Global Earth Observation System of Systems – GEOSS

Towards a Common Infrastructure?

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GEOSS Infrastructure

GEOSS Common Infrastructure

- GEO Web Portal
- GEOSS Registration Service (CSR)
- EO Vocabulary
- Clearinghouse
- Service Monitoring
- Standards and Interoperability Registry
- DataCORE Brokered Search: EuroGEOSS, GENESI

EO Data

Services
- Catalog, Access, Processing

Inventory Access

Applications
- Web and PC

GEONETCast Dissemination System

(1) GLOBAL
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SB-03 Global Forest Observation .............................................
SB-04 Global Urban Observation and Information ..................
SB-05 Impact Assessment of Human Activities ........................

DISASTERS
DI-01 Informing Risk Management and Disaster Reduction ........

HEALTH
HE-01 Tools and Information for Health Decision-Making ..........
HE-02 Tracking Pollutants ......................................................

ENERGY
EN-01 Energy and Geo-Resources Management .......................

CLIMATE
CL-01 Climate Information for Adaptation ................................
CL-02 Global Carbon Observation and Analysis ......................

WATER
WA-01 Integrated Water Information (incl. Floods and Droughts) 
WEATHER
WE-01 High-Impact Weather Prediction and Information ...........

ECOSYSTEMS
EC-01 Global Ecosystem Monitoring ......................................

AGRICULTURE
AG-01 Global Agricultural Monitoring and Early Warning ........

BIODIVERSITY
BI-01 Global Biodiversity Observation (GEO BON) .....................
International interdisciplinary efforts for improved prediction, use, and value of weather, climate, and Earth system information

Key Research Infrastructure

High-Performance Computing (HPC) for high-res assimilation/analysis (integrating air-ocean-land-ice observations); and high-res ensemble (probabilistic) predictions
Weather Prediction (T1279, ~15 km) Compared with Satellite Observations

(courtesy of ECMWF)

Satellite Observations
Meteosat 9 IR10.8 20080525 0 UTC

Numerical Forecast
ECMWF Fc 20080525 00 UTC+0h: