



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

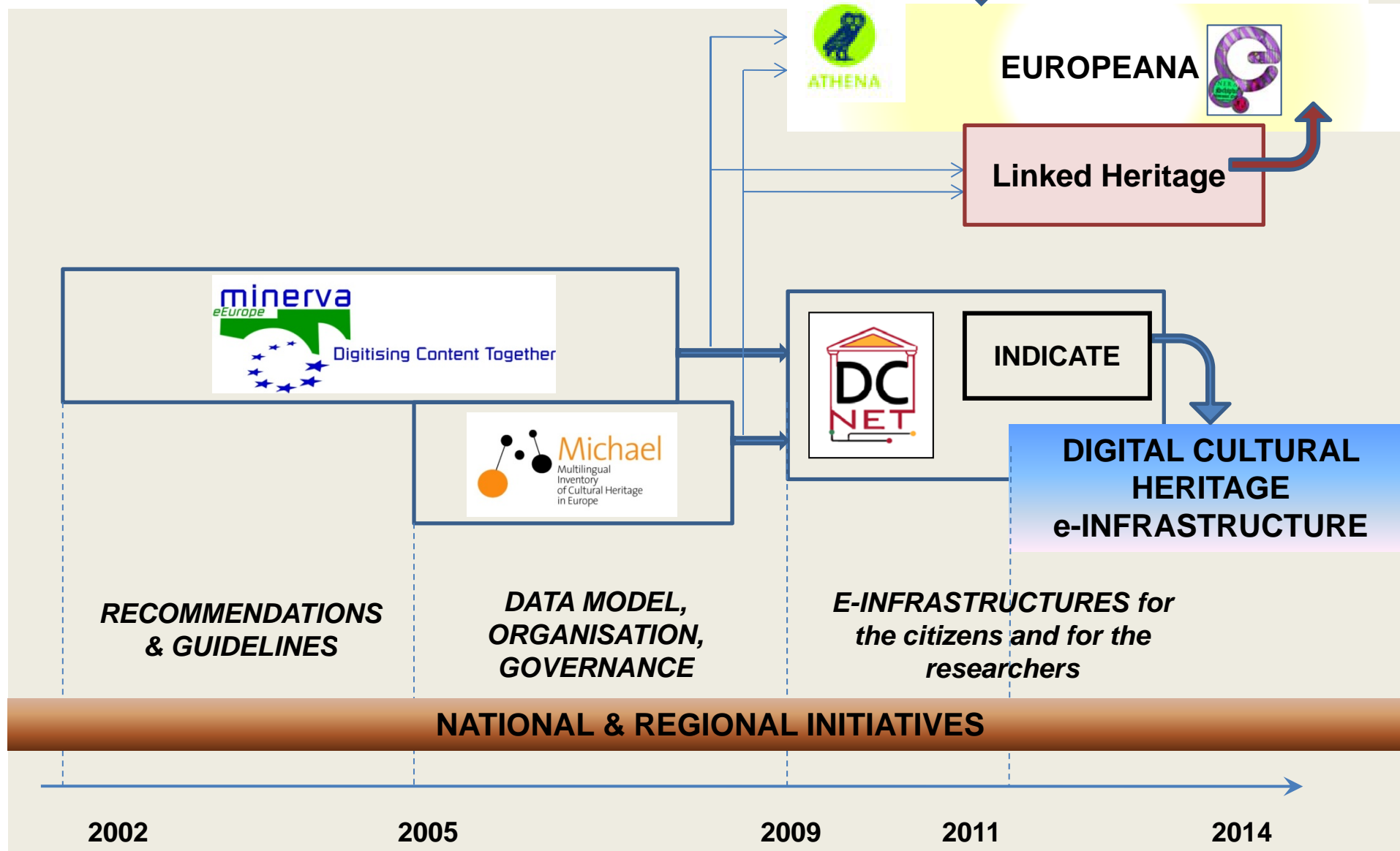
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Digital cultural content

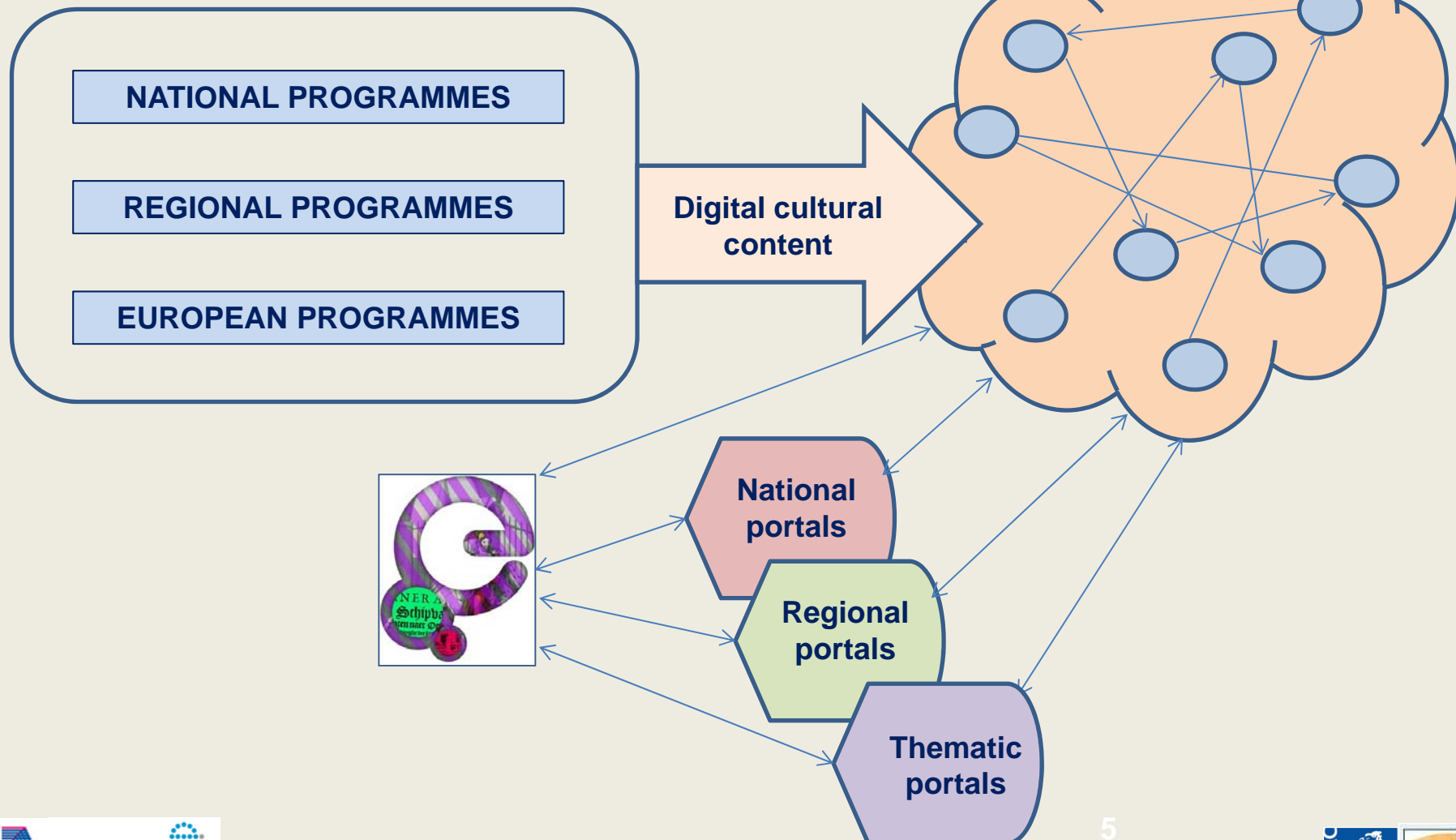
The **amount of digitised material** in the European Cultural sector is growing very rapidly

- **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



Sofia, 21/11/2011

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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 (*the researchers*) 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** among existing cultural heritage repositories and of cultural heritage data with research data.

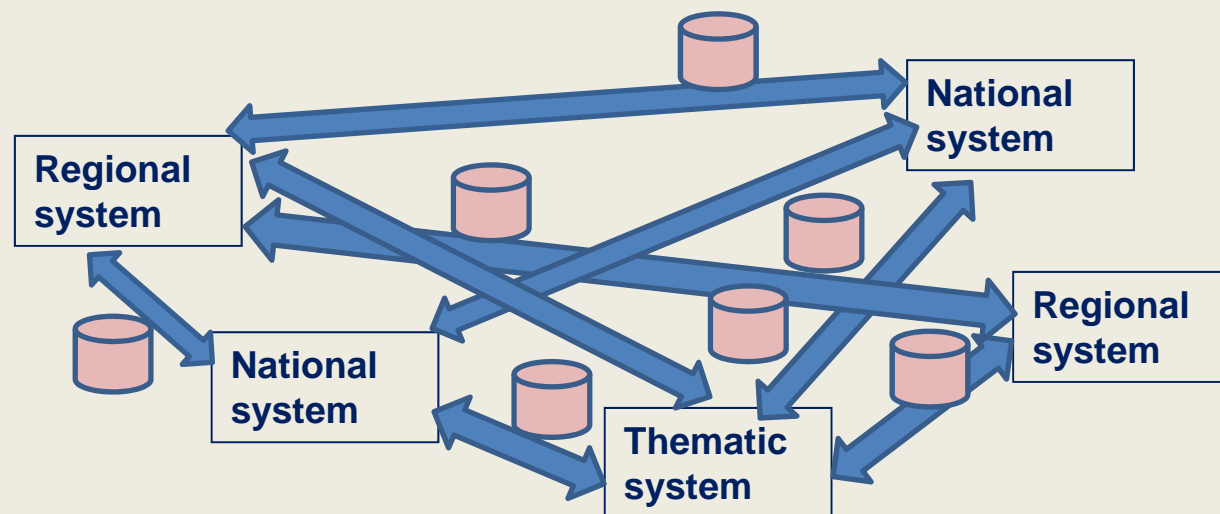


The e-infrastructure for DCH

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 and the 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



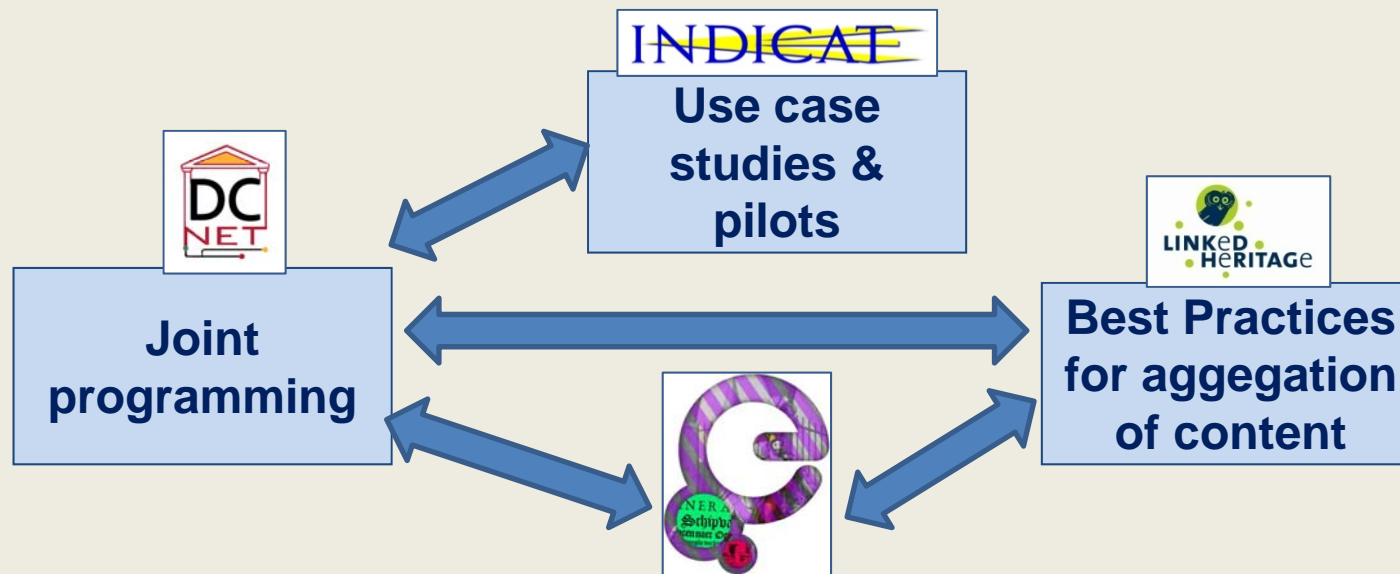
Actions

- 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



Today: 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



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
- Case studies: preservation, virtual exhibitions, GIS

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

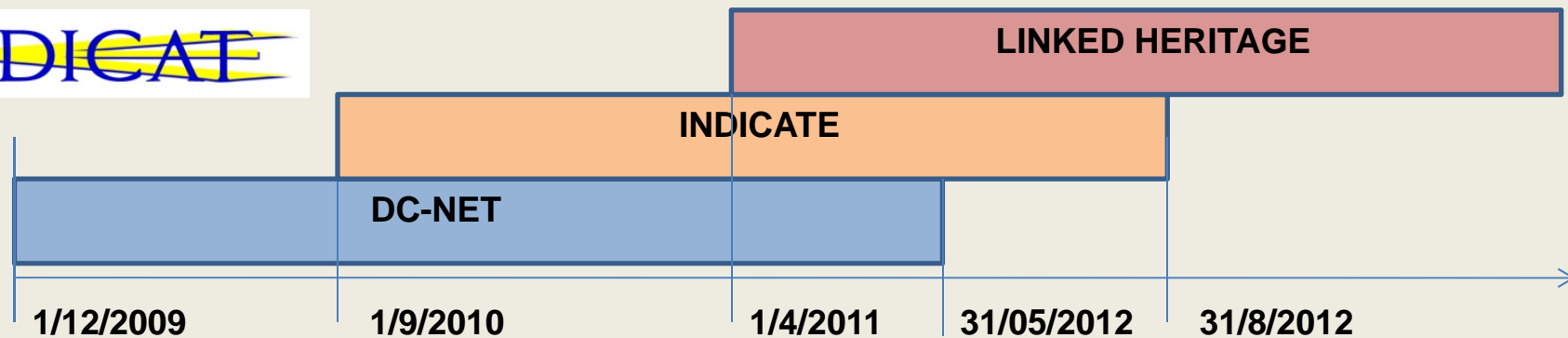


Started in April 2011, it will last until October 2013

A project funded by EC CIP ICT-PSP Digital Libraries



INDICATE



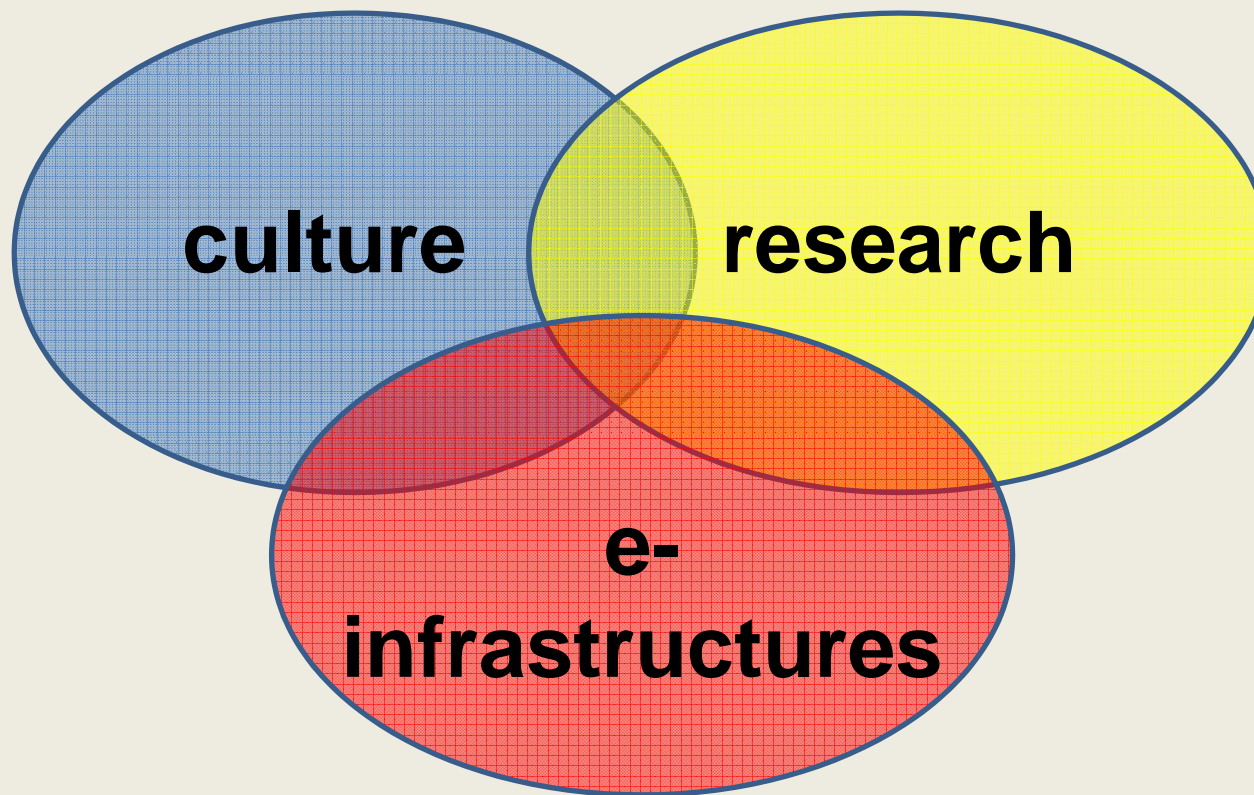
- The three projects share the same coordinator and have many partners in common.
- The e-infrastructure programmes identified in DC-NET will be at the basis of the sustainability of the results of INDICATE.
- The e-infrastructure studied in DC-NET and INDICATE will be populated with content from LINKED 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**



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



The network of common interest

It combines:

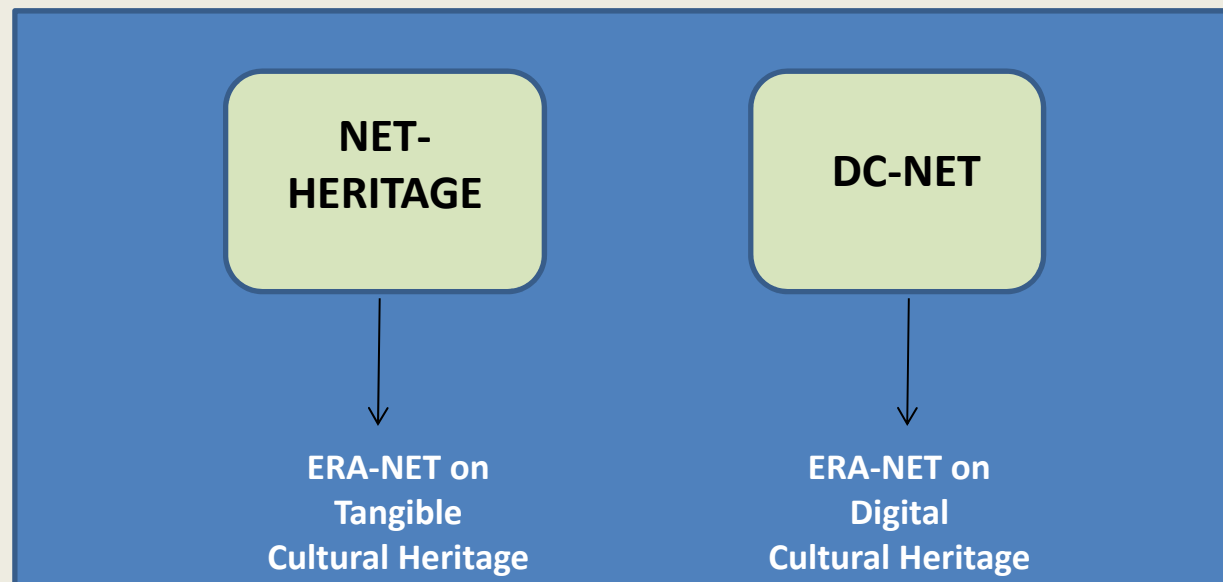
- regional, national and international levels,
- bottom-up (working groups) and top-down (Joint Programming) approaches

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

Joint programming: the JPI on Cultural Heritage



Joint Programming Initiative on Cultural Heritage Towards Horizon 2020





Liaisons with EU strategic bodies

Factual cooperation is established 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



DCH e-infrastructure 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 DCH infrastructure is an initiative of the Member States, with the support of EC
Focus	Europeana is focused on access and re-use	The DCH e-infrastructure addresses the whole value-chain: Digitisation – Access - Preservation
Content	Metadata registry	Federated data continuum



DCH e-infrastructure and Europeana

Cooperation and complementarities

The DCH e-infrastructure will 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 through **projects** and political/strategic and technical **groups**



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

2014 – 2020: R&D and innovation projects towards the Open Science Infrastructure for DCH, participating to **Horizon 2020**



Thank you

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