



Digital Cultural Heritage e-Infrastructure

New opportunities for the Cultural Heritage

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European Strategy on Digital Cultural Heritage

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The Background of the Digital Cultural Heritage

A long way that begun 10 years ago

Three complementary directions:

- European coordination of policies and programmes
- Shared recommendations and guidelines
- Implementation of innovative services



Lund Action Plan
Brussels Quality Framework
National Digitisation Programmes

minerva
eEurope
Digitising Content Together

Michael
Multilingual
Inventory
of Cultural Heritage
in Europe

**DATA MODEL,
ORGANISATION,
GOVERNANCE**

**RECOMMENDATIONS
& GUIDELINES**

ATHENA

LINKED HERITAGE

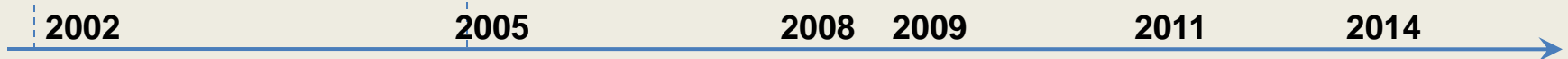
**EUROPEANA
The European Portal**

INDICAT

**DC
NET**

**DIGITAL CULTURAL HERITAGE
e-Infrastructure**

NATIONAL & REGIONAL INITIATIVES





Digital cultural content

- The **amount of digitised material** in the European Cultural sector is growing very rapidly
- **National, regional and European programmes** support the digitisation of the content of Museums, Libraries, Archives, Archaeological sites and Audiovisual repositories
- The generation of digital cultural heritage is accelerated also by the impulse of **Europeana** that is fostering the European cultural institutions to produce even more digital content
- Digital cultural heritage content are complex and interlinked thorough many relations



The needs of the DCH sector

1. high quality **information technology** management, to ensure trust, availability, reliability, long term safety of content, security, preservation and sustainability;
2. **access facilities** to the final users who will search into the DCH e-Infrastructure for their research and to the cultural institutions that will deliver their data to the DCH e-Infrastructure;
3. **interoperation** of cultural heritage data with non-cultural heritage data (research, education, cultural tourism, creative industry, etc.).



The vision

To implement a seamless **data and services infrastructure** for the research of the cultural heritage virtual community, which provides key services:

- preservation and backup,
- authentication and data integrity,
- collaborative research environments,
- advanced (cross-collection, multilingual and semantic) search and retrieval
- intellectual property management and authorised use of DCH content.



Sustainability of DCH e-Infrastructure

National programmes in the areas of

- Research
- Cultural heritage
- e-government

European programmes

- Infrastructures
- ICT research
- Innovation (CIP)

Regional programmes



Expected impacts

- **e-Infrastructures**

The adoption of the e-Infrastructures by the digital cultural heritage community will open new scenarios of use and exploitation

- **Cultural Heritage**

Cultural managers will become more aware about the potential that the e-infrastructures can offer to their work: storage, preservation, services for the cultural institutions, etc.

- **European research**

A better integration of the cultural sector with the e-Infrastructures will enable the research of new advanced services and applications

- **Other sectors**

Digital cultural content will become more usable and re-usable for education, cultural tourism, long-life learning, non-professional cultural interests, creative industry, etc.



3 integrated projects

1. **DC-NET**: joint programming
2. **LINKED HERITAGE**: a best practice network on metadata and standards, linked data and persistent identifiers, multilingual vocabularies, aggregation of content to Europeana
3. **INDICATE**: international cooperation, use case studies, coordination among cultural institutions



The Coordinator: Central Institute for the Union Catalogue of IT Libraries

2 services

1. Administrative Service
2. Service for the cultural promotion

Projects:

- Internet Culturale
- CulturalItalia
- Europeana (Italian partic.)
- World Digital Library (Italian partic.)
- European projects

6 departments

1. Standards rules for cataloguing and digitisation
2. National Library Service (SBN)
3. Bibliographic information and activities for the Registry of the Italian library
4. Digitisation and access to documents
5. Activities concerning bibliography, cataloguing and census of the ancient book
6. Census and management of the Italian bibliography of manuscripts



DC-NET ERA-NET

A Network for the European Research Area:

- To establish common perspectives & priorities across the digital cultural heritage and e-Infrastructures communities in Europe,
- To identify constraints and capabilities in order to establish a plan of joint activities

Started in December 2009, it will last until June 2012

A project funded by EC FP7 e-Infrastructures





The partners

- **Italy:** Ministero per i beni e le attività culturali - Istituto Centrale per il Catalogo Unico (coordinator)
- **Belgium:** Politique scientifique fédérale/Federaal Wetenschapsbeleid (BELSPO/STIS)
- **Estonia:** Eesti Vabariigi Kultuuriministeerium
- **France:** Ministère de la Culture et de la Communication – Département de la Recherche de l'enseignement supérieur et de la technologie
- **Greece:** Υπουργείο Πολιτισμού [Hellenic Ministry of Culture]
- **Hungary:** Oktatási Kulturális Minisztérium (Ministry of National Resources)
- **Slovenia:** Ministrstvo za Kulturo Slovenia
- **Sweden:** Riksarkivet (*)
- **Latvia:** Valsts Agentūra Kultūras Informācijas Sistēmas (new partner)

(*) Partner delegated by the Ministry of Culture

ENLARGEMENT IS ON-GOING

Barcelona, 14/6/2011

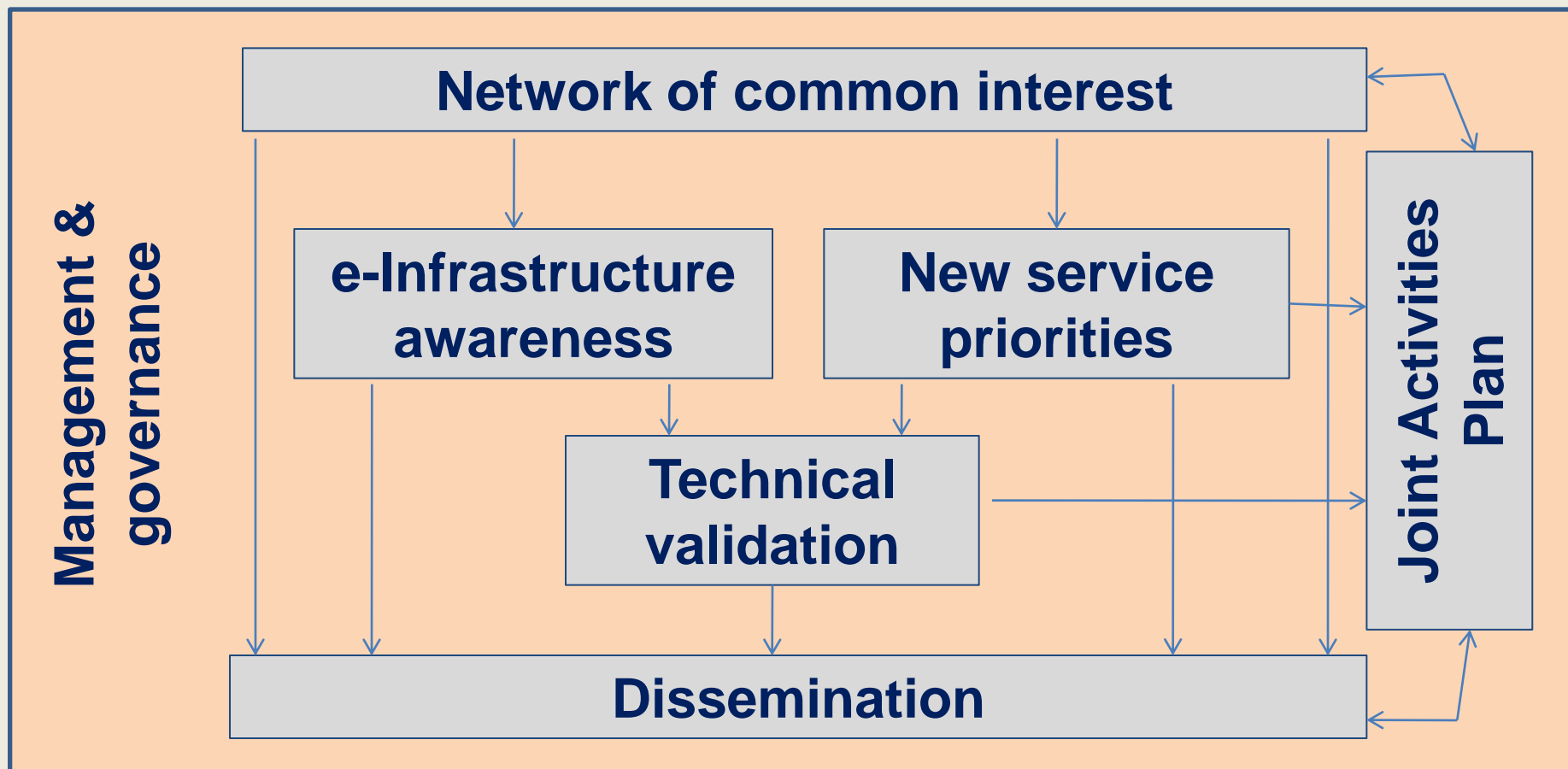


DC-NET objectives

- to establish a **dialogue** between the Cultural Heritage, the ICT and the e-Infrastructures (*working groups, international conferences, workshops, publications*)
- to agree on a list of **priority services** and to validate their feasibility from the technical point of view and their sustainability
- to develop and endorse a **Joint Activities Plan** gathering the commitment from the stakeholders for the implementation and the sustainability of the new integrated DCH e-infrastructure



DC-NET Project Plan





Service priorities

A prioritised list of the most immediately important services has been agreed.

The list is categorised into:

- Services for content providers and online data resources
- Services to enhance the content itself
- Services for content consumers and end users



Services priority ordering

1. Long-term preservation
2. Persistent identifiers
3. Interoperability and Aggregation
4. Advanced search
5. Data resource set-up
6. User authentication and access control
7. IPR and digital rights management



Joint Programming Initiative (JPI)

The pre-requisite for the sustainability of the DCH e-Infrastructure is the coordination of public programmes, at national, regional and European levels

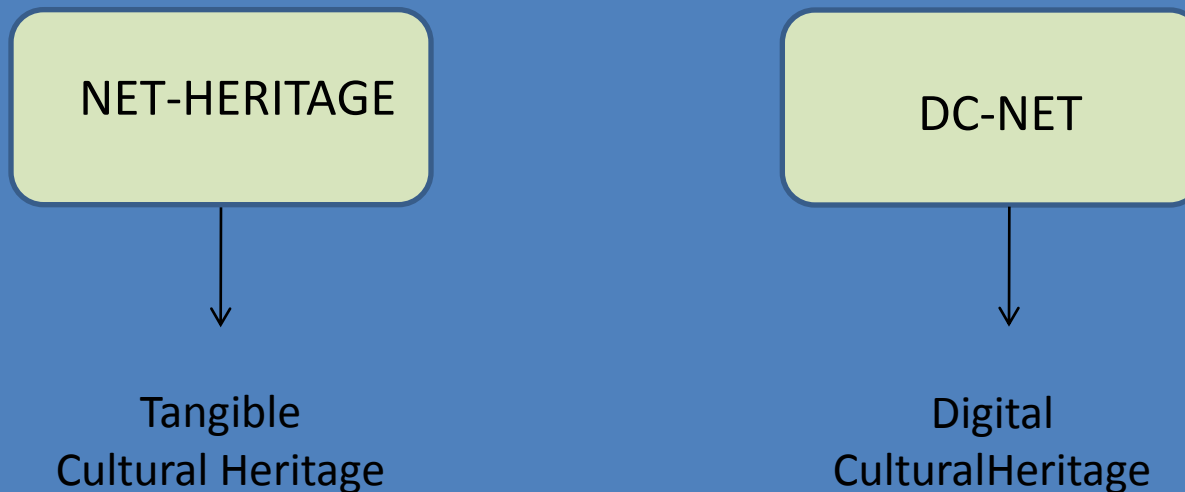
JPI for Cultural Heritage

"Cultural Heritage and Global Change: a new challenge for Europe"
- EC Recommendation 26/4/2010

- 17 Member States participate + 4 observers
- Chaired by Italy
- To define, develop and implement strategic research agendas



Joint Programming Initiative Cultural Heritage

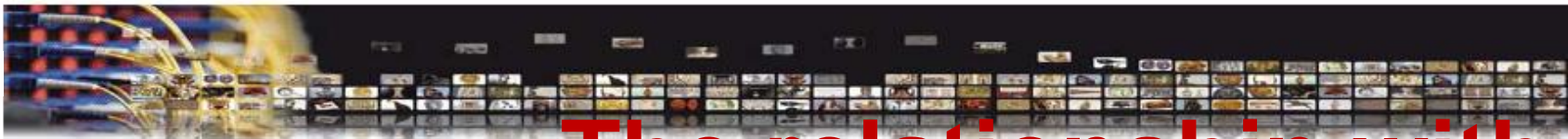




Liaisons with EU strategic bodies

DC-NET has established factual cooperation with:

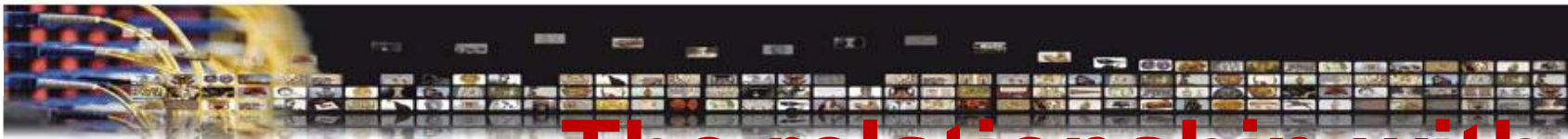
- **e-IRG** e-Infrastructure Reflection Group
- **ESFRI** European Strategy Forum on Research Infrastructures (SSH thematic working group)
- **EGI** European Grid Initiative
- **TERENA** Trans-European Research and Networking Association
- **MSEG** Member States Expert Group on digitisation



The relationship with Europeana

Structural differences and cooperation

	Europeana	DCH infrastructure
The targets:	Europeana is a portal for final users	DC-NET works towards an infrastructure for the research in the digital cultural heritage
The initiators:	Europeana is an initiative of the EC supported by Member States	DC-NET is an initiative of the Member States supported by EC
The access to data:	Europeana offers access at the object level	The new e-infrastructure is based on the concept of the collection level, which is scientifically central for the cultural heritage research. The collection level provides contextualisation and thematic aggregation of the objects



The relationship with Europeana

Structural differences and **Cooperation**

DC-NET will offer tools and functionalities to Europeana, such as, for example the **preservation** (indicated as a priority in the New Renaissance Report, Comité des Sages)

Common work between Europeana and DC-DI on **metadata and standards**

There is a natural link between DC-NET and Europeana through **projects** and political/strategic and technical **groups**



Linked Heritage: the liaison with Europeana



Best Practice Network: to support Europeana



EC Programme: CIP ICT-PSP

Started on 1/4/2011



Duration: 30 months

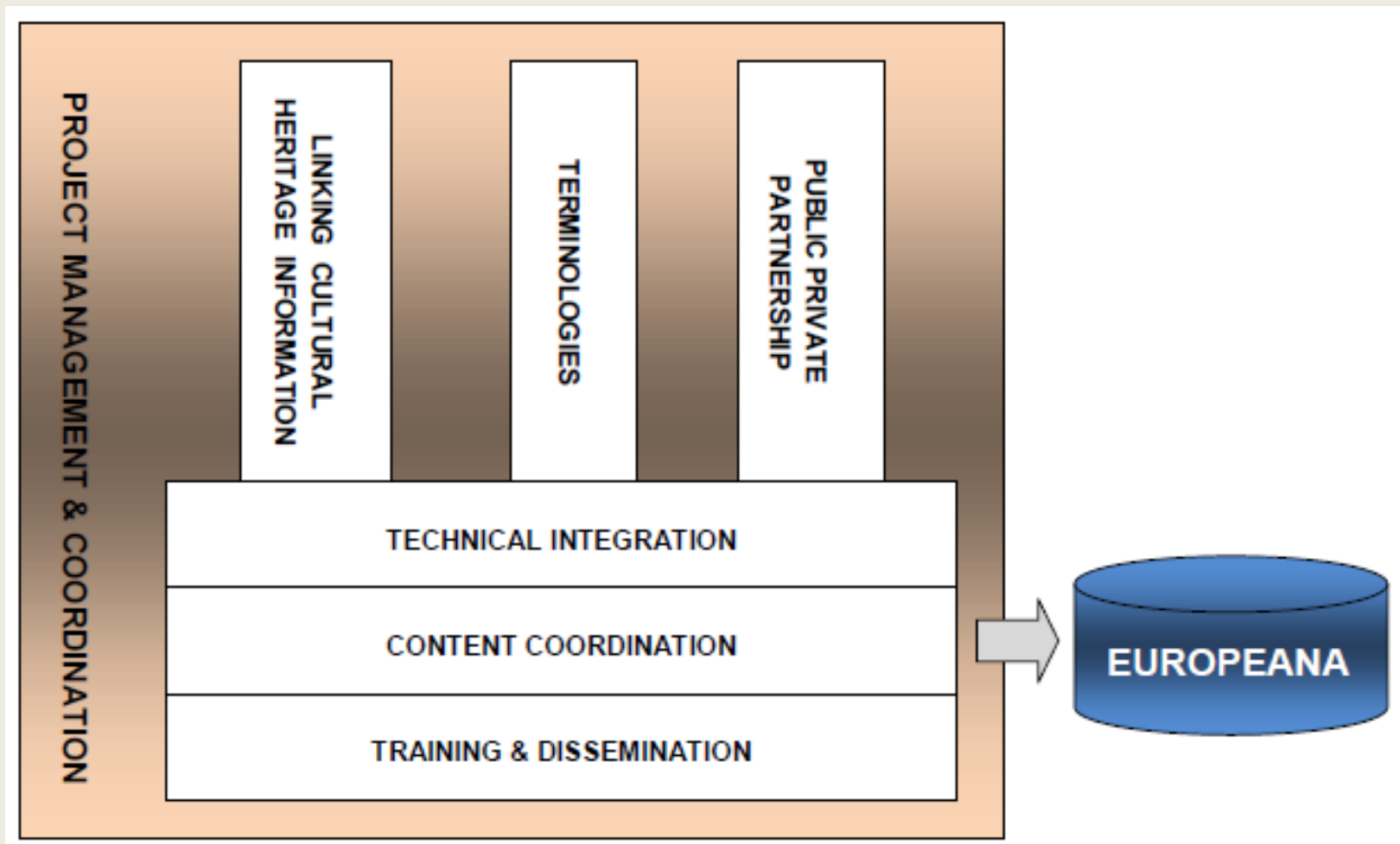


Linked Heritage objectives

- To contribute large quantities of new content to Europeana – **cross domain**
- To prepare for the enhancement of quality of both new and existing Europeana content: **PID and Linked Data**
- To demonstrate improved search, retrieval and use of Europeana content: **multilingualism**
- In Linked Heritage, for the first time, the **public sector** participate together with the **private sector** to provide content to Europeana



Project structure





The Europeana strategic plan 2011-2015

The Europeana Strategic Plan 2011 – 2015 sets out a clear vision for the further development of Europeana.

It focuses on four strategic tracks:

- **Aggregate**
- **Facilitate**
- **Distribute**
- **Engage**

These tracks correspond to the approach of Linked Heritage



INDICATE: international dimension, pilots and case studies

- INDICATE is a Coordination action
- Research field: e-infrastructure for the digital cultural heritage
- Started on the 1st September 2010
- Duration: 24 months
- Stimulating the **international cooperation** of networks of e-Infrastructures providers and users in the Mediterranean region, (Egypt, Turkey and Jordan + a mission to China in cooperation with the EPIKH Grid School

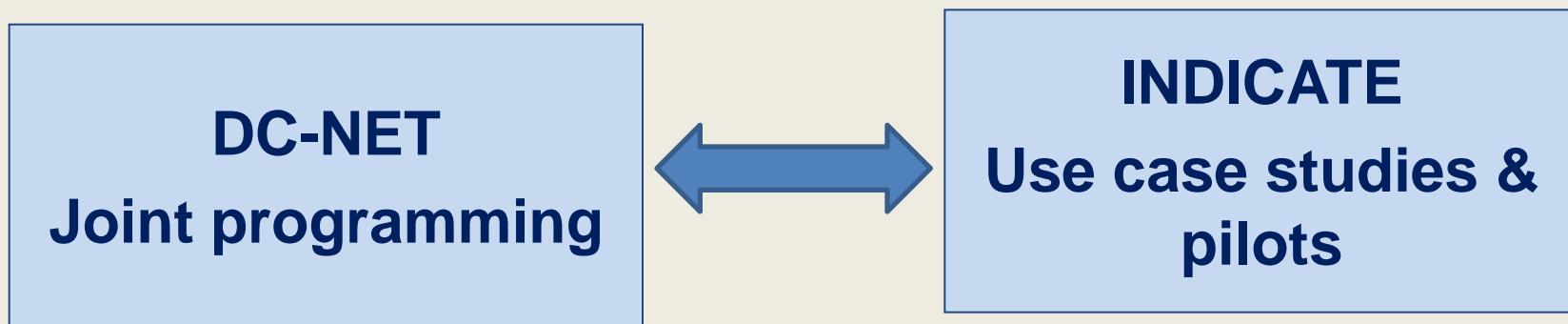


Partners

- **Italy:** Ministero per i beni e le attività culturali - Istituto Centrale per il Catalogo Unico (coordinator)
- **Italy:** Consotium GARR
- **Italy:** COMETA
- **France:** Ministère de la Culture e la Communication
- **Greece:** Nationa Technical Univrsity of Athens
- **Spain:** I2CAT
- **Slovenia:** Institute for the Protection of Cultural Heritage
- **Egypt:** CULTNAT
- **Jordan:** Department of Antiquities
- **Turkey:** Ministry of Culture and Tourism

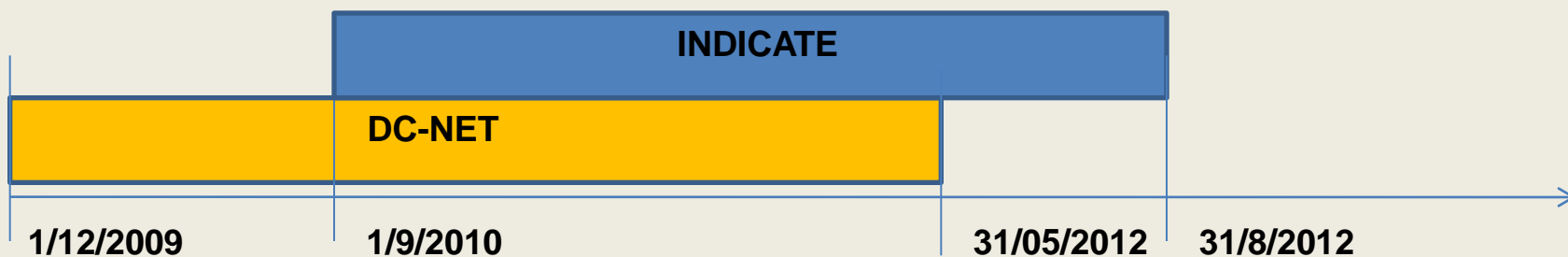


DC-NET and INDICATE: complementary approaches





DC-NET and INDICATE



The two projects run in parallel for about 1 and half year.

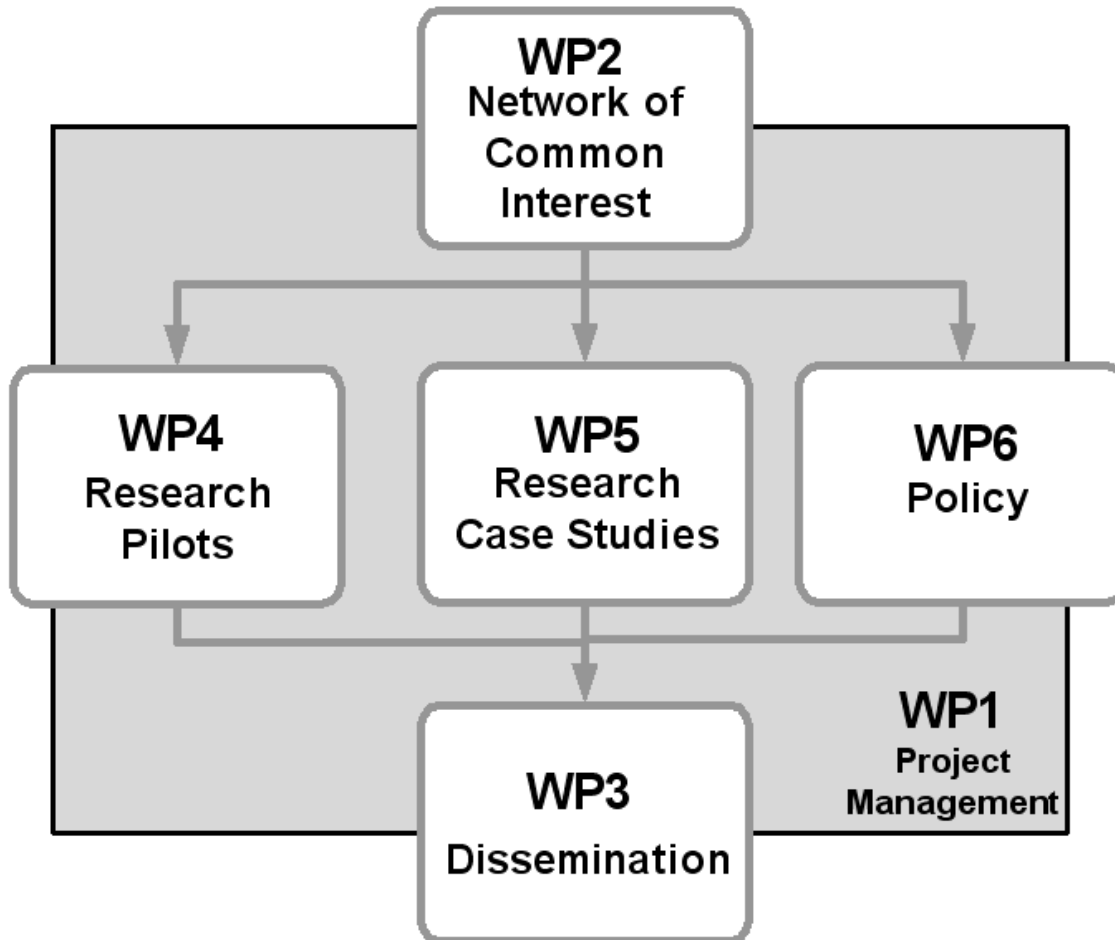
They have partners in common:

- ICCU and MCC
- NTUA and AAS that provide technological support the DC-NET partners from Greece and Slovenia
- GARR and COMETA that participate to the DC-NET working groups

The programmes identified in DC-NET will be used for the sustainability of the results of INDICATE.



Project plan





Pilots and case studies

Pilots

- e-science cultural gateway, based on grid, accessible via INDICATE website

3 Case studies

- Digital preservation
- Virtual exhibitions
- Geocoded digital cultural content



Targets and Stakeholders

- Cultural heritage organisations (museums, libraries, archives and Ministries of Culture)
- International associations of memory institutions (e.g., NEMO, EMF, ICOM, EBLIDA, CENL, ...)
- E-Infrastructures providers (NREN, Grid, etc.)
- Ministries and state agencies who are responsible for e-Infrastructures
- International Policy bodies for the research infrastructures (eIRG, ESFRI, EGI, TERENA)
- Research organisations (universities, private and public research centres)
- Other projects in the digital culture and in the e-Infrastructures



Dissemination and events

- Website and publications
- Strategic collaborations
- News and media
- Workshops:
 - Turkey – Digital Preservation (7° July 2011)
 - Jordan – Virtual exhibitions (October 2011)
 - Slovenia – Geo-coded digital cultural content (March 2011)
 - France – Strategies and Future plans (2012)
- Conferences:
 - Cairo, April 2012
 - Rome, July 2012



A comprehensive and integrated approach

Linked Heritage → to contribute to Europeana

DC-NET → to study the new e-Infrastructure

INDICATE → use cases and pilots

JPI-CH → to coordinate programmes

+ national, regional and European digitisation initiatives



See you in Budapest

Under the aegis of the Hungarian Presidency of the European Union

22 June 2011 – Linked Heritage conference

23-24 June 2011 – Second DC-NET Conference

Further information online at:

www.linkedheritage.eu

www.dc-net.org



Thank you

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