Heritage in the Society, 2003-2004; Head of the Slovene delegation to the 1<sup>st</sup> and 2<sup>nd</sup> Conference of Signatory States to the European Landscape Convention, 2001 and 2002, Working group for the preparation of the Workshops for the Implementation of the European Landscape Convention, 2002, group of experts for the evaluation of the European Foundation of Heritage Skills, FEMP, 2000, Technical Co-operation and Consultancy Programme Working group, 1997-2000, ad-hoc group of experts for the Heritage and Identity activity, 1998-2000).

**The National Competence Centre of Competence for Long-term Digital Preservation (the LDP-centre) at Luleå University of Technology, Sweden**

LTU is the northernmost university of technology within the European Union. The Faculty of Engineering and the Faculty of Arts and Sciences provide education and conduct research in about 60 divisions belonging to 13 departments. Internationally renowned research within engineering and technology is combined with subjects such as business administration, systems development, learning, social sciences, the health sciences, media, music, and drama. Research and education at the University are primarily applied and interdisciplinary in nature and in close co-operation with industry. LTU is a partner in many EU FP6 projects.

The university provides the legal body for the National Competence Centre for Long-term Digital Preservation. Partners in this centre are the university, the Swedish National Archives, the Swedish National Library, the Swedish National Archive for Sound and Moving Images and the municipality of Boden. Three main areas of activities have so far been identified: scientific research; development of models, methods and tools; and knowledge enhancement. On a more practical level two main questions has dominated the agenda: (1) the availability and accessibility of multi-sourced and multi-formatted digital resources and (2) the preservation of complex, dynamic and very high volume digital objects, including those with high levels of interactivity.

Knowledge Management in Museums (the KMM-programme) is one of the ongoing research and development programmes. Participating museums are the County Museum Västernorrland, the Stockholm County Museum, the Halmstad County Museum, the Gustavianum Museum and the Västergötland County Museum. Three more museum partners are presently being negotiated. The museum's practical experiences of development projects concerning digitising and creating learning environments is utilized in the KMM-programme. The goal is to establish methods, tools and systems for public access to and learning from digital collections and repositories. Durable integrated solutions on the national and European level are sought for.

Professor **Ann Hägerfors**, Luleå University of Technology entered her position as full professor in Computer and Systems Science in 2000. She is presently scientific leader of the research and development projects "Long-term Digital Preservation", "Accessibility to Knowledge through Long-term Digital Preservation" funded by VINNOVA (Swedish Governmental Agency for Innovation Systems), December 1, 2006 –June 30, 2009) and "Knowledge Management in Museums" (together with a number of Swedish county museums, started 2005). She is also the scientific leader in the Centre for Long-term Digital Preservation and head of the systems sciences division which is specialized in digital services. Prof Hägerfors have and has had several leadership appointments, the most notable as dean of the philosophical faculty and as member of several boards both within academia and external organisations.

**MDA (Europe) Ltd, UK**

MDA is the leading standards agency for museums and cultural collections in the UK. MDA was established in 1977 and has over 30 years experience in working with the culture sector nationally and internationally to define standards in collections management.

MDA's strategic aims are to:

- Connect people and culture
- Develop the cultural workforce
- Set standards for cultural services
- Make the case for cultural management

MDA is a not-for-profit, public organisation funded by the Museums, Libraries and Archives Council in England, Scottish Museums Council in Scotland and the Federation of Museums and Art Galleries of Wales. MDA works in partnership with a wide range of national and international organisations including the nine Regional Museum, Library and Archive Councils.

MDA is actively involved in and responsible for a wide range of work packages and programmes in the field of cultural management, digital heritage and digital libraries. These include:

- Publishing SPECTRUM, the UK and international standard for Collections Management and franchising across European member states including the Netherlands and Belgium;
- Developing the SPECTRUM XML cultural data interchange format in partnership with international Collections Management software suppliers;
- Coordination of the EU-funded European Museums Information Institute (EMII) and EMII Digital Content Framework programmes;
- Partner in the EU-funded MILE project to build consensus and a common standards framework between cultural organisations and commercial picture libraries;
- Coordinating *Collections Link*, the national advisory service for collections management, including expert advice on digital programme management, digitisation and content creation;
- Programmes of work to develop common standards for documentation, cataloguing and information management across museums, archives and libraries.

**Nick Poole** has extensive experience of ICT and standards in the museum, library and archives sector and leads on a number of MDA's major initiatives and programmes. Formerly a national ICT Adviser at the Museums, Libraries and Archives Council (MLA), Nick acts as an expert adviser in the fields of digitisation, standards, rights management and sustainability. He is an elected Council member of the Museums Association and sits on the UK Ethics Committee for Museums. He is a trustee of a number of sector organisations including the Museums Copyright Group and eLearning Group for Museums. Nick acts as an expert assessor for a number of national funding agencies and has lectured and published widely in the field of digital culture.

**Gordon McKenna** has extensive experience of standardisation in the museum, library and archive sectors as MDA's Standards and Systems Manager. He has been responsible for a wide range of MDA's work programmes and is the editor of the international SPECTRUM standard. A skilled technologist with a background in computer sciences and archaeology, Gordon has advised and consulted with a wide range of organisations including museums and libraries.

**Bernice Morton** has extensive experience in the coordination and financial administration of European programmes, having been responsible for the administration of the successful European Museums Information Institute (EMII) and EMII-DCF projects.

### Stichting European Digital Library

The Stichting European Digital Library is a cross domain foundation, under Dutch law, set up for the purpose of fostering collaboration between Museums, Archives, Libraries and Audiovisual archives in Europe.

It aims to produce access to Europe's cultural heritage by facilitating formal agreement across museums, archives, audio-visual archives and libraries on how to cooperate in the delivery and sustainability of a joint portal.

It also provides a legal framework for use by EU funded projects to bring their research or content into Europeana

Its current Board of Participants is made up of pan-European Associations from the 4 sectors able to represent and mobilize their members to contribute and form part of EU funded projects aimed at realizing a Europeana. These are EURBICA, FIAT, ACE, EMF, ICOM Europe, CENL, CERL, LIBER, MICHAEL and the Koninklijke Bibliotheek. The Board of Participants has elected an Executive Committee which is responsible for making decisions on behalf of the Board of Participants and for the legal and financial running of the EDL Foundation.

**Jill Cousins** is Programme Director for The European Library and Europeana. She took over from the TEL project and created the operational service The European Library. The success so far of this service has led to the European Union giving their strategic backing to The European Library for the creation of Europeana.

She has a strong web publishing background, having worked for VNU as their European Business Development Director and then transferred the lessons learnt from commercial business-to-business publishing to scholarly publishing working for Blackwell Publishing and several other academic publishers in the UK. Prior to a publishing career, she worked in the online environment for many years, first as a researcher with her own company specialising in providing business information to large corporate companies. The company still exists 20 years later, owned by Thomson Financial and known as Thomson First Contact. After selling this company Jill worked as the Marketing Director for Online Information. Her main interests lie in making sites as usable as possible for the uninitiated and she is a firm believer in user driven design and open standards. She has been involved in several international publishing industry bodies aimed at achieving this, such as CrossRef and COUNTER.

Jill holds a Geography degree and a Ph.D in 16th Century Arabic and Turkish Sea Charts.

**Michael Culture AISBL, Belgium**

Michael Culture AISBL is a not-for-profit organisation created in 2007 to sustain the MICHAEL service after the end of the MICHAEL eTEN project. The Association was established under Belgian law, since Belgium is the only Member State having the opportunity to create an International Association) AISBL (Association Internationale Sans But Lucratif).

The MICHAEL project was developed in 2003, before the European Commission launched the i2010 IST Policy, and therefore before all discussion of Europeana.

The AISBL has been created with the mission of 'providing services to access cultural digitised resources' and of 'promoting the quality and the progress in digitisation of cultural and scientific knowledge and the creation of on line services'. The rules of the AISBL have been carefully worded in order to enable project partners to sustain the MICHAEL service, platform and partnership, but also includes mechanisms to allow the AISBL to cooperate to the development of Europeana.

The current members of the Association includes the 5 partners of the original MICHAEL Project (MCC, MiBAC, MLA, Dédale and Amitié, also partners of the current proposal), as well as SPK, who was the first of the partners of the extension MichaelPLUS project to formalise its entry in the AISBL.

**12.2 Background and reference documents**

Any additional and relevant information on the partners or the proposal that could be of value for the evaluators of the proposal (e.g. studies/reports, specific information or references on the technology applied, etc.)

N.A.