



GEO, Europe and Open Data

The SmartOpenData context

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What is GEOSS ?

1. A global Earth Observation platform for coordination

2. A response to EO needs in 9 Societal Challenges



3. An information system providing Full & open access to EO datasets





European
Commission

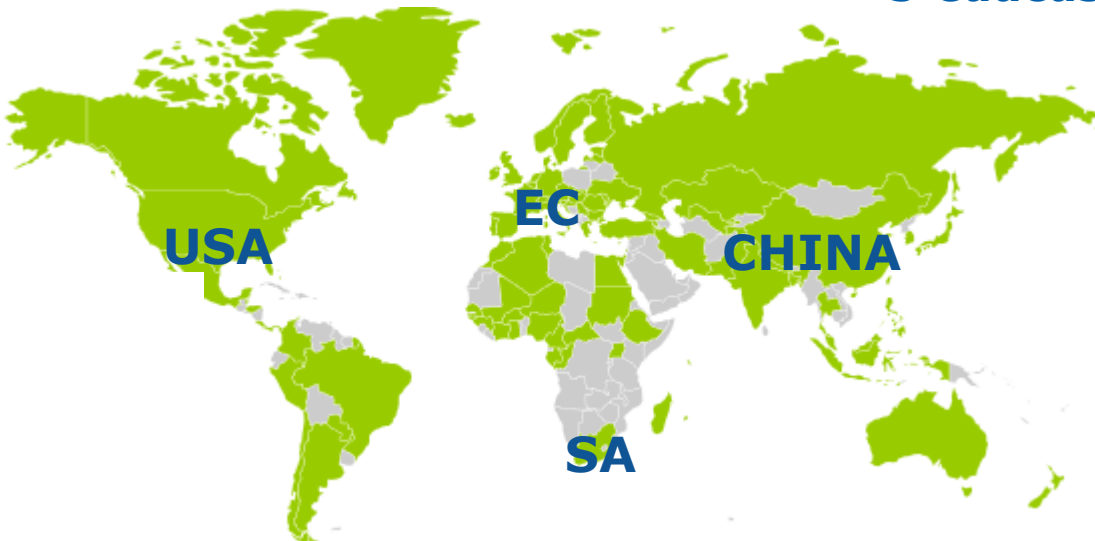
...and GEO?



- **Intergovernmental partnership set by international agreement since 2005**
- **Legally non-binding Voluntary contributions**
- **10 year GEO mandates**
 - Current (2005-2015)
 - Renewed (2016-2025)
- **99 Nations, plus EC**
 - 87 Participating Org.
 - 5 Caucuses

Europe

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- European Commission
- Finland
- France
- Georgia
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Latvia
- Luxembourg
- Malta
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom





The second decade of GEO (2016-2025)



“GEO Strategic Plan 2016-2025:
Implementing GEOSS”
(to be adopted during the GEO
Summit week in Mexico (Nov
2015))



Revised GEO Data Sharing Principles:

- **GEOSS data shared by default as open data**

Draft GEO Data Management Principles

- **Discoverability, accessibility, usability, preservation, curation**

The GEOSS Data-CORE



The GEOSS Data Collection of Open Resources for Everyone is a distributed pool of “tagged” datasets with full, open and unrestricted access at no more than the cost of reproduction and distribution



<http://www.geoportal.org/>



Europe and GEO/GEOS

- Part of the EU Action "**Towards a space strategy for the EU that benefits its citizens**" namely its international dimension
- Deliver data and information **to inform EU policy objectives** (e.g. Development, Humanitarian policies) and **support international agreements** (e.g. post-2015 Agenda for SD, CBD, UNFCCC).
- **Stimulate a global EO market** from a wealth of free, full and open EO data.
- Untapped potential for **intensifying EO innovation**, support **science diplomacy**, increase **synergies with Copernicus**.

EU and Open Data

- **Opening up data as a resource for innovative products and services and as a means of addressing societal challenges and increase transparency (Public access to Environmental Info, INSPIRE, Europeana, etc.).**
- **Open Data Strategy (December 2011), a comprehensive open data package focused on public sector.**
- **EU Open Data Portal (December 2012) providing access to data held by the EU bodies (<http://open-data.europa.eu>)**
- **Reinforcing PSI Directive (June 2013): MS to make all documents re-usable and its free provision (or at marginal costs) through open formats.**

EU and Open Data

- **G8 Open Data Charter (June 2013)** the benefits of the Open Data were recognised by the Group of Eight (G8).
- **Open Access to Publications in H2020 and Pilot on Open Access to Research Data (from 2014 onwards).**
- **Guidelines to help the MS (July 2014)** transpose the revised PSI rules and to indicate best practice in PSI re-use.
- **EC Communication (July 2014)** "Towards a thriving data-driven economy" with action plan focused on community building, framework conditions, enabling infrastructures and regulatory issues.

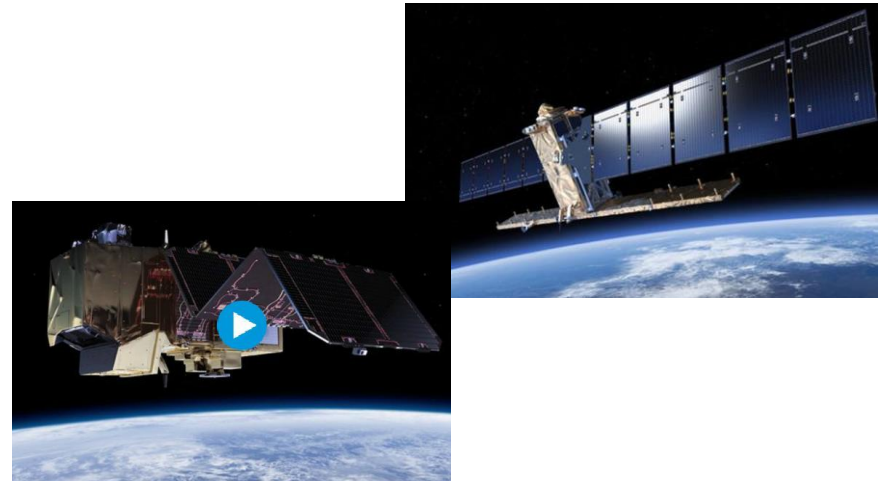
The EU Programme “Copernicus”

“Copernicus data and Copernicus information should be available freely and openly to support the Digital Agenda for Europe”

(Regulation (EU) No 377/2014 establishing the Copernicus Programme)

“GMES open dissemination should be fully compatible with GEOSS data sharing principles”

(Delegated Regulation (EU) No 1159/2013 on access to Copernicus data and infor.)



 **opernicus**
The European Earth Observation Programme



MyGEOSS Project

Innovative 'apps' addressing European citizens' needs in relation to our changing environment



Commission initiative (DG RTD & JRC) to promote the development of innovative applications (mobile or web-based) using openly available data (e.g. GEOSS Data-CORE).

- ✓ Relevance of use in Europe
- ✓ Ease of use by non-expert users
- ✓ Innovative characteristics of the app
- ✓ Contribution to environmental or social objectives

ENV.2013.6.5-3 Exploiting the European Open Data Strategy to mobilise the use of environmental data and information

- Use of open EO data and information to enable wide access to scientific data to allow new forms of scientific research**
- Use of models, innovative tools and products, based on standards, to deliver benefits to societal actors across environmental domains.**
- Focus on sharing and exploiting data and information from many varied sources: open public sector data portals, GMES, GEOSS and especially the GEOSS Data-CORE.**

ENV.2013.6.5-3 Exploiting the European Open Data Strategy to mobilise the use of environmental data and information

Expected Impact:

- The creation of opportunities, new businesses, jobs and growth, through the delivery of a wide range of innovative products and services.**
- Better evidence-based policy making and efficiency at all levels of government, improving public services.**
- Greater transparency in public administration through the improved visibility of information.**
- Empowering citizens and citizens' associations, enabling them to contribute to environmental governance processes.**

ENV.2013.6.5-3 Exploiting the European Open Data Strategy to mobilise the use of environmental data and information

Projects funded:



SWITCH-ON (2013 – 2017) Sharing Water-related information to tackle changes in the Hydrosphere <http://www.water-switch-on.eu/>



SmartOpenData (2013 – 2015) Linked Open Data for Environment Protection in Smart Regions - <http://www.smartopendata.eu/>



MELODIES (2013-2016) Maximising the Exploitation of Linked Open Data in Enterprise and Science - <http://www.melodiesproject.eu/>

OPEN DATA CLUSTER PROJECTS WORKSHOP Sep 2015 – website soon!

Conclusion

- **Open data is an emerging global resource with high potential to:**
 - Enable new services (enhanced innovation)
 - Enhance efficiency (including quality and impact of publicly-funded research for society).
 - Improve transparency, accountability, reproducibility
 - Engender greater trust in government
- **30s strategy of EU Commissioner for Research and innovation:**
 - Open innovation + Open science + Open to the world
- **The G8 “Open Data” charter has put open data on the map as a policy**
 - Many high-level international statements of good practices or intent
- **Current focus on finding the value and impact of open data**
- **Existing open data policies must be strengthened**
- **Implementation at a time of fiscal austerity is not trivial and requires social, technical, institutional innovation.**

Horizon 2020 – Work Programme 2016-2017

SC 5: Climate action, environment, resource efficiency and raw materials

Nature-based solutions for territorial resilience

SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction

Raw Materials

SC5-15-2016-2017: Raw materials policy support actions

f) EU network of regions on sustainable wood mobilisation (wood supply) (2017)

Earth Observation

SC5-20-2016: European data hub of the GEOSS information system



Horizon 2020 – Work Programme 2016-2017

SC 2: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

Call - Sustainable Food Security – Resilient and resource-efficient value chains

- More resilient and resource efficient value chains

SFS-01-2016: Solutions to multiple and combined stresses in crop production

SFS-02-2016: Teaming up for good: Exploiting the benefits of species diversity in cropping systems

SFS-10-2017: Research and approaches for emerging diseases in plants and terrestrial livestock

SFS-18-2016: Framework Partnership Agreement supporting Joint Actions towards Public-Public Partnerships in the Bioeconomy

- Environment-smart and climate-smart primary production

SFS-29-2017: Socio-eco-economics – socio-economics in ecological approaches

Horizon 2020 – Work Programme 2016-2017

SC 2: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

Call Rural Renaissance – Fostering Innovation and Business Opportunities

- New approaches towards policies and governance

RUR-05-2017: Novel public policies, business models and mechanisms for the sustainable supply of and payment for forest ecosystem services

- New value chains and business models

RUR-07-2016: Resource-efficient and profitable industrial crops on marginal land

RUR-08-2016: Demonstration of integrated logistics centres for food and non-food applications

- Innovation and skill development

RUR-10-2016-2017: Thematic Networks compiling knowledge ready for practice

RUR-11-2016: On-farm demonstrations: deepening farmer-to-farmer learning mechanisms

RUR-12-2017: Networking European farms to boost thematic knowledge exchanges and close the innovation gap

RUR-13-2017: Building a future science and education system fit to deliver to practice

RUR-16-2017: Optimising interactive innovation project approaches and the delivery of EU policies to speed up innovation in rural areas

Horizon 2020 – Work Programme 2016-2017

Societal Challenge 2 Work Programme available on:

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-food_en.pdf

Societal Challenge 5 Work Programme available on:

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-climate_en.pdf



Muchas gracias