DIGICLIC

DIGIBIS

Information about enriched digitisation, software for the management of physical and digital Libraries, Archives and Museums and international standards.

DIGIMUS, the essential standardisation for museums on the web

Museological information absolutely needs to be standardised if you want the website to interact with it so that the existing mechanisms and features operate optimally. Aware of this reality, DIGIBÍS has developed its DIGIMUS program with the strategic decision of basing its data model on an international standard like LIDO, promoted by ICOM (the International Council of Museums), a model that is also being used in the Europeana projects called Athena and Athena Plus.

DIGIBÍS has been able to use its clear data model to support a wide range of features based on standards, particularly those related to multilingualism and Linked Open Data. Naturally, following on the model of its sister programs, DIGIBIB and DIGIARCH WEB, all information coded with tags in LIDO format are updated dynamically and transparently for museologists into Dublin Core and, furthermore, they update an OAI PMH repository in Dublin Core, LIDO and EDM formats.

DIGIBÍS has also carried out an internal mapping of the information so that, in addition to the LIDO and EDM formats, information is transformed and updated into the last version of EDM, so that it can be used in the Europeana project and, in general, by everyone else using this coding, such as the DPLA, Digital NZ in New Zealand and its counterpart in South Corea.

Furthermore, very powerful features have been introduced into DIGIMUS, such as the establishment of a timeline and geolocation of authors, works and events.

The events established in the LIDO (Lightweight Information Describing Objects) format are particularly rich and effective for describing and coding real-life events for a work of art or museum object. Moreover, the DIGIMUS program allows for semantic enrichment with value vocabularies, creating fields that enable the coding of URIs that connect some objects with others within the Linked Open Data environment. With the DIGIMUS program, DIGIBÍS has created a new modern and standardised software solution for the processing of museological information in the environment of the semantic web and with Europeana on the horizon. It is also delighted to present it on the year of the centennial of el Greco by dedicating a pilot project to his life work. ■

> DIGIMUS uses the LIDO format established by the ICOM natively

EUROPEANA

Update 5.2.4 of the Europeana Data Model (EDM)

Version 5.2.4 of the Europeana Data Model was published on 17 July 2013. This new version contains some relevant changes compared to the previous version, which were reported in DIGICLIC No. 7 corresponding to the months of January-June 2012.

The recommendations of the Hierarchical Objects Task Force

The *Hierarchical Objects Task Force*, which included the participation of the Ignacio Larramendi Foundation, proposed for the edm:isNextInSequence element to be repeatable,

The Montiano Archive: Case Study for Hierarchical Objects in EDM

so that structures of an archival nature or periodical publications could be reflected effectively in EDM. This Task Force used the Montiano Family Archives as a case study, which can be found on the website of the Ignacio Larramendi Foundation, implementing DIGIARCH WEB. It should also be noted that, in addition to EDM, information can be obtained using EAD coding and viewed in ISAD (G). Furthermore, authority records are coded in EAC-CPF and can be viewed in ISAAR (CPD).

Crosswalk between MARC 21 and EAD

A crosswalk has also been set up between both formats of archival coding and MARC 32 for authority records and bibliographic records, pro-

viding a significant optimisation of resources and allowing for the elimination of inconsistencies for final users looking for the same information in different databases, both archival and bibliographical.

Significant semantic differentiation

Along this line, the properties added in this version to code user-generated content or UGC and the one dedicated to code information provided in 3D are very important.

Both of these follow the 2013 Business Plan and, in general, the strategic principles of Europeana, as established in the Europeana Strategic Plan 2011-2015, the objectives of which are being met with ease. ■

europeana
think culture

Definition of the
Europeana Data Model v5.2.4

14/07/2013

Co-funded by the European Union
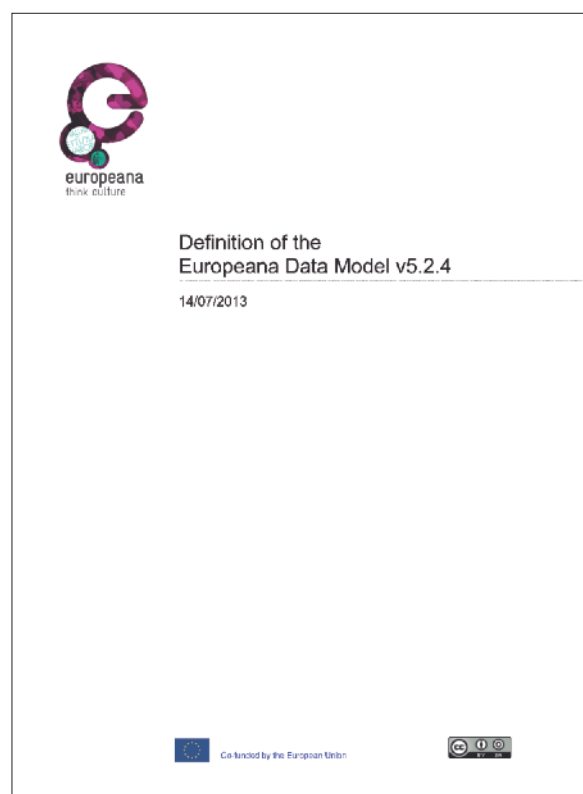
Definition of the elements of
Europeana Data Model version 5.2.4.

The BibFrame model is consolidated

I N T E R N A T I O N A L

The project led by the Library of Congress, referenced by the acronym BIBFRAME (Bibliographic Framework Initiative), has published the first versions of its data models, synthetically and clearly, an essential element to find out about the entire project.

The terminology and conventions also facilitate the understanding of this initiative as a Linked Data model greatly, as well as RDF modelling of all types of resources from libraries, entities, attributes and relationships between entities. After considering the theoretical difficulty that

Harmonisation between the BIBFRAME and RDA models

this new scenario entails due to the radical differences compared to the MARC 21 format, the need to have this support documentation available to monitor its progress will be understood immediately.

BIBFRAME and RDA

It is important to remember that the BIBFRAME model, despite being inspired by FRBR, does not completely coincide with them or with RDA, making it very important to know about it.

For the time being, the BIBFRAME model includes four main classes called: *Creative Work* (a resource that reflects the conceptual essence of what is catalogued); *Instance*, which is a resource that reflects the specific and individual materialisation of a piece; *Authority,* which is a resource that reflects the key concepts defining the relationships between a piece and its instances with people, organisations, places or
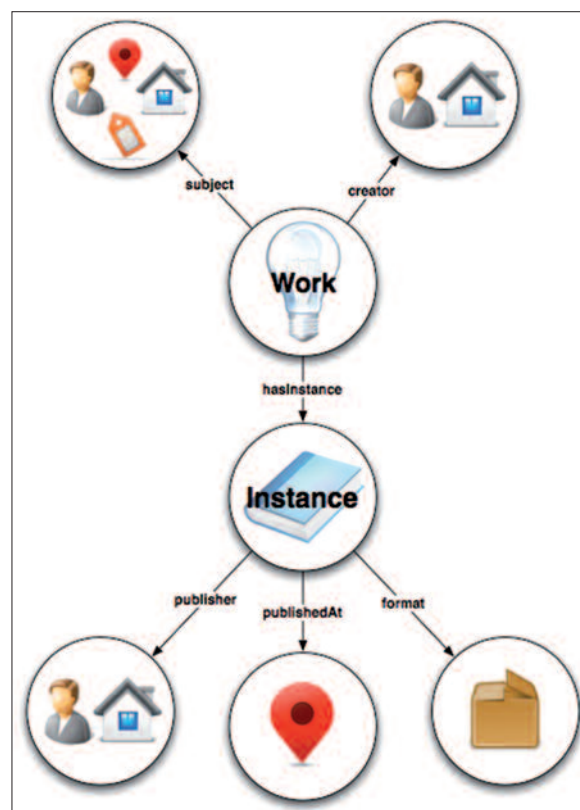
BIBFRAME model taken from the page of the Library of Congress project.

subjects; and *Annotation*, a resource that includes different specific data and information about a library, included in the copy data.

This illustration, taken from the BIBFRAME website, clarifies the design that deconstructs and reconstructs the information that authorities or funds have been expressing for the last 30 years using MARC 21 bibliographic records.

As you can see, it is very important for entities that appear as Expression and Manifestation in the FRBR model to be in the Instance entity in the BIBFRAME model, which simplifies certain aspects of bibliographical description that are always subject to discussion considerably.

There is no doubt that software developers who make the BIBFRAME model operational in different library management systems will be very grateful for this simplification. ∎

ENUMERATE Ends

The ENUMERATE European project, which started in 2011 and in which DIGIBÍS participated, ended in the last quarter of 2013 and is awaiting evaluation by officials from the European Commission. In addition to its intrinsic interest in the project, for DIGIBÍS it was very important to participate, as it was able to get first-hand knowledge about the status of digitalisation of European cultural heritage deposited in archives, libraries, museums and other memory institutions.

DIGIBÍS coordinated Work Package 3, WP 3-Information (Data Collecting, Analysis and Reporting), with the direct intervention of the director of the IT department, Jesús Domínguez Muriel, and Maribel Campillejo, from the Innovation department.

Second general survey

During the last quarter of 2013, the second general ENUMERATE survey was launched, with significant participation: it reached 1,373 institutions, organised by number of answers from

ENUMERATE is incorporated into Europeana as a verification tool

museums, libraries and archives. This information can be viewed in the ENUMERATE Data Platform, developed for the project by DIGIBÍS.

The ENUMERATE Newsletter

The 5th ENUMERATE Newsletter was published in October 2013, providing an account of the development of the project and the fascinating debates throughout Europe focusing on improving the survey's methodology and definitions. Over 50 experts from all sorts of cultural heritage institutions throughout Europe supported the ENUMERATE project for the three basic questions addressed by the European project, these being the cost of digitalisation, access and use.

The results of ENUMERATE

The *New Renaissance* report that ushered the entire Europeana project was accompanied by an appendix drafted by the Collection Trust, which represented a very detailed estimation of the European Cultural heritage to be digitalised and disseminated. Now, thanks to the information collected, drafted and published by the ENUMERATE project, we have extremely detailed statistical information that allows for planning the future in a precise manner. Therefore, ENUMERATE is expected to be incorporated into Europeana. ■

The Core Group and the ENUMERATE Project Consortium at the Austrian National Library on 10 July 2013, with Jesús Domínguez Muriel (wearing a red tie), director of Software Projects at DIGIBÍS.

L A B   A P L I C A T I O N S

Digital Library of the Spanish Agency for International Development Cooperation

The AECID Digital Library, despite being in the formation process, has been present for years in the digital environment. Both the Bibliographic Heritage Virtual Library and the Miguel de Cervantes Virtual Library have significant digitalised funds from the AECID Library.

BIDA is the name adopted for the new Digital Library of the AECID

Over the past few years, this institution has been digitalising a portion of the most important collections from its funds obtained from the Hispanic Library, the Islamic Library and the Spanish Cooperation Library, specialising in the creation of a bibliographical collection on the subject of development cooperation, in line with the functions and objectives of the organisation to which it belongs.

Creation of the AECID Digital Library

Very quickly, in less than one week, and from the definition of the data structure, we created the AECID Digital Library, containing over 25,000 multimedia objects distributed over a period ranging from 1571 to 1962. In 2014, a considerable number of digital objects from prior digitalisations, as well as the corresponding bibliographic and authority records, are expected to be

Home page of the Digital Library of the Spanish Agency for International Development Cooperation (AECID).

integrated. These records will feed the OAI-PMH repository and may be harvested by Hispana and Europeana, as well as by OAIster, thereby becoming part of WorldCat.

Records are coded in MARC 21 and may be viewed and exported in Dublin Core, MODS, MARC 21 tagging and MARC XML. Like all other DIGIBÍS applications, it features persistent links, an essential requirement to support Linked Open Data. ∎

DIGIMUS, a new LOD software by DIGIBÍS temporary exhibits, art collections and

DIGIMUS is a completely new development by DIGIBÍS with a series of basic design requirements:

- A data model for the standardised description of museum objects according to the LIDO v1.0- Lightweight Information Describing Objects standard by the International Council of Museums (ICOM)

- A common and flexible data model for contextual classes (agents, time, places, events, etc.) based on Europeana Data Model 5.2.4 and its different namespaces (SKOS, RDA, CIDOC-CRM, etc.).

Full compatibility with Linked Open Data

- Complete reuse of data sets and value vocabularies from Linked Open Data, either through a URI or through the batch integration of value vocabularies, such as the Library of Congress

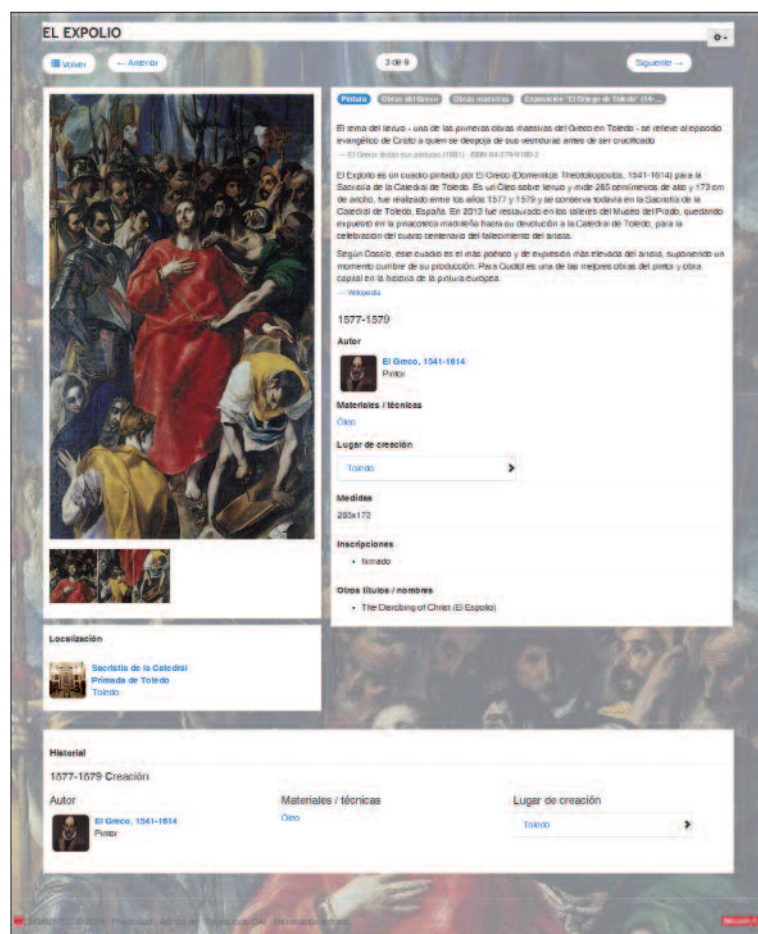> Museological Description is adapted to the LIDO standard defined by the ICOM

Subject Headings, the Art and Architecture Thesaurus, the Virtual International Authority File, the Universal Decimal Classification, GeoNames, etc.

- Availability of an OAI-PMH repository with the oai_dc, lido and edm (5.2.4) schemas

- Multilingual data structure. Any resource can be described in one or more languages.

- Applications built on DIGIMUS allow the collections of any museum to be displayed on the Web.

- DIGIMUS is completely interoperable with OAI-PMH metadata harvesting systems, such as OAIster, Hispana or Europeana, which it does transparently to administrators and without redundancy of efforts. All of this makes it easier for users to participate in these great projects with no additional effort, sustainably and continuously.

Most important features

- Responsive design. Websites generated with DIGIMUS adapt to any mobile device, facilitating access to the digital collection from a smartphone or tablet.

- By applying Linked Open Data technology, each object is published in RDF format, identified through a URI and can be linked with external Linked Data sources, which:

  Increases exposure of the collection through search engines

  Increases visibility of the collection and facilitates resource location

- It combines the information from a catalogue with that from other vocabularies and data sets, significantly enriching contents and facilitating multilingual data searches.

- It allows for pre-loading thesauri, vocabularies, classifications, etc., facilitating the creation and maintenance of these tools.

- Completely multilingual consultation within the interface itself, searches and data visualisation.

- It features an image viewer with very high resolutions and 3D objects, responding to the needs to present new models of digital objects.

- Temporal and geographical representation. Both metadata and digital objects are repre-

to manage
digital museums on the Web

Above these lines, a fragment of the LIDO coding of the museological description of The Disrobing by el Greco, for which you can see the sheet to the left.

sented on a time-line that is combined with its corresponding geographical location. Thus, a series of pre-analysed data evolving temporally and geographically can be displayed.

Usability

The web interface allows for exploration of the metadata and digital objects through the different classes and categories (pieces, styles, authors, techniques, materials, historical periods, schools, topics, exhibits, previous owners, locations, etc.).

Searches on the website are enriched through the Europeana and DPLA APIs, which simultaneously and automatically perform the same search

in the catalogue, in Europeana and in the DPLA, significantly increasing the number of results.

Links established through the URIs to different value vocabularies published as Linked Open Data also enhance the functionality of the site in a very significant way.

DIGIMUS is designed as a management system for the digital collection of a museum, historic site or museum collection; as a service for the creation of a repository of temporary exhibits; as a web interface to improve consultation and interoperability of other existing museum applications and databases; and as a method for publishing printed exhibit catalogues online.

The development of DIGIMUS has been supported by the General Directorate of Cultural and Book Industries and Policies of the Ministry of Education, Culture and Sport, through "Subsidies for capital investment to increase the lawful supply of digital contents on the Internet and to promote modernisation and innovation of the cultural and creative industries". ■

The **DIGIBÍS** Website in English

The growing internationalisation of the operations of DIGIBÍS has made it desirable to prepare a website with contents similar to those of the Spanish website, presented in a significantly modified version, with a design developed by our Art department that is simpler and lighter than that of the Spanish website, which will later be adapted to the design of the English website.

Complete information in English about all DIGIBÍS products and services

The English website is presided by the phrase: "Our software meets all your demands" and five highlights providing extensive information about products for libraries, archives and museums, first and foremost, as well as about DIGIHUB and DIGIOAI. On the right, it is specified that all of our applications can be harvested by OAI-PMH.

Homepage of the DIGIBÍS website in English.

The creation of the English Website represents a firm commitment to internationalisation

Given the international focus of the English website, it specifies that our software can be found in the DPLA, Europeana and Hispana. The section "Our work at a glance" details our digital libraries through a link to the corresponding site listing all of them, as well as access to the DIGICLIC newsletter, specifying that subscription is free of charge. It is important to note that our DIGICLIC newsletter also has an English version since the 7th issue.

Access to all solutions implemented in DIGIBÍS clients

On the main bar of the menu, users can access software, services, publications and extensive information about DIGIBÍS clients by clicking on their logos. Among other things, the "About us" section provides information about the fundamental principles guiding the commercial operations of DIGIBÍS and the quality certification of its Management System.

With the English version, DIGIBÍS provides very thorough information aimed at an international audience about all its products and services, with the clear goal of facilitating access to its range of solutions, characterised by their quality and their strong standardisation, following the application of international standards for Libraries, Archives and Museums. ■

7ᵗʰ Meeting of Spanish REDIAL Centres

On 21 November 2013, at the hall of the Spanish Agency for International Development Cooperation (AECID), the 7ᵗʰ Meeting of Spanish REDIAL Centres was held, dealing with the "Latin-American heritage in Spanish digitalisation projects", sponsored by the General Sub-Directorate for Library Coordination of the Ministry of Education, Culture and Sport, as well as by the Ignacio Larramendi Foundation and DIGIBÍS.

Throwing down the gauntlet

As stated by Araceli García Martín, a challenge was posed to REDIAL (European Network of Information and Documentation about Latin America) from the speaker podium by Xavier

The REDIAL meeting represented the starting point for the Americanae project

Agenjo, project director of the Ignacio Larramendi Foundation and participant in the formation of REDIAL twenty-five years earlier, in Bordeaux, during the 46ᵗʰ International Congress of Americanists. The challenge raised was none other than the creation of a metadata harvester named Americanae as a working name and which, through OAI-PMH harvesting features, would aggregate all the data about Americanist studies available in OAI repositories throughout the entire European Network, i.e. on REDIAL.

With this technological innovation, one of the specific objectives of REDIAL was achieved, consisting in gathering all existing information about

Image of the REDIAL invitation for the 7ᵗʰ Meeting of European Centres.

Latin America at specialised centres throughout Europe.

Given its European characteristics, this project is a clear candidate for a subsidy from the HORIZON 2020 programme and, from the very first moment, Araceli García Martín, director of the AECID Library, has been promoting this possibility among members of REDIAL.

Content of Americanae

As proposed, and especially as discussed throughout the sessions of the meeting, the contents of Americanae would correspond very closely with those that the different institutions that make up the network are gathering in their databases.

The qualitative difference represented by the Americanae project lies in the use of technology and harvesting of metadata according to the OAI-PMH protocol, which makes it extraordinarily easier to add and aggregate all resources existing in the different institutions that make up REDIAL.

Thus, thanks to the technology that DIGIBÍS could supply, it would be possible to meet the specific objectives of REDIAL in an easy and proven manner by incorporating the DIGIHUB harvesting program into the project. The results from Hispana and Europeana represent a clear example of success. ■

PRESENTATIONS

Presentation of "Combatientes

The presentation of the book *Combatientes requetés en la guerra civil (1936-1939)* on 18 November 2013 at the auditorium of the Lázaro Galdiano Foundation in Madrid has once again shown the convening power of the Ignacio Larramendi Foundation and the first thing we want and must do is thank the large audience that filled the auditorium for their attendance and interest.

The book presented undoubtedly deserves the expectation generated. As stated by Luis Hernando de Larramendi, executive vice-chairman of the Foundation, it opens up a new era in history studies about Carlism and the civil war, a book that cannot be ignored by historians studying that period from now on.

The chairwoman of the Foundation, Lourdes Martínez Gutiérrez, who represents this entity's drive and will to go on, opened the act. After almost 90 years and despite her delicate health, she wanted to be present to remember the inside story of the book and, in particular, to remember some people who are no longer with us and who helped the eminent historian Julio Aróstegui to make progress in his historical research.

The book revises and expands on the 1991 edition

Then, Luis Hernando de Larramendi, already mentioned, took the floor to remind the audience that the book revises and expands on the previous 1991 edition; he was followed by Alfonso Bullón de Mendoza, director of the CEU Institute of Historical Studies; Jesús A. Martínez, professor of Contemporary History of the Complutense University of Madrid and Aróstegui's disciple, who had the important role of completing the work after Aróstegui's death; and Amparo Aróstegui, Julio Aróstegui's daughter, in representation of her father.

Jesús A. Martínez wanted to remember Julio Aróstegui's many interests related to History, not

only historical events but also everything related to the theory of History, which is much less common. He was a data historian, said fellow historian Alfonso Bullón de Mendoza, who remembered some of his talks with Aróstegui and how they

The book marks a new beginning for studies about the history of Carlism and the civil war

both always supported their opinions on known and contextualised data.

Lastly, Amparo Aróstegui drew a moving picture of her father, of his way of working and how he saw the practice and theory of historical studies from the knowledge that organises and the intelligence that discovers and enlightens.

The complete recording of the presentation can be watched on YouTube. We recommend searching for "Combatientes Requetés Aróstegui 12 - YouTube". ■

Requetés en la guerra civil"
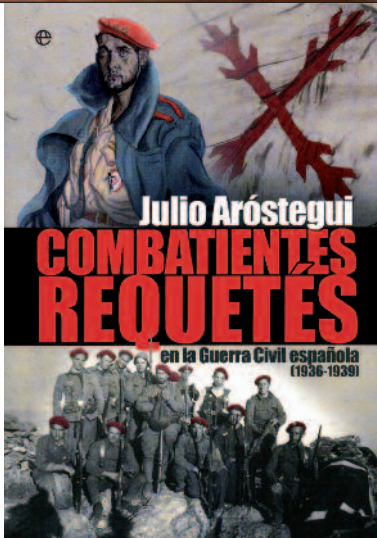
From left to right, in the upper photos, the chair of the Ignacio Larramendi Foundation, Lourdes Martínez Gutiérrez, widow of Ignacio Larramendi, and the table of speakers, with Luis H. de Larramendi, in the podium, and the daughter of the late author of the book, Amparo Aróstegui. To the left of these lines, the cover of the book and Jesús A. Martínez, disciple of Julio Aróstegui, who completed the study. Below, different moments at the reception held after the presentation of the book, which gathered significant interest and was a great success among the audience. At the centre, Ramón Hernando de Larramendi, renowned specialist of polar lands. On the right, Tachi Hernando de Larramendi, managing director at DIGIBÍS, with a kerchief on her neck and, behind, Carmen Hernando de Larramendi, patron of the Foundation.

2013 Europeana General

On 2 December 2013, the third Europeana Network Annual General Meeting was held in Rotterdam, where, as on other occasions, the Hernando Larramendi Foundation and DIGIBÍS, now members of the Europeana Network, were present. The meeting was held jointly with DISH 2013, the biennial national conference on digital strategies for cultural heritage.

This was a transition meeting as the 7th Framework Plan, the source of a large proportion of the funding that has allowed for the development of the Europeana project to date, was coming to an end.

Connecting Europe Facility

The Meeting focused on the Europeana Business Plan 2014 and on the progress made by the working groups. Federico Milani, representing the European Commission, made a very important contribution through his presentation *There is a future: CEF success and new programmes: Horizon 2020 & Creative Europe* announcing that Europeana would be included in the funding instrument Connecting Europe Facility (CEF). Without a doubt, this provided at least some certainty about the financial future of Europeana over the coming years.

With the support from the CEF, Europeana will go from being a portal to a platform where a wide number of services and resources will be developed. It will not only hold references to metadata but also cultural contents, tools, technologies, projects and other services.

The CEF determines the terms, methods and procedures to provide financial aid from the European Union to trans-European networks for the purpose of supporting projects of common interest in the industry of transport, telecommunications and energy infrastructure. It will focus on:

Several moments at the Meeting Upper right: Jill Cousins, managing director of the Europeana Foundation.

• Reinforcing the aggregation infrastructure to ensure preservation and access to contents already available; improving the quality of data and metadata; enabling the introduction of new contents while attempting to balance the different geographical areas and optimising interaction with aggregators.

• Improving the mechanisms to distribute and disseminate contents and achieve the best possible visibility (APIs, mobile devices and apps), getting users involved and developing synergies with communities like Wikipedia, Facebook or Pinterest, to take the digital contents to places where users are used to searching for content.

• Promoting the participation of institutions with contents related to cultural heritage and of communities reusing information (especially app developers and CCIs).

Meeting

- Providing information in conditions that allow for its reuse and promoting the development of innovative value-added services.
- Supporting interaction with institutions hosting cultural heritage through the organisation of pan-European events and discussion forums.
- Developing strategies and business models focused on sustainability. On this point, it is aligned with the strategy of the European Union based on the self-funding of any initiative.

There was also information about the Horizon 2020 project, the name adopted by the formerly called 8th Framework Plan. It should be noted that the Horizon 2020 project, the Digital Agenda for Europe and the 2015-2020 Strategic Plan share the final objective of the decade where, without a doubt, a completely new perspective that can be hardly anticipated at the moment will open up.

Europeana Business Plan 2014, four priority aspects

- Turning the current portal into a platform so that, throughout 2014, value-added proposals can be developed and aimed at three different sectors: end users, the Europeana network and creative industries.
- Improving the quality of the data: this improvement will result in the reuse and recovery of contents. The objective is to have relevant descriptions of all contents, previews in reasonable sizes, geolocation of data, clear and correct copyright notices (preferably those allowing for reuse) and direct and permanent links.
- Providing added value to participating institutions. Insofar as these institutions have made an important investment to make their contents accessible through Europeana, one of the goals is for all institutions to consider the relationship to be worth it. To do this, the visibility of the data and contents will be increased by all possible means.
- To become a network organisation. The Europeana project has gone from being a project to an organisation including a network of over 800 members, over 2,300 participating institutions and a Europeana Tech community with over 75 participants

The conference was composed of small interactive sessions related to the business of creative industries, active audiences and new skills. These are key opportunities for the Network and to face the challenges for the cultural sector over the next few years.

Four sessions related to different aspects of the Strategic Plan were held: its impact, the connection with creative industries, the cloud and the 2020 Network. ◾

E V E N T S

R&D&I at DIGIBÍS

In 2013, DIGIBÍS has once again shown its nature as a company of technological innovation and obtained the report for the qualification of the contents of its annual R&D&I project according to the parameters established by AENOR, which has issued the necessary qualification report.

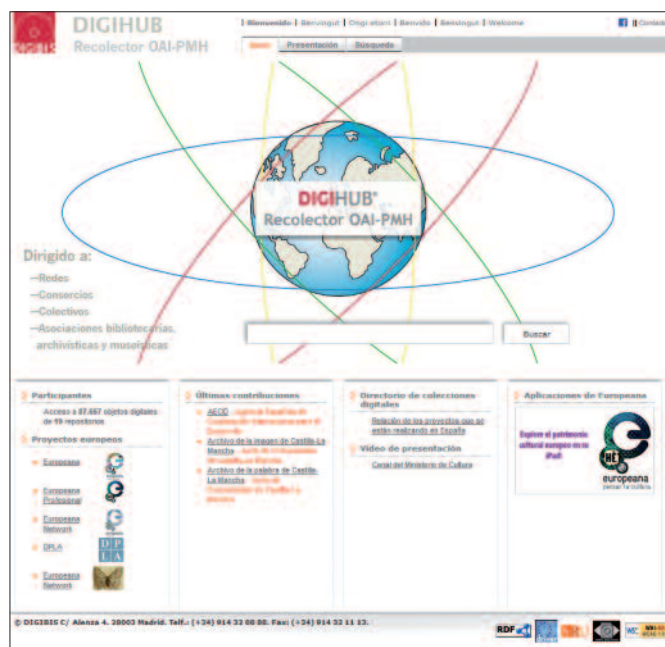**A new certification as an innovative technological company was obtained**

The 2013 project is titled: "DIGICLOUD, digital heritage in the cloud". From the beginning, the

Migration of DIGIBÍS products to the SaaS environment

Homepage for DIGIHUB-demo, the website prepared by DIGIBÍS for anyone interested in this application to find out about it and use it.

DIGICLOUD project has focused on the management of museum collections from the DIGIMUS project, as the technological renewal of these institutions through sustainable applications as Software as a Service (SaaS) has been deemed to be in great demand.

SaaS is very appropriate for institutions of a small and medium size that cannot afford to purchase technology and seek applications with a lower cost.

The project was developed throughout 2012 in five phases based on the update of the cataloguing process Resource Description and Access (RDA), Linked Open Data (LOD) and Europeana; on the semantic enrichment of authority records;

on the creation of the ENUMERATE Data Platform; on the preliminary design of DIGI-CLOUD and DIGIMUS; and on the API for mobile devices.

1,850 man/hours have been invested in all these tasks, distributed in the fields of project management, documentation and innovation, programming analysis and system technicians.

As stated above, these tasks have been certified by AENOR. For DIGIBÍS, in addition to tax exemptions, this entails certification of tasks dedicated to R&D&I consistent with its corporate philosophy from the moment of its incorporation. ■

DIGICLIC IN ENGLISH
ONLINE EDITION

You can read DIGICLIC on our Website:
http://www.digibis.com/digiclic.html