A data infrastructure for digital cultural heritage: characteristics, requirements and priority services

13 October 2011
e-IRG Workshop, Poznan

Antonella FRESA

Technical Coordinator

Central Institute Union Catalogue Italian Libraries

Poznan, 13/10/2011

Table of content

- The Digital Cultural Heritage sector: characteristics and needs

- The vision towards a DCH data infrastructure

- Three inter-related projects: DC-NET, INDICATE and LINKED HERITAGE

- Positioning of the DCH sector

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** through many relations

THE VISION

Data Continuum

NATIONAL PROGRAMMES

REGIONAL PROGRAMMES

EUROPEAN PROGRAMMES

Digital cultural content

National portals

Regional portals

Thematic portals

4
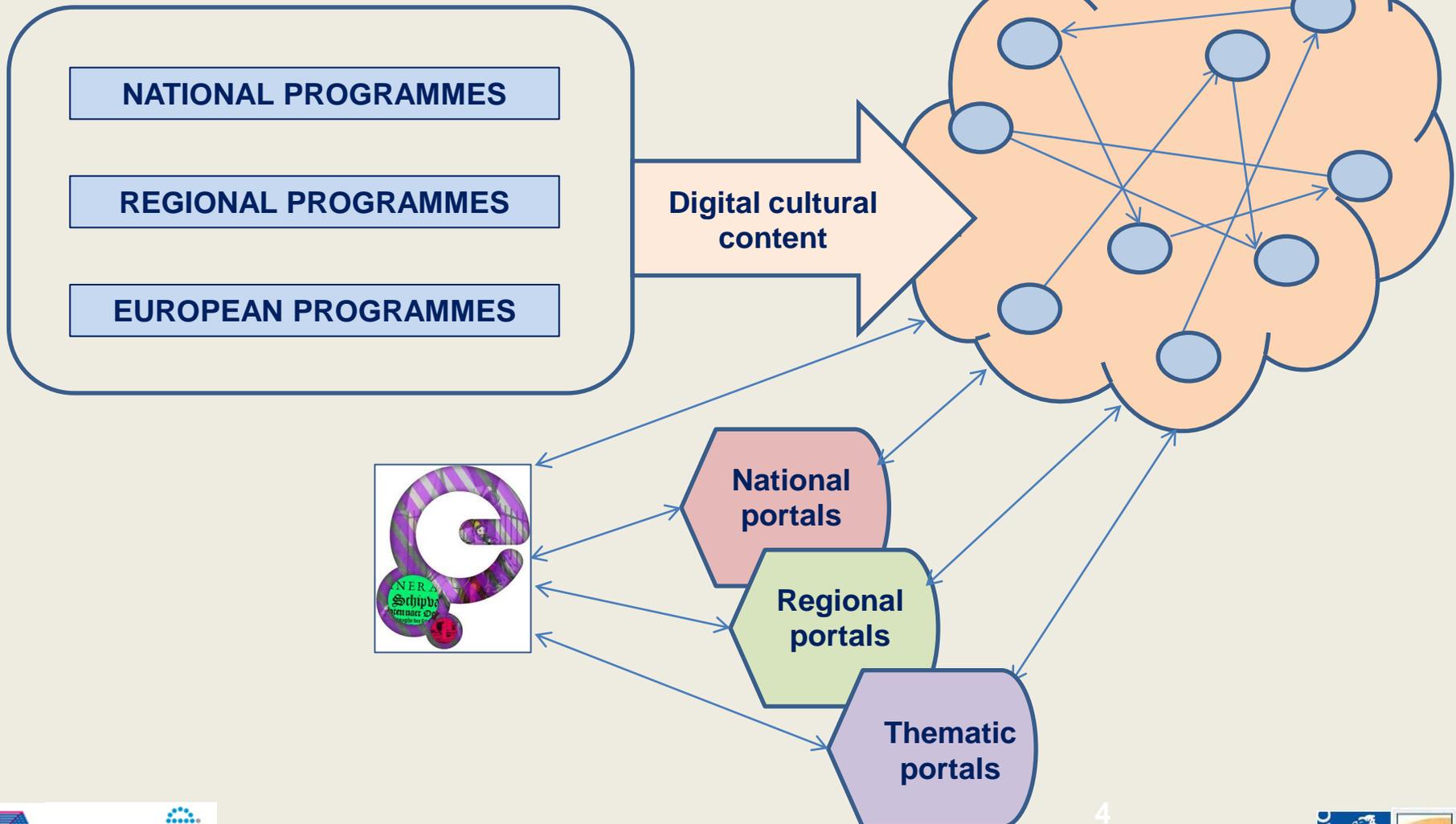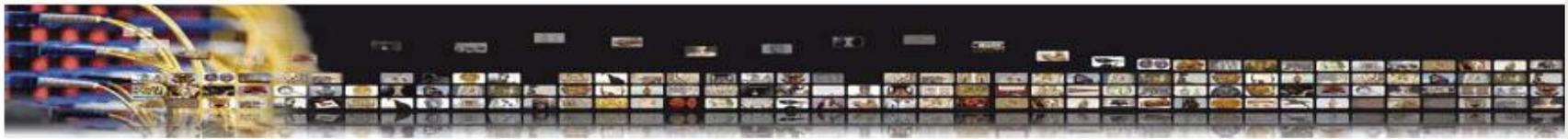
The needs of the DCH sector

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 <u>final users (*the researchers*)</u> who will search into the DCH e-Infrastructure for their research and to the <u>cultural institutions</u> that will deliver their data to the DCH e-Infrastructure;

3. **interoperation** among existing cultural heritage repositories and of cultural heritage data with research data.

The e-infrastructure for DCH

It is not a "new infrastructure", but it is instead a "**new approach**"

- based on **national and regional systems**

- Valorising **existing resources**

The keyword is **INTEROPERABILITY**
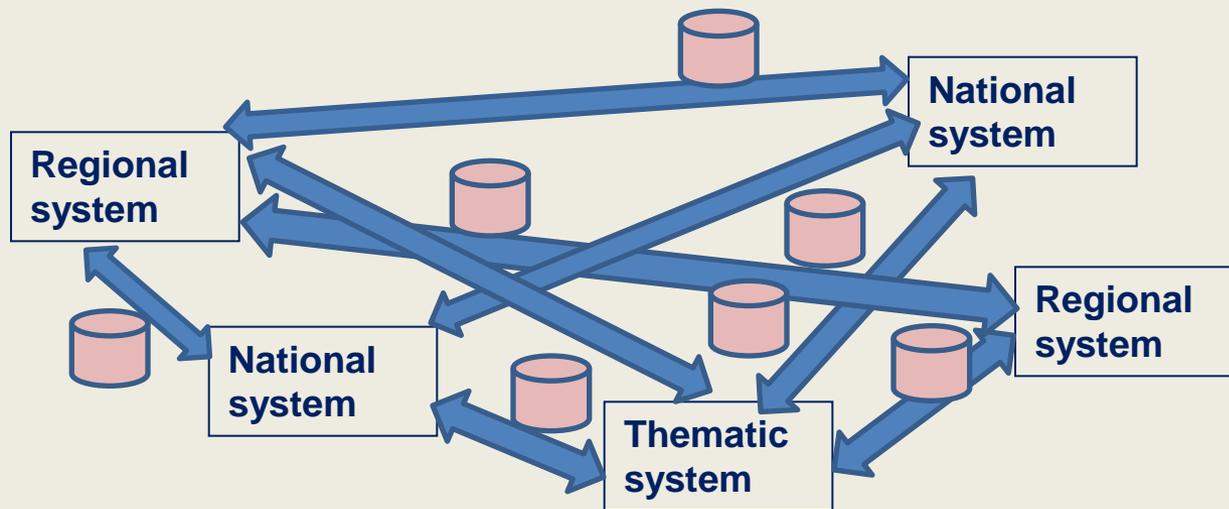
DCH V/S e-Infrastructures

- To focus on the use of existing e-infrastructures as a channel for digital cultural heritage data

- Storage, computing, connectivity together with authentication , authorisation and accounting mechanisms offered by the e-infrastructures can well serve the needs of the sector: the issue here is to establish factual cooperation among two sectors (the research and the cultural heritage) that are not used to work together

- DCH: Ministries of Culture and cultural institutions

- Cross-domain: museums, libraries and archives together

Actions

- To improve **awareness** (needs v/s offers, standards, who-is-who, …)

- To promote **trust building** (experiments, pilots, use case studies, …) covering different aspects and including organisational, operational and legal issues

- To establish **priorities** among the services to be deployed

- To consult with **stakeholders** and to engage of programme owners at national and regional level

- To open to the **international cooperation**, both to enlarge the market and to reuse best practice and successful solutions

3 integrated projects

1. **DC-NET**: joint programming for DCH e-infrastructure implementation
2. **INDICATE**: international cooperation, use case studies, pilots
3. **LINKED HERITAGE**: a best practice network on metadata and standards, linked data and persistent identifiers, multilingual vocabularies, aggregation of content to Europeana
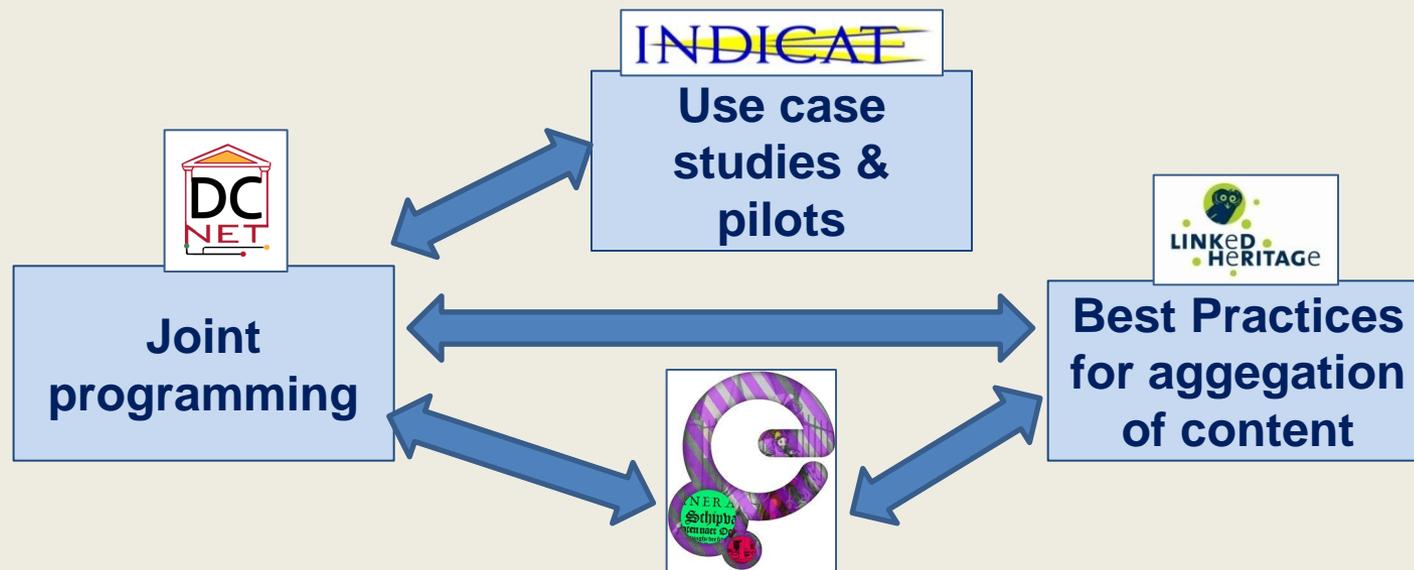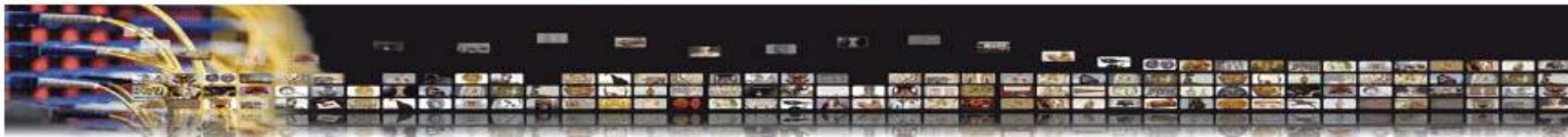
DC-NET ERA-NET

A Network for the European Research Area:

- Composed by Programme Owners and Programme Managers in the cultural sector
- To agree common perspectives & priorities across EU Member States
- To establish an operative dialogue between 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 February 2012

A project funded by EC FP7 e-Infrastructures

INDICATE

A concrete approach within an international dimension

– Stimulating the **international cooperation** of eInfrastructures providers and cultural heritage users

– Target areas:

- Mediterranean region, (Egypt, Turkey and Jordan)
- Cooperation with China in liaison with the EPIKH Grid School
- exchanges with South America in the frame of experiments for live distributed performances

Started in September 2010, it will last until August 2012

A project funded by EC FP7 e-Infrastructures

LINKED HERITAGE

A network of Best Practices about aggregation of cultural heritage content:

– Establishing best practices in the fields of linked data, persistent identifiers, multilingual vocabularies, metadata standards

– 38 partners from 24 countries

– Aggregating 3 million new items to Europeana

Started in April 2011, it will last until October 2013

A project funded by EC CIP ICT-PSP Digital Libraries
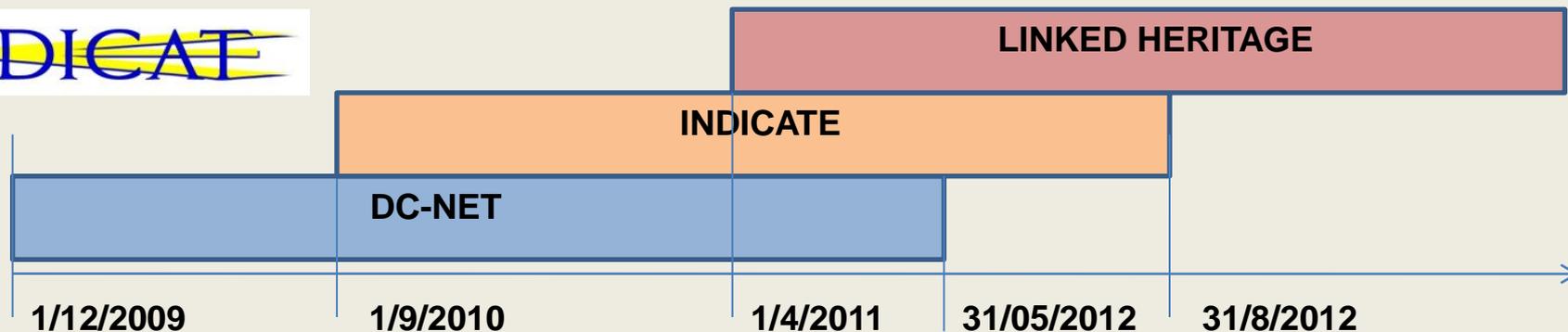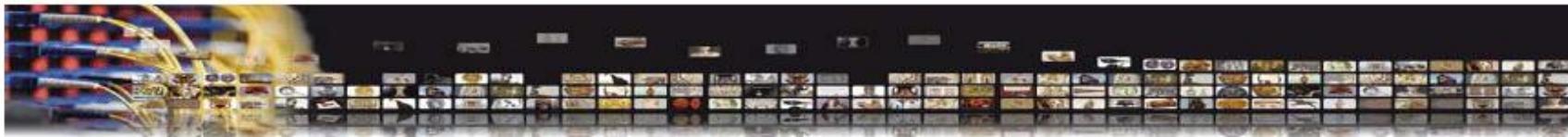
- The three projects share the same coordinator and have many partners in common.

- The e-infrastructure programmes identified in DC-NET will be at the basis of the sustainability of the results of INDICATE.

- The e-infrastructure studied in DC-NET and INDICATE will be populated with content from LINKED HERITAGE.

- The three projects represent the same **DCH community**.

Services priority ordering

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

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**

culture   research
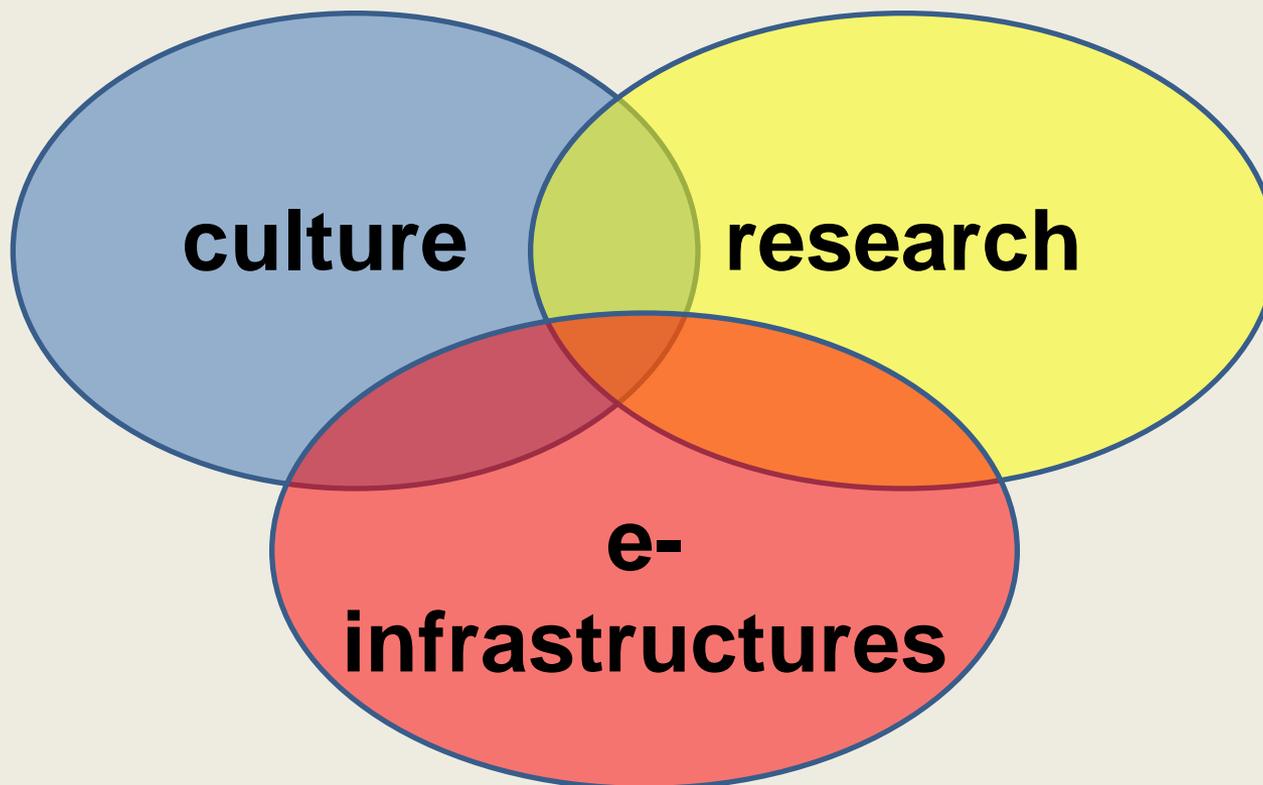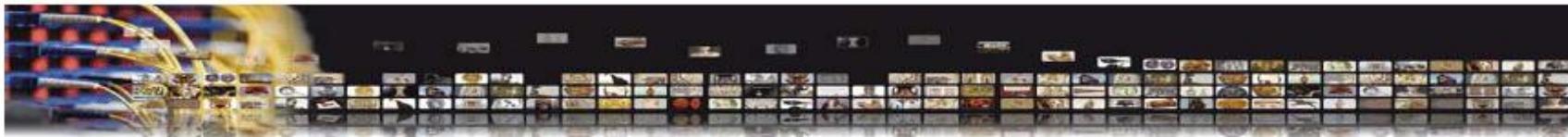
e-infrastructures

Cooperation and coordination among these three sectors is at the core of the DCH e-infrastructure

The network of common interest

It combines:

– regional, national and international levels,

– bottom-up (working groups) and top-down (Joint Programming) approaches

Working groups: experts seconded by their cultural, research and infrastructure organisations

Joint programming: the JPI on Cultural Heritage
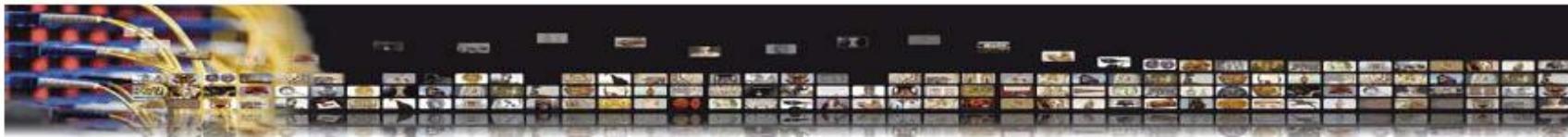
Joint Programming Initiative on Cultural Heritage

Poznan, 13/10/2011
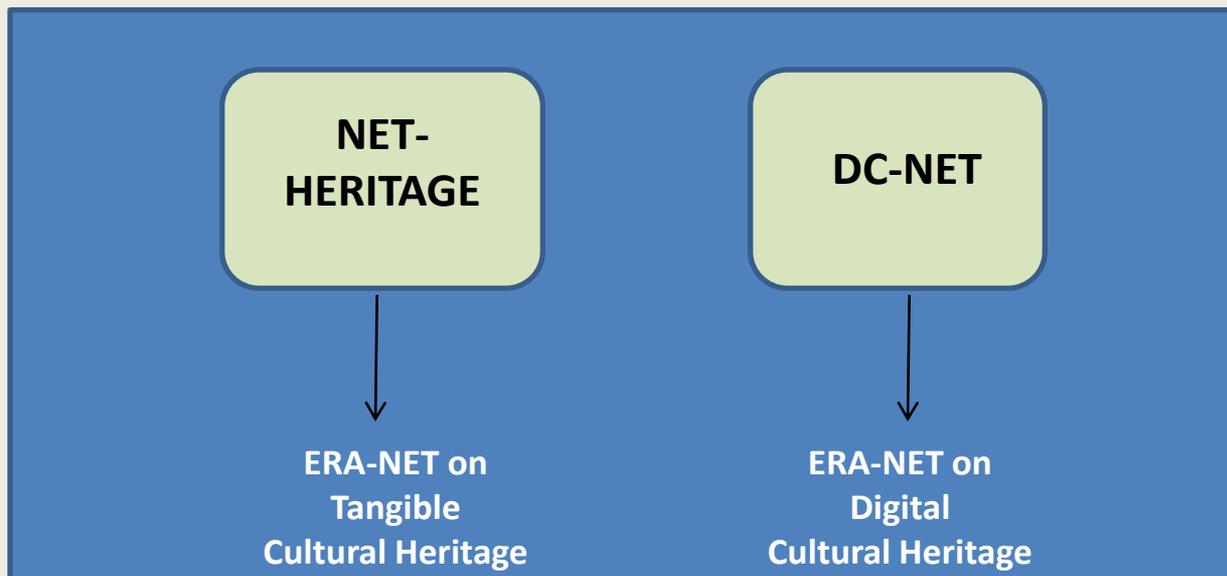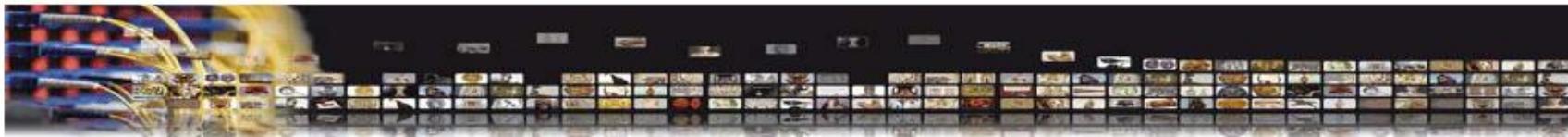
Liaisons with EU strategic bodies

Factual cooperation is established with:

– **e-IRG** e-Infrastructure Reflection Group

– **ESFRI** European Strategy Forum on Research Infrastruftures (SSH thematic working group)

– **EGI** European Grid Initiative

– **TERENA** Trans-European Research and Networking Association

– **MSEG** Member States Expert Group on digitisation

DC-NET and Europeana

Positioning

	Europeana	The vision for a digital cultural heritage (DCH) e-infrastructure
The targets:	Europeana is for final users	an infrastructure for the research in the digital cultural heritage
The initiators:	Europeana is an initiative of the EC supported by Member States	The Join Activities Plan for a DCH infrastructure is intended to be an initiative of the Member States
Focus	Europeana is focused on access and re-use	DC-NET addresses the whole value-chain: Digitisation – Access - Preservation
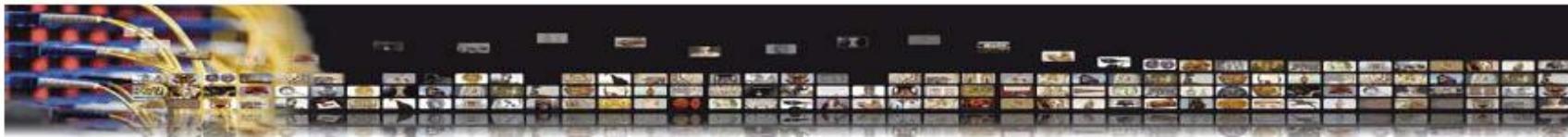
DC-NET and Europeana

Cooperation and complementarities

The envisaged DCH e-infrastructure aims to offer tools and services to Europeana, such as, for example the long term digital **preservation** which is the first priority in the study from DC-NET

Common work with Europeana is expected to be carried out on **metadata** and **standards**

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

Position Paper

Open consultation Green Paper on Common Strategic Framework

1. **European Coordination**: the role of Member States and European Commission

2. **Europeana**: towards its full deployment

3. **Preservation**: a task for the Member States

4. **Digital Cultural Heritage**: the need for a research e-Infrastructure

5. **Research and innovation** in the digital cultural heritage: an international matter

6. **Users involvement**: the success factor

7. **Coordination and demonstration**: a requirement for the DCH sector

Next steps

January 2012: to release the DC-NET **Joint Activities Plan**

2011-2012: to complete the first run of DC-NET **informative seminars**

2012: to validate the INDICATE pilot on **e-culture science gateway** (ref. last issue of ISGTW) and to complete the INDICATE **use case studies** on long-term preservation, virtual exhibitions and geo-coded cultural content

2011-2014: to ingest 3 million content into **Europeana** and to develop best practice on multilingualism, persistent identifiers, linked data,PPP

2012 – 2014: to participate to JHEP support action to contribute to the **JPI** and in this context to launch the DC-NET **joint calls**
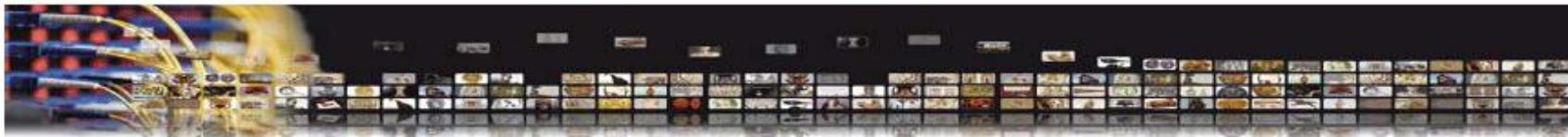
Thank you

Antonella Fresa

DC-NET, INDICATE, LINKED HERITAGE

Technical Coordinator

fresa@promoter.it

www.dc-net.org

www.indicate-project.org

www.linkedheritage.eu