



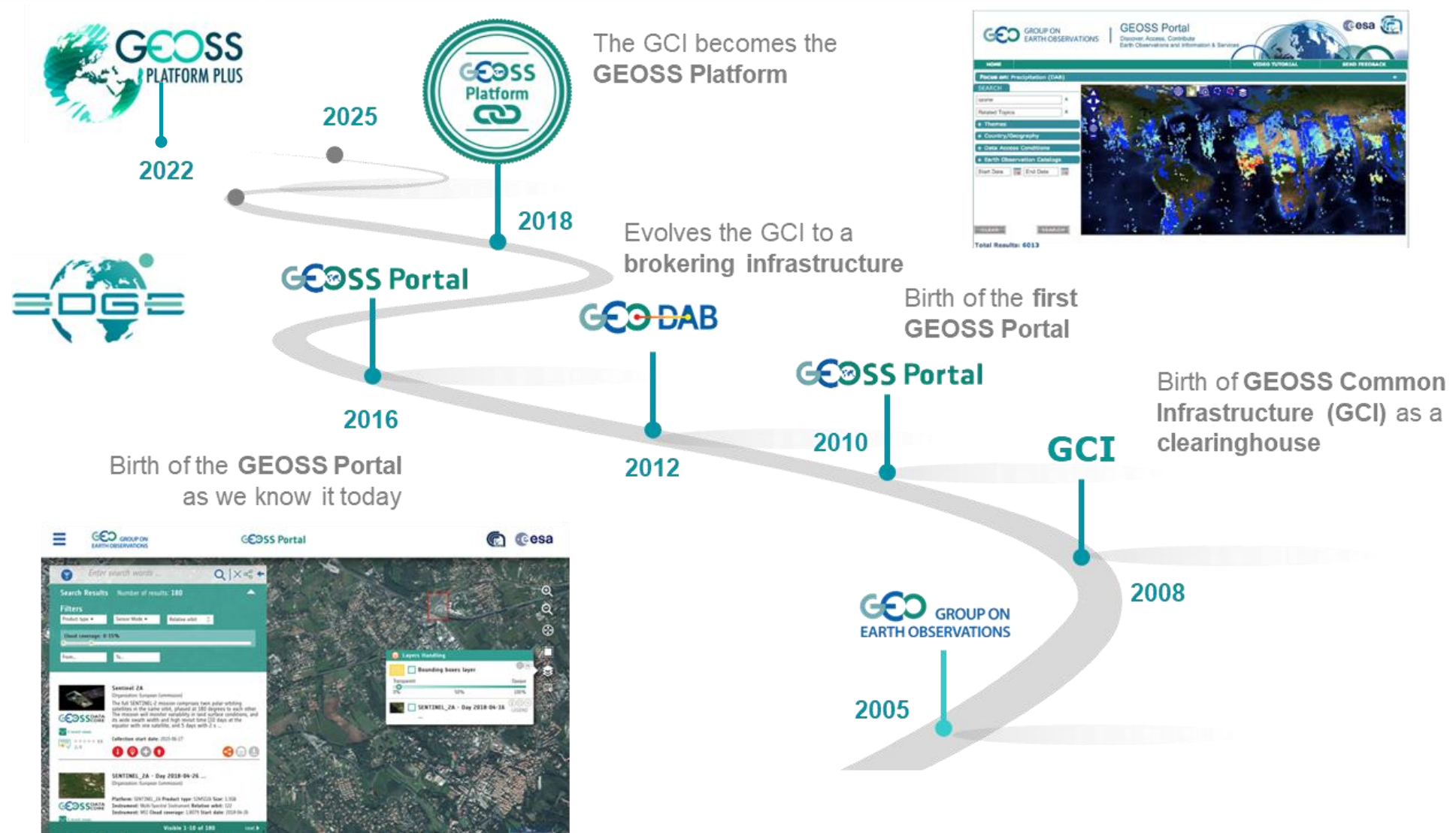
European efforts to further improve the GEOSS Platform

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The long journey behind ... and ahead



The (current) GEOSS Platform and Components



A global federated **Data Discovery & Access Ecosystem** connecting users with data



Single map-based Internet point of access (HMI):
GEOSS Portal - www.geoportal.org



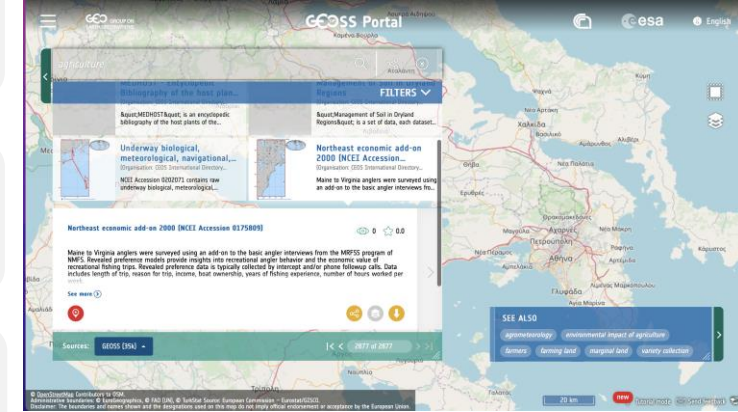
Providing community-customisable
Graphical User Interfaces (GUIs)



Providing community-customisable
Views on data and other resources



Exposing (dozens of) **MMIs** to connect at
Machine level



The Missing “PLUS” of the GEOSS Platform



Challenges



Opportunities



Only data discovery and access, no other resources such as services, code, documents, tools, information, knowledge



No relationships between resources that would enable to retrace the journey leading to results



Set up of Community Portals and Views strongly depends on GEOSS Platform team support: this limits the engagement of new communities.



Obsolete *discovery-download-processing* paradigm (not suitable for big datasets)



Limited sharing and collaboration capabilities



Discovery of services, information, knowledge, tools, models, algorithms, papers (*all encompassing*)



Semantic links among resources to enable **reproducibility, replicability, reusability** and **robustness analysis**; interoperability with the GEO Knowledge Hub.



Developing tools that enable **self-creation of community portals and views** to foster a broader engagement of new communities



Leveraging Cloud technologies supporting **multi-Cloud approach** for product and knowledge generation



Social network and sharing mechanisms enabling collaboration and promotion of data, results, experiments

User Communities



Engagement

- **GEO Initiatives/Flagships/Activities:**
 - EO4HEALTH, GEO-TREES, GEOGLOWS/TWIGA, GEO-VENER, CROP-PEST-MONITORING, GEO-MOUNTAINS, GOS4M, GEOGLAM, AQUAWATCH, BLUE-PLANET, GOS4POPS, GFOI, GSNL, GEO-WETLANDS
- **Regional GEOs linkage:**
 - AFRIGEO
 - AmeriGEO
 - DBAR
 - EuroGEO
- **GEO Communities Portals:**
 - AllAtlantic, AtlantOS, DBAR, ENERGIC OD, EnviDat Community, GTN-H Community, SWOS Community Portal
- **European Projects and international Initiatives**
 - Eiffel, E-shape, WMO (WHOS)

Community Portal Self creation tool

Foster participation of organizations in GEO

develop strategies for accessing and disseminating EO data.

use of EO products and services to support decision making

develop EO data hub and networking Platform

Customisation and control of the Portal

Enabling Community Portal via customizable
GEOSS Mirrors (GEOSS Portal tailored to the
resources, features, functionalities of interest)

configuration of the domains via customizable
GEOSS Views (subset of the GEOSS resources)



Full Control of Community Portals

GEOSS Portal

SDG 15.3.1 Land Degradation

EO products and services to support decision making

Actionable information generation

Sharing Results and Reports

Reuse, Reproduce, Replicate Experiments

Knowledge Sharing / Knowledge hubs integrations



Discover of and **access** to:

- Data, services, knowledge, resources

Custom Dashboard for:

- Collaborating to knowledge generation
- Sharing reporting and results

Enabling **Reproducibility, Reusability, Replicability**

Yellow Pages

Need of federated approach (GEOSS2.0 Concept Paper)

New dedicated and customizable Registration Form

Full Control of YP

Yellow Pages self creation Tool

Federated Yellow Pages and YPs interoperability

Customisation/updates of Registration Form



- **ESA ITT: Actionable Information for Applications** - 5 independent existing applications for max 100k per application. ITT open to ESA and EU Member states. Intended ITT on ESA-star. ITT expected within a month. Use of **in-situ data** from EEA 'a must'...
- **Integration of already selected applications** related to:
 - Climate Change Impact on Pandemic risk: Norovirus
 - Urban Green Areas to support SDG indicator 11.7.1
- **Support to:**
 - **Reproducibility, Replicability and Reusability paradigm** for generating knowledge considering integration with GEOSS Knowledge hub (and possibly other knowledge hubs)
 - **Multi-cloud resources access**, to allow users to find the best fit for purposes resources, via VLAB
- **Reinforce and push the integration of In-situ data** – in particular from EEA and GEO Activities
- **Move towards an ecosystem of Interoperable Enablers in support of application implementation reinforcing the connection between users and providers.**

- 26 Experts assessed:
 - Relevancy of 'GEOSS concept' (*to the GEO Mission*) and how it should be defined in the context of GEO's current understanding of its value proposition, and
 - GEO's role of 'geospatial information and services infrastructure provider' and what main function it should provide.
- Based on survey conducted in the GEO community, three broad options were defined
 1. Discontinue investment in current GEOSS Platform
 2. Pivot investments from the current GEOSS Platform toward end-user needs
 3. Continue investing in the GEO-hosted GEOSS Platform and enhance its functionality to support GEO impact areas
- The survey demonstrated that
 - The GEOSS platform is used both by providers and end-users
 - Strong support in closer links between GEOSS platform and end-user groups, and also for the development of smaller, geographically or thematically targeted subsets of GEOSS platform
- Challenges:
 - Insufficient communication of the tools and their functionality, along with confusion on the terminology used to identify and describe the GEOSS Platform.
 - Lack of capacity building
 - User-friendliness
 - Link with the GEO Knowledge Hub

GPP will significantly contribute to implementation of most of these points !



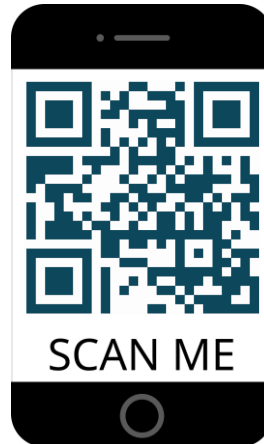
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*“In my lifetime, I’ve witnessed a terrible decline.
In yours, you could witness a wonderful recovery!”*

Sir David Attenborough, COP26 Summit, November 1, 2021