

MINERVA eC

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1.1 Executive summary

MINERVA eC is the Thematic Network funded by the European Commission in the frame of the eContent Plus Programme. The project begun on October 2006 and will last for two years. Twenty-two European countries participate to the network and the remaining five countries of the European Union have already expressed their interest to participate.

MINERVA eC brings together stakeholders and experts from all the EU Member State, capitalising the results achieved by the IST MINERVA and MINERVA Plus projects (<http://www.minervaeurope.org>) and supporting the implementation of the priorities set in the *Dynamic Action Plan* of the NRG launched in Bristol on 16th November 2005.

MINERVA eC supports the European Commission initiative “i2010 - A European Information Society for growth and employment” and is aligned with the Commission Recommendation on the digitisation and online accessibility of cultural material and digital preservation (2006/585/EC) and the Council Conclusions adopted in November 2006 (2006/C 297/01).

The project is based on the successful results of the previous MINERVA and MINERVA Plus projects and is aimed to progress on the same key topics, namely: digitisation of cultural heritage, quality of cultural websites, interoperability of systems and services giving access to cultural resources, multilingualism, IPR, best practices and competence centres.

MINERVA eC operates through the coordination of national policies, programmes and institutions of the cultural sector with the aim to improve awareness of the state-of-the-art in the sector and to create a platform of recommendations and guidelines, agreed at European level. This platform will contribute to overcome fragmentation and duplication of digitisation activities and to maximise synergies among Member States. MINERVA eC is implemented by a network of Ministries of Culture in cooperation with more than 150 cultural institutions from all over Europe.

The work of the network is carried out by the coordination team hosted by the Italian Ministry of Culture (Ministero per i Beni e le Attività Culturali – MiBAC) and by the MINERVA eC working groups, composed by experts nominated by all the participating partners from cultural institutions from all over the European Union.

The following tasks are under implementation in the working groups:

- Development of the European Cultural Content Interoperability Framework;
- Establishment of Quality, Usability and Accessibility services;
- Development of a repository of best practices in the area of enriched cultural content;
- Coordination, Assessment, Mobilisation, Awareness and Dissemination actions.

In addition, a contest for the MINERVA Awards is under preparation. Celebration of the first MINERVA Awards is planned to take place in Ljubljana in June 2008.

1.2 The rationale for MINERVA eC

The evolution of the information society is affecting more and more the life of European citizens, facilitating access to different types of knowledge and stimulating the demand for new content and services.

This has a direct influence on several factors:

- the opportunity of stimulating the economic development, due to the impact given to the content industry and then to new employment opportunities. The content industries are in fact a growing segment of the European economy, and this sector has been clearly identified as a priority area: the Lisbon Strategy emphasises how investment in research and innovation are crucial to generate growth and jobs, and the future European actions will focus on technologies for knowledge, content and creativity - including cognition, stimulation and visualisation;
- the challenge for the R&D sector, requested to improve interoperability of the services for accessing a large number of distributed digital content. Europe lags behind its international competitors in ICT research investment. Today, it invests three times less than the USA both in the public and private sector and 30% less than Japan. This is undermining Europe's capacity to compete in all sectors of the economy, to innovate in all science fields and to meet the demands of its society;

- the need of quality digital content, made accessible to the different kind of citizens within a framework respecting the owner and the user rights. Different practices and legal environments among the Member States are still limiting the full access, use, reuse and exploitation of content;
- the need of accessing and managing digital content and services in multilingual and multicultural environments. The extensive cultural heritage and linguistic diversity of Europe creates the background to fully exploit the opportunities offered by digital technologies. For this reason, support for digitisation of European digital content is essential, to involve the hundreds of thousands of existing museums, libraries, archives, archaeological and historic sites.
- the challenge facing cultural institutions is the diversity of the media involved, including still images, audio, moving images and complex 3D models. This means that even the smallest cultural institution needs to be aware of best practice in dealing with a wide range of analogue materials, but also the creation, use and re-use of a wide range of digital media types.

The dimension and complexity of these issues moved the Member States and the European Community to define a common strategy, through:

On the hand of EC:

- in June 2000: the eEurope 2002 Action Plan
- in May 2002: the eEurope 2005 Action Plan
- in June 2005 by the Communication "*i2010 – A European Information Society for growth and employment*".

On the hand of Member States:

- The *Lund Action Plan* as a follow-up of eEurope
- The *Dynamic Action Plan* as a follow-up of i2010.

After a public consultation, in August 2006, the European Commission published the Recommendation on the digitisation and online accessibility of cultural material and digital preservation (2006/585/EC) and the European Council endorsed the Recommendation with its Conclusions in November 2006 (2006/C 297/01).

This is the policy background for the development of the MINERVA eC actions. MINERVA eC will address these issues through 6 clearly-defined work-packages.

WP1 - Project management and co-ordination

- ensuring that the project objectives are achieved on time and within budget.

Responsible partner: MiBAC, Italy

WP2 - Assessment and evaluation

- to assess the impact and effectiveness of the project
- to develop the study on the Map of Cultural Heritage in Europe

Responsible partners: Austrian Federal Ministry for Education, the Arts and Culture and Heritage Malta

WP3 - Awareness, dissemination, mobilising stakeholders

- to contribute to the development of a community of practice by engaging with Member States
- to develop the Guideline for IPR

Responsible partners: MiBAC and the Polish National Library

WP4 - European Cultural Content Interoperability Framework

- to provide guidance on the creation, use and management of cultural content, including interoperability and technical standards, in cooperation with the Experts Group on Interoperability established by the European Commission
- to develop the updated version of the Technical Guidelines

Responsible partners: MLA, UK, and NTUA-ICCS, Greece

WP5 - Quality, Accessibility and Usability

- to analyse and to promote tools for multilinguality and accessibility
- to develop the study on User Needs
- to develop an updated Directory of Websites legislation

Responsible partner: SPK, Germany and MCFB, Belgium

WP6 - Best practices for content enrichment

- to build a European content charter and road-map for digitisation projects

- to analyse possibilities, conditions and success stories for the creation added value products and services
- to develop a state of the art report based on the collection of best practices

Responsible partner: MCC, France

The implementation of MINERVA eC follows a thorough integrated approach to the whole cultural heritage sector, including namely libraries, museums, archives, audio-visual, media, archaeology, etc.

1.3 The four pillars of MINERVA eC

Cultural institutions (archives, libraries and museums) have been developing in the last years several digital collections, most of them presented in the website 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 to the results achieved by the MINERVA project. However, this content is not fully visible yet to the European citizens, 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. Demand, needs and answers given under this project can be grouped under the following four pillars.

Pillar 1: Coordinating activities of Member States

MINERVA eC has the ultimate goal to reinforce the infrastructure of experts and competence centres, already launched under the previous MINERVA and MINERVA Plus, which perform different tasks: observatory of new developments and trends, online resource centre and associated workshops to facilitate the use of existing standards, to promote the definition of best practices, to discuss problems and to present successful solutions to legal issues and IPR, to provide guidance, assessment and ideas in the implementation of new content enrichment projects. MINERVA eC will monitor the implementation of the digitisation initiatives carried out at national and European level, also with the aim to demonstrate the impact of the efforts and investment at EC

and Member State levels and to track progress towards the creation of the European digital library within a dynamic European Cultural Information Space. Changing needs and requirements can be better understood and valued by measuring from a common baseline, using agreed indicators and sharing methodologies. This will enable the identification of the contribution being made through coordination, funding, policy implementation and the deployment of research results at national and trans-European levels.

Pillar 2: Mobilising stakeholders

A second major contribution which MINERVA eC will provide is related to its capacity of capturing the attention and of mobilising the different stakeholders involved in the process of content enrichment:

- public and private organisations and institutions that create, collect, own digital content, are directly represented in the network;
- private citizens interested in receiving quality contents, reliably and directly responding to their interests, are contacted during studies and events organised by the network;
- universities and schools which wants to use cultural contents for educational purposes, in a legal and safe environment, are involved in surveys and monitoring activities of the network;
- SMEs and large enterprises interested in re-use digital content for adding value in commercial activities and exploit digital content resources to create services, are informed about the achievements of the network and invited to the public initiatives.

Several thousands users have been already directly involved in the previous MINERVA and MINERVA Plus projects, physical and virtual communities of users have been already created at national and transnational levels. All this expertise is directly transferred and enlarged within MINERVA eC.

Pillar 3: Stimulating the development of the European Cultural Information Space

Measuring digitisation at European level depends on the availability, accuracy and quality of national data. The process of collecting data, building a strong set of indicators and framework for analysis is not simple. The European Commission launched a study

at the end of 2006 to develop indicators, collect data in all Member States, and systematically analyse results. Dissemination of the outcomes of the study and translation into new digitisation strategies is an important task that MINERVA eC is ready to perform as soon as the results of the study will be available to the public.

The third MINERVA eC pillar aims to support and stimulate the collection of data through the Commission study, as well as the strategic interpretation of its outcomes. Reporting mechanisms as already set up by the previous actions, such as the Annual Report of the National Representatives Group, will profit from a more structured data collection and a sound and unified methodology to be applied for their analyses and the Commission study is expected to contribute to this goal.

Pillar 4: Standard solutions for legal issues

Finally, a fourth demand which MINERVA eC aims to cover, is to provide the stakeholders with standard solutions relating to legal issues and DRM. This is done in close cooperation with the organisations owning the cultural resources (museums, libraries, archives, but also including publishers for contents still covered by copyright). This legal situation is often uncertain, the problems have to be tackled in time, in order to rapidly proceed to the development of the European digital library, and MINERVA eC is aimed to contribute to the identification of effective solutions in this field. The results of the project are expected in two directions, namely:

- to develop of a comprehensive and updated platform of guidelines and recommendations agreed at European level by the Ministries and the cultural institutions;
- to establish an informal network of nationally-funded competence centres able to provide guidance on the creation, use and management of digital cultural content across Europe.

In this light, MINERVA eC intends to build on existing expertise and technical standards, to promote consensus and to foster cooperation with the research and commercial sectors to ensure that standards can be widely deployed. This is a complex task and it is expected that the work done by MINERVA eC will be continued by other future initiatives in the sector.

1.4 Community added value

MINERVA eC involves governmental bodies and major cultural institutions of several Member States, targeting their needs in terms of guidelines and support in the implementation of the national digitisation programmes.

In addition to supporting cultural institutions MINERVA eC targets several other sectors, i.e. the content industry, the research community, students and the ordinary public to support their need to find, use and re-use digital information in their own language, in a safe and secure environment, independently from the location of the sources and the original language.

In addition to expertise and expert staff, MINERVA eC members and associated institutions intend to make available their digital content and digital collections for further initiatives, contributing to the development of a wide trans-European set of digital resources.

MINERVA eC members aim to build up wide consensus and mobilise new resources, touching also smaller bodies and any types of cultural organisation and collection. The contribution of MINERVA eC becomes particularly important in the definition of agreed trans-European legacy systems and standards for describing cultural and scientific resources, due to the direct involvement of those governmental bodies which are requested to define the national frameworks. MINERVA eC intends to be acknowledged as a trans-European infrastructure for supporting access and use of digital contents, and for stimulating content enrichment.

Due to its dimension and high visibility, MINERVA eC offers its network of cultural institutions as a test-bed for the other projects (under *eContentplus*, IST, etc.), activating an important way to immediately transfer the results achieved by the EC programmes into common practice of partner countries.

MINERVA eC is about the liaison and interoperation of national cultural networks. The technical work on interoperability across national boundaries will contribute to enable the deployment of trans-European cultural services. MINERVA eC will add value to national networks of cultural bodies and projects increasing the magnitude of the scope, visibility and exploitability of such networks.

Standardisation

MINERVA eC does not aim to establish or identify new standards. The project is working on implementing a common framework across Europe, which embodies existing global standards, selected at a European level, and encourages their use.

The project contributes to the evolution of trans-national standards, widely accepted to guarantee interoperability across the different applications set up at local level.

The strategy of the project is based on creating a large consensus around the project, as a basic tool to promote definition and acceptance of international standards. This consists in the promotion of permanent National Committees, including different ministries, regional and local administrations, national associations and SMEs active in the digitisation sector. In fact the beneficiaries and target groups of recommendations, services and tools provided by MINERVA eC include several categories, namely governmental and public administrations, memory organisations, publishing companies, research centres, universities and higher education institutions, entertainment and software industries.

A key action for success of the MINERVA eC initiative is a close synergism and integration with the actions promoted by trans-national organisations and the partner countries. For this reason the project activates collaboration mechanisms with any organisation interested in digitisation of cultural and scientific content issues. In addition to national and international bodies, special attention will be paid to national and international professional associations of cultural operators (e.g. libraries, museums, etc.), 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.

Inclusion

One of the objectives of i2010 is the promotion of an increasingly inclusive and secure information society, based on the exploitation of information

technologies to improve our quality of life: health care, education, life-long learning, quality of life and social inclusion.

More and more information technology plays a crucial role in improving the efficiency and accessibility of public services. The main challenge for e-Government in the next years is based on promoting inclusion. e-Government services enhance efficiency for citizens, businesses and public administrations. In the above mentioned context, a particular attention is given to the W3C initiative.

1.5 The workplan of MINERVA eC

The work plan is organised around 6 work-packages and three main areas of work, as described in the following list:

- The first area of work concerns internal management and evolution of the network;
The work of this area is aimed to guarantee that the operations of the network correspond to the original project plans, monitoring the consumption of resources (EC funding and national investments) and coordinating the work of the various partners and giving voice to all of them. This work is done in the frame of *WP1 Project Management*.
In addition, a workpackage (*WP2 Assessment and evaluation*) is devoted to assessing the results and evaluating the actual impact of the project, i.e. how the project is contributing to stimulate decision makers and implementers in carrying out their initiatives of content enrichment; how the project contributes to creating the conditions to improve quality of content and services as well as enhancing accessibility of digital content.
- The second area is related to the animation of the network and it mainly refers to the creation of concrete opportunities to establish factual relationships and exchanges among the partners and with the target audience;
The work of this area is mainly devoted to organising public events (workshops, seminars, conferences), participating with papers and presentations at third parties' events, to publish guidelines, handbooks,

tool-kits and other practical instrument to guide and support content enrichment projects as well as any other project in the domain of the digitisation of cultural and scientific content.

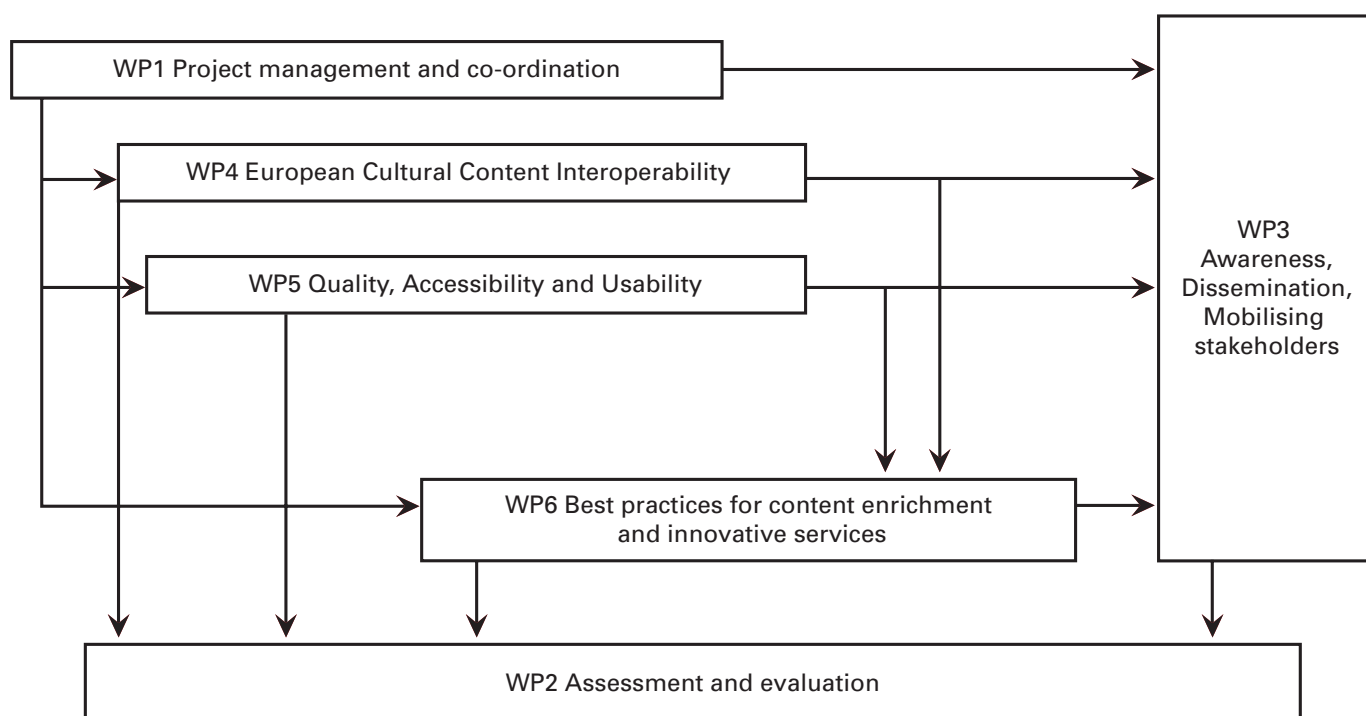
In addition, a program of encounters is organised to establish partnerships with key players and stakeholders, i.e. national libraries, museums, archives, as well as private technological enterprises, research centres, networks and centres of excellence. The above mentioned activities are carried out in the frame of *WP3 Awareness, dissemination, mobilising stakeholders*.

A complementary and more focused activity concerns the development of a network for dialogue and exchange of information with the project's target stakeholders. This work is carried out in the frame of *WP4 European Cultural Content Interoperability Framework*. More than a 'passive observation', the tasks of this WP are intended as a pro-active environment where stakeholders can meet (virtually and in person) to learn what successful interoperability means, to share their experience, to learn from others, to examine areas where further standards work is required against current and future projects (with particular regard to the content enrichment) to identify valuable results to be promoted, errors to be avoided, solutions to be shared and gaps to be covered by the new initiatives.

- The third area deals with identification, assessment and promotion of concrete example of best practices; Quality, accessibility and usability are conceived as pre-requisites for the actual content enrichment. From the opposite point of view, we could say that the final aim of the content enrichment is to improve quality, accessibility and usability of content. In this sense, the work of *WP5 Quality, accessibility and usability* and *WP6 Best practices for content enrichment* are strictly interrelated and one depend on the other. WP5 mainly organises its implementation through the organisation of workshops and seminars with the main stakeholders, coming from the whole Europe. The results of this work is recorded into reports and guidelines. In addition, WP5 is developing a study on the needs of the users in terms of digital content and their online accessibility. WP6 will mainly base its activities on researches, online, with interviews, by personal meetings, etc., in order to identify, assess, promote best practices

and eventually generate new best practices, within a cyclic approach.
The following chart represents the interoperation among the work packages of MINERVA eC.

This organisation of the work has been already successfully experimented in MINERVA and MINERVA Plus and for this reason it has been decided to replicate it in MINERVA eC as well.



1.6 The working groups

Corresponding to the project's Work Packages, five working groups are established in the frame of the MINERVA eC project:

Assessment and evaluation

Awareness, dissemination, mobilising stakeholders

European Cultural Content Interoperability Framework

Quality, Accessibility and Usability

Best practices for content enrichment

The working groups are organised on national and European levels:

- national experts are appointed by the national partners for the groups that represent an interest in their respective countries;

- the grouping of all the national experts constitutes the European groups.

The mechanisms is the same as it was already successfully used for the MINERVA and MINERVA Plus working groups.

A MINERVA Newsletter was distributed at the end of January 2007, where the call for experts was announced, in order to support the nominations to be done within the cultural institutions at national and regional levels.

The first run of nomination was completed on May 2007 and the first meeting of the working group is taking place in Berlin on 20 June 2007.

The list of experts nominated by each country is available on the MINERVA eC website at: <http://www.minervaeurope.org>.

The working groups of MINERVA eC progress on two complementary lines of activities:

Meetings

In order to facilitate the participation of experts from all the countries, the meetings are organised both in Western and Eastern countries.

- Different types of meetings are planned: working groups meetings; national workshops, periodic plenary meetings, cooperation meetings, with other networks and projects active on the same topics in Europe and beyond.

Reports and publications

Each working group will produce a set of reports that are conceived in the form of an Handbook (following the MINERVA editorial line) to be published and disseminated online and possibly on paper.

1.6 MINERVA Awards

The MINERVA Awards are an innovation of MINERVA eC with regard to the previous MINERVA and MINERVA Plus projects. For this reason, the Awards should be considered on an experimental basis and if the experience will be successful, possible further implementation will be planned by the participating countries. A task force has been created to draft the regulations for the context. The regulations are going to be published on the MINERVA website during the second half of 2007. The competition will be open to projects and researchers, both national and European. Winners will be: institutions, persons and groups of organisations. Two sections are covered by the competition:

- interoperability
- cultural websites

Celebration for the assignment of the awards will take place at the plenary MINERVA eC event, during the Presidency of Slovenia on 5-6 June 2008.

1.7.2 Plenary meetings

In addition to the meetings organised in the frame of the activities carried out by the working groups, five

plenary meetings are planned, in cooperation with the Presidency in turn:

- the first meeting took place in Helsinki on 12-13 November 2006, in cooperation with the Finnish Presidency, on the occasion of the 11th NRG meeting;
- the second meeting took place in Berlin on 21-23 February 2007, in cooperation with the German Presidency, on the occasion of the 12th NRG meeting;
- the third meeting will be organised in October 2007, in cooperation with the Portuguese Presidency;
- the fourth meeting will be organised on 5-6 June 2008, in cooperation with the Slovenian Presidency
- the fifth meeting will be organised in September 2008, in cooperation with the French Presidency and will represent the final event of the MINERVA eC project.

1.7 Publications

The following publications are planned to be completed during the project life time:

- Map of the Cultural Heritage in Europe
- IPR Guidelines
- Technical guidelines
- Directory of the websites legislations (online only)
- Users Needs Study
- Best Practices and State of the art Report
- Two editions of the MINERVA Annual Report (the present report, that refers to 2006-2007, and the next edition referring to 2007-2008).

In addition, a project flyer has been printed and distributed during the first half of 2007, to illustrate in general terms project scopes and activities.

A more detailed project brochure will be produced later on during the project life time, when more results are available.

ANNEXES

List of partners of the MINERVA eC Thematic Network

At the time of the publication of this report, the network includes the following full members:

- Co-ordinator: Ministero per i Beni e le Attività Culturali (MiBAC) - Ministry for Cultural Heritage and Activities, Italy
- Salzburg Research Forschungsgesellschaft mbH, Austria
- Ministerie van de Vlaamse Gemeenschap, administratie Cultuur, Belgium
- Ministère de la Communauté française Wallonie-Bruxelles (MCFB) – Ministry of the French Community, Belgium
- SPP Politique scientifique - Service d'information S&T / POD Wetenschapsbeleid - Dienst voor W&T Informatie, Belgium
- Ministerstvo kultury Ceske Republiky - Ministry of Culture of the Czech Republic
- Die Stiftung Preussischer Kulturbesitz (SPK) – Prussian Cultural Heritage Foundation, Germany
- Biblioteca Nacional de España – National Library of Spain
- Helsingin yliopisto – Helsinki University, Finland
- Ministère de la Culture et de la Communication (MCC) – Ministry of Culture and Communication, France
- Erevnitiko Panepistimiako Institutio Epikoinonion & Ypologiston - Etnhiko Metsovio Polytechnio (NTUA-ICCS) – National Technical University of Athens, Institute of Communications and Computer Systems, Greece
- Nemzeti Kulturális Örökség Minisztériuma – Ministry of Cultural Heritage, Hungary
- An Chomhairle Leabharlanna - The Library Council, Ireland
- Ministère de la Culture, de l'Enseignement Supérieur et de la Recherche - Ministry of Culture, Higher Education and Research, Luxembourg
- Heritage Malta
- Ministrstvo za Kulturo Republike Slovenije - Ministry of Culture of the Republic of Slovenia
- Secretaria-Geral do Ministério da Cultura - General Secretary of the Ministry of Culture, Portugal
- Riksarkivet – National Archives, Sweden
- Museums, Libraries and Archives Council (MLA), UK
- Bundesministerium fuer Bildung, Wissenschaft und Kultur (BMBWK) - Ministry for Education, Science and Culture, Austria
- Elliniko Ypourgeo Politismou – Ministry of Culture, Greece
- Panepistemon Patron - University of Patras, High Performance Information Systems Laboratory, Greece
- Kultuuriministeerium – Ministry of Culture, Estonia
- Biblioteka Narodowa – National Library, Poland
- Slovenská národná knižnica - Slovak National library, Slovakia
- Amitié, Italy
- Stowarzyszenie - Międzynarodowe Centrum Zarządzania Informacją - The International Center for Information Management System, Services (ICIMSS)
- Association Dédale, France
- Agence Juive pour Israël, Jewish Agency for Israel, Europe

Legend of the Acronyms

CENL – The Conference of the European National Librarians <<http://www.cenl.org>>.

DAP – *Dynamic Action Plan* for the EU coordination of digitisation of cultural and scientific content. It has been launched by the National Representatives of the EU Member States in Bristol on November 2005.

DELOS – Network of Excellence on Digital Libraries, funded by the European Commission under the 6th Framework Programme for Research and Technological Development <<http://www.delos.info>>.

DMR – Digital Rights Management systems.

EDL – Targeted Project funded by the European Commission under the eContent Plus Programme <<http://www.edlproject.eu>>.

EPOCH - Network of Excellence on Digital Libraries, funded by the European Commission under the 6th Framework Programme for Research and Technological Development <<http://www.epoch-net.org>>.

IPR – Intellectual Property Rights.

MICHAEL – Deployment project funded by the European Commission under the eTEN Programme <<http://www.michael-culture.eu>> / <<http://www.michael-culture.org>>.

Museo&Web – the tool produced by the MINERVA/MINERVA Plus projects to support the realisation of quality cultural websites.

NRG – National Representatives Group for the coordination of digitisation policies and programmes in the cultural heritage.

TEL – The European Library, online service of the European National Libraries, coordinated by CENL <<http://www.theeuropeanlibrary.org>>.

W3C – World Wide Web Consortium <<http://www.w3.org>>.

WP – Work Package, as defined in the Description of Work annexed to the Contract with the European Commission.