Connecting the ESFRI projects to the EOSC – past experience and future perspectives

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Setting the scene

- **The Cloud Communication**
- Topic for a **Pilot action** for EOSC in 2016 H2020 call
  - To demonstrate how to ensure availability of scientific data and data-analysis services through a cloud infrastructure.
  - Designing a stakeholder driven **governance** framework.
- **Implementation of ESFRI Roadmap**
- Consultation on **Long Term Sustainability**: actions for data management
Exploiting better the data generated by the RI (%)

- RI to take responsibility for the Data Management dimension with specific reference to the data storage, curation, access and re-use aspects
EUROPEAN OPEN SCIENCE CLOUD
BRINGING TOGETHER CURRENT AND FUTURE DATA INFRASTRUCTURES

A trusted, open environment for sharing scientific data

Linking data

Connecting scientists globally

Long term and sustainable

Open and seamless services to analyse and reuse research data

Connecting across borders and scientific disciplines

Improving science
Implementing an interoperable data infrastructure

(a) **data generators**: Research Infrastructures, research projects, surveys or individual researchers

(b) **discipline-specific data service providers**, providing data and workflows as a service

(c) **providers of generic common data services** (computing centres, libraries)

(d) **researchers as users**, using the data for science and engineering

*Source: Riding the Wave, 2010*
Support to Research Data infrastructures under the Research Infrastructures action

**RTD part**
- **integration at EU level of national scientific data infrastructures** through the Integrating Activity grants and
- **development and interoperability (even at global level) of pan-European Thematic Data infrastructures** through the individual and cluster Implementation phase grants:
  - *more than 170 M€ in FP7 and, so far, more than 146 M€ in H2020*

**CNECT part** (e-infrastructures)
- development of **data and distributed computing e-infrastructures**
- management and preservation of **big research data**
- fostering **global interoperability** through the Research Data Alliance
- development of **e-Infrastructure for open access**
- **virtual research environments**
- *~98 M€ in FP7 and, so far, more than 110 M€ in H2020 plus HPC & Geant support*

**Delivering** a wealth of generic and thematic **data services, work-flows, interoperable standards and ontologies, ....**
Future Role of ESFRI in the EOSC context

- Ensure **stewardship of the data** they collect or produce
- Encourage scientific **data sharing** in their reference communities and make the **research data open**, when possible
- Ensure full **Connection** to the EOSC
- **Widen the user-base to public services and industry**
Way ahead

- Build on synergies (FP actions, regional smart specialisations strategies, ESIF, ...)
- Work on clear and agreed guidelines on how to ensure interoperability
- Widen the participation and involvement to the EOSC initiative to all the different scientific communities