# The Contribution of GGOS to GEOSS: the view from GEO

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# GGOS: a key GEOSS Observational Component

The Global Geodetic Observing System is a major component of GEOSS, by providing the metrological basis for all Earth Observations

# GGOS: a contributor to specific SBA's

- Disasters, it allows, through measurement of high-resolution surface motion, the monitoring of volcanoes, earthquakes, tectonically active regions and landslide-prone areas;
- Water, it allows direct monitoring of sea level, ice sheets, water storage on land and, through measurement of variations in the Earth' gravity field, it provides valuable information on the regional and global mass transport in the hydrological cycle.

# GGOS implements GEOSS approach

The worldwide coordination of Observing Systems of very different nature, performed by GGOS Partners, in order to periodically provide qualified datasets in well known, standard formats, is a successful example of the application of GEOSS principles and implementation approach.

# GEOSS Vision

## GEOSS: A Global, Coordinated, Comprehensive and Sustained System of Observing Systems

# GEOSS functional Integration

Group on Earth Observations

*Observing Systems*

Satellites 1, 2,3 …

In situ, airborne

GEOSS

Satellite data catalogues

Sensor webs

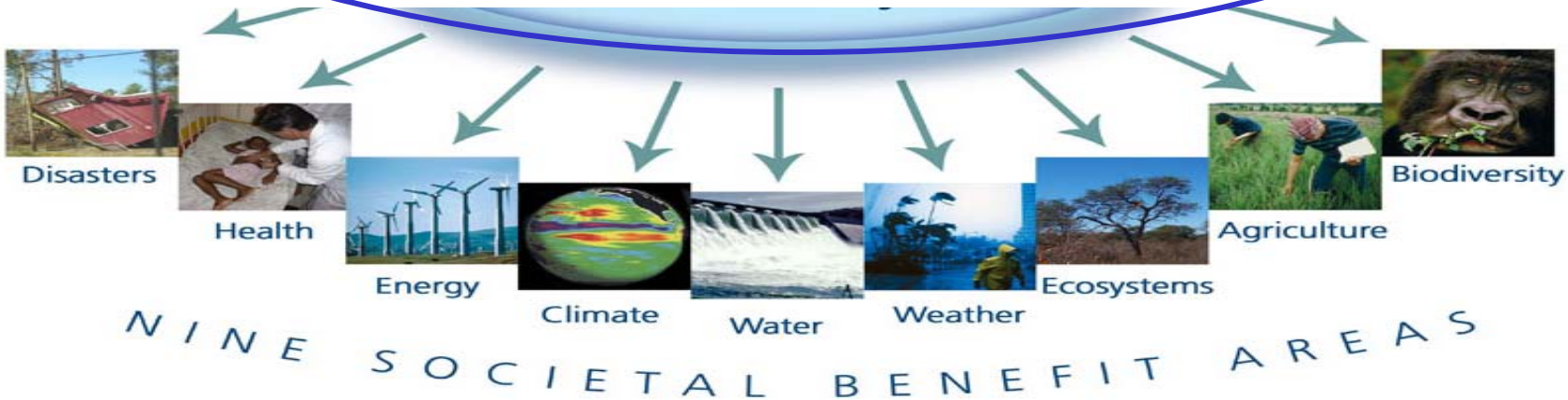
*Interoperable catalogues*

Multi-user products

Sat derived

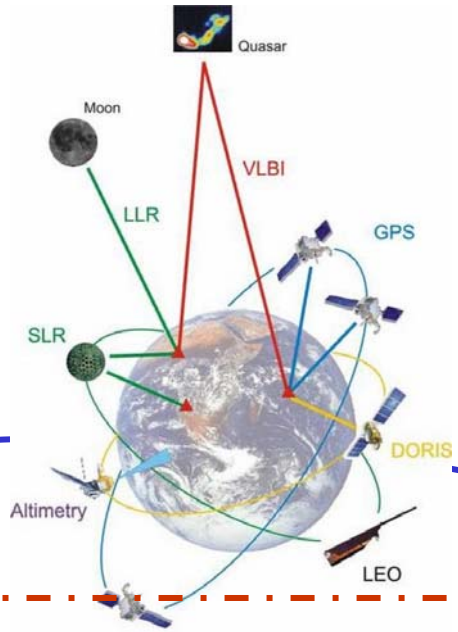
In situ derived

Integrated intermediate products

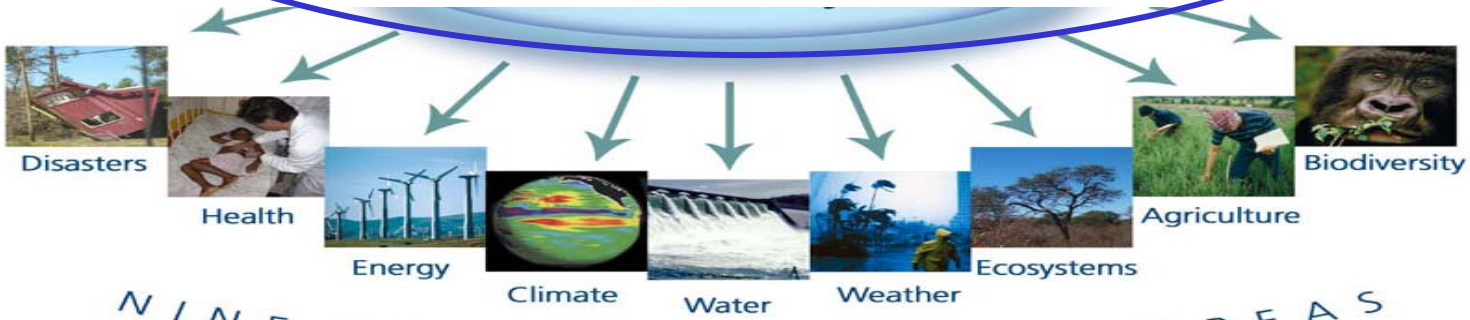


# GGOS Integration and products

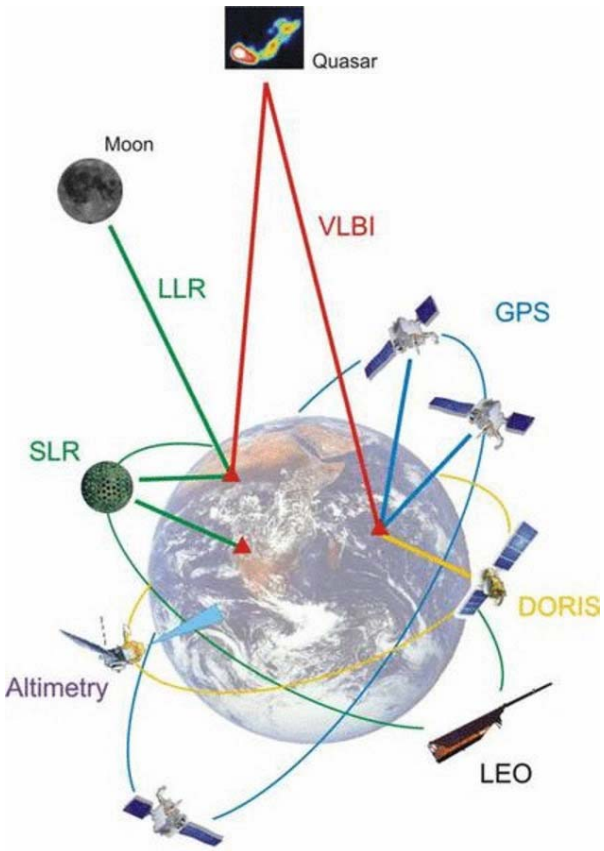
## Multi-user GGOS products




*International Terrestrial Reference Frame* (ITRF)
*International Celestial Reference Frame* (ICRF)
*Earth Rotation Parameters (ERP)*



# GGOS Sustainability




The components of Global Geodetic Observing System are of different nature - operational or R&D – but, with few exceptions, they are National Systems.

There is a clear need to ensure Commitments for their improvement and sustainability

# GGOS Participation to GEOSS (1)

The active participation of the Global Geodetic Observing System to GEO would strongly support GEOSS implementation and will also contribute to solve key issues associated to the completion of GGOS development and its sustained operations. GGOS participation should cover a number of key areas.

# GGOS Participation to GEOSS (2)

- Coordination of Users requirements across all SBA's, as the input for the definition of GGOS basic products and associated core infrastructure,
- Participation to the Architecture and Data tasks to ensure proper integration of GGOS into GEOSS
- Direct participation to tasks relevant to Specific SBA's, mainly Disasters

# How GEO can support GGOS

- Provide the appropriate intergovernmental framework to achieve continuity and sustainability of core GGOS Infrastructure;
- Provide the technical and programmatic framework for and optimal definition of GGOS requirements, configuration and roles of different actors;
- Greatly improve GGOS visibility of Users in all SBA's, this enhancing relevance and applicability of GGOS products.