Cultural Heritage and knowledge

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EC supporting the knowledge of cultural heritage

- Cultural heritage enriches the individual lives of citizens, is a driving force for the cultural and creative sectors, and plays a role in creating and enhancing Europe's social capital.

- It is also an important resource for economic growth, employment and social cohesion, offering the potential to revitalise urban and rural areas and promote sustainable tourism.

- Cultural heritage is eligible for significant EU funding from 2014-2020 - including for conservation, digitization, infrastructure, research and skills - from several EU programmes – including the main programmes like Horizon 2020, Creative Europe and the JPI

Cultural heritage: a priority in Horizon 2020

- It's strategic the contribution of the cultural heritage sector to securing Europe's position as a global leader in research and innovation

- Cultural heritage is a cross-cutting theme in the 3 H2020 pillars:

  – *Excellent Science*, which can guarantee the accessibility of research infrastructure (including *e-infrastructure*) to all researchers in Europe and beyond

  – *Industrial Leadership*, which aims to make Europe more attractive to new investment in research and innovation

  – *Social Challenge,* which reflects the goals established by the *Europa 2020* strategy for employment, education, research and innovation, and social integration.

JPI priorities' for Strategic Research Agenda

- Developing a reflective society (identity, perception, values, ethics)

- Connecting people with heritage (ICT, use, sustainability, security)

- Creating knowledge (methods, measure, damage, integrating risks)

- Safeguarding our cultural heritage resource (conservation, adaptation and mitigation)

- www.jpi-culturalheritage.eu

Representing knowledge in CH inside the digital enviroment

Digital technologies sustain the knowledge of tangible and intangible cultural heritage, through activities like:

- Cataloging and archiving inside National and European Systems
- Digitizing and production of 3D
- On-line access and usability
- Discoverability and multilingualism
- Interoperability and multidisciplinary
- Quality and scientific contents
- Scientific analysis
- Social media

Sharing knowledge on CH:
the Research Infrastructrures

A research infrastructure is a system comprising resources, services, and facilities,

can be composed of:

- a single research centre of particular importance (such as CERN),

- a network of complementary institutes – **such as museums, libraries and archives** – and competence centres that carry out shared programmes, or it can be virtual, and thus provide online services.

The main Italian National Research Infrastructures on cultural heritage

SBN, Servizio Bibliotecario Nazionale

www.**sbn**.it (5.800 libraries 13 M bibliographic records)

Internet Culturale, the Digital Library for the libraries' collections

www.**internetculturale**.it (1 M records, 10 M digital objects,142 libraries)

CulturaItalia, the National Aggregator

www.**culturaitalia**.it (2.7 M metadata)

 SAN, Sistema Archivistico Nazionale

http://**san**.beniculturali.it/ (835.321 resources)

SIGEC Web, Sistema Informativo GEnerale del Catalogo (10M records,
2.489.449 published records, 578 institutes participant)

http://www.iccd.beniculturali.it/

SITAR, Sistema informativo territoriale di Roma

http://**sitar.**archeoroma.beniculturali.it/ (100.000 digital objects)

European Research Infrastructures for CH, arts & humanities

ARIADNE, Advanced Research Infrastructure for Archaeological Dataset Networking in Europe

www.**ariadne**-infrastructure.eu/

DARIAH, Digital Research Infrastructure for the Arts and Humanities

www.**dariah**.eu/

CLARIN, Common Language Resources and Technology Infrastructure,

www.**clarin**.eu/

European Research Infrastructures for CH, arts & humanities

CHARISMA, Cultural Heritage Advanced Research Infrastructures, Synergy for a Multidisciplinary Approach to Conservation/Restoration

www.**charisma**project.eu/

CENDARI, Collaborative European Digital Archive Infrastructure

www.**cendari**.eu/

EUROPEANA, the European aggregator

www.europeana.eu/

Digital cultural heritage enviroment

- Memory institutions are creating a **large volume of digital content** that needs to be:
  - safely **stored** and **preserved**
  - permanently **accessed**
  - easily **re-used** over time by different end-user groups
- Challenge of **a common e-infrastructure for cultural heritage** will bring costs reduced and interoperability enhanced, by shared:
  - **Common procedures**
  - **Workflows**
  - **New skills and competences**

e-Infrastructure fostering the innovation potential of RIs

E-Infrastructure makes available to researchers and cultural institutions:

- backbone connectivity

- effective data storage and long term preservation

- computing resources for allowing simple and controlled on-line access to services

- resources and collaboration tools

- authentication and authorization systems for federated access

- A cross-disciplinary approach and sharing of best practice between disciplines

Three integrated EU projects leded by ICCU

The need to foster cooperation between cultural heritage institutions research infrastructures and e-Infrastrucrures was identified by:

1. **DC-NET (2009-2012)**: joint activities plan for DCH e-infrastructure implementation
2. **INDICATE (2010-2012)**: international cooperation, use case studies, pilots, policy harmonisation
3. **DCH-RP (2012-2014)**: developing and validating a Roadmap for digital preservation

DCH-RP: a Roadmap for the long-term preservation in DCH

To develop a commonly agreed **vision of distributed digital preservation architecture relying on e-Infrastructures.**

The DCH-RP Roadmap will lead to the realization of a **federated preservation infrastructure for digital cultural heritage** taking into account existing solutions and the services and tools of existing and upcoming e-infrastructures.

Four areas identify the policy domains that require intervention:

- **Harmonisation of data storage and preservation**
- Improved **interoperability, including integration of preservation within the overall workflows for digitisation and online access**
- Establishment of conditions for **cross-sector integration, transferring knowledge and know-how**
- **Governance models** for infrastructure integration, to foster participation in larger e-Infrastructure initiatives, and aggregation and re-use of digital resources

AthenaPlus Project (2013-2015)

Coordinated by ICCU

Network of GLAMs

Consortium: 40 partners from 21 Member States

Ministries and government agencies, GLAMs, aggregators, research centres, SMEs.

Main goal:
aggregation of 3,5 millions data to Europeana
80% from museums (about 500 institutions)

www.athenaplus.eu
info@athenaplus.eu
Twitter | https://twitter.com/AthenaPlusEU
LinkedIn | http://linkd.in/19XwWOz

AthenaPlus Project (2013-2015)

Some AthenaPlus activities for the Museum community

- **Terminologies and semantic enrichment:**

  A Terminology Management Platform

  A Registry of terminologies for the cultural heritage sector

  GLAMs may upload, edit and share their own terminologies within the community

- **Creative applications for the reuse of cultural content**

  Tools for digital exhibitions, tourism and education

  API for Europeana content reuse

Italian EU Presidency

- The digitisation and online access to cultural heritage represents a strong opportunity to foster the creative industries and the job creation throughout the reuse of the digital resources.

- The Presidency supports the development of Europeana as unique access point to the European cultural heritage, and the national aggregators that play a fundamental role in ensuring core quality content to the European portal.

2014 Italian Presidency
of the Council
of the European Union

Italian EU Presidency

Develop cooperation between researchers, providers of e-infrastructure and cultural institutions to:
- implement a federated infrastructure devoted to Cultural Heritage and Digital Humanities
- creation of Virtual Research Communities in the field of DCH and Digital Humanities
- development of recommendations and guidelines for the use of digital infrastructures by cultural institutions

2014 Italian Presidency of the Council of the European Union

# Italian EU Presidency: two International Conferences

- ## Rome, 2 October 2014, National Library
  - The re-use of digital culture content in education, tourism and leisure organized in cooperation with ATHENAPlus project

- ## Rome, 13-14 November 2014, National Library
  - Research infrastructures and e-infrastructures for DCH organized in cooperation with ARIADNE project

2014 Italian Presidency
of the Council
of the European Union

DCH and Tourism:
Reccommendations for cultural institutions

Digital cultural heritage can be a pillar of tourist marketing and an engine to attract tourists in more or less known locations can be an opportunity for creating new jobs and for creative industries

Recommendations edited by MIBACT in September 2014 and targeted to cultural institutions may represent an useful tool to orientate them and make them aware of the benefits coming from the digitization of cultural heritage


DIGITAL CULTURAL HERITAGE AND TOURISM
Recommendations for cultural institutions
version 1.0, 2 October 2014
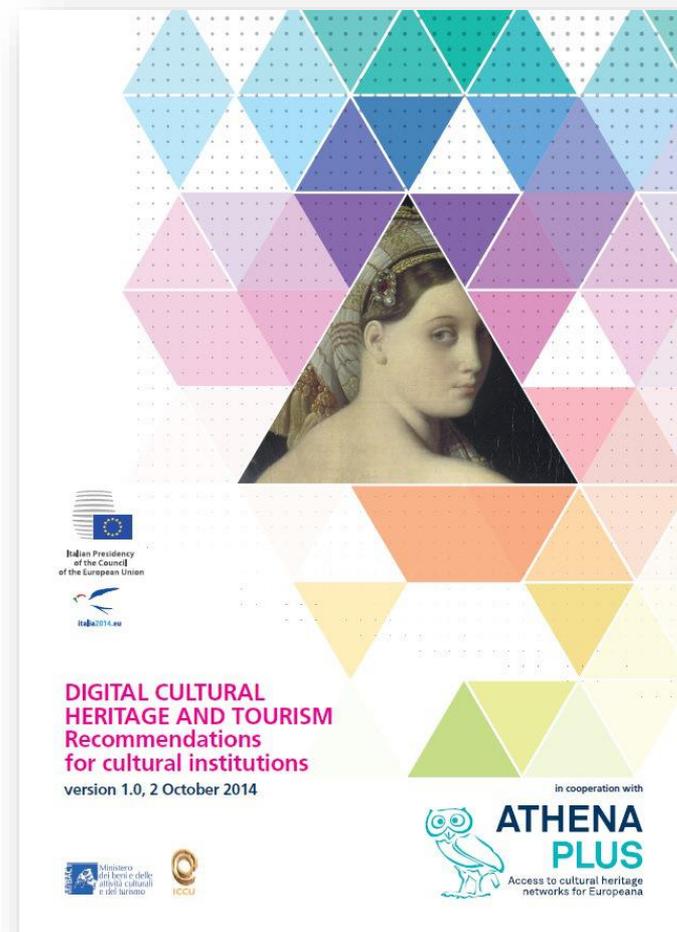
DCH and e-Infrastructures:
Vision document

There is an enormous potential to be developed and new research methods to be fine-tuned in order to improve the access, use, and conservation of cultural heritage.

Nevertheless, several complex matters still need to be resolved concerning the management of privacy, data storage and security, IPR license policies, the interoperability of the various operating systems, the improvement of research and data retrieval systems, and multilingualism and semantics.

The vision document presented at the conference of 13-14 November in Rome summarize the sttate-of-art and the challenges for the next future.
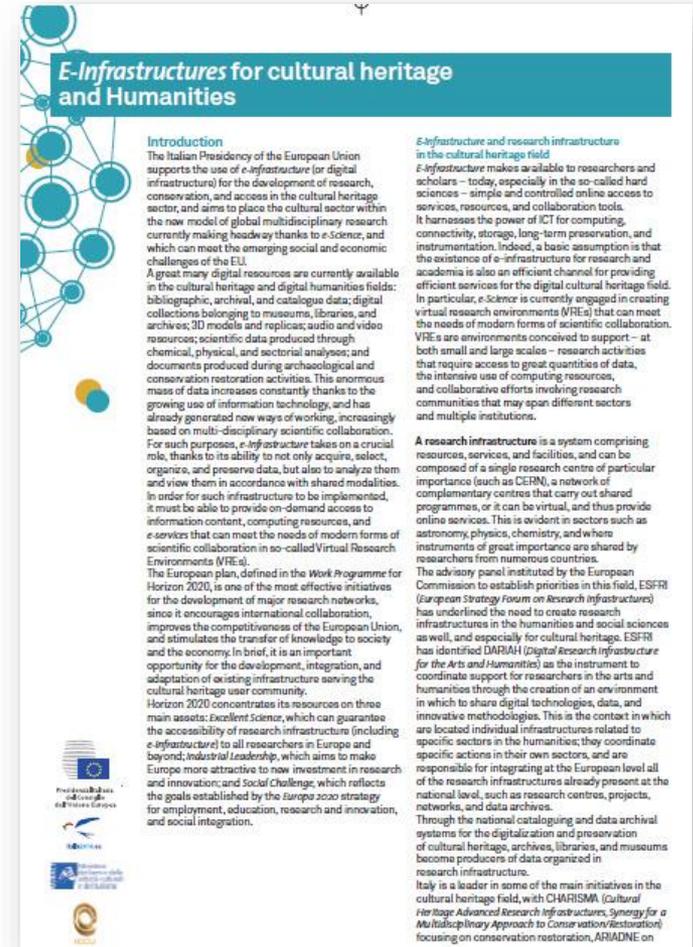
Overall goals for the next future

- Go ahead in collaborating with e-Infrastructures providers
- Joint policies and solutions for the cultural and humanities data lifecycle, from acquisition to access, management, curation, and long-term preservation
- Strengthening the cohesion of research in the broad sector of humanities, cultural heritage, archaeology and related fields belonging to e-Science
- Developing **Virtual Research Enviroments** based on services delivered by e-infrastructures and domain specific services co-developed and co-operated by researchers, technology and e-infrastructure providers
- Enable **long term preservation** of our cultural and scientific memory and keep the records of science accessible to future generations of researchers
- Enhance the **quality and the amount of cultural contents** for the re-use in creative industries and tourism

Thanks!

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