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GEO's involvement in Cold Regions

4-5 December 2012
EUMETSAT
Darmstadt, Germany

Yubao Qiu
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GEO Secretariat

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GEO - The Group on Earth Observations

Earth Observation Summit (Minister, by Group of Eight)

An Intergovernmental Group (EO for Decision Maker)

U.S. Department of State
Washington D.C.
31 July 2003

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Created in 2005, to develop a coordinated and sustained Global Earth Observation System of Systems (GEOSS) to enhance decision making in nine Societal Benefit Areas (SBAs)

GEO today:

89 Members

67 Participating Organizations

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GEO Objectives

- Improve and Coordinate Observation Systems
- Advance Broad Open Data Policies/Practices
- Foster Increased Use of EO Data and Information
- Build Capacity

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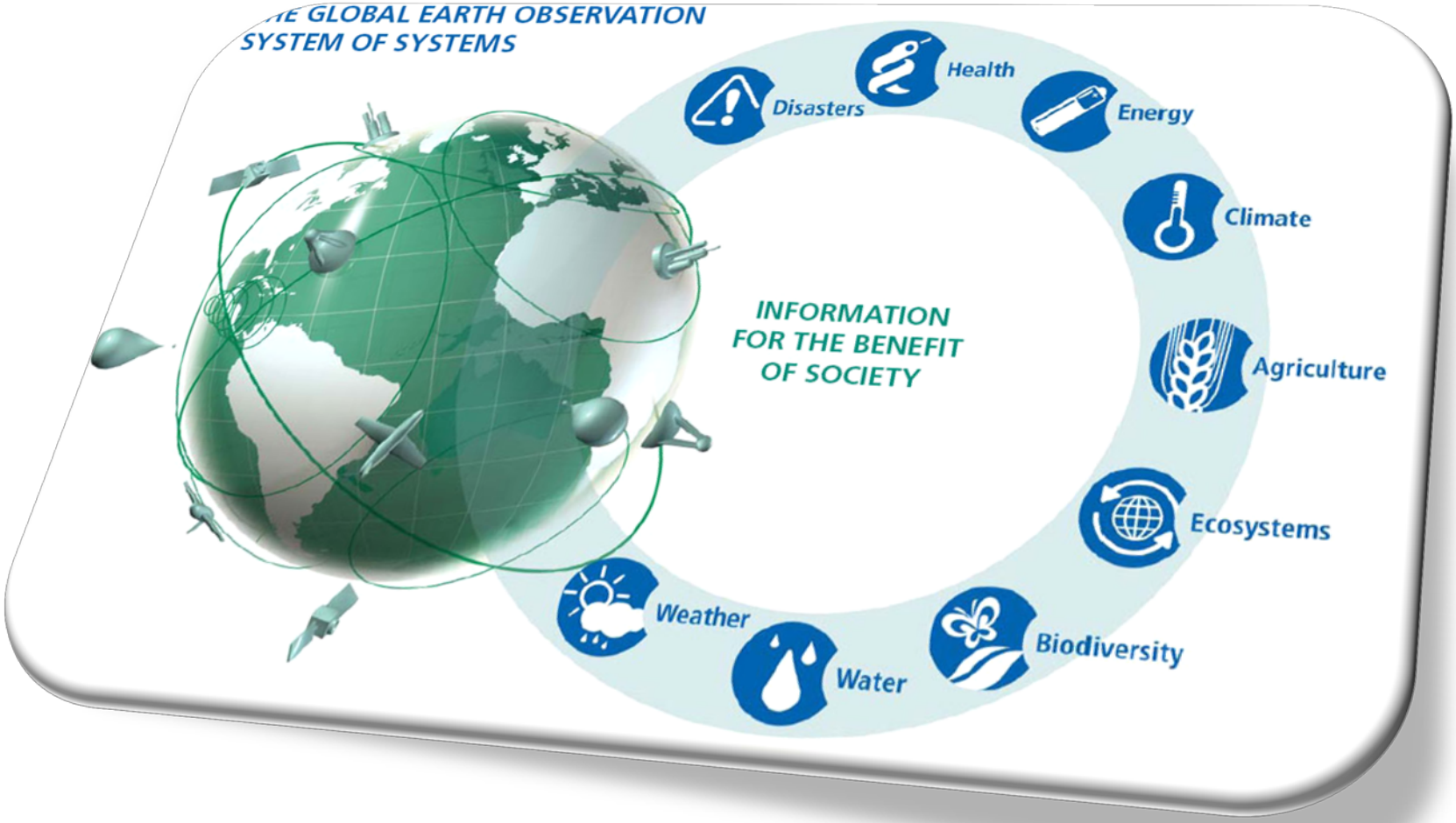
A Global, Coordinated, Comprehensive and Sustained System of Observing Systems



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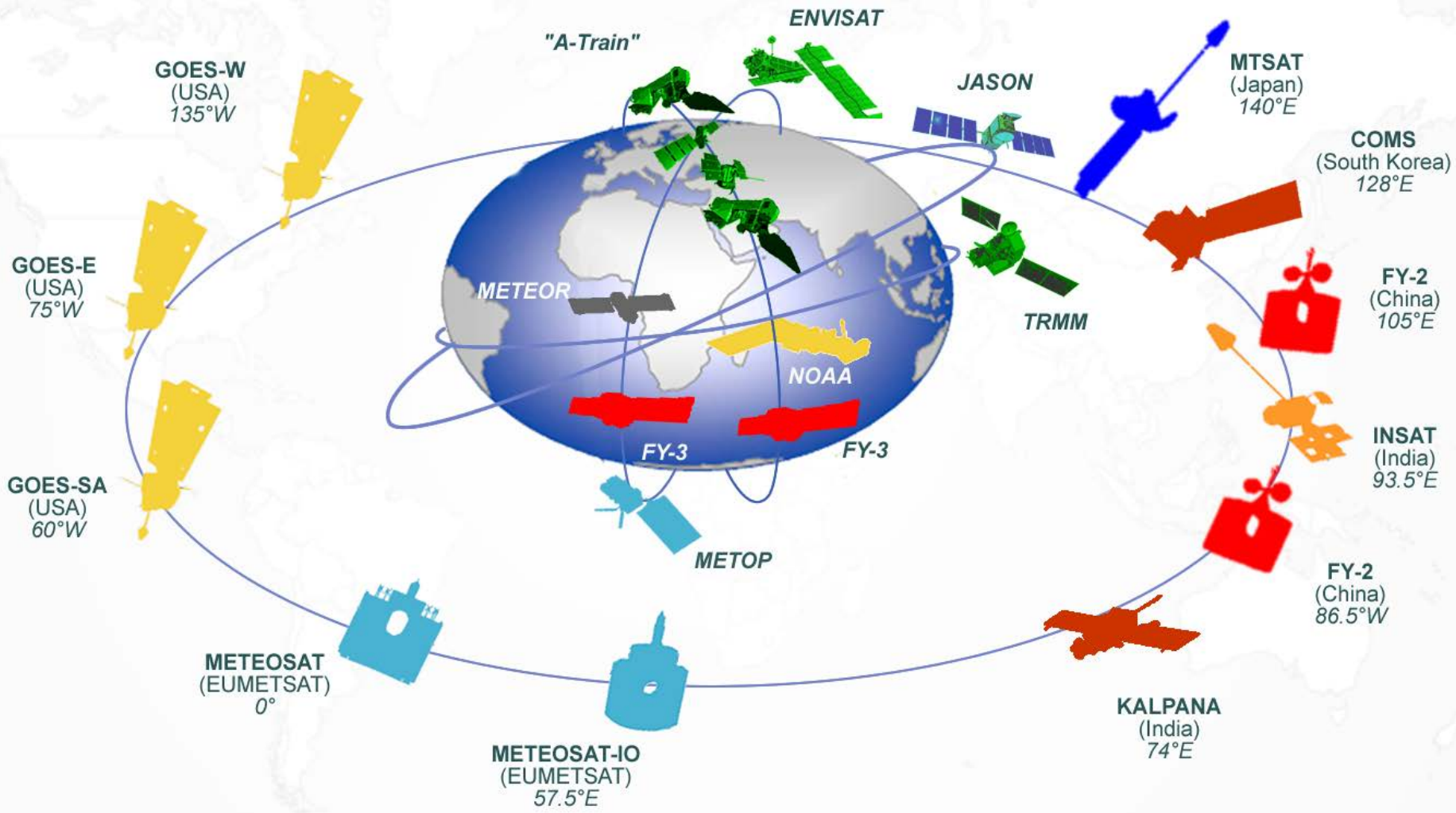
Space-based Assets



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In-situ Systems

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GEOSS Targeted Gaps

1. Uncertainty over continuity of observations
2. Large spatial and temporal gaps in specific data sets
3. Limited access to data and associated benefits in developing world
4. Inadequate data integration and interoperability
5. Lack of relevant processing systems to transform data into useful information
6. Inadequate user involvement
7. Eroding or little technical infrastructure in many parts of the world

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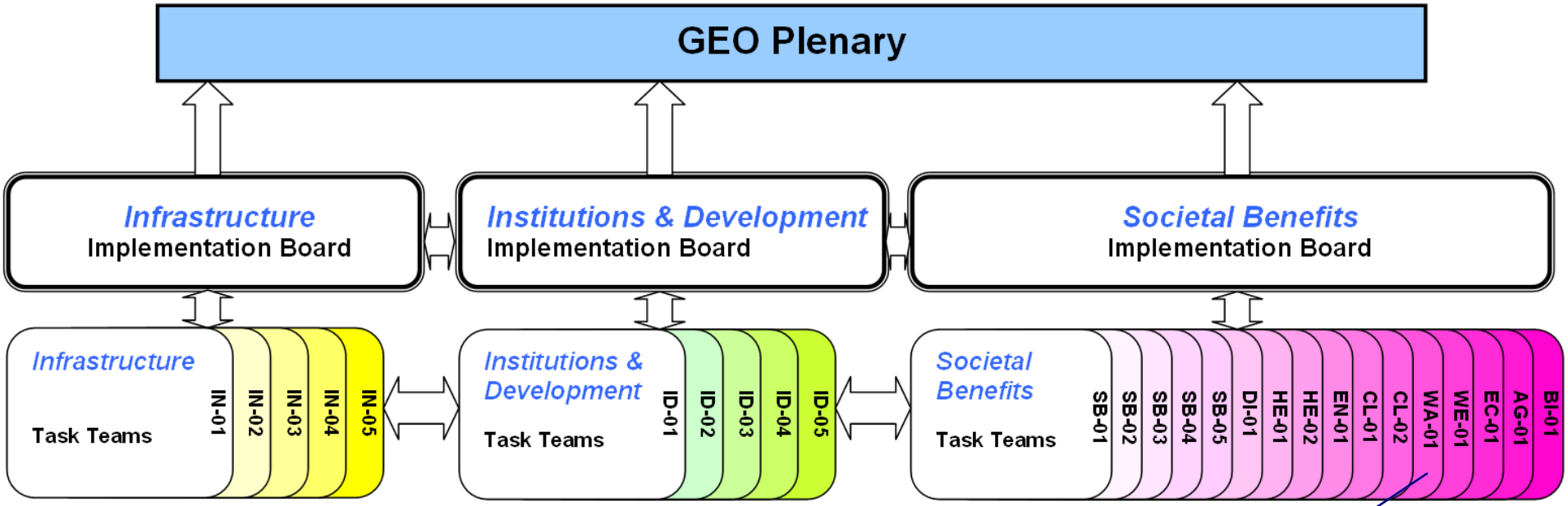
The GEO implementation tool is the Workplan, Current Workplan is the 2012-2015



GEO Cold Region efforts

WA-01-C3: Information Services for Cold Region (2009)

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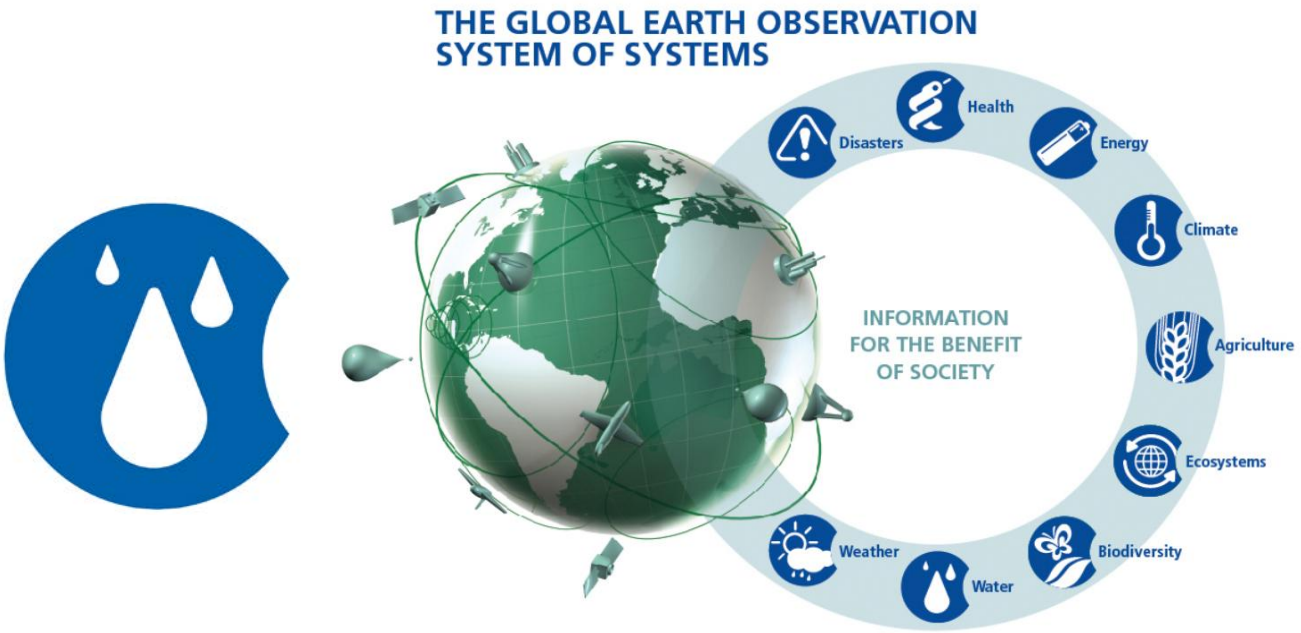
Water

Before 2015, GEO aims to:

13. Produce comprehensive sets of data and information products to support decision-making for efficient management of the world's water resources, based on coordinated, sustained observations of the water cycle on multiple scales.



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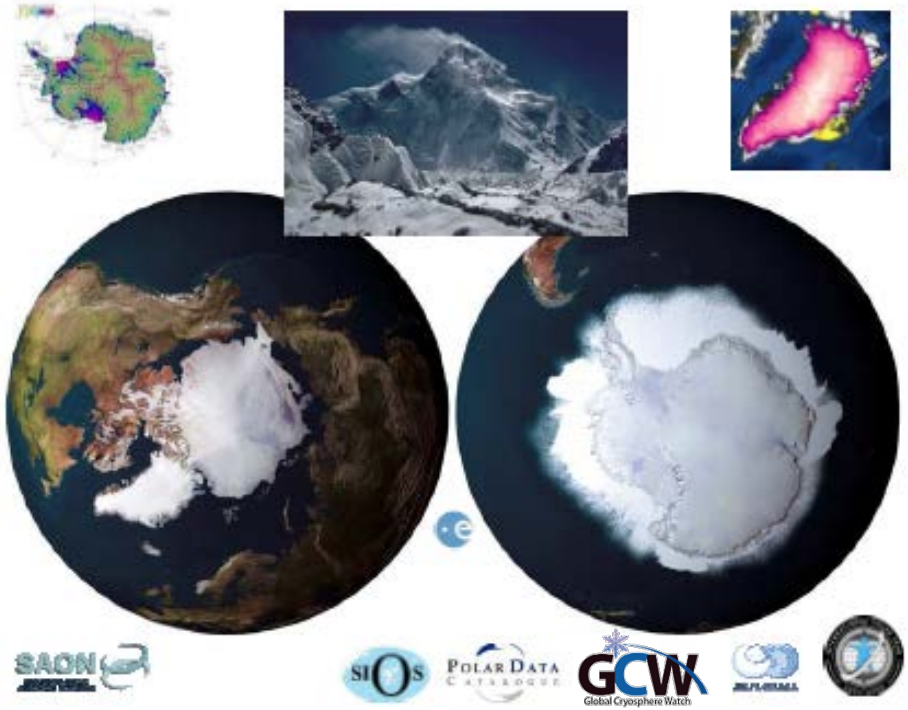
Cold Regions Monitoring

(Canada, China, Denmark, Germany, Norway, India, Italy, Japan, Spain, USA, ICIMOD, IEEE, WCRP, WMO)



* CryoClim climate monitoring service

* Svalbard Integrated Arctic Earth Observing System

* Sea-ice ECV for Arctic/Antarctic snow-cover

* Focus on Tibetan Plateau

* Glacier dynamics mapping

A fundamental contribution to GEOSS, Global Cryosphere Watch (GCW), one Community of Practice, addresses much of them.

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GEOSS Implementation requires: *Data Sharing Principles*

- **Full and Open Exchange of Data**
- **Data and Products at Minimum Time delay and Minimum Cost**
- **Free of Charge or Cost of Reproduction**

Broker Strategy & Interoperability Arrangements

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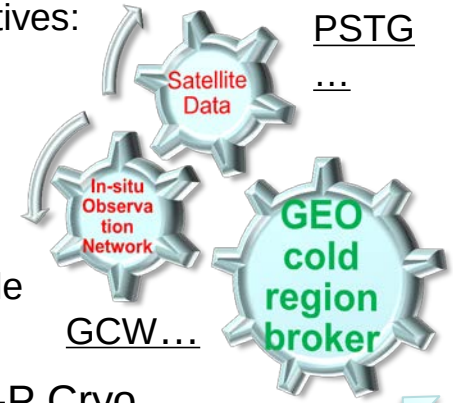
Global Initiatives:
Arctic:
SAON
INTERACT
Antarctic:
…
The third pole

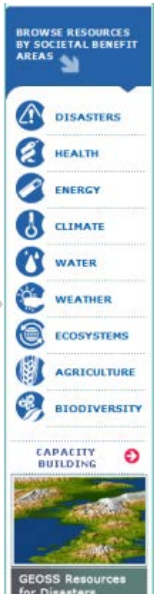


PSTG

…

GCW…

CEOS IGOS-P Cryo.



Nine SBAs, 26tasks /60 components

Regional GEOSS

EuroGEOSS

GENESI-DEC

Brokered GCI

CLEARINGHOUSE

NASA GSFC-DAAC

GBIF

SeaDataNet

NASA GCMD

CWIC

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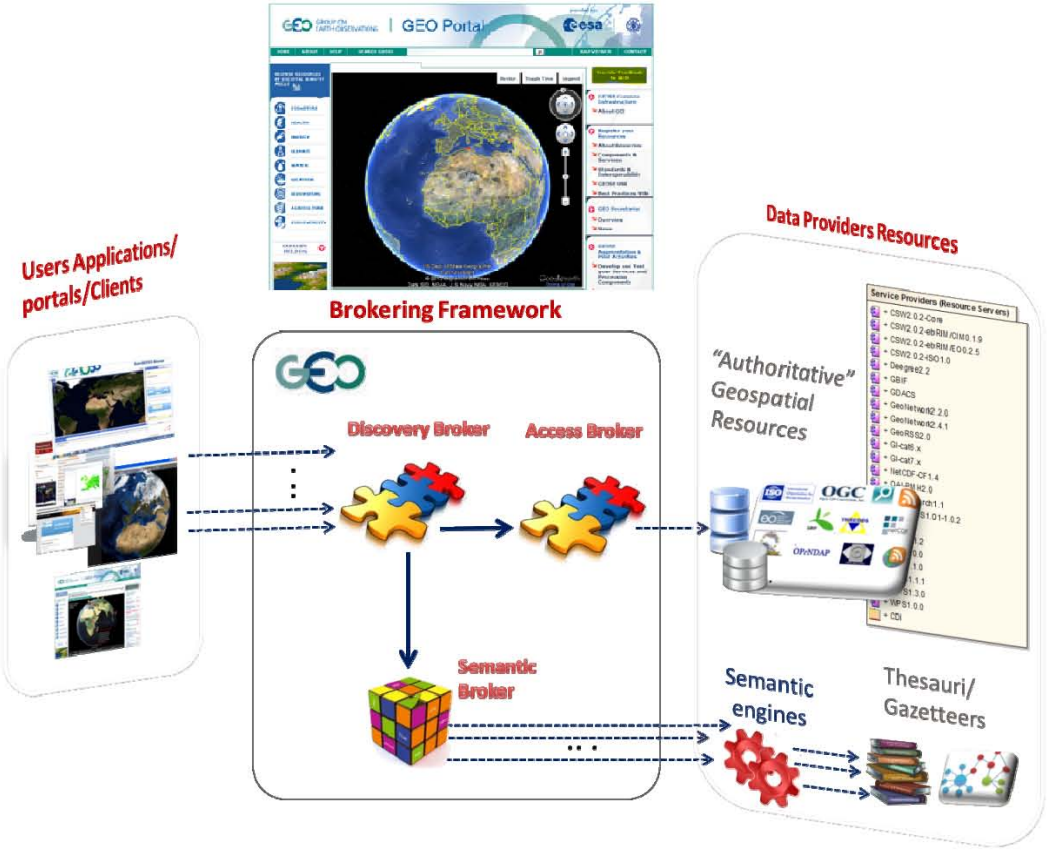
One Task is to facilitate :

Access to GEOSS Resources

(EC, Italy, Japan, USA, ESA, ICSU, IEEE, OGC)



* ~430 components registered (datasets, systems & portals)
* Over 14 mio resources
* New: PANGAEA, WIS GISC DWD, GENESI_DR, Compusult Catalog
* Gradual integration of DataCORE pledges

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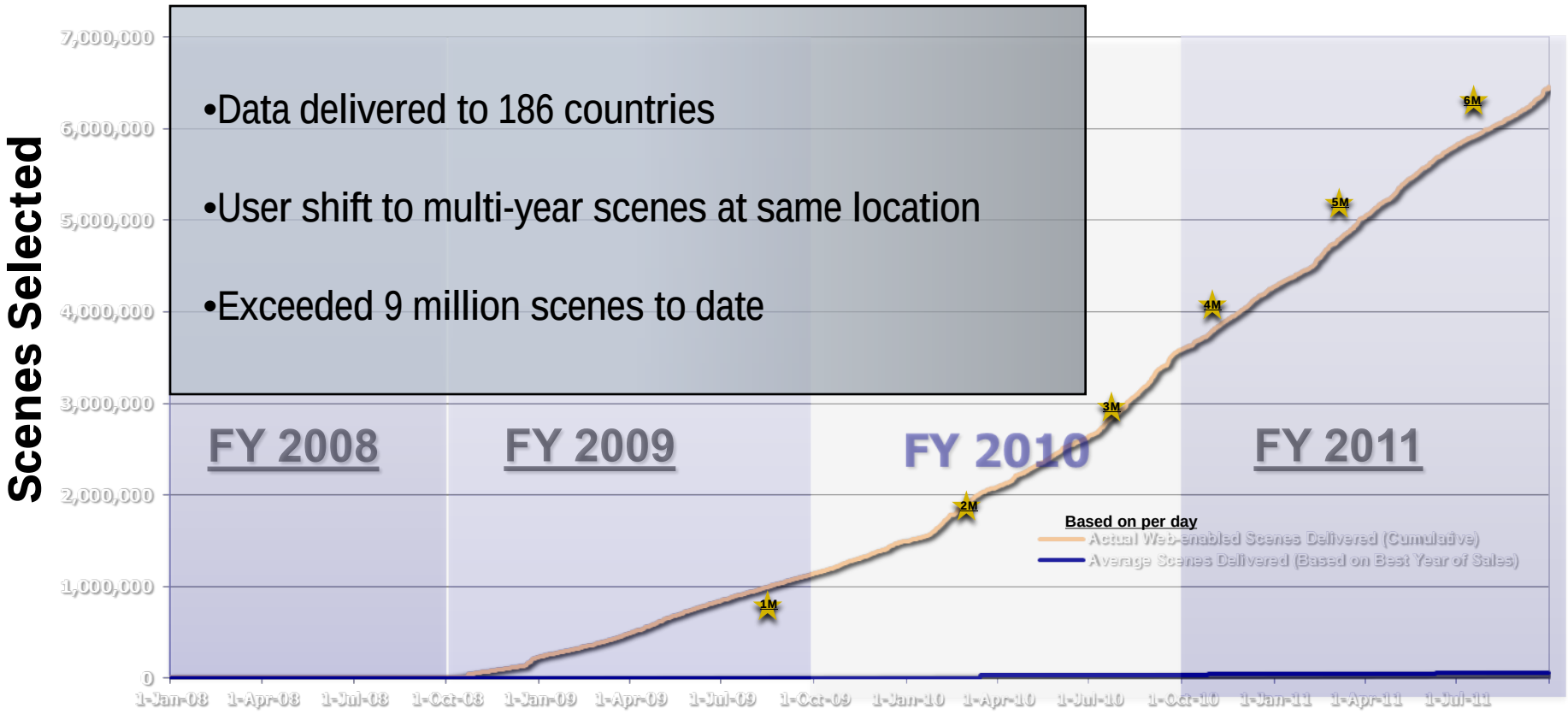
Resulted in an explosive growth in data use-age

Landsat Internet Data Distribution



Daily Average = 53 scenes for best year of sales (2001)

Daily Average ≅ 5,700 scenes of web-enabled data delivered

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Thanks