

# MI NERVA Practical Progress

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## Introduction

The practical progresses of MINERVA are linked, from the operational side, to the achievements of its working groups, and from the strategy side to the efforts and commitment of the MINERVA partners. The four working groups have carried out the development of their respective agendas, focusing in particular on the following issues:

WP3 "Inventories, discovery of digitised content, multilingualism issues", coordinated by the French partner of MINERVA (Ministère de la Culture et de la Communication – Mission de la Recherche et de la Technologie) has completed the common description model for a European Inventory, which has been presented at the NRG meeting in Parma (19th November, 2003) and further approved by the external experts appointed by the European Commission for the project review. Within the same working group, a sub-group on multilingual issues has been activated, and a study has been conducted on the existing alternatives and solutions, highlighting benefits and limits of the available implementations.  
<http://www.minervaeurope.org/structure/worki nggroups/i nventor. htm>

The results of the work conducted by WP3 during the year 2003 is available on-line, as Deliverable D3.2 "Feasibility survey of the common platform", on the MINERVA Website. As concrete follow-up of the theoretical work of WP3, a French-Italian experiment has been launched; in this pilot, the French platform for the on-line access to the inventory of digital repository has been customised for the Italian implementation and it has been filled with data from some major cultural digital collections. Results of the French-Italian pilot have been presented at the NRG meeting in Parma and represent the basis for the development of an ambitious programme, named MICHAEL, for the implementation of a trans-European cultural portal (ref. to the next section for further information about MICHAEL).

WP4 "Interoperability and service provision", coordinated by the UK partner of MINERVA (Museums, Libraries and Archives Council) has carried out the work on three action lines: interoperability, standards and IPR. Within the Interoperability line a first set of recommendations and interoperability pilot using the Open Archives Initiative (OAI) and DC.Culture profile have been developed and reported in the Deliverable D4.1 "Report on Interoperability, Standards & IPR", available on-line, on the MINERVA Website. Further, a first release of Technical Standards Report

and of the Technical Guidelines have been produced, respectively in cooperation with EMII-DCF project (ref. to the next section for further information about this cooperation framework) and with the University of Bath (ref. to the next section for further information about the Technical Guidelines).

In the frame of the Technical Standards Report, a special attention is given to the Legal Requirements section, which is available in two languages (English and Italian) and further translations are expected to come in the next period.

<http://www.minervaeurope.org/structure/worki nggroups/servprov. htm>

WP5 "Identification of user needs, content and quality framework for common access points", coordinated by the Belgium partner of MINERVA (Ministère de la Communauté Française) has developed an interesting and helpful set of instruments targeted to the cultural institutions which have to create, develop and maintain their Websites. In particular, two main products related to the theme of the quality have been finalized by the European Editorial Committee established in the frame of the working group, namely:

- the 10 Principles for Quality Cultural Websites, a synthetic representation of the most important aspects that should be taken in consideration for the creation of cultural Web applications;
- the Handbook for Quality Cultural Websites, a rich document providing an extensive collection of definitions, principles, practical examples and recommendations for cultural Web developers.  
<http://www.minervaeurope.org/structure/worki nggroups/userneeds. htm>

WP6 "Identification of Good Practices and Competence Centres", coordinated by the Swedish partner of MINERVA (Riksarkivet, National Swedish Archives) has completed the MINERVA Good Practices Handbook, a pragmatic collection of lessons learnt by the analysis of examples of good practices. The examples are those gathered by MINERVA and approved by NRG members, starting from the collection of good practices realised in the frame of the NRG meeting in Alicante (May 2002) and further developed during the first year of project activity. The Good Practices Handbook is composed by a printed Handbook (ref. to the next section for further information about the content of the printed Handbook), available in three languages (English, French and Italian) and complemented by important on-line resources, namely:

- the complete list of the Internet addresses of the analysed good practices,
- the collection of Digitisation Guidelines,
- the list of Competence Centres.

A new campaign for identification of good practices and competence centres has been launched and it will be based on the on-line form available on the MINERVA Website.

<http://www.minervaeurope.org/structure/workinggroups/goodpract.htm>

## Strategy

Concerning the strategy domain, three major achievements need to be highlighted, among several other initiatives which are fully documented on the MINERVA Website.

The three main achievements are:

- the establishment of concrete frameworks of cooperation with other European networks and projects, which are active in Europe,
- the enlargement of the MINERVA network to the New Accession States (NAS) and to Russia and Israel,
- the development and the approval of the Charter of Parma.

Concerning the frameworks of cooperation, three main results are worth to be mentioned here:

- the “ EMII-DCF – MINERVA joint paper” developed by MINERVA and EMII-DCF projects, for the common exploitation of the results derived from the two projects; the complete text of the joint paper is provided in the next section; this initiative has been presented at the final review of EMII-DCF and has received a high appreciation by the reviewers, who have indicated it as an example of good practice for the cooperation among European projects;
- the Digitisation Cluster and the Roma agenda, a set of shared topics identified by the representatives of 10 European cultural networks, who met in Rome on the 31<sup>st</sup> of October 2003; the common topics will be the basis for a program of encounters which will hopefully be the basis for a permanent cooperation among the projects;
- the Firenze agenda, a first programmatic document to organise activity around digital memory preservation, produced on 17<sup>th</sup> of October 2003 by an expert workgroup nominated by the NRG and coordinated for the first phase by the Italian presidency and the European Commission (ref. to the next section for further information about the Firenze agenda).

The initiative is supported by some EC projects like ERPANET, DELOS, PRESTOSPACE.

MINERVA is conceived as an open network and consequently a strong effort is dedicated to its enlargement.

The enlargement of MINERVA is twofold:

- from one side, MINERVA intends to be open towards other organisations who work in the cultural sector

and whose contribution is fundamental for an harmonised development of the digitisation activities; they are the local administrations, the associations, the Universities, the Research centres, the private enterprises. All these bodies are liased with MINERVA through the Cooperation Agreement, a flexible instrument which is demonstrating to be very useful in the process of the creation of the MINERVA Community;

- from the other side, MINERVA intends to enlarge its geographic coverage; in this light, the first enlargement which has been pursued and achieved during the past year has been towards the New Accession States; Russia and Israel have been included in the process, which has brought to a new EC funded project, named MINERVA Plus, fully integrated with MINERVA. Further information about MINERVA Plus are provided in the next section.

The following section describes in more details the Charter of Parma, which represents the strategic document approved by the National Representatives Group (NRG) at its 5<sup>th</sup> meeting, in Parma, in November 2003.

## Charter of Parma

### Introduction

The Group of the National Representatives for digitisation in Europe (NRG), in the occasion of its 5th meeting, held in Parma on the 19<sup>th</sup> of November 2003, approved the Charter of Parma as its strategic document.

<http://www.minervaeurope.org/structure/nrg/documents/charterparma.htm>

The Charter represents the natural consequence of the first NRG's priority, set in the conclusions of the 4th NRG meeting held in Corfu on the 26<sup>th</sup> of June 2003: «to consolidate the NRG position and high-level political commitment also using the tool of publications and recommendations by NRG».

The Charter is composed by three parts:

- a Preamble, where the needs to be addressed are highlighted, together with the rationale where the document has grown;
- the 10 Articles, through which the NRG commits to pursue with the solutions to the identified needs;
- the Background which represents the necessary premises for the development of the Charter and its implementation.

The 10 articles of the Charter are the following:

Art. 1 - Intelligent use of new technologies

Art. 2 - Accessibility

Art. 3 - Quality

Art. 4 - IPR and privacy

Art. 5 - Interoperability and standards

Art. 6 - Inventories and Multilingualism

Art. 7 - Benchmarking

Art. 8 - Cooperation at national, European and International levels

Art. 9 - Enlargement

Art. 10 - Building the future together: at the forefront of the knowledge society

The Charter is the result of a thorough discussion among the National Representatives and it represents the basis for the development of the future sustainability of the NRG. In order to reinforce the political dimension of the initiative, during the Italian Presidency, its National Representative has presented this collective work to the Committee for Cultural Affairs (CAC) of the Council of Ministers of the European Union, on the last 27<sup>th</sup> October 2003, receiving positive and encouraging comments from its members. Further, the document has also been presented to the formal Council of Culture Ministers of Europe on the last 24<sup>th</sup> November 2003.

The Charter is published in three languages, English, Italian and French and distributed all over the enlarged Europe and to Russia and Israel, covering a total of 27 countries.

### Preamble

This Document continues and supports the fundamental Principles of Lund.

The Group of the National Representatives appointed by the national Authorities for Culture in the European Union met in Parma on the 19<sup>th</sup> of November 2003 and agreed on the following premises and articles, which all together constitute this Document. It must be intended as an evolving paper which integrates other initiatives such as Brussels Quality Framework, and is open to improvements until the needs here represented will be fully satisfied. Its implementation will be carried on within the framework provided by the Lund Action Plan, the regular meetings of the NRG, operationally supported by MINERVA European network.

The enormous richness of the cultural and scientific heritage in Europe demands that the highest attention is paid to its preservation and valorisation. The advent of the Information Society and the diffusion of the new information and communication technologies are affecting the policies of the Member States on their initiatives for cultural and scientific heritage. Digitisation is an essential step that the European cultural institutions should make, aiming at preserving and valorising Europe's collective cultural heritage, at safeguarding cultural diversity, at providing improved access for the citizen to that heritage, at enhancing education and tourism and at contributing to the development of the new digital content and service industries. To make such initiatives truly successful, economic and sustainable over time, several needs have been identified:

- a strong need exists for political and institutional strategies and for their harmonisation, including the need for a better awareness of what is going on in other countries (and within countries) at policy, programme and project level;
- guidelines and examples of best practice are needed in order to improve the cost-effectiveness and quality of the digitisation initiatives;
- the use of standards which support interoperability needs to be promoted in order to improve the access to digitised resources through Europe;
- the creation of a focal point is needed, in order to contribute to a real European coordination of national policies for digitisation of cultural content;
- the New Accession Countries can benefit from sharing experiences with the current European countries, in order to work together on the existing common strengths, to exploit together larger opportunities, to identify together weaknesses in order to help form the research agenda.

Taking in consideration all the above premises, the National Representatives Group commits on the realisation of the aims as described in the following articles:

**Article 1 – Intelligent use of new technologies**  
The National Representatives Group will support cultural institutions in Europe in their work towards a widespread diffusion of culture and knowledge through an appropriate use of the new technologies with a special reference to the Internet and the Web.

#### Article 2 - Accessibility

The National Representatives Group recognises accessibility as a fundamental issue for all citizens, irrespective of age or level of technical understanding. A special priority will be given to people with particular needs. For this reason, the requirements of accessibility in its different aspects will be integrated into all guidelines and recommendations promoted by the Group. These requirements will be developed in the context of international standards for accessibility, as the recommendations produced by the World Wide Web Consortium and others.

#### Article 3 - Quality

The National Representatives Group will give a special attention to the implementation of high quality standards in cultural and scientific Web applications. It will disseminate and promote the results achieved through MINERVA and support public awareness-raising events and training initiatives.

#### Article 4 – IPR and privacy

The NRG recognises the importance of the balancing the right of access to the scientific and cultural heritage with the need to respect Intellectual Property Rights and the privacy of the individual. For this purpose it will encourage the adoption of all the available technical and legal instruments to improve accessibility and overcome legislative and normative barriers. It will encourage a dialogue between the cultural and scientific sectors, IPR experts, companies implementing Digital Rights Management solutions and the Content Industries.

#### Article 5 – Interoperability and standards

The National Representatives Group is committed to ensuring that all citizens can easily find the contents that meet their needs. For this reason, it will encourage the adoption of technical guidelines and open standards to enable the building of e-services that promote an integrated and comprehensive view of Europe's scientific and cultural heritage.

#### Article 6 – Inventories and multilingualism

The National Representatives Group recognises that the knowledge of existing repositories and available resources as well as the careful monitoring of new developments in this sector are necessary prerequisites for the realisation of services to the European citizens. These services aim to make available digital resources

of cultural and scientific interest. Complementary to the knowledge about repositories and digital resources, it is fundamental to define a sustainable technical infrastructure, coordinated at European level, for discovery of and access to these resources, within a fully multilingual environment. The National Representatives Group is committed to contribute to these priorities.

#### Article 7 – Benchmarking

The National Representatives Group recognises the important value of the benchmarking activities, with particular regard to the following objectives:

- to improve the knowledge of the others;
- to monitor advance as well as emergence of obstacles, through the analysis of what is happening in the other countries;
- to foster the participation of the cultural institutions, stimulating them to present themselves, their policies, programmes and projects.

For this scope, the NRG promotes campaigns of data collections in each of the participating countries and encourages the publishing of regular reports about results and analysis of the gathered data.

Through MINERVA, the instrument for answering the benchmarking questionnaires are available on-line together with real-time statistics referring to the answered questionnaires.

#### Article 8 – Cooperation at national, European and International levels

Cooperation will be looked for and established with national, European and International institutions and organisations, which deal with preservation and valorisation of cultural and scientific heritage. In particular, the NRG commits to ensuring that:

- the national institutions nominate experts to participate on a permanent basis to the existing working groups;
- the Member States consider the NRG and the MINERVA network as a point of reference, in a prospect of growth and continuous renewal.

The NRG will work to strengthen cooperation between national and European programmes, with the objective to optimise the use of financial resources, to share good practices and to promote new common initiatives. In particular, the NRG asks the European Commission:

- to maintain the support to NRG and MINERVA until the needs expressed in this Charter have been covered,
- to refer to the NRG activities in the definition and implementation of its programmes for the support to the European culture.

#### Article 9 – Enlargement

The NRG, supported by the MINERVA network, is an open community. A twin-track approach will be

developed of enlargement to new countries and new sectors of the civil society.

In particular, due to specific International agreements concluded by the European Union, the enlargement to the following countries will be a priority: NAS, Russia, Israel and Mediterranean countries, USA and Canada. In any case the network is open to all interesting countries.

Concrete relationships with the following sectors will also be established, through the establishment of specific Cooperation Agreements:

- with the private business and industrial sector, particularly with the software, media and content industry as well as IPR protection organisations;
- with the tourism sector;
- with the educational sector;
- with the research and academic sectors.

Article 10 – Building the future together: at the forefront of the knowledge society

The emerging on-line cultural portals represent a very important component in the development of an inclusive Information Society. These portals need to be built on a firm foundation of good quality, interoperable, cultural sector Websites, developed to meet the real needs of European citizens. A multitude of different actors, with different skills, interests and economic resources are demanded to meet with the common goal of implementing sustainable services of public interest. These implementations should happen within a joint and coordinated approach of all heritage domains. The NRG will play a leading / central role in this process, by fostering and supporting initiatives that aim to:

- promote collaboration between national and regional services,
- encourage the adoption of successful models in other countries and regions,
- developing eServices for culture, meeting the needs of learners, tourists and citizens, as well as the cultural and creative industries,
- implementing trans-European cultural and scientific portals, based on distributed systems.

## Background

### The policy background

The following actions are considered as extremely important in the aim of paving the ground for the Charter to succeed:

- eEurope 2002 - Accessibility of Public Web Sites and their Content - seeks to bring European citizens on-line in all aspects of their lives, allowing them to participate in and benefit from the possibilities offered by digital technologies;
- eEurope 2005 aims to stimulate secure services, applications and content based on a widely available broadband infrastructure and seeks to ensure that "Museums, libraries, archives and similar institutions that play a key role in elearning should also be connected to broadband networks";
- Directive of the European Parliament and of the Council of 22 May 2001 on the Harmonisation of certain aspects of copyright and related rights in the Information Society (2001/29/CE);
- Commissioner Liikanen called in COM(2001) 529, Commission and Member States to adopt by the end of 2001 the Web Accessibility Initiative (WAI) Guidelines, produced by the World Wide Web Consortium (W3C);
- Council Resolution of 21 January 2002 on culture and the knowledge society (2002/C 32/01) encourages the European Commission and the Member States to facilitate cooperation and to exchange information and good practice at European level; to ensure accessibility to digital contents by every citizen of the European Union; quality-initiatives in cultural Web sites; and Council Resolution of 21 January 2002 on the role of culture in the development of the European Union (2002/C 32/02) remarks the strategic role of culture;
- Council Resolution on Preserving Tomorrow's memory – Preserving Digital Content for future generations of the 25 June 2002 (2002/C/162/02);
- Council of Europe decided that 2003 be The Year of The Disabled and highlighted the accessibility of public Web sites and their content;
- the European Union is now preparing for its biggest enlargement ever in terms of scope and diversity: 10 new countries are set to join on 1<sup>st</sup> May 2004, bringing to 25 the number of Members.

### The strategic background

In the light of the needs and the European political evolution depicted above, the following actions have been taken:

- on April 2001 the European representatives encountered in Lund, under the auspices of the Swedish Presidency in turn and of the European Commission, and agreed to become the guardian of the Lund Principles for the digitisation

of the cultural and scientific contents. For this purpose they established a permanent group of representatives of the national authorities, further named National Representatives Group (NRG) and the implementation framework for the coordination mechanisms for digitisation policies and programmes further named Lund Action Plan.

- on March 2002 the MINERVA project was launched with the support of the European Commission and the coordination of the Italian Ministry for Cultural Heritage and Activities, constituting the operative framework for the implementation of the Lund Action Plan and hosting the secretariat of the NRG.
- in April 2003 MINERVA submitted a proposal to extend the MINERVA network to the New Accession States, Russia and Israel, creating the MINERVA Plus project. The proposal was positively evaluated by the Commission and the project will start in early 2004.

The ensemble of these actions represents the fundamental background of this Charter, whose aims will be to promote and support the principles for which the National Representatives and the MINERVA network stand.

#### The state of the art

Some steps ahead have already been made by successive Presidencies, the NRG, MINERVA and the Commission.

With particular regard to the theme of Quality, this Charter would acknowledge and make reference to the following achievements:

- the Brussels Quality Framework, representing the first document of reflection;
- the Principles for Quality Cultural Web Sites, ten key points for improving the quality of cultural Websites for citizens;
- the Handbook for the Quality of Cultural Web Sites, an in depth manual targeted to European cultural institutions, with particular regard to the small ones;
- the Conference on the Future of Digital Memory and Cultural Heritage, held in Florence on the 16<sup>th</sup> and 17<sup>th</sup> of October 2003;
- the International Conference on the Quality for Cultural Web Sites, held in Parma on the 20<sup>th</sup> and the 21<sup>st</sup> of November 2003.

Concerning the theme of the Good Practices and sharing of knowledge, this Charter would acknowledge and make reference to the following achievements:

- the Handbook on Good Practices in Digitisation, gathering a set of practical lessons learnt and existing guidelines, disseminated and discussed during the workshop on Digitisation: what to do and how to do it, held in Rome on the 29<sup>th</sup> of October 2003;
- the MINERVA Knowledge Base, an on-line service under development aimed at making available

on the Internet, to citizens and to professionals: contacts, documents, papers, lectures, fora, newsletters, announcements of events, with the ultimate scope of representing a fundamental tool for the establishment of the envisaged community;

- the 1<sup>st</sup> Progress Report of the National Representatives Group - Coordinating digitisation in Europe, published and distributed at the NRG meeting in Corfu on the 26<sup>th</sup> of June 2003;
- the 1<sup>st</sup> Meeting of the European Networks for Culture, held in Rome on the 30<sup>th</sup> of October 2003.

## The 10 Principles for the quality of cultural Web sites

A quality cultural Website celebrates European cultural diversity by providing access for all to digital cultural content.

The recommendations as suggested in these 10 Principles make a good set of design principles of a very general nature, suggesting to underline and develop the cultural dimension. Guidance to Web design can be found anywhere, the task of MINERVA is to anticipate requests for guidance on building sites with cultural contents, and more specifically on the cultural aspect.

A quality Website must:

- be transparent, clearly stating the identity and purpose of the Website, as well as the organisation responsible for its management
- select, digitise, author, present and validate content to create an effective Website for users
- implement quality of service policy guidelines to ensure that the Website is maintained and updated at an appropriate level
- be accessible to all users, irrespective of the technology they use or their disabilities, including navigation, content, and interactive elements
- be user-centred, taking into account the needs of users, ensuring relevance and ease of use through responding to evaluation and feedback
- be responsive, enabling users to contact the site and receive an appropriate reply. Where appropriate, encourage questions, information sharing and discussions with and between users
- be aware of the importance of multi-linguality by providing a minimum level of access in more than one language
- be committed to being interoperable within cultural networks to enable users to easily locate the content and services that meet their needs
- be managed to respect legal issues such as IPR and privacy and clearly state the terms and conditions on which the Website and its contents may be used
- adopt strategies and standards to ensure that the Website and its content can be preserved for the long-term

## Firenze agenda

### Experts workgroup on preservation of digital memory

#### Rationale

Following the Council Resolution on 25 June 2002 on *Preserving tomorrow's memory - preserving digital content for future generations* (2002/C 162/02) and in preparation of the International Conference in Firenze on 16/17 October 2003 under the coordination of the Italian Presidency, an experts workgroup was proposed to check the state-of-art and plan development as needed to implement the resolution principles. The workgroup has been leaded by the ERPANET and MINERVA projects, under the chairing of the European Commission and the Italian Presidency. In particular, the Council Resolution invites European Commission and Member States to report on current situation and to draw up an action plan as appropriate. The participants list collects both names of experts involved in the preparation of the resolution or nominated by national authorities through the NRG (National Representatives Group), and names of experts involved in key initiatives worldwide.

The workgroup aims to reach 3 main goals:

- draw a state-of-art of on-going initiatives and exchange of good practice;
- draft a priorities agenda as a starting point to produce an action plan joint by Member States;
- define the basis for building a European network and develop national initiatives.

This first activity was the start-up of a cooperative-process to define priorities and mechanisms to improve coordination and effectiveness of national and sectoral initiatives on digital preservation throughout Europe. The work has been finalised into the "Firenze agenda" and successfully presented at the Conference in Firenze on 16-17 October under the Italian Presidency.

At the same conference, two very interesting studies were presented: one on emergencies for digital memory, and one on the current legal situation on the field throughout Europe. After that the agenda has been endorsed by the national representatives of 27 countries (Member States, Newly Accession States, Russia, Israel) at the 5<sup>th</sup> NRG meeting in Parma on 19 November. The NRG has endorsed this workgroup activity as complementary with the digitisation issue. Giving support both as experts participation and as network infrastructure and progress promotion. The workgroup will continue activity after the conference in Firenze in order to feed a cooperation at European level, to reinforce awareness and consensus on the initiative. The Dutch Presidency in the second semester of 2004 will organise an international conference on the digitisation of cultural heritage including the persistence of infrastructures,



content and enrichment. The progress of the "Firenze agenda" will be presented in the context of this conference. The Dutch and the Italian presidencies will together manage the 3 areas of the Firenze Agenda. A simple Website will be developed by the Dutch presidency to collect progress results and input for the conference.

## Firenze agenda

17 October 2003

The Italian Presidency, the European Commission, the ERPANET and MINERVA project are the promoters of this initiative in the philosophy of eEurope and linked to the National Representatives Group. The group of experts proposed an agenda with few, focussed objectives in response to the challenges of preserving digital memory. The focus addresses creation, preservation and access issues, including both digitised and born-digital objects. And also respects the interests of museum, libraries and archives, and the differences between media format. The agenda covers a short period (12-18 months) identifying concrete and realistic actions. This process is an open process integrating on-going actions and voluntary efforts of the experts. The experts have identified some initial responsibilities for each of the action, and progress will be reviewed in one year during the Dutch Presidency. The European Commission will submit the Firenze agenda to the National Representatives Group at the next meeting in Parma in November for endorsement and inviting each Member State to support the initiative. Future Presidencies are invited to coordinate the follow-up.

First, what are the problems and risks (Action area 1)? Probably the most important task today is to create awareness about risks and problems among decision-makers at all levels. Second, what initiatives are on-going and what technologies are available (Action area 2)? Third, what legal and regulatory implications and responsibilities must be addressed now and who is responsible at this moment in time to find solutions for digital memory preservation (Action area 3)?

### Action area 1:

#### create awareness & cooperation mechanisms

Community and consensus building is the first step. The main target is decision-makers. The expert group will work with user communities to capture their requirements and suggestions and develop suitable approaches to address those needs. They will build consensus beyond the current audience, towards professional bodies and establish cooperation with other initiatives in the field. The expert group will report regularly on progress and planning.

- workgroup activity and events, like workshops, seminars, papers, helpdesk and electronic fora;
- report of activity to NRG every 6 months.

Actors: ERPANET and MINERVA

projects as coordinators.

ERPANET: coordination and Web services for the expert group including forum, projects and literature assessment, the help-desk advisory service, erpaEprints; workshops on "trusted digital depositories" (Rome, November 2003); seminar on "scientific digital objects" (Lisbon, December 2003); publication of the workshops and seminars final reports. MINERVA: network of the national representatives for promotion and for data collection; workshops or seminars or events organisation on the field like Bibliocom on 30 October; NRG report by the end of 2003 including a slot to present progress of the initiative.

DELOS: annual digital preservation summer school; annual state-of-the-art studies from the digital memory preservation cluster.

PRESTOSPACE: workshops or seminars or events organisation on the field; annual state-of-the-art on digital preservation for audio-video archives. Workshop on "user requirements for audio-visual preservation", March 2004, Amsterdam.

### Action area 2: exchange good practice & develop a common point of view

Data collection on current practices, selection and promotion of good practice are necessary steps to re-use progress and to develop a common knowledge basis on suitable approaches and technologies. The focus here is to identify the missing 'bits'. Lessons already learned from examples of good practice must feed into tutorials and papers (e.g., on digital collections, trusted repositories, metadata, IPR, selection criteria, Web archiving) and must be the basis for specifying a 'European interoperable platform'.

- technology watch reports on emerging issues;
- propose a research agenda on technological priorities and challenges about digital preservation;
- training (skills) initiatives and programmes.

Actors: ERPANET and DELOS projects as coordinators.

ERPANET: data collection and analysis to identify good practices: description and analysis of single and collective case studies and creation of erpatools; promotion of erpaAdvisory services; inform the preservation research agenda (see below).

DELOS: continued review and coordination of the NSF/DELOS Digital Preservation and Archiving research agenda; studies and papers on the field; production of recommendations.

DIGICULT FORUM: technology watch and tutorials on the field; contribution of technology specifications for a research agenda; creation of an 'Action in the Preservation of Memory' section in the Digicult.info Newsletter.

PRESTOSPACE: technology specifications for a research agenda for audio and video archives; production

of recommendations. Meeting in collaboration with the FIAT annual conference, on “technical specifications and system architecture for an audio-visual integrated preservation system”, October 2004, Marseille.

MINERVA: data collection infrastructure for accumulation of good practice experience; training trials on the longterm sustainability of digitised scientific and cultural objects in cooperation with ERPANET and DELOS.

### **Action area 3: long-term policies and strategies**

Lack of clear reference policies and responsibilities today is a serious risk in the future preservation of our memory. The expert group will stimulate the national/sectoral authorities to develop digital preservation policies, research/training programmes and trials as appropriate. In particular, the legal framework for electronic resources/records collections and deposits may be incomplete, not only for libraries and archives but also for e-government, for educational, for research and other environments of our information society. The adoption of a common agenda could be instrumental in catalysing national efforts on a coordinated framework at the European level and investment in collaborative public/private projects.

- identify reference actors, within the Member States, to act as coordinating bodies for national initiatives and to produce recommendations;
- analyse and compare current legal and regulatory contexts leading to specifications for suitable frameworks for stakeholders, in particular for memory institutions, for permanent access to digital deposits (with particular attention to objects that are “born digital”) and on-line registers of trusted preservation repositories;
- study and propose suitable business models and costs analysis and long term funding strategies for public institutions;
- foster cooperation with emerging international activities such as that being developed under the auspices of Unesco;
- validate and promote the research agenda at EU and Member State levels with special emphasis on encouraging national funding agencies to allocate resources to enabling research in line with the evolving research agenda;
- the Italian Presidency will lead this area, but it is crucial to have long-term commitment by future Presidencies and Member States authorities.

Actors: Italian and future Presidencies as coordinator.

ITALIAN PRESIDENCY: developing the report on risks and emergencies with at least other four cases and the report on legislation and policy frameworks; implementing Web site for the initiative and ensuring continuity in cooperation with the future Presidencies.

PRESTOSPACE: Bridging the gap between technical results and service implementation, meeting in Paris, December 2004.

ERPANET: Improving the understanding of the inter-connectedness between e-government and e-citizenship viability and the long term authenticity and integrity of digital entities; provide an annual review of national policies and strategies; enhance and promote policy and legal framework tools.

<http://www.erpanet.org/>

[www.workgroup/main.htm](http://www.workgroup/main.htm)

## Terms of co-operation with other projects:

In the light of its approach of openness, MINERVA has already collected some promising results by joining efforts with other projects; in particular two cases are worth to be mentioned: EMII-DCF and ERPANET. In the former case, the cooperation has been devoted to share publications and reports, defining a reference framework and a common dissemination plan; in the latter case, a full agenda has eventually been developed (the Firenze agenda, described on more detail in the former section).

The EMII-DCF Joint Paper, whose text is provided hereinafter, has been nominated as an example of good practice in the cooperation of European projects, at the final review of the EMII-DCF project.

### EMII-DCF – MINERVA Joint Paper Encouraging IST research on European digital cultural content Joint position paper EMII-DCF – MINERVA October 2003

The European Museums' Information Institute Distributed Content Framework (EMII-DCF - <http://www.emii-dcf.org/>) project had a specific focus on IT researchers requirements as regards to digital cultural content and defined a framework which includes a series of reference documents. Those draw specific conditions on availability of material, including contracts, technical guidelines and organisation of responsibilities between actors of the heritage and IT research sectors to set up joint projects. The "European technical landscapes" reported by EMII-DCF and the benchmarking exercises of the interoperability and benchmarking groups of the Ministerial Network for Valorising Activities in Digitisation (MINERVA) project have provided a clear overview of existing practices in digitisation of heritage resources by European memory organisations (museums, libraries, archives, audiovisual archives, archaeology, galleries, monuments ...). From this work, the European actors must face a challenge to improve the quality of digital cultural content created for researchers, the industry and any digital service provider for the overall benefit of European citizens.

#### 1. Ensuring technology transfer to memory organisations

On the one hand, the EMII framework aims at allowing to include the memory organisations in the research field and to encourage them to make their datasets available and suitable to improve the research activities. On the other hand, the MINERVA project aims at setting a common framework for production processes on digitisation of heritage resources.

The collaboration between both projects has led to a common document on technical standards to follow in order to provide high quality content suitable for both research activities and public or commercial exploitation and intelligent heritage services. Intellectual property rights and usage issues on cultural content have been deeply considered at European level by the EMII-DCF project in order to anticipate the establishment of joint European cultural services and research projects. This work provides tools for memory organisations to safely leave their resources available for research activities. The MINERVA project, on that basis, explores advanced technologies to materialize the processes and protections entailed by the production of digital heritage asset. This complementarity is a real added value of European cooperation since it can draw a general framework for crossdomain content which is not yet fully considered at national levels. Collaboration with the research sector should bring long-term benefit for memory organisations to enrich their experience of mass production and implementation of management and display application and ensure technology transfer. The Lund principles defined in 2001 have been agreed by all European governments. They state that "In order for Member States to identify and implement strategies and agreements on content production, quality, discovery and use, a number of current and emerging technical issues need to be addressed through short and longer term RTD initiatives. The Commission should: [...] counter the risks of creating a 'digital dark ages' by developing advanced research agendas into: digital technologies and preservation of content; improved applications of advanced technologies for digitisation of cultural and scientific content (eg multi spectral imaging), adding value to the significance of the content over time. This work should be carried out in close collaboration with industry. " This effort shall also be oriented towards medium and small size memory organisations particularly concerned by the missing technology transfer. A key challenge of the European Commission such as defined in the Digicult Executive Summary 2001 (Technological Landscapes for Tomorrow's Cultural Economy) is to "enable small and under-resourced cultural heritage institutions to participate in future Research & Development (R&D) programmes by narrowing the existing technology gap". <http://digicult.salzburgresearch.at/results/english/chapter3.htm>

#### 2. A necessary cooperation

Cooperation between memory organisations and research bodies is necessary in such fields as digital preservation where major initiatives are launched as joint projects between private or public research and large heritage institutions, such as in Sweden

and in the UK. Academic research has also appeared very important for digital libraries applications, as demonstrated by the major role of academic researchers in the DELOS network of excellence on digital libraries. Indeed, they are major actors in open source applications development, which is a guarantee of long term sustainability for heritage resources. To ensure a clear technology transfer to memory organisations, the structure of funding programmes, both at national and European level should be coordinated. On the one hand programmes which aim at creating digital cultural content, on the other hand programme which fund IT research on digital cultural content should be connected. This ensures the quality and technical criteria for digital cultural content used by researchers and that research activities are oriented towards a better service to the end users. This coordination of funding sources is absolutely necessary to improve technology take-up and benefit for end-users, since it is the only condition to create incentive for orienting researches towards cultural and social priorities and to ensure better inclusion of all citizens in the society.

The end-users of digital cultural content are more and more studied and appreciated by representatives of the heritage sector, through such projects as the Cultural Content Forum study on audience of digital heritage ([http://www.culturalcontentforum.org/publications/audience/initial\\_audience.pdf](http://www.culturalcontentforum.org/publications/audience/initial_audience.pdf).) This important work carried out by the heritage sector is a major contribution to ensure the technology take up and usefulness of services being developed by both academic and industrial researchers. Memory organisations have a clear role to provide complementary aspects of user requirements and studies to the researches led in universities and companies.

### 3. European digital cultural content

In order to represent culture usefully for European citizens, digital cultural content should be produced in high quality and suitable for intelligent innovative and intuitive interfaces. It is important to deal with cross-domain resources, thus remove boundaries between specific heritage sectors, libraries, archives, museums, archaeology but also between artistic creation of born digital cultural content and heritage resources.

The work of the EMII-DCF project has clearly demonstrated the challenge for research to work on digitised content but also born digital content, including new media and works composed of many distinct elements. This issue is extremely important to deal with but it is still unsafe both legally and technically to work on the use and preservation of such new types of heritage. The research projects in this area are highly needed, although major projects are not led

at European level and it appears interesting to raise awareness of Research and Technology Development project leaders in this area, poorly explored under the 5th framework of the European Commission for them to better take into account specific researches on new media and born digital cultural content. A shift is to be engaged towards the integration and coordination of policies not only on digitisation but on digital cultural content creation as a whole, including processing of born digital content to raise its heritage value.

The Technical Guidelines for Digital Cultural Content Creation Programmes is a joint document of the EMII-DCF and the MINERVA projects which draws the basis of European framework on digital cultural content. It considers both digitised and born digital content and aims at including all types of digital cultural content to facilitate the creation of innovative services.

### 4. A European framework for digital cultural content creation

Thanks to the National Representatives Group on Digitisation of Cultural and Scientific Heritage (NRG) (<http://www.minervaeurope.org/structure/nrg.htm>) in Europe, important national funding bodies are solicited to both coordinate their policy and national programmes with public IT research programmes and take into account IST research projects. The establishment of networks of excellence shall reinforce this trend. However, the direct technology take-up from European IT research in content creation should be sought through a reinforcement of the European leadership in digital content creation in Europe, able to coordinate the action of proper research projects and content creation. Many countries, when elaborating a strategy for digital cultural content creation, include all aspects of production (digitisation and born-digital content capture), economic (e-business strategy or economic model) and research, such as proven in Austria and the Netherlands for example. The "Digital Production Line" programme in the Netherlands for example associates heritage institutions, businesses and computer science research departments at major universities to develop technologies for heritage resources. In France and in Italy, the digitisation policy is defined by the same bodies as research projects in the cultural field. This allows a clear coordination of cultural content creation and research activities. The digitisation programmes are or should be supported by competence centres. Those are designated to help project managers to successfully lead their project. A collection of lessons learnt has been extrapolated out of the good practices collected in the scope of the NRG. They have been gathered in a handbook to support the activity of European competence centres

([http://www.minervaeurope.org/structure/workinggroups/goodpract/document/bestpracticeshandbookv1\\_2.pdf](http://www.minervaeurope.org/structure/workinggroups/goodpract/document/bestpracticeshandbookv1_2.pdf)). The MINERVA activity on good practices has demonstrated that many competence centres, whether officially designated or widely recognised are often research laboratories or specific innovation departments of large memory organisations. Those competence centres are a major channel to transfer technologies but experimentations and innovative projects should be encouraged and associate both types of actors in order to improve the quality of the content created. Moreover, medium and small size heritage institutions should be more involved in such research projects and the guides set by EMII-DCF and MINERVA are made with that purpose. The learning initiative of the MINERVA project should help disseminating those tools, standards and good practices towards small and medium size memory organisations.

#### 5. Important follow-up initiatives

The European IST programme is a major source of interesting projects which involve memory organisations to develop IT applications to heritage resources. However, as the European Commission has not set up proper programmes to directly fund digital content creation, the technology take up can only be ensured through national programmes and national research programmes. In this context, no joint and fully coordinated activity is really possible without intermediary agents. The National Representatives Group has a clear role to ensure a political coordination on content creation but it should enlarge to or be completed by a mechanism for ensuring the coordination between content creation and research funding framework, through European competence centres, through the promotion, in the IST programme of the European digital cultural content creation framework, through a European body (observatory) on digital cultural content creation.

The European Commission has no programme to create content, but European stakeholders could usefully benefit from additional EC instruments such as eTen and eContent programmes, to create innovative service network of common interest, at a trans-European dimension. This involvement would prove a tangible way to demonstrate the exploitability of digitised cultural content within concrete implementation of services, such as trans-European portals. Major research orientations in the field of digitisation of heritage resources for the next years must help improving the quality of digital documents and decrease the cost of digitisation so that productivity can be improved and more digital content can be created. They shall mainly match challenges of archival documents, including content recognition, digitisation of large formats, bulk production of 3D content,

distributed architectures for heritage digital services, preservation of digital content, multilingual and multi-cultural content management, improvement of information retrieval for heritage resources, facilitation of resources standardisation, finally new interfaces for intelligent heritage display. The research communities around all these sectors often work in distinct networks. Researchers on heritage resources can be usefully connected at both national and European level and benefit from the structural evolutions entailed by the implementation of the European Research Area.

The organisation of conferences and events including curators, librarians, archivists and IT researchers can foster the cooperation between memory organisations and the research field. The European Conference on Digital Libraries is a very good example of this incentive and fruitful cooperation. It is a major forum to allow librarians to get involved in research activities and provide orientations to researchers. Enlarging such a forum or creating a new forum for all heritage fields to meet IT researchers on heritage resources and applications would allow both to foster the cross-domain dimension of the applications for digital heritage and raise awareness of the necessary material and quality of digital content to be used by researchers. The MINERVA and EMII-DCF projects have stressed the necessity of initiatives to coordinate IT research programmes and content creation programmes. Innovation is needed in numerous fields of heritage and memory organisations have proven very dynamic to develop major services for European digital cultural asset. The framework being elaborated at European level for digital cultural contents on the basis of the collaboration of both projects shall be supported in the future by priorities and efforts to disseminate guidelines, good practices and standards. Evaluation of content creation policies and programmes should include elements on the strategy to ensure technology and overall innovation take up in memory organisations.

## Interoperability and service provision

The MINERVA project has completed Technical Guidelines for digital Cultural Content Creation Programmes. These guidelines are based upon a range of existing developments and research, particularly the UK's NOF-digitise Programme Technical Standards, and were developed in conjunction with the PULMAN, EMIL-DCF and ERPANET projects. The Guidelines have been developed as a resource for policy-makers and managers of funding programmes, encouraging the development of interoperable content, and aiming to promote approaches that support long-term preservation of digital materials.

The Guidelines have been presented to the MINERVA partners, and are based on an approach that has already been adopted in countries such as Canada and Taiwan. In Europe, the Guidelines have been adopted in Greece and the Netherlands, are soon to be adopted in Ireland, have been translated in France, and Italy are being translated for adoption in Israel. As a result, the Guidelines should be a firm foundation for the development of interoperable services at a European level, building on the work achieved throughout the MINERVA project.

Working with WP3, on Inventories, it has been agreed that the technical basis for the deployment of services that rely upon cross-searching will be the use of the Open Archives Initiative. OAI works by allowing the automatic 'harvesting' or gathering of metadata from a range of different projects and institutions into a newly created 'central' database. This database can then be searched and users presented with a very brief record description and a link to the Website from which the record came. By following the link, the user can find a detailed record, displayed on the page that has been developed by the institution, complete with any images, links to additional materials, and learning resources that will encourage the user to explore the site, and to find out what else in the site will be of interest.

In addition to item-level searching, OAI could be used to harvest data about projects, developed at a national level, into a European-level inventory of projects and services, using the model developed by WP3. More work needs to be undertaken to evaluate separation of resource discovery and 'display' metadata and to investigate the deployment of Web services as a future development.

In order to enable cross-searching, it has become clear that unqualified Dublin Core does not provide enough granularity of searching. As a result a new application profile – DC.Culture – has been developed. This takes a 'service-based' approach, and aims to support a user-interface that supports searching by 'who', 'what', 'where' and 'when'. It also allows for more powerful date and GIS-type searching in the future.

The first test development is currently underway, and producing useful results.

An issue that needs to be addressed in more detail is the possible relationship between the model adopted by MINERVA for the Inventorying of projects and services, and the IMS-LOM metadata schema used by the educational sector to manage Learning Resources, usually for the formal learning sector. An initial mapping, and comparison of the same learning resource being made available through two portals – one for schools, and one for life-long learning, make it clear that there appear to be few links between the two. In addition, there are considerable differences in the terminology used, especially in terms of relating the learning resources to a formal curriculum. For the cultural sector, this implies that considerable duplication of effort will be needed to maximise the visibility of learning resources to different market segments.

Work has also proceeded on investigating the issues of Intellectual Property Rights. This is a difficult topic, but there have been useful joint meetings and sharing of information, particularly the work of the Italian IPR Group and the work undertaken jointly by the Rome-Patras initiative. This culminated in a report on Digital Rights Management which identified the following as key findings:

- DRM is not an answer to social, legal and economic questions
- DRM probably will not contribute to an increase of revenue
- a successful system should make it easier for users to be honest, rather place major barriers in the way of users
- protection technologies are difficult to sustain
- there is no common agreement of the resolution of images and multi-media content that should be made publicly accessible.
- few models exist to enable true digital publicly-accessible digital libraries.
- too early to make specific recommendations

Subsequent work has identified the importance of public domain approaches, and the possible value of frameworks such as Creative Commons for identifying how materials can be made publicly accessible, and therefore clearly identifying the materials that are not being placed in the public domain. Work on a possible framework for rights clearance of low-value copyright materials for educational non-commercial use has been completed, and now forms the basis for negotiation with Licencing Agency. If the model can be accepted, then this could significantly reduce the cost of clearing rights during digitisation programmes.

An initial study has also been completed on measuring success – a framework to enable the benchmarking of the use being made of cultural sector Websites. Through the collection and comparison of a fairly

simple range of indicators, it should be possible to compare and contrast different Websites.

The measures that could be reported include:-

- Number of visits
- Depth
- Engagement factor
- Market penetration
- International impact

and would rely upon the reporting of statistics available even using freely available software tools.

The project has also begun to think of future directions, and one important element is the concept of an 'Observatory'. This reflects the need, as a European level to maintain a technology-watch function, and to maintain, localise and develop the products of the MINERVA project, such as the Technical Guidelines, Good Practice Guide and the promotion of benchmarking. The Observatory could also act as a European level contributor to global initiatives and standards developments. It could be formed as a network of individuals, rather than a formalised network of organisations. This model would be more likely to be sustainable by existing MS funding, but would need an organisational focus, such as might be provided by the creation of a European Economic Interest Group, an association lining organisations from different countries in Europe. This could pave the way to a more permanent networking of the MINERVA partners, and building on the implementation of the Lund Action Plan.

## Good practice Handbook

The Good Practice Handbook is the result of the good practices working group. It represents a practical instruments to be used for the establishment, execution and management of digitisation projects, naturally focused on the cultural area (with particular regard to libraries, museums and archives).

<http://www.minervaeurope.org/publications/goodhand.htm>

The target audience of the Handbook are teams within and across cultural institutions who are contemplating, or are already executing, digitisation projects.

The document reflects the outcome of the work carried out by WP 6 of the MINERVA project, including the substantial research represented by the national questionnaires completed in connection with the 2nd National Representatives Group (NRG) meeting in Alicante, Spain, in May 2002.

The Handbook is composed by a printed document, translated in three languages (English, French and Italian) together with a wide set of complementary information provided on-line on the MINERVA Web site.

The printed Handbook is composed by two chapters:

- Background
- Practical Guidelines

### Background

This reviews the relevant aspects of the MINERVA project, and states the role of the Good Practice Handbook in the overall progress of the project. It also covers the work carried out to date, in order that the reader shall have a clear picture of the context in which this document should be considered.

### Practical Guidelines

The most important practical lessons learnt and information collected by the MINERVA project good practices working group are presented. This focuses on a significant number of practical 'rules of thumb' which should be considered by organisations which are establishing, executing or managing digitisation projects in the cultural sphere. The guidelines are divided into the following areas, each of which reflects a stage in the life-cycle of a digitisation project:

- Digitisation project planning
- Selecting Source Material for Digitisation
- Preparation for Digitisation
- Handling of Originals
- The Digitisation Process
- Preservation of the Digital Master Material
- Meta-data
- Publication
- IPR and Copyright
- Managing Digital Projects



Each guideline description is structured in the following way:

- A Guideline Title
- An Issue Definition, which sets the scene for the guideline and/or introduces the problem which the guidelines addresses
- A set of Pragmatic Suggestions which aim to facilitate the relevant aspect of setting up or executing a digitisation project
- Notes or Commentary, where any additional information is provided.

The guidelines are presented in a pragmatic manner, aimed at the hands-on project team.

Complementary and supporting information are available on the Internet at the MINERVA Web site.

The Web site provides relevant references to examples of best practice, competence centres and role models which are being carried out in the European cultural field, as well as by global links to appropriate and useful online resources are provided.

The most important sources of guidelines on digitisation and the creation of digital cultural content are noted in the selected list of digitisation guidelines which is a part of the handbook and are available on the MINERVA Web site as well.

<http://www.minervaeurope.org/guidelines.htm>

It is also important to mention that in depth technical issues have been intentionally removed from this Handbook, in order to keep it as simple and short as possible. For complementary technical information, the reader is provided with the MINERVA Technical Guidelines, which are also available on the MINERVA Web site.

<http://www.minervaeurope.org/publications/technicalguidelines.htm>

## Digitisation cluster

This initiative aims at maximising the impact and effectiveness of some activities and projects funded by the European Commission, in the framework of the IST programme, and the Member States on digitisation of cultural and scientific content. Following the initiative launched by the Greek Presidency, the "Digitisation of Cultural Content" workshop in Corfu on 28 June 2003

<http://www.minervaeurope.org/events.htm>, and the Italian Presidency with the meeting of cultural networks at Bibliocom in Rome on 30<sup>th</sup> October 2003 at Bibliocom in Rome on 30 October 2003

<http://www.minervaeurope.org/events.htm>, and under the auspices of the European Commission, the MINERVA project organises the "Meeting of Culture Networks and Projects" at the EVA Florence conference on 31 March 2004 in Firenze.

The main goal is to set-up a cluster of projects working on the digitisation of culture in order to avoid duplication of efforts, encourage exchange and promotion of good practice and results in a sort of cross-fertilisation environment among the projects of the cluster.

The main goals of the initiative can be resumed in:

- 1) sharing knowledge and exchanging experience;
- 2) promoting results like studies, reports, guidelines;
- 3) adopting common standards and agendas;
- 4) avoiding duplication of activities and wasting of resources among projects;
- 5) merging efforts together to maximise the impact of the single projects;
- 6) creating a large community of users.

Just as example, we would like mentioning the last two "cooperation agreements" established by MINERVA with other projects: first, MINERVA has co-produced with EMII-DCF some technical guidelines on digitisation; second, MINERVA has set-up a workgroup on digital memory long-term preservation with ERPANET.

List of projects involved in the initiative up to now:

MINERVA  
BRICKS  
DELOS  
CALIMERA  
PRESTOSPACE  
ERPANET  
DIGICULT FORUM  
HEREIN  
EPOCH  
MUSICNETWORK  
EVA Network

<http://www.minervaeurope.org/enl argement/cul tural network/cluster.htm>



## Enlargement towards NAS, Russia and Israel The MINERVA Plus project

The MINERVA Plus project started on the 1st February 2004, with the support of the European Commission, in the frame of the IST programme of the 6th Framework Programme for the Research and the Scientific and Technological Development. Aim of MINERVA Plus is to enlarge the already existing MINERVA network to the candidate countries. Within this process of enlargement, positive relationships have been established with Russia and Israel who joined the MINERVA Plus project. At the moment MINERVA Plus gathers ministries or cultural agencies of the following countries:

Italy (coordinator)  
Czech Republic  
Estonia  
Germany  
Greece  
Hungary  
Ireland  
Israel  
Malta  
Poland  
Portugal  
Russia  
Slovenia

However, the full involvement of all ten NAS is among the aims of the project. MINERVA Plus last 18<sup>th</sup> months but won't run independently from the elder MINERVA project and in fact the activities of both of them are being synchronized. The first step is the kick-off meeting of MINERVA Plus, in Budapest on 10<sup>th</sup> of February 2004, with the participation of new and old partners. The next step will be the nomination of experts from the new countries to participate to the MINERVA working groups. And eventually, the dissemination of the MINERVA products through-out the cultural institutions of all the 27 involved countries. The MINERVA Plus work plan includes activities to:

- animate work groups to provide the political and technical framework for improving digitisation activities of cultural and scientific contents;
- facilitate the adoption of the Lund principles, in EU Member States, accession countries and other European countries, to amplify the impact of the eEurope initiative;
- support and foster collaboration on scientific research, encouraging joint agendas and programmes;
- increase the dimension, make visible, promote and exchange information about National Policy

- profiles concerning digitisation;
- implement users' needs requirements for accessibility and usability of Web sites, define training schemes and develop recommendations;
- make available test-beds, defining mechanisms for evaluating models, methodologies, techniques and approaches;
- implement the existing benchmarking framework on digitisation, able to compare and improve quality of national approaches and promote good practice across Europe and beyond;
- promote concertation events open to both EU and other national projects, to create clusters of projects;
- promote dissemination and training activities at national level, acquisition of new skills and access to existing resources.

To support the activity of partners from NAS, the Italian Presidency asked them to nominate their National Representatives for digitization activities to join the National Representatives Group. The action was successful and the NRG now includes, in addition to the representatives of the 15 Member States, representatives of the 10 NAS, together with representatives of Russia and of Israel as observers. The first meeting with the 27 participants took place during the 5 NRG meeting under the Italian Presidency in Parma, on November 2003; the next enlarged NRG meeting is planned in June 2004, under the Irish Presidency.

## Cultural portals development The MICHAEL project

MICHAEL is the acronym of Multilingual Inventory of Cultural Heritage in Europe. The proposal, approved in the framework of the eTen programme, was born on the basis of the joint efforts of Italy, France and United Kingdom on interoperability and inventories carried out for MINERVA.

The project will define a common approach and model of digital cultural heritage services that will be applied across the participating nations; this approach reflects the agreements of the National Representatives Group (NRG) for the Digitisation of Cultural Heritage and in this light it should be considered a MINERVA spin off. The MICHAEL project focuses on the integration and alignment of many national initiatives in the digital cultural heritage sector. The project will deliver interoperability of national cultural portal initiatives and a high-quality end-user service, which will facilitate the exploitation of European cultural content resources. The project will establish an international online service, which will allow its users to search, browse and examine multiple national cultural portals from a single point of access. This online service will be actively supported and endorsed by the national governments and agencies responsible for cultural heritage. Based on standard and open-source technologies, built upon an existing platform, flexible and extensible in terms of adding additional nations to the scope of the resource, it implements the newly-agreed pan-European standards and guidelines for digital cultural heritage initiatives, as approved by the NRG.

The MICHAEL project builds upon the following existing assets:

- the methodology and resources established by the MINERVA project. MINERVA has already achieved certain of the Lund Action Plan objectives; MICHAEL will make further progress towards the Lund Action Plan aims;
- the common meta-data standard for Inventories of digitisation projects developed by MINERVA and agreed by the National Representatives Group;
- the technical platform used in the French inventory project  
([http://www.culture.gouv.fr/culture/mrt/numerisation/fr/f\\_02.htm](http://www.culture.gouv.fr/culture/mrt/numerisation/fr/f_02.htm)).

The end user will use the MICHAEL service to find and explore European cultural heritage material, which can be accessed, on a multilingual basis, over the Internet.

The MICHAEL consortium is made up of the national cultural ministries of Italy, France (supported by the national cultural agency Relais Culture Europe and the technological support AJLSM) and the UK (as represented by the Museums, Archives

and Libraries Council), as well as Amitié, a provider of cultural heritage project support services already Member of MINERVA. In order to optimise the ongoing management of the MICHAEL service, the consortium intends to establish a European Economic Interest Group (EEIG), which will take responsibility for the service in the longer term.