



# EOPEN's overall concept

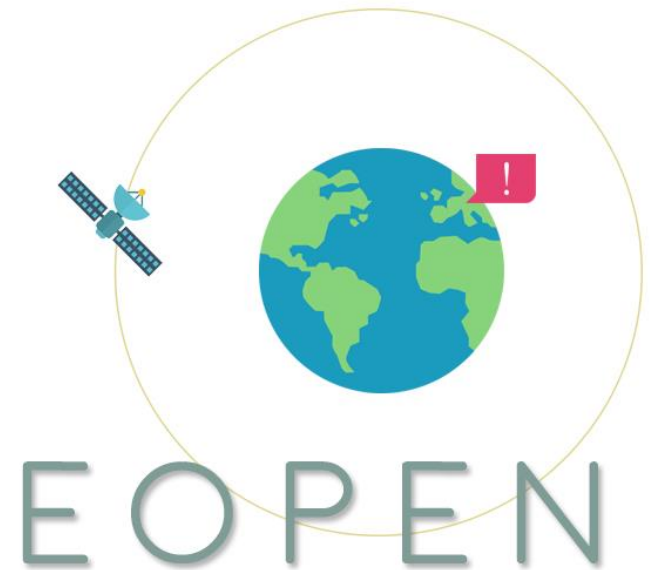
Serco

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**EOPEN Session in ACRS 2019 Daejeon, Korea**  
16-17 October 2019, Daejeon Convention Center (DCC)



## EOPEN Programmatic Context

- ▶ EOPEN - opEn interOperable Platform for unified access and analysis of Earth observation data is a project co-funded by the EC under the Grant H2020-776019
- ▶ Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020)
- ▶ EOPEN objectives are expected to address the adaptation of big data technologies to Copernicus programme user scenarios. They shall enable public and intermediate commercial users to engage with and serve their constituency with localised/specialised higher value services.
- ▶ The aim would be to allow many users either public or private to provide advanced services to intermediate or end users without having to build up storage and processing capacities for Copernicus data and information but benefiting from the storage and processing services provided by ICT companies.



## Programmatic Context: Copernicus Programme

**Copernicus** is the European Union's Earth Observation Programme, looking at our planet and its environment for the ultimate benefit of all European citizens.

It offers information services based on **satellite Earth Observation and in situ (non-space) data**.

Vast amounts of global data from satellites and from ground-based, airborne and seaborne measurement systems are **freely** and **openly** accessible to any users



<https://www.copernicus.eu/en>

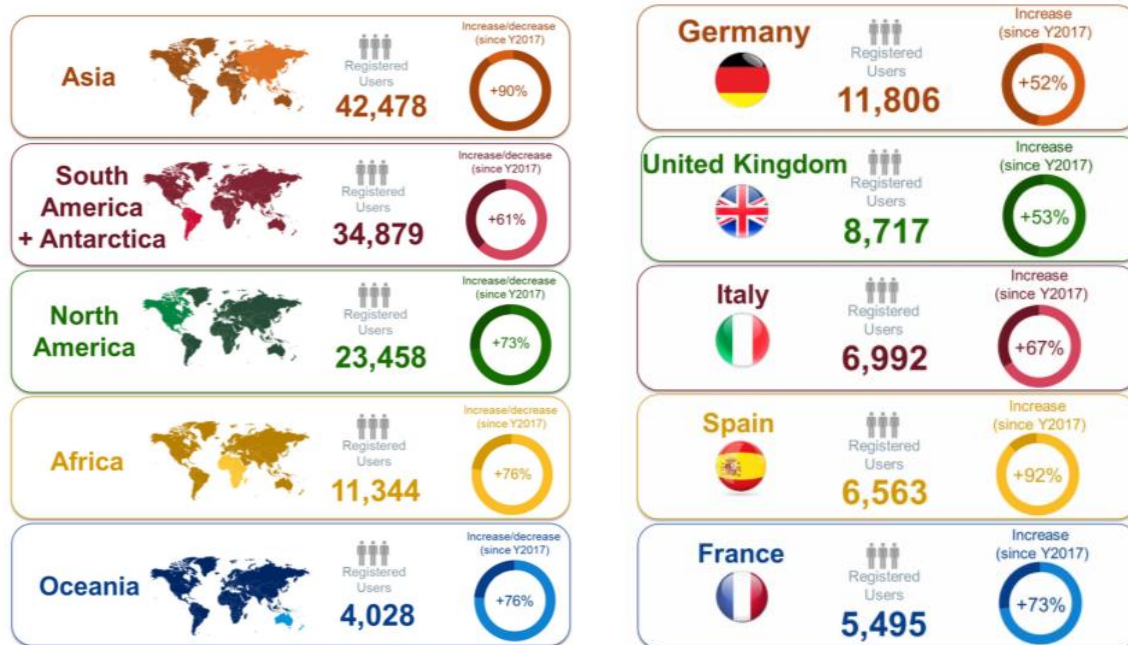
# Copernicus Open Access Data

## ▷ A European success story



## 2018 EoY official stats

Ref: <https://scihub.copernicus.eu/reportsandstats/>



# Copernicus Open Access Data

- ▶ The vast majority of data and information delivered by Copernicus are made freely available and accessible to any citizen and any organisation around the world

Registered Users



264,102

Users Downloads  
Volume



179.3 PB

Published Products



20,711,204

Ref: <https://scihub.copernicus.eu/>

# Big data to be exploited – change of operational paradigm

Target Sentinels satellites yearly production: +10PB

~20,000 new products per day

- ▷ The huge amounts of Satellite data requires reliable solutions to enable users to easily access and exploit the data
- ▷ A number of thematic or application driven platforms have been developed to facilitate and standardise access to data: e.g.:
  - The European Commission has funded the deployment of five cloud platform's named DIAS. Providing centralised access to Copernicus data and information, as well as processing tools.

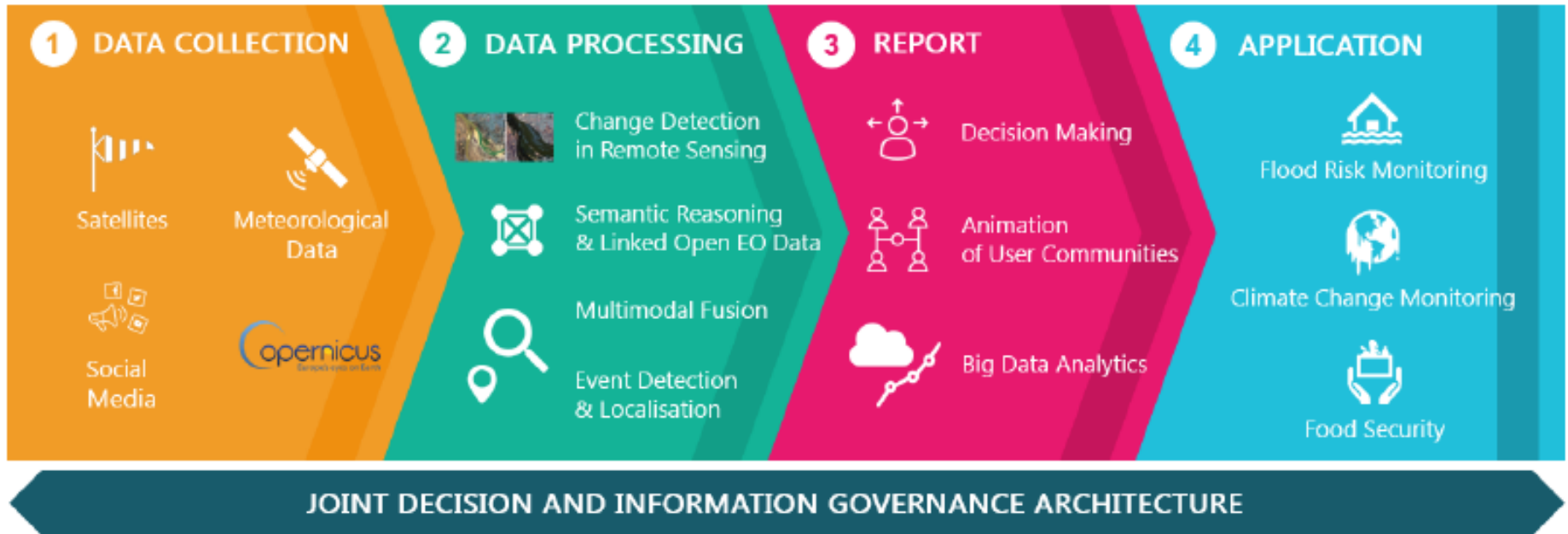


## EOPEN Objectives

### **eOPEN (EOPEN: opEn interOperable Platform for unified access and analysis of Earth observationN data)**

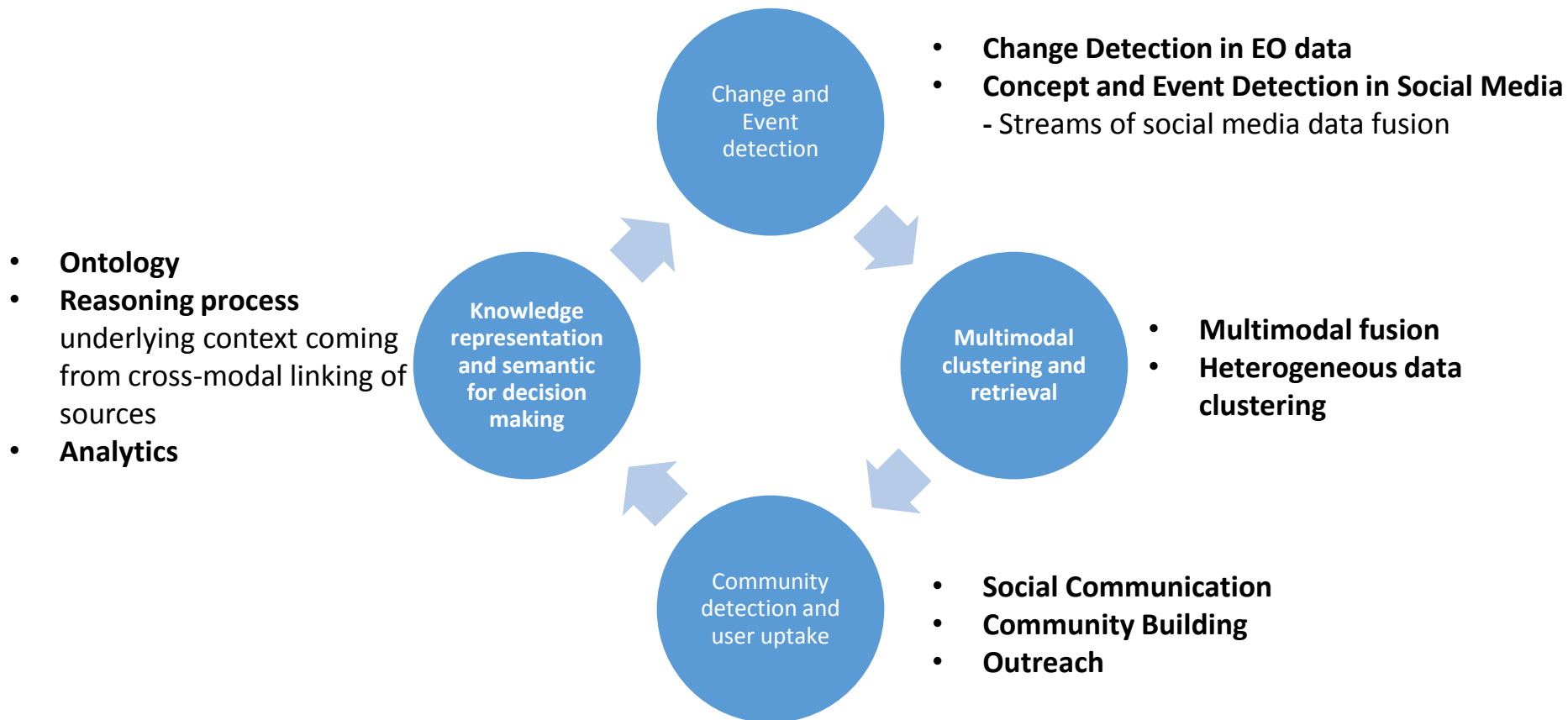
- ▶ The overall objective of EOPEN is to provide a platform targeting non-expert EO data users (non-traditional user communities), that could maximize the usage of the big data, Copernicus provides.
- ▶ EOPEN will provide a convenient and comprehensive environment for data analysis, by combining mature ICT solutions, data management and scalable processing techniques.
- ▶ EOPEN will demonstrate its Big Data and data fusion techniques, through real use-case scenarios in flood risk management, food security and climate change.

# EOPEN Concept

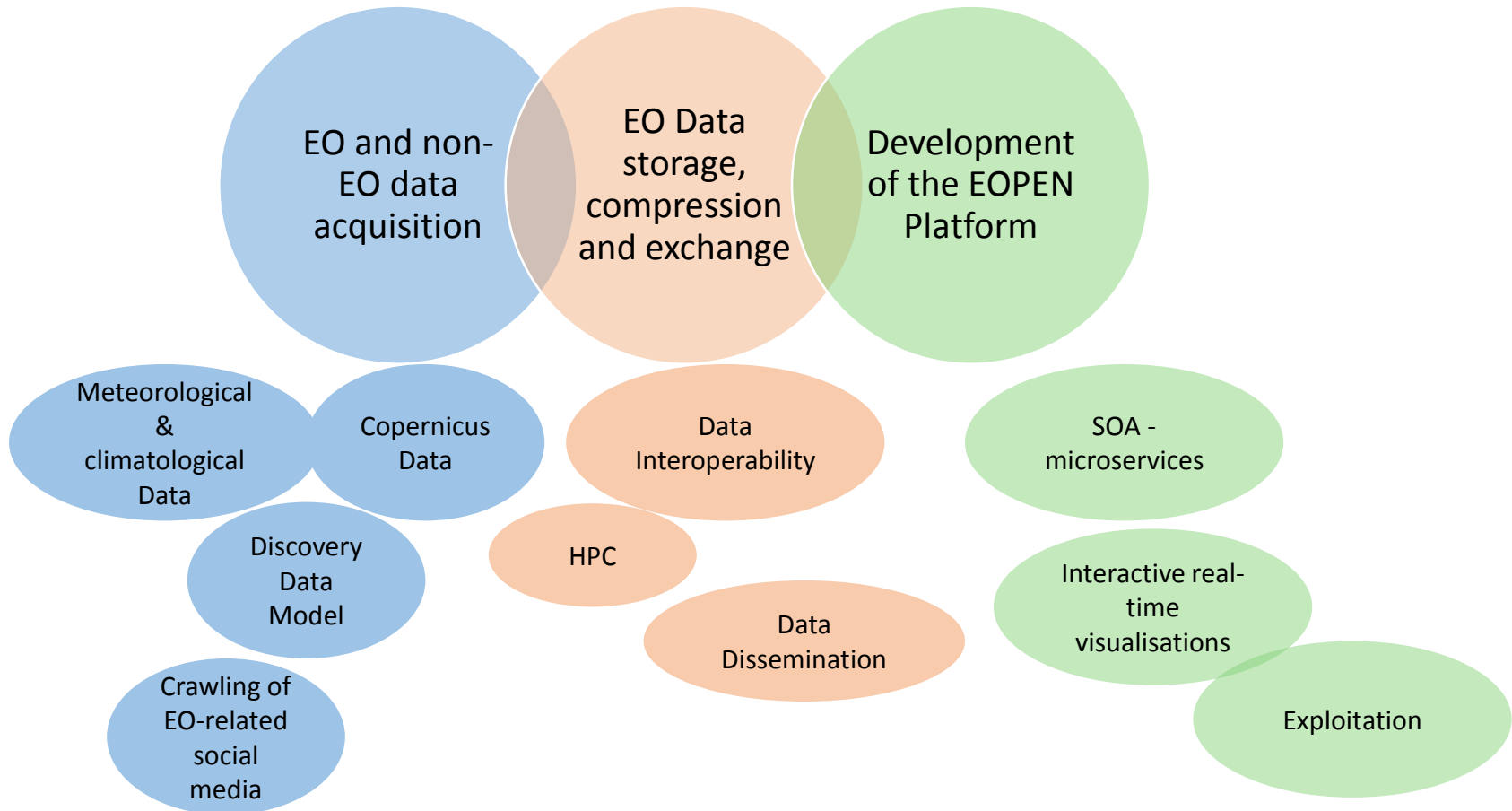




# EOPEN Scientific Objectives



# EOPEN Technological Objectives



# Thanks!

## Q&As

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