

I t a l y

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Strategic lines of e-government

The most important innovation in Italian public administration (and therefore also in the institutions that safeguard cultural heritage) in the year 2005 was the launching of the *Code of digital administration* (Legislative decree no. 82, 7 March 2005) in force from 1 January 2006, assisted in its application by a special directive (Official Gazette no. 16, 20 January 2006, *Directive for the Digitisation of the Public Administration for the year 2006*,

<http://www.innovazione.gov.it/ita/normativa/allegati/dir_051118.pdf>.

The Code contains the instructions for guaranteeing the right of every citizen to use the services of Public Administration on-line and the Public Administration's duty to accelerate procedures and improve services by developing both internal and external telematic communication.

The Code establishes some basic rights of citizens and enterprises:

- Right to the use of technologies
- Right to access and despatching of digital documents
- Right to make any payment in digital form
- Right to receive any public communication by e-mail
- Right to find valid and updated modules and forms on-line.

The instruments that the Code identifies are certified electronic mail, digital signatures, computerized documents, the Public Administration Internet sites, electronic cards. The implementation of this initiative is guaranteed through the activation of a special Website <<http://www.padigitale.it/home/home.html>>. Other basic initiatives for the modernization of Public Administration are those taken by the CNIPA, the National Centre for Public Administration Informatics with regard to the establishment of a Special Centre for the reuse of software and computer applications in the

Public Administration and of a relative Website that acts as a help desk and from which information may be sought <http://www2.cnpa.gov.it/site/it-IT/Attivit%C3%A0/Risabilit%C3%A0_del_software_nella_PAC/>, and of an Observatory on open source programmes to assist the implementation of the directive issued in 2003 to promote the diffusion of this technological approach in Public Administration <<http://www.cnpa.gov.it/site/it-IT/Attivit%C3%A0/OsservatoriOpenSource/>>.

Within the specific sphere of cultural heritage the Ministry has issued a directive containing guidelines for the *Plan of coordinated communication of Websites pertaining to the Ministry for Cultural Heritage and Activities (MiBAC) for their accessibility and quality* <<http://www.otebac.it/site/realizzare/direttive/direttiva091105.html>>.

This act contains six guidelines which, as well as emphasizing the importance for divulgation of preparing recognizable, accessible and usable Web applications, also confirms the adoption by the Ministry of the standards and tools that have emerged from the MINERVA and MICHAEL projects, with special reference to the quality of cultural Websites and the description of digital resources.

The international cooperation of the Ministry with regard to the digitisation of heritage has an important ally in the State Administration for Heritage of the Popular Republic of China.

A *memorandum of understanding* between the two administrations was in fact signed in January 2006 for the creation of a joint work group with among its objectives that of computerizing the cultural heritage archives. Italy and China have undertaken for the next five years to further cooperation between the General management for Technological Innovation and Promotion of the Italian Ministry and the Information Centre on Cultural Heritage of the National Administration for Chinese Cultural Heritage. The aim is to develop a computerized programme of Cultural

Heritage as well as identifying the standards and regulations at the basis of this.

A. Users and content

On 27th July 2005 the Ministry for Innovation and Technologies, in agreement with the Ministry for Public Function, issued the directive *Quality of on-line services and measurement of user satisfaction* with the aim of pursuing greater effectiveness and rapid response to the expectations of the users, implementing on-line services and motivating their use

<http://www.innovazione.gov.it/ita/normativa/allegati/dir_050727.pdf>.

This act provides some basic criteria for monitoring the quality of Websites and on-line services as well as evaluating user response to Public Administration. Attention to the divulgation of contents is one of the main aspects of the mission of the Ministry for Cultural Heritage and Activities. It was with this in mind that the Cultural Website was launched and is by now in course of preparation.

The Italian Culture Portal is the priority tool that MiBAC has adopted for informing the general public on the various aspects of Italian culture: from cultural heritage to the territory, from cinema to music, to theatre, to literature. It is an integrated access point, promoted and validated by MiBAC, to facilitate the identification and interconnection of existing resources on heritage and cultural activities. The Italian Culture Portal project is ambitious inasmuch as it will give access not only to state heritage but also to that owned by the Regions and universities and to information contained in the data bases of some important cultural institutions: the Italian Touring Club, the Istituto Luce, Alinari and the Venice Biennial Exhibition. The Portal initiative forms part of a more extensive international debate: in fact on the one hand its guidelines are based on recommendations produced by the MINERVA project, while, on the other, the description of the data was designed in such a way as to render it compatible with other national data bases through the service offered by the European initiative MICHAEL. The Portal will be integrated with the Ministry's large data bases, which have already been described in previous reports. To these will be added a new fruit of the Art Past project <<http://www.artpast.org>>.

The aim of Art Past is knowledge and sharing of cultural heritage through the application of the most advanced computer technology to the sectors of cataloguing, restoration and circulation of works of art. This will take place through the copying of over 2 million paper OA-Opera d'arte (Work of Art) file-cards (according to the ICCD standards) to a light computer platform.

The Art Past project is a part of a more extensive initiative of the Central Institute for Cataloguing and Documentation-ICCD; in fact, ICCD holds an important Historical Archive of Catalogue records on paper, accessible also through a Web-based operational system <<http://www.iccd.beniculturali.it/servizi/collezioni5.html>>. These documents are of great value for the history of cataloguing in Italy: they sum up to about 200,000 paper records in various formats, drawn up between 1892 and 1969. The earliest records belong to the period following the first laws of protection of the Italian Kingdom's cultural heritage (late 1800s) and are evidence of the efforts of censuring and divulging the historical and artistic heritage of the young Nation.

Attention to the users, especially small cultural institutions, is fundamental to MiBAC's work within the sphere of the MINERVA project which led to the creation of "Museo&Web". The design kit has been enriched with a Content Management System (CMS) for the management and control of multi-format and heterogeneous information documentation, to be published on the net. This CMS, which also allows controlling multilingualism, permits the creation, modification, control of individual pages but also of entire logical sections of each one's Web documentation, establishing rules, roles and levels of access according to each one's specific requirements. Museo&Web is also in the process of adapting to other cultural situations, such as schools, archives, libraries, offices for safeguarding heritage. To be more precise the MIUR (Ministry for Education, University and Research, will undertake spreading the prototype to Italian schools thanks to an agreement signed with MiBAC. The system respects national and international regulations and guidelines as regards accessibility (c.d. Stanca Law and W3C) and is provided ready for use with an Open Source licence <<http://www.minervaeurope.org/structure/workinggroups/userneeds/prototipo/cms.html>>.

Partnership with Regions

Through the Central Institute for Cataloguing and Documentation (ICCD)

<<http://www.iccd.beniculturali.it/>>, the Italian Ministry has initiated a series of partnerships with Italian Regions as regards the Digitisation of the data relative to the control and knowledge of cultural heritage. This has led to the establishment of a series of regional data bases closely linked with the central system of the ICCD and with important research aspects for a profile of professional users. Up to now agreements have been made with 5 regions while 3 more are in the process of being completed.

SIRPAC (Regional Computer System of the Cultural Heritage of Friuli-Venezia Giulia) stands out among the most successful initiatives. This was set up in cooperation with the Regional Cataloguing Centre of Friuli-Venezia Giulia of the Office for Cultural and landscape Heritage of the Friuli-Venezia Giulia Region. SIRPAC permits doing detailed research, both as regards type of object and collection, within the sphere of 121,782 *items* regarding works of art, artefacts, archaeological finds, photos, etc. The outlook for 2006 is integration with the systems of other regional Offices.
<<http://217.12.180.10/Default.aspx>>
<<http://217.12.180.10/catalogazione/Default.aspx>>

PLAIN (Lombard Project Archives in Internet) is the initiative to be noted at local network level. It provides the public with data bases of archive inventories prepared over the last two decades in the Lombard region and descriptions of the collection preserved at the State Archive of Milan. PLAIN forms part of the national archive platform SIUSA and is at the same time an integral part of a more extensive initiative, Lombardia Storica, the regional site of historical and archive resources.
<<http://plain.unipv.it/>>.

Another similar system that concerns Tuscany, one of the Italian regions with the highest concentration of cultural heritage, is the Sistema Informativo Territoriale dei Beni Culturali (Territorial Computer System of Cultural Heritage). In fact, as a result of an agreement signed between the Regional Office (now the Regional Management for Cultural and Landscape Heritage of

Tuscany) and the Tuscany Region, it was possible to carry out a project designed and funded by the Tuscany Region for the survey and georeferencing on a Regional Technical Map of the listed heritage present in the territory, for reasons of knowledge and historical, artistic, archaeological and landscape protection. The Sistema Informativo Territoriale dei Beni Culturali, divided into digital Cartography, Heritage Data base, Decrees Database and Catalogue of Images, has unified the data provided by the territorial Offices into a joint digital system. This permitted their transcription into a single cartographic base that conforms and is superimposable on the Regional Technical Map. The system is also compatible with other computer systems set up by the Ministry, such as that of the ICCD for the SIGEC and of the ICR for the Risk Map.

The map of cultural heritage subject to precise protective provisions, in constant update thanks to the effective cooperation between the Regional Management and the Tuscany Region, makes it possible to discover and study, for each area identified, the exact land registry definition, the registry-descriptive information and the geographic location of each individual listing.

This data base of the cultural and landscape heritage of the Tuscan territory, accessible at the site of the Tuscan Region, forms an essential tool for knowing, protecting and planning the territory.

<http://www.cultura.toscana.it/paesaggiocarta_vincoli/index.shtml>

It is worth mentioning the activity carried out by the Emilia-Romagna region for publishing on-line its own cultural data bases: firstly, a very special data bank, the Portal of scenic arts, devoted to the digital resources pertaining to institutions in Italy and in Europe, with federated access to collective and special catalogues. Furthermore, the full catalogue of objects of artistic interest of the Region <http://www.ibc.regione.emilia-romagna.it/h3/h3.exe/aMusei20_Sch_oa> and the data base of places devoted to contemporary art <<http://www.ibc.regione.emilia-romagna.it/h3/h3.exe/aartecont/FormSelezione>>.

Bibl, Biblioteca Italiana represents a point of excellence as regards digitisation and publishing of digitised texts as well as the creation of services connected to them is found in the Bibl, Biblioteca Italiana (Italian Library)

project. This is a digital library of texts representing cultural and literary tradition from the Middle Ages to the Twentieth century. It is promoted by the Centro interuniversitario Biblioteca italiana telematica (CiBit) (Interuniversity Centre of telematic Italian Library), and controlled by its active unit at the "La Sapienza" University of Rome, with the support of the "Biblioteca Digitale Italiana" (Italian Digital Library) project (cf. Progress Report 2004, <<http://www.iccu.sbn.it/bdi.html>> of the Ministry for Cultural Heritage and Activities).

BibIt's architecture is based on the OAIS Open Archival Information System logical model and uses a management system that is based on international standard formats for codifying data and on *open source* computer technology <<http://www.bibliotecaitaliana.it/presenta.php>>.

All the Biblioteca Italiana texts have been digitised in their unabridged edition beginning with the most authoritative modern and old editions in print. They have also been codified in XML format according to the TEI scheme <<http://www.tei-c.org/>>. Biblioteca Italiana not only provides functions of access and reading of the texts but also linguistic research tools that make it possible to carry out contextual research, proximity and full-text research and to create dynamic concords in kwic (keywords in context) format.

Up to now Biblioteca Italiana has published 1500 works, all freely accessible and downloadable.

<<http://www.bibliotecaitaliana.it>>

BEWeb, Beni Ecclesiastici in Web

BEWeb (Ecclesiastical heritage on the Web): the computerized inventories of cultural heritage created by the Italian dioceses starting from 1997 in agreement with the Ministry for Cultural Heritage and Activities (ICCD) are now available in the central data base edited by the National Office for Ecclesiastical Cultural Heritage and by the Computerized Service of the Italian Episcopal Conference. The images and information on line are only a tiny sample of the items owned by the individual dioceses (145,904 items belonging to 171 dioceses).

<<http://www.chiesacattolica.it/beweb/>>

Library and archives

Lastly, it is important to note the large investments in economic terms and in human resources made by the

library and archive sectors to put their heritage on line in order to provide users with advanced research tools with regard to an easily perishable heritage.

The Braidense National Library of Milan is one of the most avant-garde libraries in offering on-line services to its users <<http://www.braidense.it/digitale.html>>. Among these is the Emeroteca Digitale (Digital Newspaper and Periodical Library)

<<http://emeroteca.braidense.it/>>, which up to now has published 542 titles of periodicals of historical and national interest, the Raccolta drammatica <<http://rd.braidense.it/>> and Scaffale aperto (Open Shelf), the digitisation of entire texts <<http://www.braidense.it/scaffale.html>>.

The Library is furthermore very active in monitoring the feedback from its users through in-depth analyses of Web accesses.

In the area of archives we find the Progetto ventilazioni ereditarie of the State Archive of Gorizia, the Banca dati della Leva (Data base of Conscription) of the State Archive of Vicenza, the digitisation of the map and land registry collections of the State Archive of Siena, and the on-going activity of digitisation of the parchments of the great abbeys that is being carried out by the State Archive of Frosinone.

B. Technologies for digitisation

The Ministry's attention to new technologies has led to the design of the Archeologia on-line project. This initiative, still in the process of being set up, intends extending the tourist-cultural use of the archaeological heritage through distribution products based on well-developed computer technology (3D reconstructions) but also on more recent discoveries (Wireless technology).

At the moment Archeologia on-line regards only some chosen archaeological sites and is divided into three modules: Virtual Archaeological Visits, ArchaeoAtlas in 3D, Archaeoguide. The latter especially will use the most recent technology that permits the visitor to move in a real context guided by images, sounds and reconstructions prepared by pocket PCs (wPDA, or PDA connected through Wireless technology). This system not only has usability and accessibility characteristics but is also scalable, that is to say that it can be integrated over

time with progressively more complex information and data in order to improve knowledge of the heritage and increase the cultural level, arranging the contents in a context of e-learning that can be used on-line.

The Ministry recently launched an innovative cultural project, CUSPIS (Cultural Space Identification System - <http://www.cuspi s-project. i nfo/i ndex. htm>); CUSPIS will prepare a protection system for artistic and archaeological treasures using the potential offered by the networks of satellite sensors.

This initiative is born within the sphere of the Galileo project, the European system for satellite control of the area controlled by Esa (the European Space Agency) which should work at full capacity from 2008. Eighteen Italian and foreign partners have joined CUSPIS.

Within this sphere of the application of new technology and research it is worth noting that the Italian Culture Portal of the Ministry will also contain a section which will publish the results of the research carried out by various universities within the DELOS project. This exchange of synergies was made possible by an encounter between the MICHAEL project and the DELOS network.

http://del os-www. i sti . cnr. i t/i ndex. php?opti on=com_content&task=vi ew&i d=364&l temi d=142

C. Sustainability of content

Biblioteca Europea di Informazione e Cultura

A new economic and management model based on a partnership between the public and private sector, and able to provide services that are sustainable over time and are trustworthy is the challenge of the Biblioteca Europea di Informazione e Cultura (European Library of Information and Culture) <http://www. bei c. i t/i ndex. htm>. This is an initiative that will put some Italian libraries on-line with other international libraries to create a large open shelf library structure, with a close integration between books and computer modules regarding all branches of knowledge. Through a coherent programming of its cultural and organizational choices, it means to combine the characteristics of a great public library with those of a high profile international level library of interdisciplinary research.

The work group that deals with defining the priority sectors of the digital collections to be created in the period 2005-2008 has identified the standards prepared by the Biblioteca Digitale Italiana and by MINERVA as reference points.

Internet Culturale

Internet Culturale, the Website of the Biblioteca Digitale Italiana, has recently implemented an important e-commerce service for the sale of a first nucleus of digital contents of various types; in fact thanks to a synergy with other cultural institutions it is possible to purchase through Internet, with different modalities according to the objectives, a series of digital reproductions, from musical scores, to manuscripts to rare printed volumes. <http://www. i nternetcul tural e. i t/genera. j sp?s=277#>

D. Digital preservation

ADM-the Digital Multimedia Archive of Italian Music

The Discoteca di Stato of the Italian Ministry, i.e. the National Archive of Music. Its main activity is collecting Italian music heritage and it is responsible for the conservation and dissemination of this cultural legacy. In 1997 the Discoteca di Stato with the Biblioteca Nazionale Marciana and the Biblioteca Universitaria di Torino set up a digitisation project for 18th century Venetian music in order to virtually unify collections of musical scores with the audio material owned by the Discoteca di Stato (see Progress Report 2003). This initiative developed and became ADM-the Digital Multimedia Archive of Italian Music.

The services offered by the ADM will enable users (students, researchers, scholars etc.) to find and exploit this digital cultural material which will be accessible for viewing and listening over the Internet. In particular the ADM offers an on-line integrated service to search, localise, and browse musical documents, digital images of musical scores, video and audio materials. Moreover this project provides opportunities both to analyse thoroughly theoretical and application problems, such as Unimarc for musical documents or administrative metadata for digital objects, and to implement preservation strategies through the migration of the content of old formats (magnetic tapes etc) into a digital one.

Centro di fotoriproduzione, legatoria e restauro degli archivi di Stato - CFLR

The Centro di fotoriproduzione, legatoria e restauro degli archivi di Stato-CFLR (The Centre for photo-reproduction, binding and restoration of the state archives) <<http://www.cflr.beniculturali.it/Digital.htm>> is the research institute of the Ministry that deals with the conservation and restoration of archive materials, from parchments to digital supports. As the national centre responsible for the long-term conservation of digital memory, the CFLR is involved in many national and international activities.

On the one hand the CFLR has a well-equipped laboratory for the Digitisation of images of every format and support, but it also prepares strategies and guidelines for digital filming (cf. the 2004 study, <http://www.cflr.beniculturali.it/Digital_e_film/Scanners.pdf> and experiments procedures and equipment for correct conservation on various digital supports.

It is a partner of the TAPE-Training for Audiovisual Preservation in Europe <<http://www.tape-online.net>> project, funded by the 2000 Culture programme, within the sphere of which it has promoted surveys, organized training sessions and seminars.

The CFLR coordinated and completed the ConBeLib project, funded within the sphere of Leonardo da Vinci programme and carried out with other Italian and European institutions. Its object was to provide a map of skills for the preventive conservation of library heritage on traditional and digital support <<http://www.conbelib.org/>>.

Istituto Luce

The great historical patrimony of newsreels and documentaries possessed by the Istituto Luce, the greatest Italian institution of cinematographic and documentary production <<http://www.luce.it/istitutoluce/index.htm>>, was transferred to digital support and is freely consultable on-line <http://ricerca.archivioluce.scom/h3/h3.exe/a1/fri_c_avanzata>.

The Istituto Luce is moreover contributing with its collections to populating the Italian Culture Portal.

E. Monitoring

OTEBAC

To support the Italian Culture Portal and all the cultural institutions that must update or create their Websites,

and for a correct digitisation and accessibility of the contents, the Ministry for Cultural Heritage and Activities – General Management for Technological Innovation and Communication launched OTEBAC, the Technological Observatory for Cultural Heritage and Activities.

OTEBAC is born from the encounter between the internal requirement of the administration to use innovative tools, with special reference to the digitisation of the contents, communication and promotion through Internet of the projects and Websites developed by the institutions pertaining to the Ministry, the creation of digital contents and census of the digital resources, and the results achieved by MINERVA.

MINERVA has in fact carried out a primary role for the coordination of the national programmes of the sector, as well as establishing a network of contacts that promotes convergence between archives, libraries, museums, archaeological sites with national experts (of the Ministry for Innovation, of the CNIPA, of the MIUR, of the Universities, of enterprises and other research centres such as the Office of the W3C Italia and the CNR) operating in the sector. It has also entered into cooperation agreements for the integration of cultural programmes in the field of Digitisation.

Through OTEBAC the Ministry provides a support to public cultural institutes for creating accessibility of their Websites on the basis of Law 4, promulgated on 9th January 2004, *Provisions for promoting access of disabled subjects to computer instruments* (c.d. Stanca Law), and to those who intend cataloguing their digital resources within the sphere of the MICHAEL project, a census that will be visible from the Website of Italian Culture.

The Observatory promotes the adoption of shared standards, for the streamlining and inter-operability of national cultural Websites with the further intention of making it possible to exploit the Italian digital cultural heritage in global networks.

<<http://www.otebac.it/>>.

INSPE

The Central Institute for Cataloguing and Documentation-ICCD created INSPE (Sistema per l'Indagine sui Sistemi Periferici – System for Investigation on Peripheral Systems), in order to computerize the survey and statistical analysis of data relating to the processing and national production of catalogue records. The system creates a single national

database containing data referring to the programming and to the final report of cataloguing activities, and the census of what has already been catalogued, thus enabling a first-level statistic analysis.

The survey, commissioned by local authorities and bodies, enables the system to collect and measure the number of catalogue records prepared throughout the country, and to detect the parameters that define direct and indirect cataloguing expenditure. The whole system is developed with Web-based technology.

<<http://www.iccd.beniculturali.it/servizi/osservatorio.html>>

SITA

Among the greatest efforts carried out at national level to give a sense of unity to what has been done up to now for the protection of the environment and heritage we find SITA - Sistema Informativo per la tutela dell'Ambiente (Information System for the Protection of the Environment). This system was developed by the Carabinieri Department for the Protection of the Environment with the aim of creating a computerized system of control and mapping of the territory that bears in mind both the problems closely connected with the protection of the landscape and those of the archaeological heritage. The system is currently active in the southern regions (objective 1) but will soon be extended to national level <http://www.carabinieri.it/Internet/Cittadino/Informazioni/Tutela/Ambiente/O4_SITA.html>

DigItalia

The year 2005 saw the publication of number 0 of the magazine «DigItalia – Rivista del digitale nei beni culturali», (Magazine of digital in cultural heritage) edited by the Central Institute for the Unique Catalogue of Italian libraries. This magazine will host Italian and foreign contributions on the state of the art of the digitisation of the cultural heritage of the country. Its aim will be promoting an exchange of information at technical, management, organizational and juridical level. It will act as a stable reference point for monitoring and demonstrating the impact of the efforts, investments and results in the sector.

MINERVA impact

The work carried out by MINERVA in the international sphere has had a vast echo among Italian cultural institutions.

We have already spoken of the birth of the OTEBAC observatory, of the activity of the Cultural Website and of the issue of the directive, but it is still worthwhile remembering other important results. In the first place, the conference “La cultura del Web, il Web per la cultura” (The culture of the Web, the Web for culture) <<http://www.minervaeurope.org/events/roma06022728.htm>>, successfully organized by the Ministry to create an echo at national level to the MINERVA products on the quality of cultural Websites, among which the Content Management System of Museo&Web <<http://www.minervaeurope.org/structure/worki nggroups/userneeds/prototipo/cms.html>>, and to present the second edition of the MINERVA handbook *Manuale per la qualità dei siti Web culturali pubblici* <<http://www.minervaeurope.org/publications/qualitacriteriaindic0512.html>>. This conference saw the detailed illustration of the new *Dynamic Action Plan* in its Italian translation <<http://www.minervaeurope.org/publications/dap/dapversioni.html>>. *The Dynamic Action Plan* is the development of the activity that the National Representatives Group for the digitisation of cultural heritage carries out since 2002 with the support of the European Commission.

Italy has applied to be the leader of the area pertaining to the sustainability of digital contents, in its strong position deriving from the important activities carried out by the MINERVA project in this specific sector, such as the studies on the business model in relation to copyright and author's rights and that of the lowering of Digitisation costs, with the aim of creating a European controlling structure. As far as the implementation of Museo & Web is concerned, both the static and the CMS versions, they have been requested by hundreds of cultural institutions such as universities, schools, museums, archives, libraries and Ministry's offices. In fact, the Italian Ministry for cultural heritage and activities, besides the activity mentioned in point A, devoted a lot of energies to the dissemination of the MINERVA tools and criteria for the quality of the cultural Websites; many specific workshops were organised across Italy in order to train people that have to implement of manage cultural web sites.

Furthermore, the Italian Ministry introduced the MINERVA tools for the quality of the cultural Websites

and Museo & Web in a couple of workshop in Cairo, Egypt and Rabat, Morocco; a third one is planned in Jordan. These activities are mainly funded by UNESCO in the framework of the Information for All Programme <[http://www. medcul t. org/](http://www.medcul t. org/)>.

MICHAEL in Italy – The state of the art

The European project MICHAEL

<<http://www. mi chael -cul ture. org/>>, born from the close collaboration between the National Representatives for digitisation of France, Italy and the United Kingdom, is producing its first results.

At European level, the production module and data model have been defined; the national applications of the three countries have been cast, formation seminars of the cataloguers are under way and the first data is being inserted in the system.

At national level MICHAEL has involved numerous national and local bodies in its activities with its aim of reaching the greatest possible institutional and territorial involvement, including all sectors of cultural heritage.

For this reason bilateral agreements have been reached with the Regions which have worked in cooperation with their respective Regional managements of the MiBAC for preparing common projects. At this stage Emilia-Romagna, Lombardia, Piemonte and Toscana have begun operations; Abruzzo, Lazio, Veneto and the Objective 1 regions (Campania, Puglia, Basilicata, Calabria, Sicily, Sardinia) will begin shortly, while the remaining Regions will be involved by the summer.

A help-desk service has been set up in support of their work.

As well as the Regions and its own institutions the Ministry has involved other organisms in MICHAEL. Among these are CRUI, the Conference of Rectors of Italian Universities, which will allow access to the digital collections of the libraries and museums of 77 universities, MIUR, which will use MICHAEL for didactic reasons and CASPUR, the interuniversity Consortium for the applications of supercalculation and research that is responsible for the maintenance of the Italian technological platform and cooperates in the test phase. The first stage of data collection will be concluded within the year 2006; the contents inserted will be updated regularly. MICHAEL is a service that is integrated with the Italian Culture Portal of MiBAC.

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<<http://www. sardegna. beni cul tural i. i t/test2>>

Office for the architectural heritage and landscape of the Municipality of Rome

National Gallery of Modern Art of Rome

State Archive of Forlì

University of Modena and Reggio Emilia, Department of the Museum of Paleobiology and of the Botanic Gardens,

Network of the University Museums of Modena

<<http://www. musei . uni mo. i t/>>

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