GEO – XIV Plenary EuroGEOSS launch event

Copernicus and EuroGEOSS

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Space

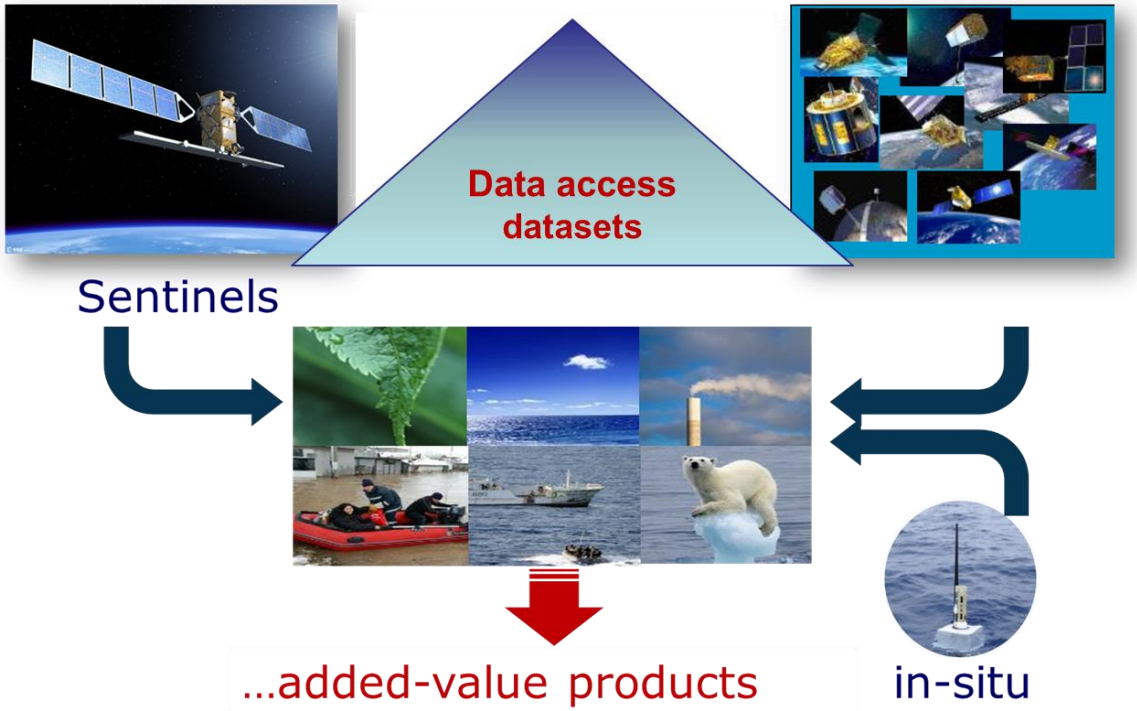
Copernicus
Europe's eyes on Earth

COPERNICUS IN BRIEF

- **Copernicus, the flagship programme** of the European Union:
  - Monitors **the earth,** its environment and ecosystems;
  - Prepares for **crises, security risks** and **natural or man-made disasters;**
  - Six specific services are at the center of the programme;
  - Collects high volumes of EO data and makes it available to public bodies, researchers, business and citizens;
  - User-driven programme;
  - Contributes to the **EU's global role and Europe's contribution o GEO;**
- Adopts a **full, free and open data policy**
- Is a tool for **economic development** and a driver for the **digital economy.**

Copernicus Data Sources

Copernicus "in a nutshell"



COPERNICUS SERVICES

Monitoring the State of the Earth System Environment …

… Six cross-cutting Thematic Services

European Commission | Copernicus Europe's eyes on Earth

Space Strategyfor Europe

- The European Commission adopted the "Space Strategy for Europe" in October 2016.

- In the context of today, three priorities are of particular interest:
  - encourage the **user uptake of space data and services**;
  - foster the **competitiveness of the European space sector and new business opportunities**;
  - strenghen **international cooperation** (global challenges)

THE BIG DATA CHALLENGE

- **Massive amounts of data**
- **Full, open and free-of-charge**

Over 10 Petabyte/year of new data
with just Sentinels-1, -2 and -3 fully operational (data are downloaded **many time over)**

- Different types of **dissemination** infrastructures
- **New technology** developments
- ICT and EO **cross-fertilisation**
- **Interoperability** with non-EO datasets
- Global challenges and data sharing
- Growth and jobs in **downstream** sector

Data Access

COPERNICUS BIG DATA APPROACH

- Sentinels are producing high amounts of data which are currently not always easy to access.
- The Big Data Paradigma requires an appropriate solutions.
- A new **e-infrastructure for a user-friendly access to Copernicus data and other earth observation data** should stimulate the development of
- EO data based innovation, research and value-added services.
- Setting up of the **Data Access and Information Services** (DIAS):
  - **Access to all Copernicus data and information** virtually collocated with high performing computing resources;
  - Allowing Big Data analytics **without** the need to **download the data and information;**
  - Allowing data fusion **with non-EO data and information.**

Data Access

Copernicus Services and EuroGEOSS

- Clear link between the **Copernicus services, particularly the Climate Change-, Emergency-, Land- and Marine Services…**

- …and **GEO priorities, notably SDGs, Climate Change and Disasters** but also Cities and Human Settlements as well Ecosystem Accounting.

- EuroGEOSS can, in particular, play an important role in:
  - **Complementing and building on** activities by the Copernicus services
  - **Promoting the uptake of Copernicus service products** among different user communities
  - **Focusing on areas relevant to a number of Copernicus services**, such as SDGs.

Data Access

Copernicus and EuroGEOSS (Data and DIAS)

- The DIAS is expected to be operational by Q1/Q2 2018.
- The launch of the EuroGeoss initiative today is a good moment which gives us the opportunity to present the synergies between the DIAS and EuroGEOSS.

Key elements of Copernicus – EuroGEOSS interaction:

- **DIAS will become the enabler for the development of the EuroGeoss projects** by providing the infrastructure ("back-office") for accessing Copernicus and other data to be used within EuroGeoss.
- EuroGeoss initiative has the potential to **considerably enrich** the Copernicus "ecosystem" to become an important "front office service".
- EuroGEOSS can **"attract" additional data** to the EO ecosystem.

Copernicus and EuroGEOSS (user uptake)

Data Access

- EuroGeoss as an **application-oriented initiative** will stimulate the user up-take and of EO data.
- EuroGEOSS can enhance the use of Copernicus Service products.
- Key role for EuroGEOSS in the implementation of the **Sustainable Development Goals** "translated" into strategic activities.
- EuroGeoss will offer the umbrella for concrete EO applications to support monitoring and implementation of the SDGs and global challenges by the EU.
- Introducing **commercial EO applications** can create additional demand from the private sector for Copernicus.

Thank you very much for your attention!

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