eIRG Workshop

e-Infrastructure needs for the Arts, Culture, Humanities

Antonella FRESA

Technical Coordinator

Central Institute Union Catalogue Italian Libraries

Copenhagen, 12/6/2012

Table of content

- The Digital Cultural Heritage sector: characteristics and needs

- A data infrastructure for DCH

- Three inter-related projects:
    - DC-NET
    - INDICATE
    - DCH-RP

- Towards an Open Science Infrastructure of the digital cultural heritage in 2020

Initiatives of European Member States in the last 10 year

A wide range of activities:

- Building a shared platform of recommendations and guidelines

- Agreement on common data models

- Experimenting and launching online services (MICHAEL, Europeana, national and thematic portals)

- Initiating a dialogue with the e-infrastructures (NREN, NGI)

- International cooperation between Europe and the other regions in the world

- Digitisation within national and regional programmes

Copenhagen, 12/6/2012
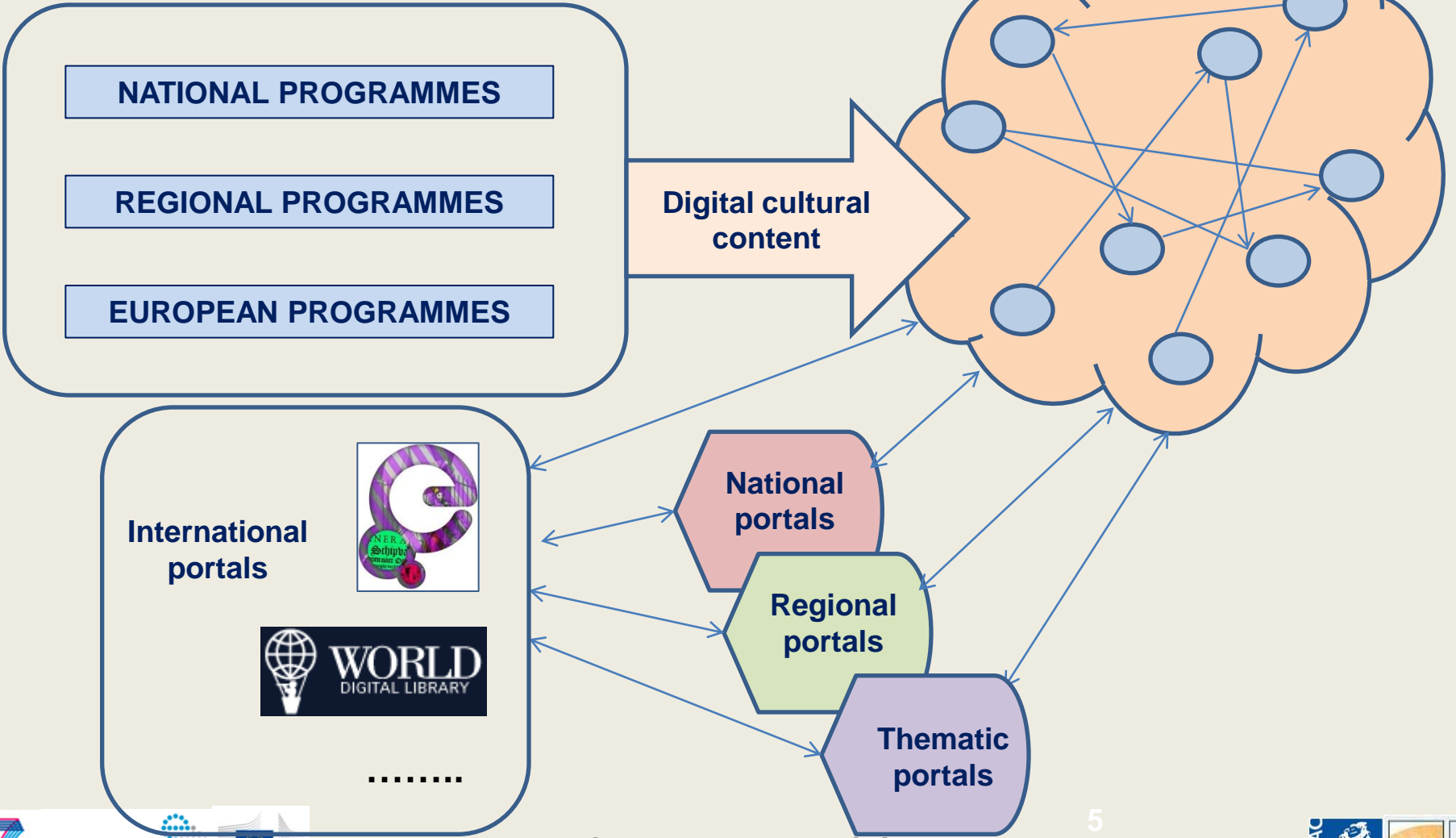
Digital cultural content characteristics

The **amount of digitised material** 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

- The availability of data is creating **more demand** of data by the researchers

- Digital cultural heritage content are **complex and interlinked** through many relations

Towards a DCH e-Infrastructure

Data Continuum

NATIONAL PROGRAMMES

REGIONAL PROGRAMMES

EUROPEAN PROGRAMMES

Digital cultural content

International portals

WORLD DIGITAL LIBRARY

……..

National portals

Regional portals

Thematic portals

Copenhagen, 12/6/2012

The needs of the DCH sector

1. **Storage and preservation**
2. **Access facilities**

   Two types of users:

   Researchers who search into the DCH e-Infrastructure for their research and

   Cultural institutions that deliver their data to the DCH e-Infrastructure;

3. **Interoperation** among existing cultural heritage repositories and of cultural heritage data with research data
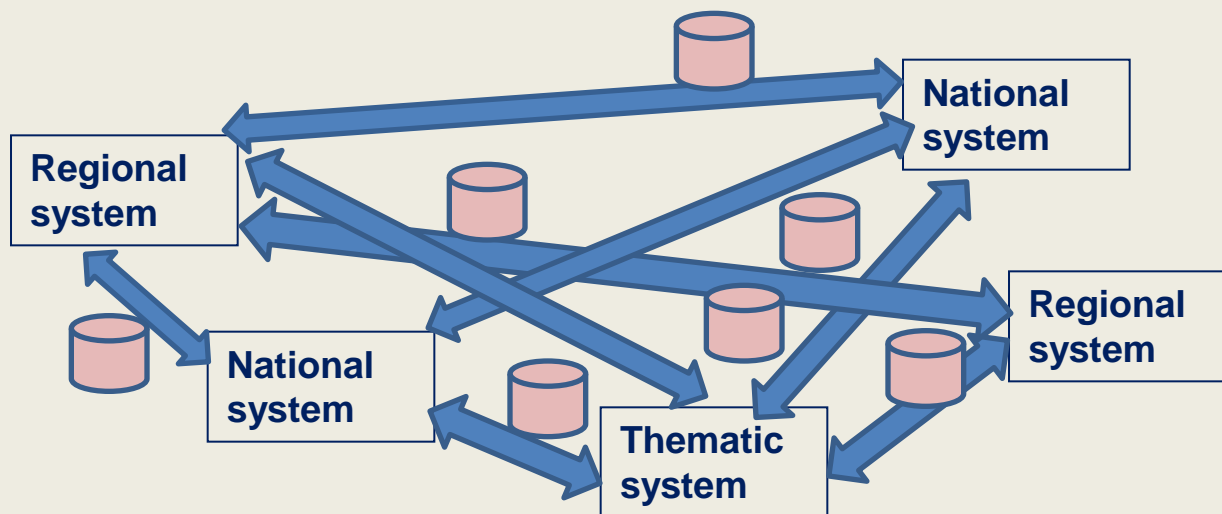
4. **Visualisation**, as the next step

The e-infrastructure for DCH

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

- based on **national, regional, local systems**

- Valorising **existing resources**

The keyword is **INTEROPERABILITY**

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, access services for the cultural institutions, etc.

- **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.

DCH and the e-Infrastructures

- To focus is on the use of existing e-infrastructures as a channel for **delivery, access and preservation** of 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

- To establish factual **cooperation** among sectors that are not used to work together

Key players

- **Key players from the DCH:**
  - Ministries of Culture
  - Cultural institutions

→ Cross-domain: museums, libraries and archives together

- **Key player from the research**:
  - Ministries of Research
  - Researchers in the Humanities
  - Researchers in ICT applied to CH

- **e-Infrastructure providers**
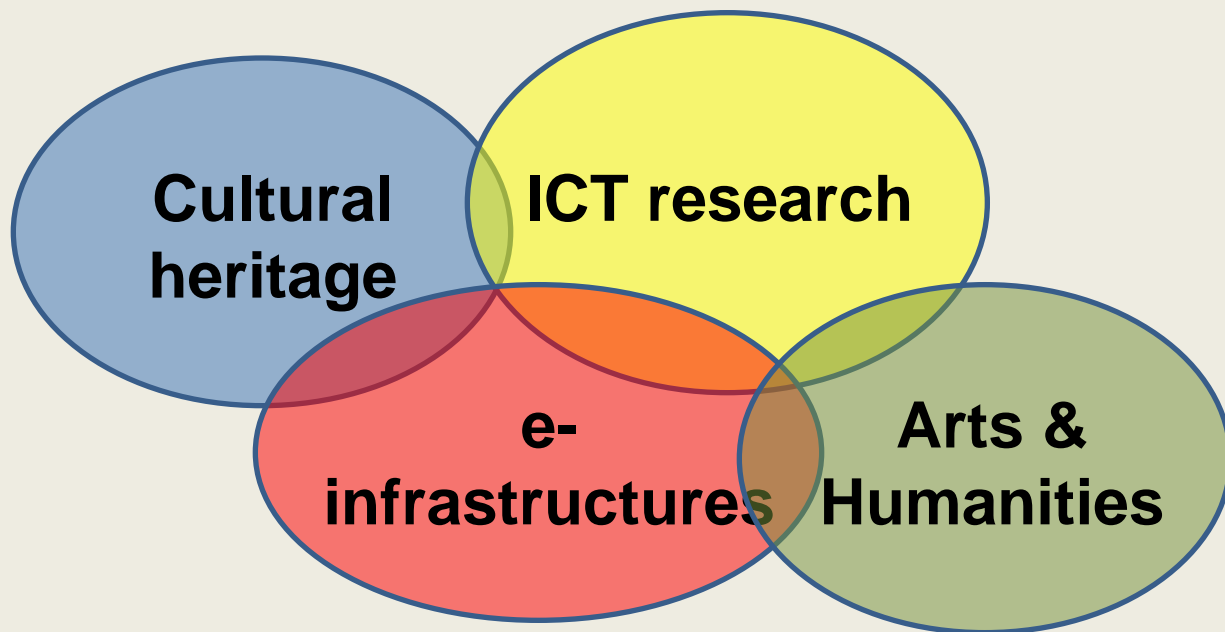
Cooperation and coordination among these sectors is at the core of an e-infrastructure for the Digital Cultural Heritage

Communication is another important element

DIGITAL MEETS HERITAGE

PRO**TER**   PRO**TER**

DIGITAL HERITAGE	DIGITAL ART
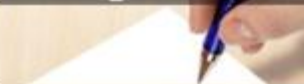
A Scientific Portal for French Virtual Archaeology

Students and teachers, as well as curios ones and amateurs, will enjoy a valuable, scientific-based web resource.

From Prehistory to the Middle Ages, history and the lives of men in times past are presented by the most accomplished of specialists, in a presentation accessible to everyone. The collection is edited by the French Ministry of Culture and Communication and it is going to be enriched regularly, in order to achieve a complete assortment of virtual archaeology until modern age.

The portal http://www.grands-sites-archeologiques.culture.fr/ collects and give access to several very appealing websites, with nice colors, good animations and sounds, flash application. Most of them contain virtual visits to the displayed sites, with easy-to-use systems and swift texts, thus offering very good resources for learning.

The collection is dedicated both to scientists and amateurs, and features a special focus on education. Students of any age are able to find general information and research materials, while teachers can make use of the collection as a tool for a

www.digitalmeetsculture.net

Is an initiative of Promoter

A communication platform open to world-wide contribution

You can register on the portal or you can simply write to
digitalmeetsculture@promoter.it

Preparatory actions

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

- To consult and to advocated with **stakeholders**

- To engage with **programme owners**

- To improve **awareness**: standards, who-is-who, …

- To promote **trust building**, covering different aspects and including organisational, operational and legal issues

- To run **experiments**: pilots and use case studies

- To open **international cooperation**

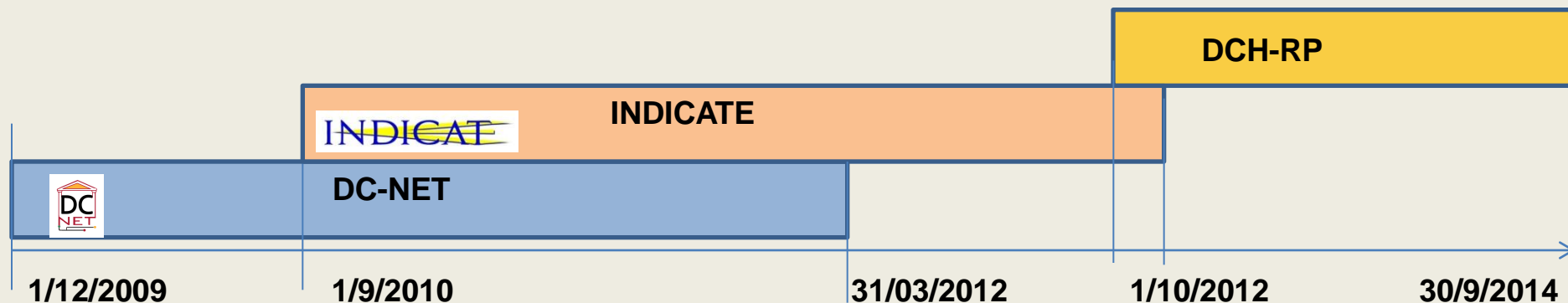- To establish an **e-culture community**

Three integrated projects

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

Priorities and progamming

Support and demonstration

DCH-RP

Roadmap for preservation

DCH-RP

INDICATE

DC-NET

| 1/12/2009 | 1/9/2010 | 31/03/2012 | 1/10/2012 | 30/9/2014 |

- The projects target the same **DCH community**
- The e-infrastructure programmes identified in DC-NET are expected to be at the basis of the **sustainability** of the results of INDICATE and DCH-RP.

DC-NET: an ERA-NET for the digital cultural heritage

- Composed by Programme Owners and Programme Managers in the cultural sector
- To establish an operative dialogue between cultural heritage and e-Infrastructures communities in Europe,
- Two main outcomes:
- **SERVICE PRIORITIES** and **PLAN OF JOINT ACTIVITIES**

Completed in March 2012

A project funded by EC FP7 e-Infrastructures

17

Copenhagen, 12/6/2012

Services for DCH

On the basis of the typical workflow of the DCH research, services are divided into 3 categories:

1. Services for content providers, i.e. those related to the **creation of online data resources** for DCH

2. Services for **managing and adding value** to the content itself

3. Services which enable, support and enhance **virtual research** communities and the activities of content consumers

Services priority ordering for Content Providers

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**

INDICATE: Experimenting new services for Data resource creation and Adding value to content

- **Long-term preservation**
- **Virtual Exhibitions**
- **Geocoding cultural content**
- **Using the Grid for the DCH sector: the eCulture Science Gateway**
- **Deploying semantic technologies on the clouds**

INDICATE: Fostering international cooperation of e-Infrastructures and cultural heritage

Target **regions**:

- 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 October 2012
A project funded by EC FP7 e-Infrastructures

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

- DCH-RP refers to the digital preservation of digital representation of cultural objects (not to the preservation of physical cultural objects).

- Focus on the **storage phase**, which includes both '*long-term preservation*' (including dark archives) and '*short-term preservation*' (storage for a relatively short period of access).
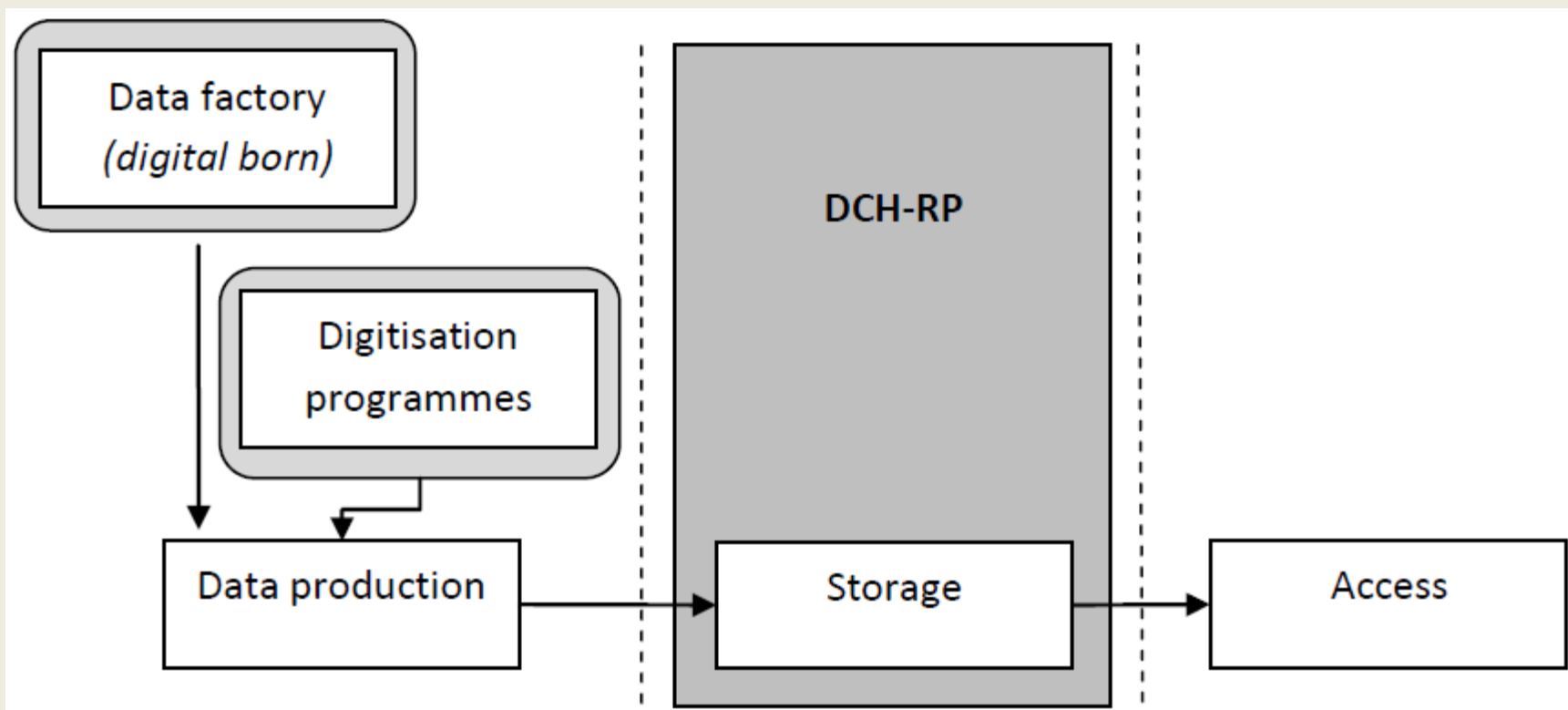
The vision

- DC-NET, INDICATE and DCH-RP are part of a wider process, which started 10 years ago among cultural institutions
- This process is entering a new phase
- Time is ready to start working towards an Open Science Infrastructure for Digital Cultural Heritage in 2020
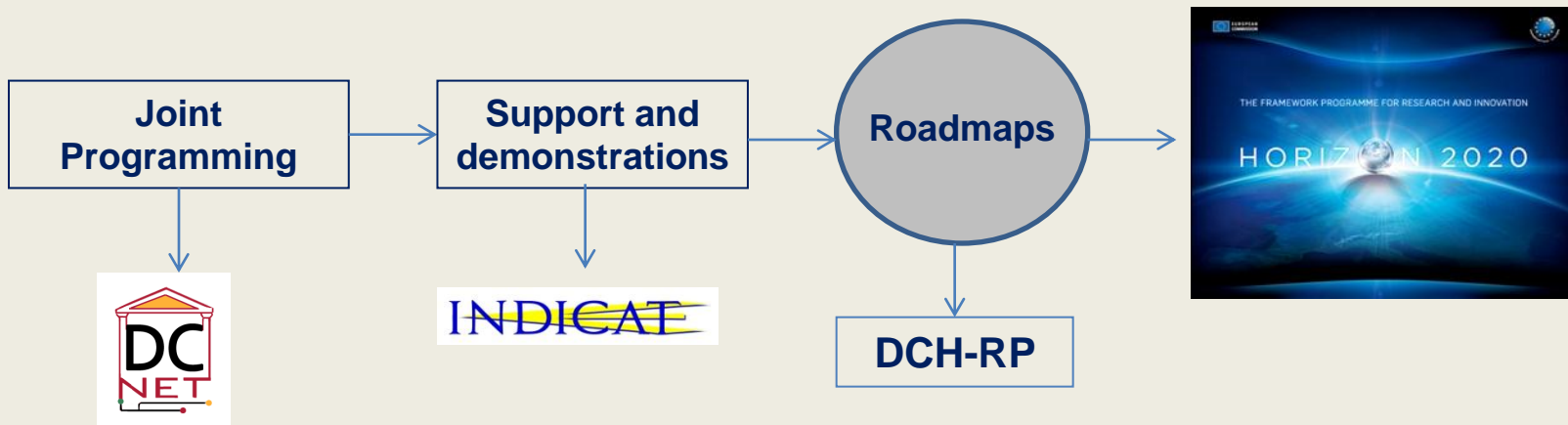
Many Opportunities, different players

- **Digitisation and aggregation of data**

  Core partners: cultural institutions

- **Infrastructure deployment**

  Core partners : ICT and e-infrastructure providers together with user communities

- **New services, new products**

  Core partners: the creative industry

Thank you

www.dc-net.org

www.indicate-project.org

Antonella Fresa

DC-NET and INDICATE Technical Coordinator

fresa@promoter.it