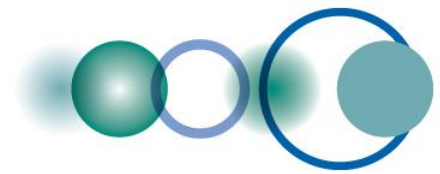


Synergies Between Meteorological Satellites and Other GEOSS Resources

**The 2nd Asia/Oceania Meteorological
Satellite User's Conference
December 2011, Tokyo**

**José Achache
Executive Director**



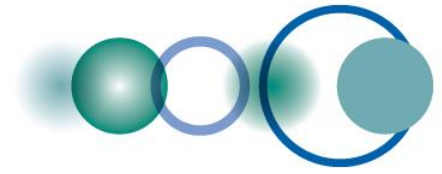


GEO, the Group on Earth Observations

An Intergovernmental Body with 88 Members and 64 Participating Organizations

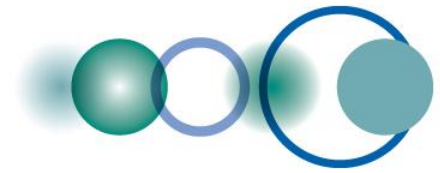


▲第2回地球観測サミット参加者集合写真

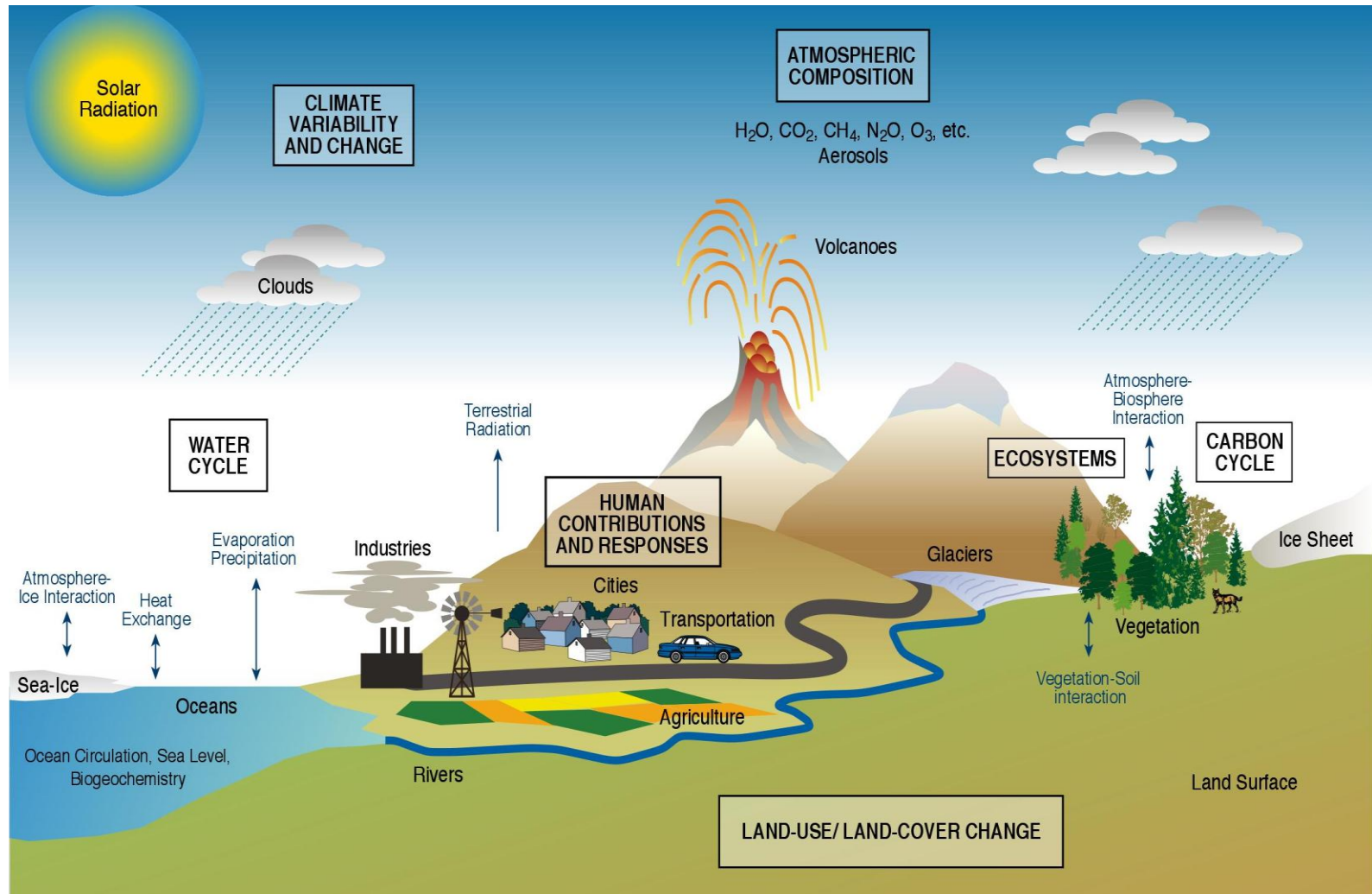


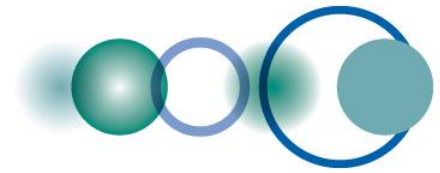
The Vision for GEOSS...

...to create a world where decisions and actions are informed by coordinated, comprehensive and sustained Earth observations.



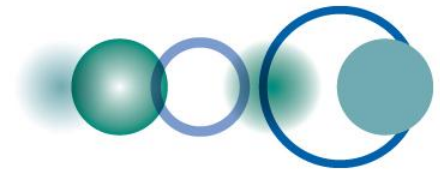
Problems are Closely Linked





Global Land Use 2010-2030

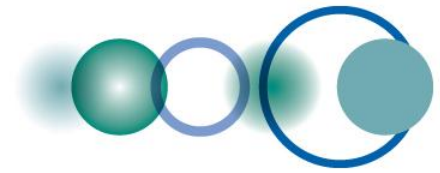




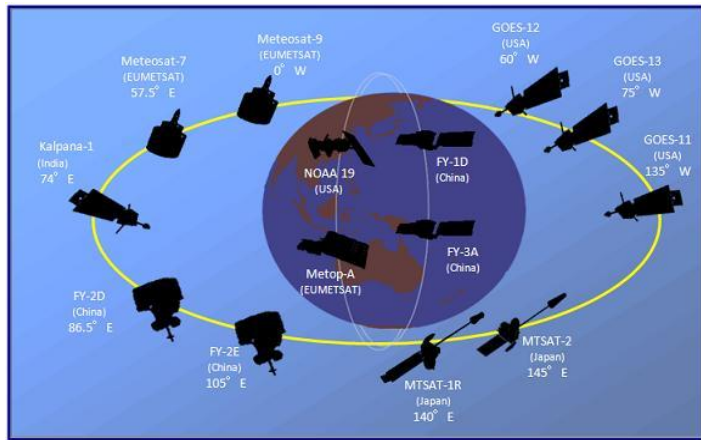
The Key: Coordinated Access

THE GLOBAL EARTH OBSERVATION
SYSTEM OF SYSTEMS



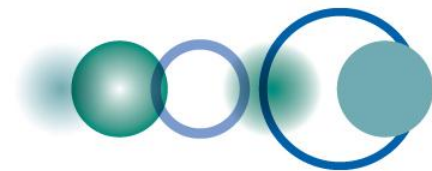


The Key: Coordinated Access



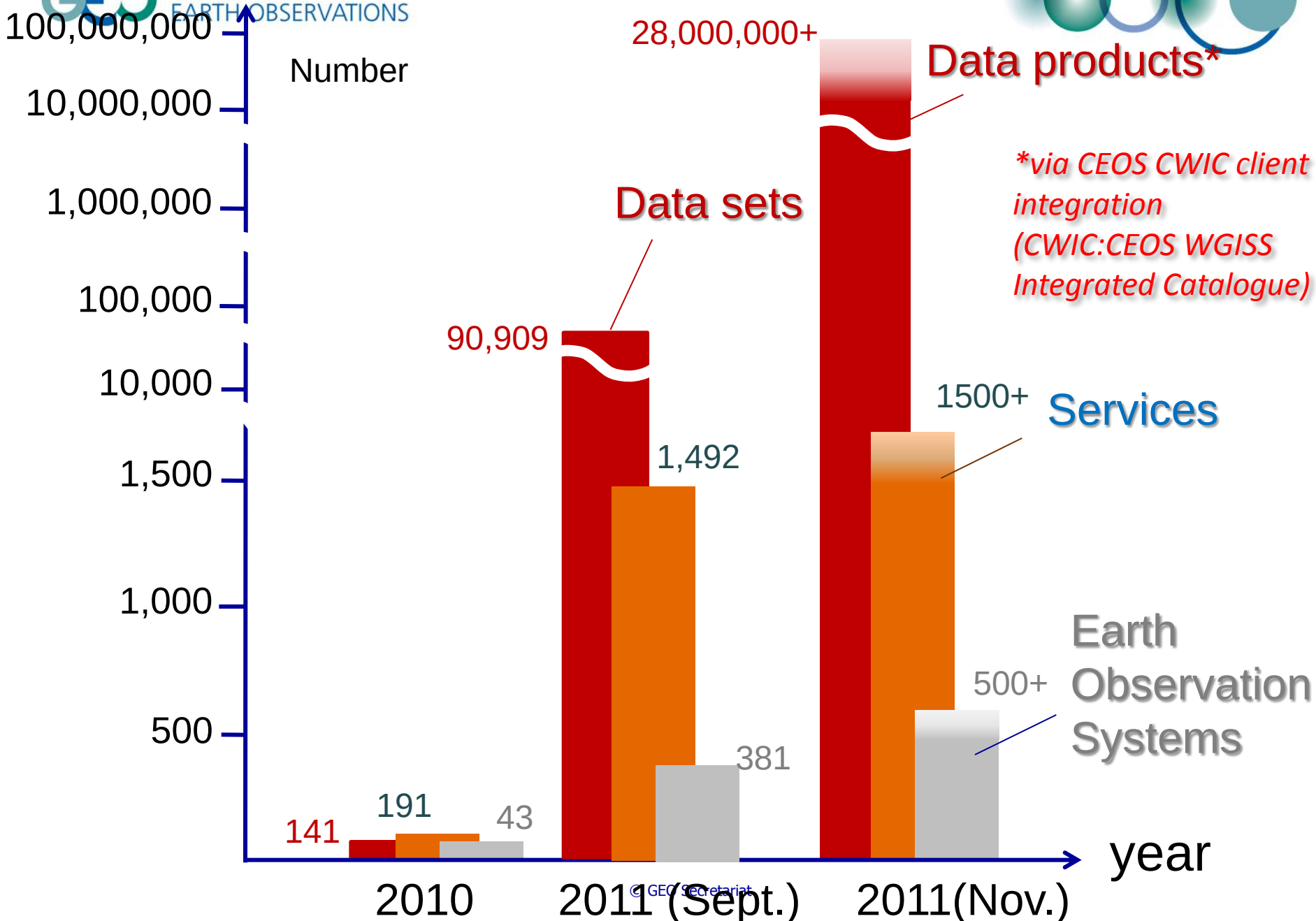
TH OBSERVATION
EMS

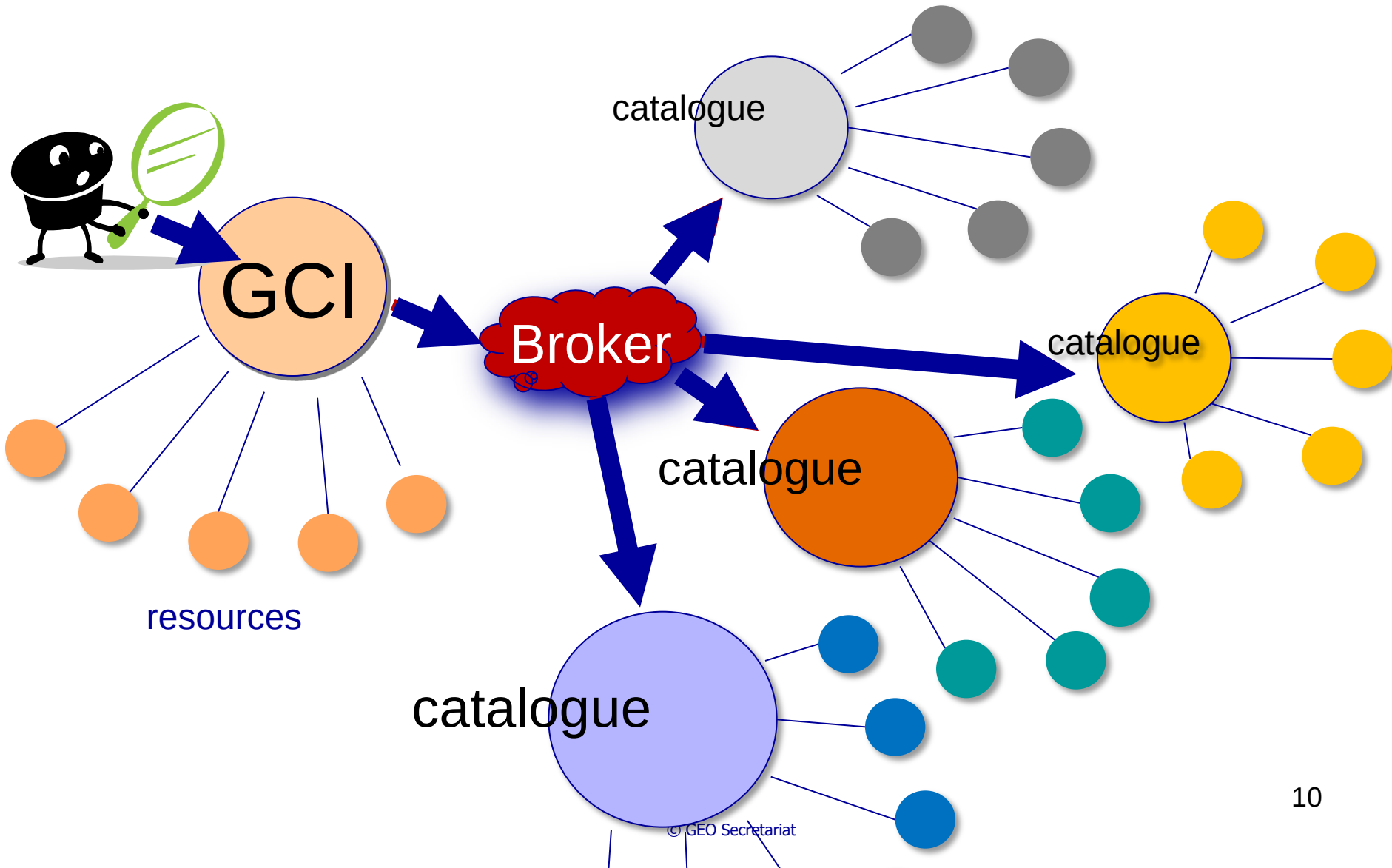
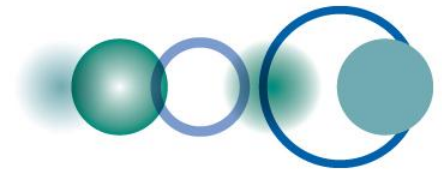


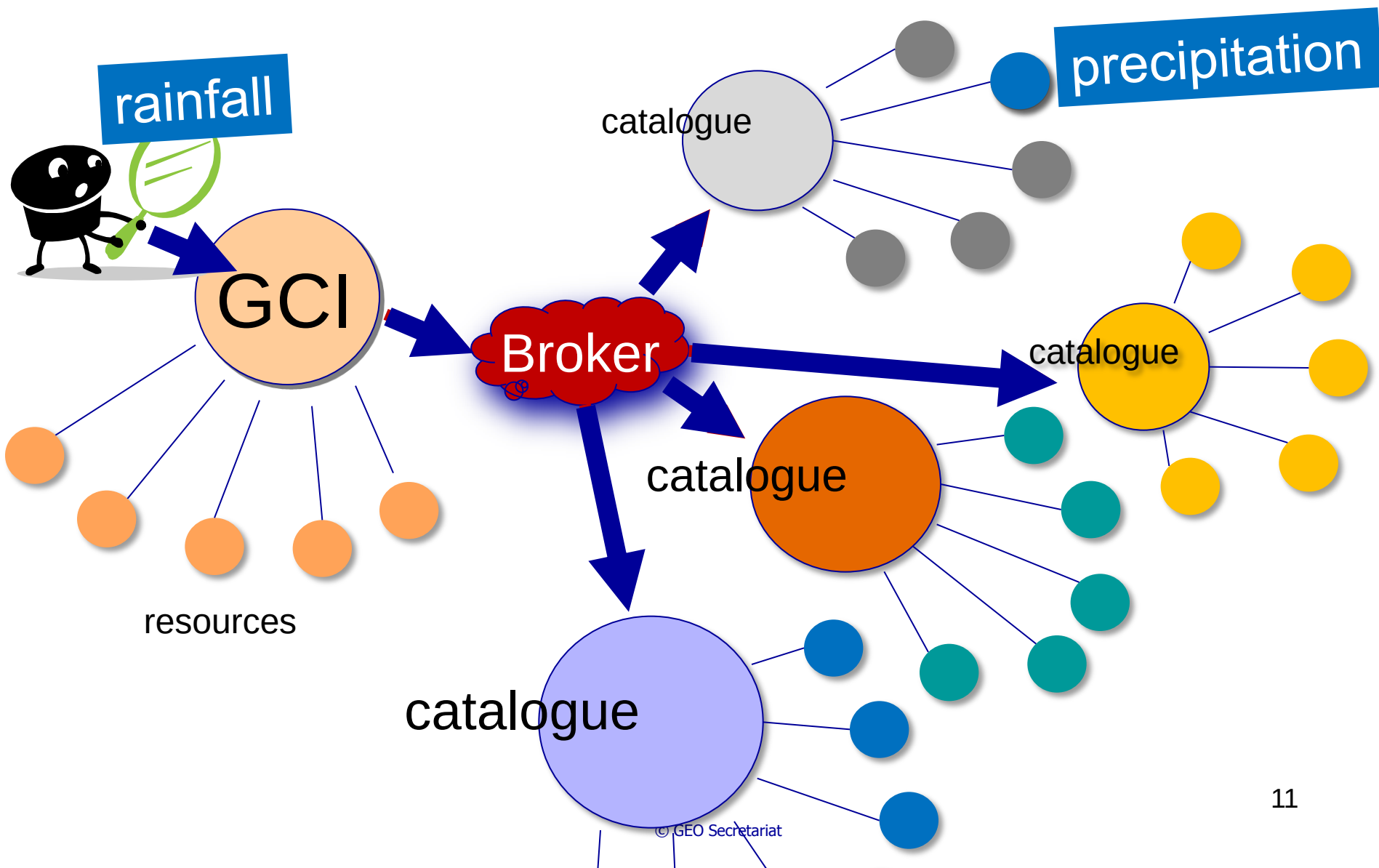
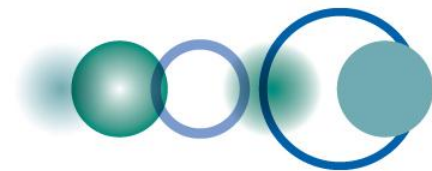


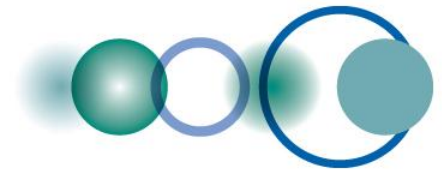
GEOSS Provides Coordinated Access to Information from All Sources





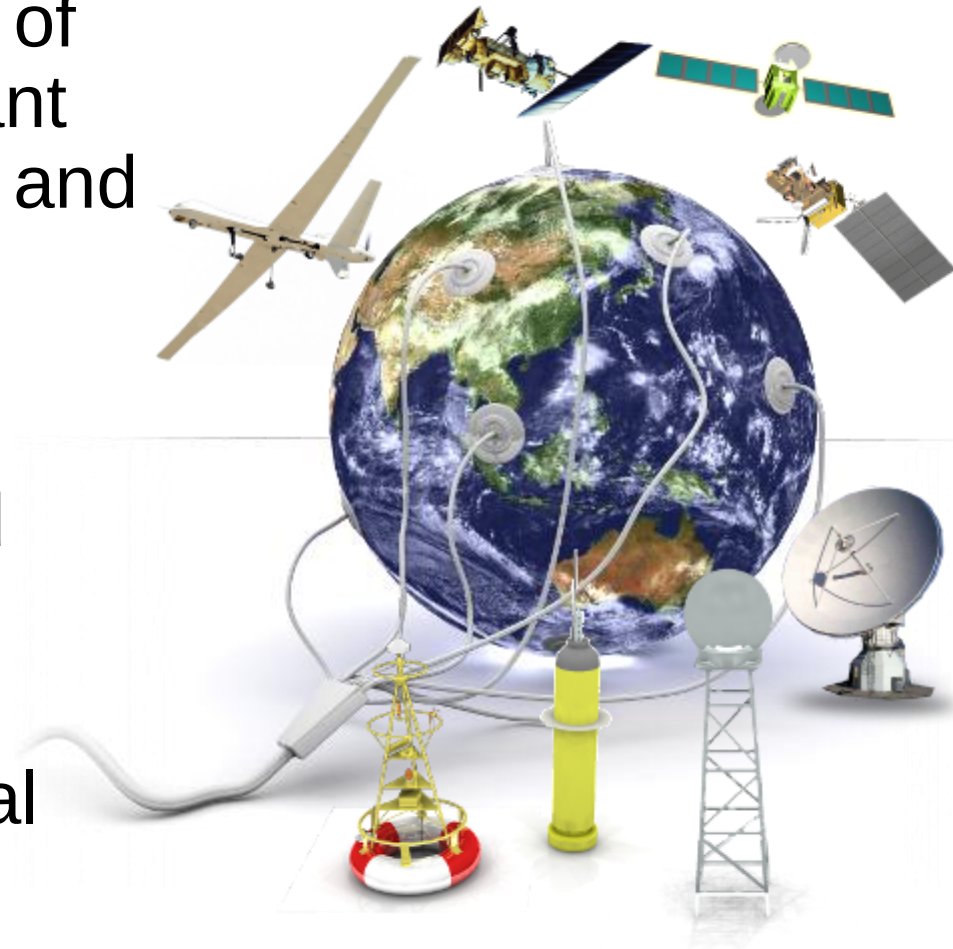


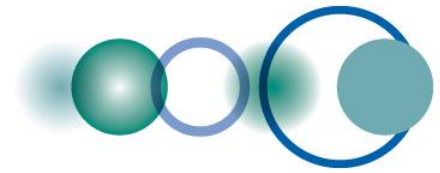




GEO Data Sharing Principles

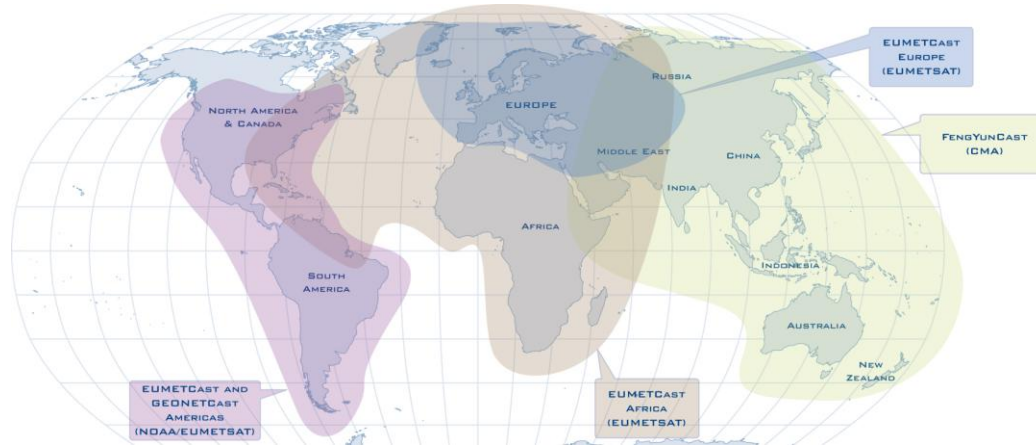
- Full and Open Exchange of Data, recognizing Relevant International Instruments and National Policies
- Data and Products at Minimum Time delay and Minimum Cost
- Free of Charge or minimal Cost for Research and Education





GEONETCast Expanded

(China, EC, Netherlands, USA, EUMETSAT)



* New dissemination of disaster imagery (agreement with International Charter)

* Growing network of stations: Africa, Asia, Americas

* CMACast – Next generation update

* Toolbox, training channels, e-courses

GEONETCast African Service received in Africa



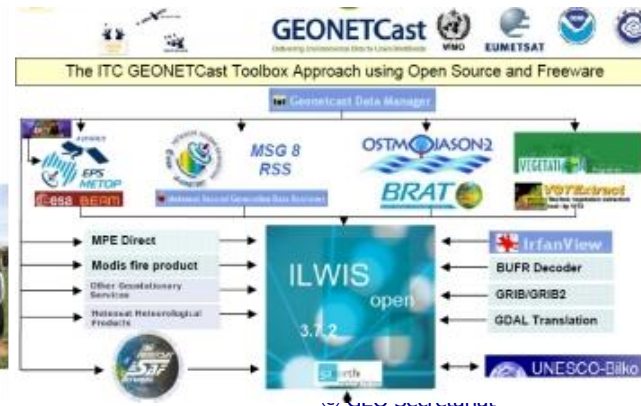
Atlantic Bird 3 C-band dBW footprint

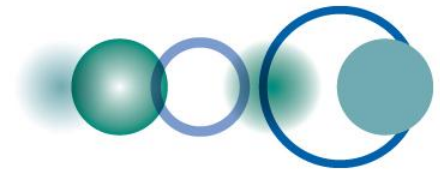


Satellite Dish installed at CGIS-NUR



Satellite Dish installed at RCMRD

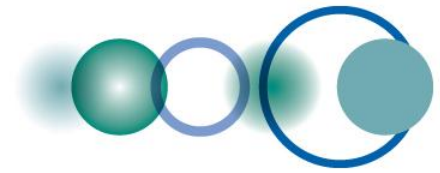




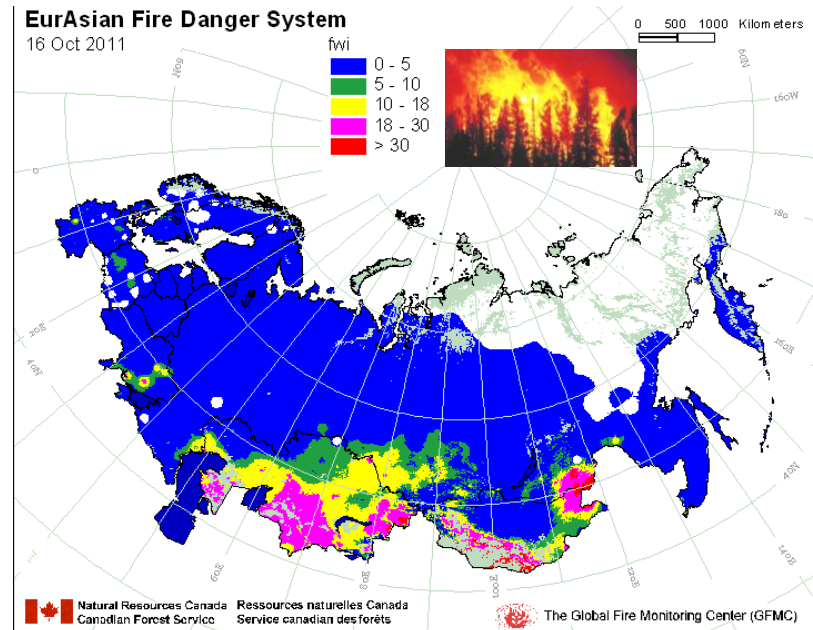
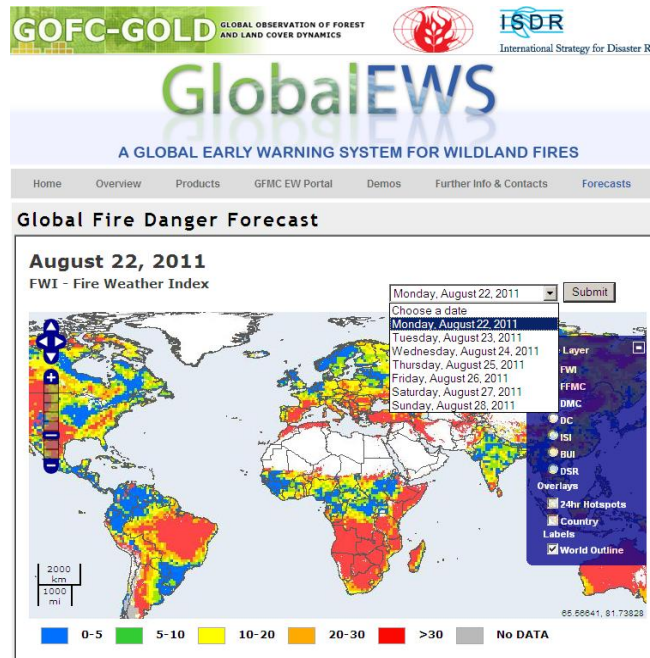
Synergies in Applications

THE GLOBAL EARTH OBSERVATION
SYSTEM OF SYSTEMS

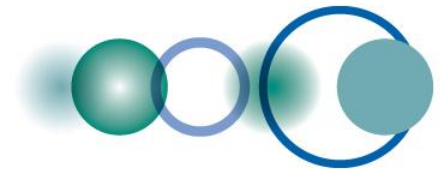




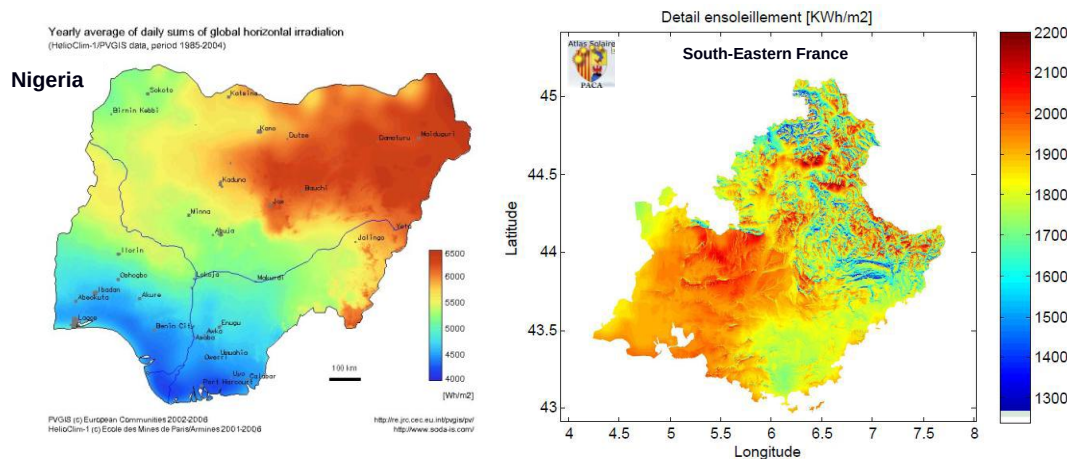
Global Fire-Danger Systems (Canada, Germany, Russia, GTOS, ISDR)



- * Prototype global early-warning system operational
- * Regional fire systems for Eurasia, Europe, southern Africa developing
- * 400 weather station data processed daily for fire-potential maps



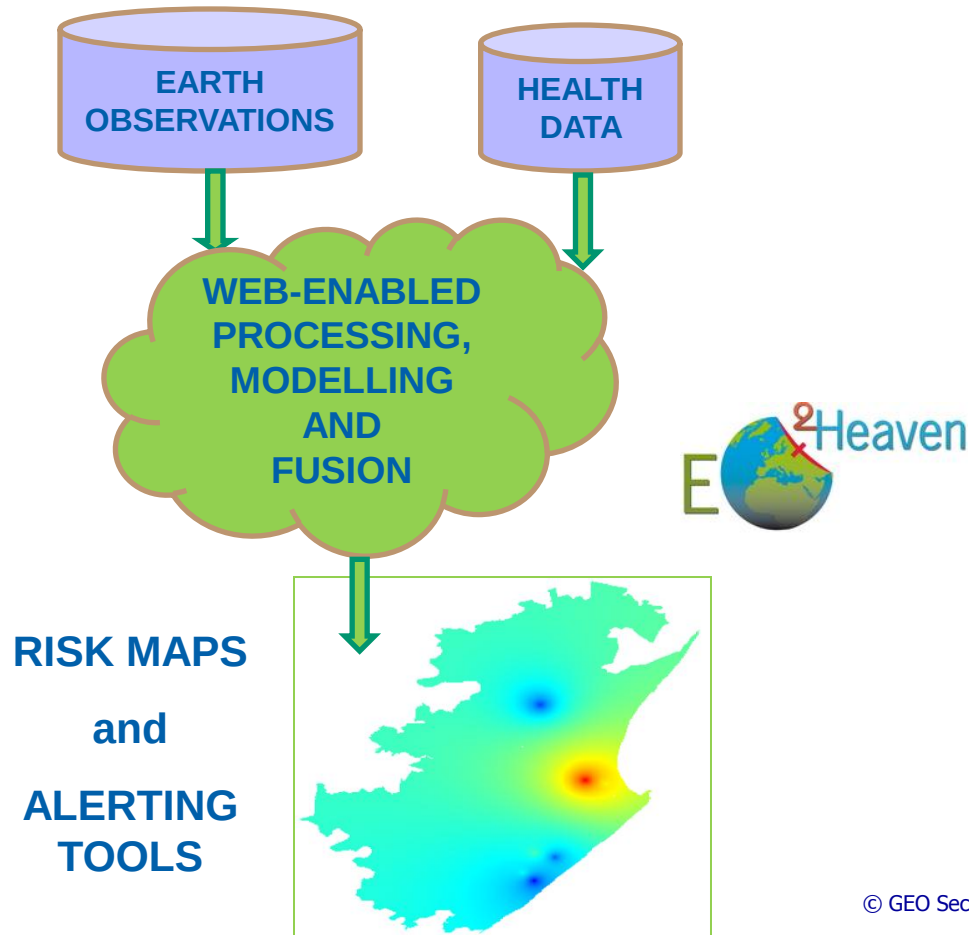
New Systems and Products to Optimize Energy Exploitation (EC, France, Germany, USA)



- * 20 years of solar data (1983-2006) released for public use
- * 200 parameters available globally at high-resolution
- * Key information for electricity production in Africa and Mediterranean

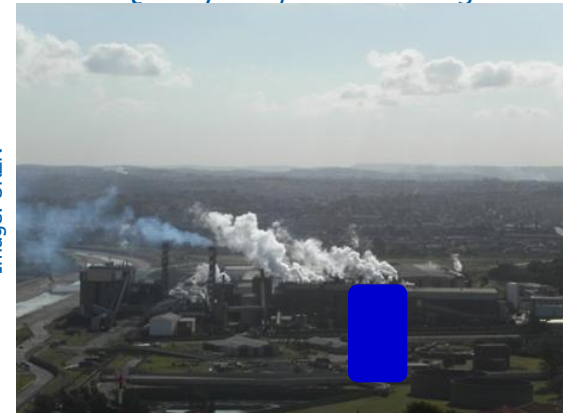


Impact of Environment on Health (EC, France, Germany, Spain, South Africa, UK)



Air Quality and/or Aeroallergens

Image: UKZN



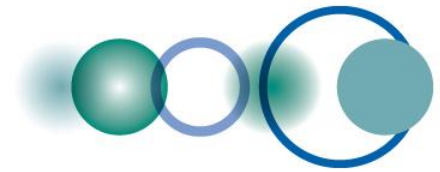
South Africa
(Durban)

Water-borne Disease: Cholera

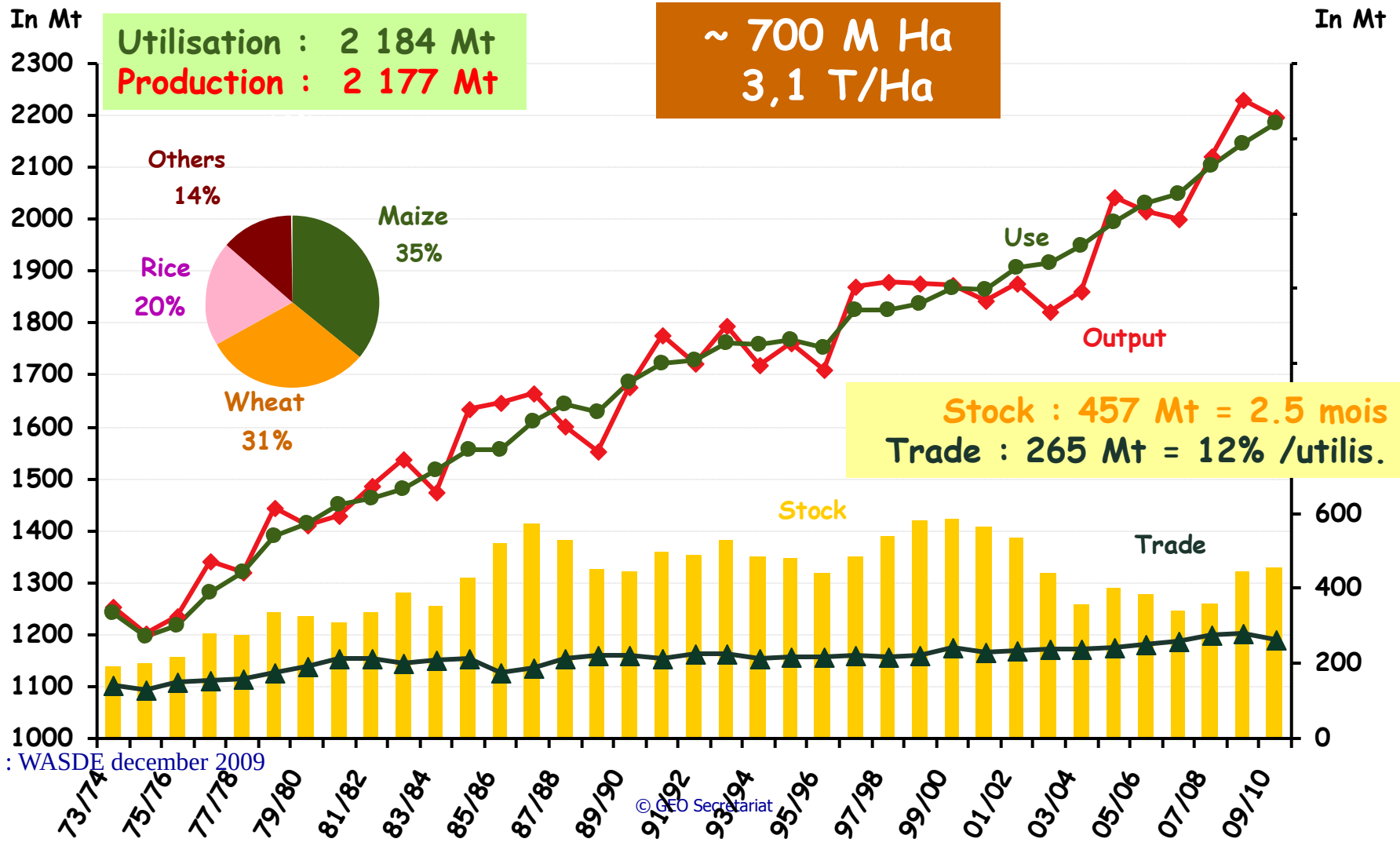
Image: S. Woodborne, CSIR

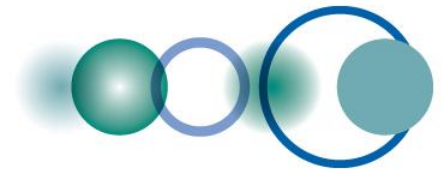


Uganda



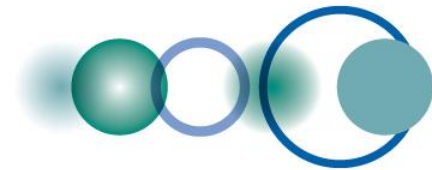
Food Security



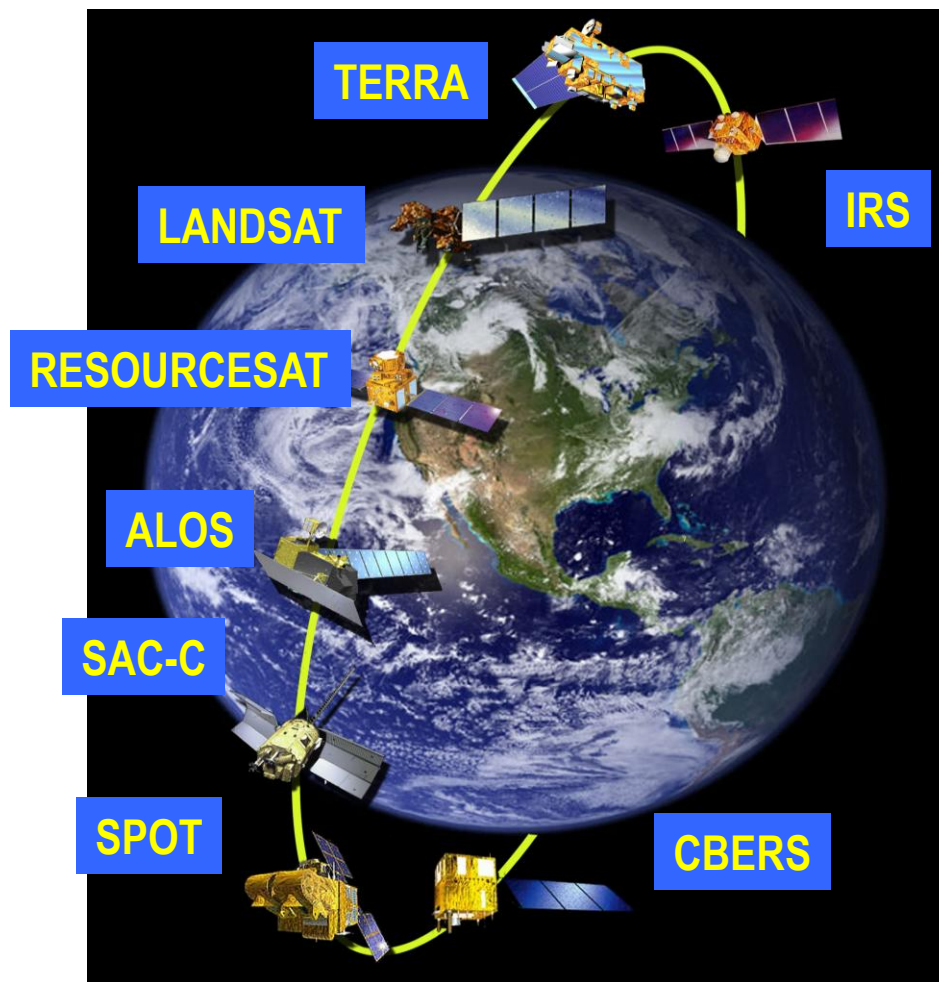


A Joint Experiment on Coordinated Agricultural Monitoring (JECAM)

- ✓ 1. Coordinate data acquisition and facilitate data sharing over a range of different cropping systems
- ✓ 2. Share methodologies for crop area, condition monitoring and yield estimation



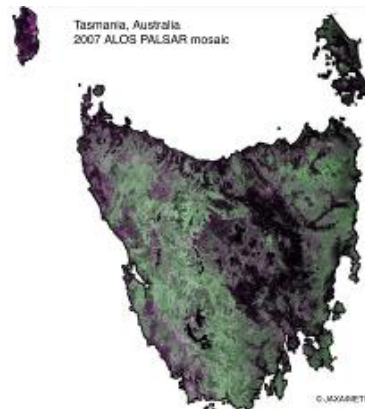
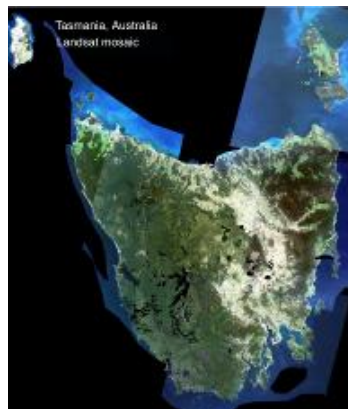
Coordinated Access to Imagery with CEOS



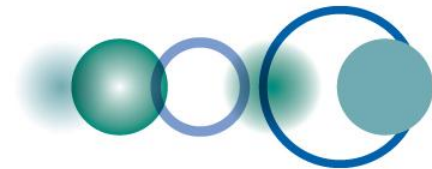
Coordinated Acquisition of Multi-annual Multi-sensors Time Series



Borneo, L-band SAR 1994-2010 (JERS-1 and ALOS PALSAR)



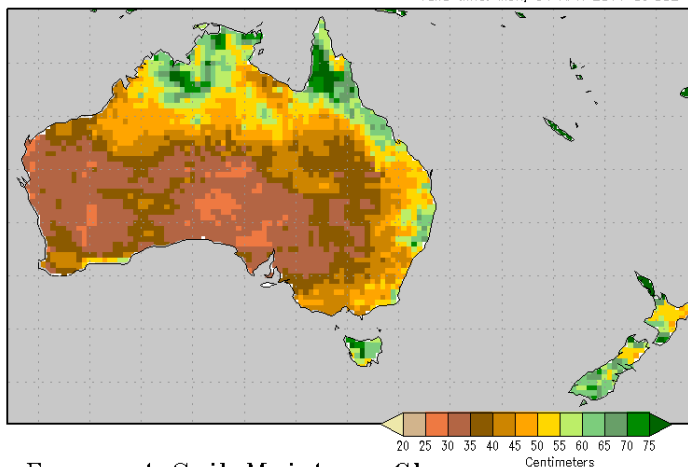
Tasmania, Landsat 2007, ALOS PALSAR 2007 and ENVISAT ASAR 2009



Soil Moisture Outlook for Australia and New Zealand

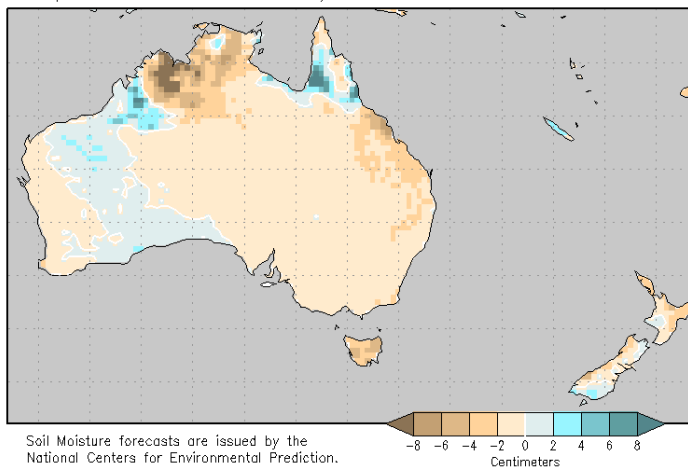
Initial Soil Moisture

Liquid Water in top 2 meters of soil
Valid time: Mon, 04 APR 2011 at 00Z

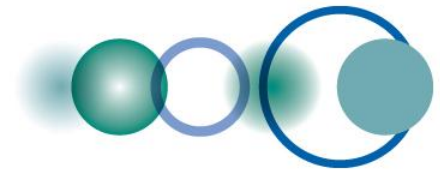


Forecast Soil Moisture Change

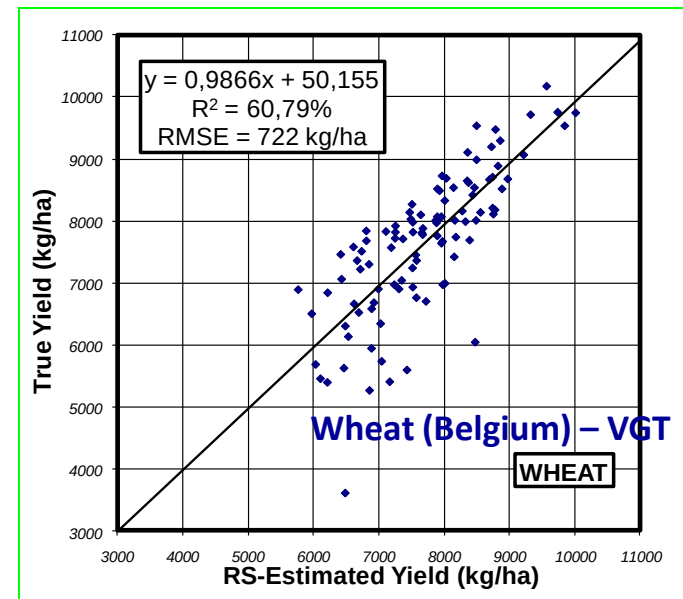
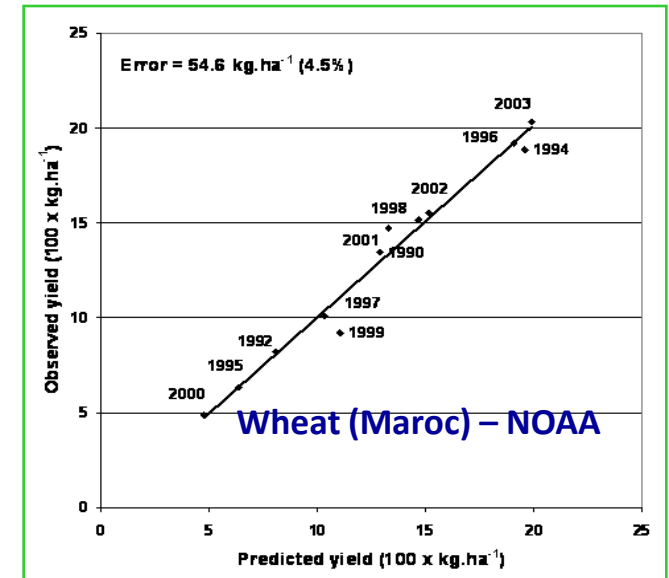
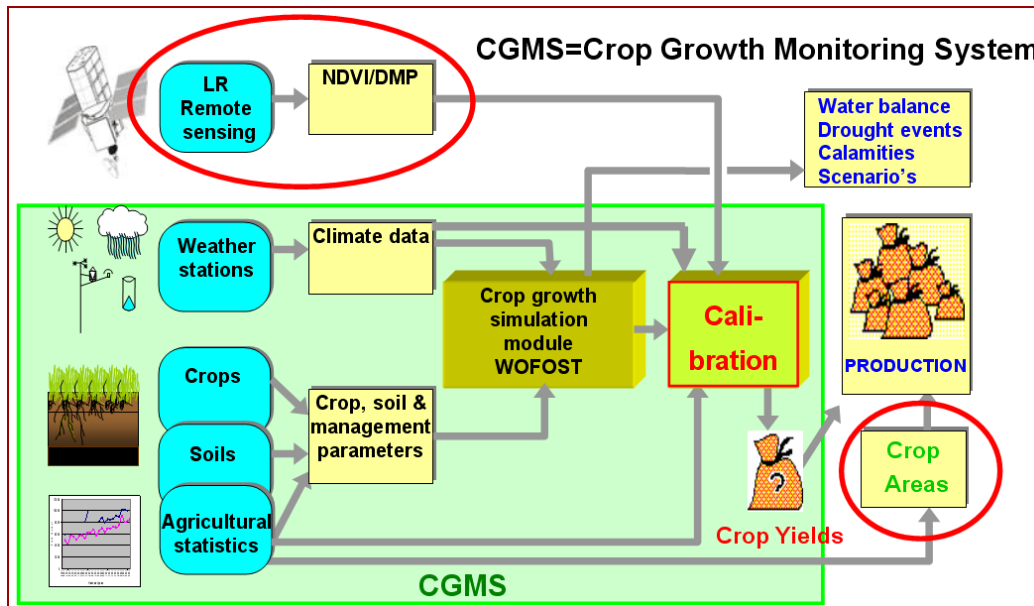
Mon, 04 APR 2011 at 00Z —to— Mon, 11 APR 2011 at 12Z



Soil Moisture forecasts are issued by the
National Centers for Environmental Prediction.

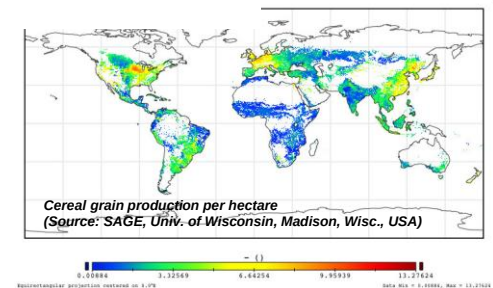


Coordinated Yield Forecasting



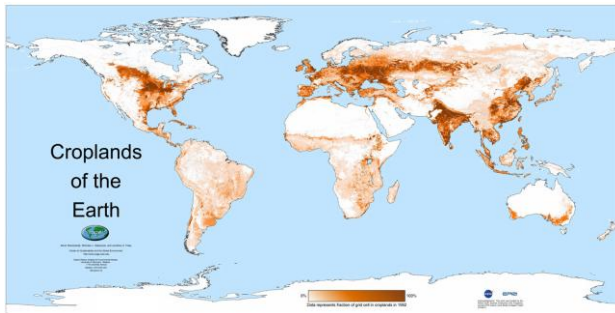
GEO-GLAM

The GEO led Initiative for GLOBAL AGRICULTURAL MONITORING

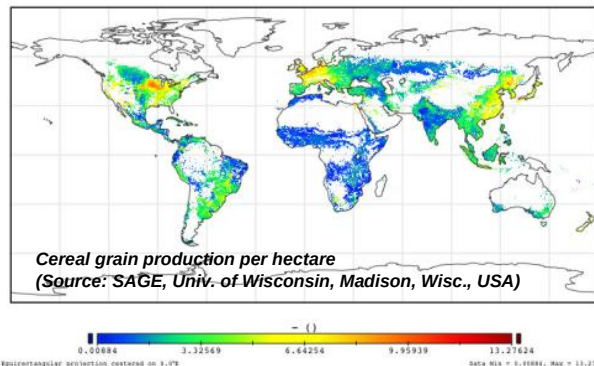


The GEO-GLAM Initiative : Objectives

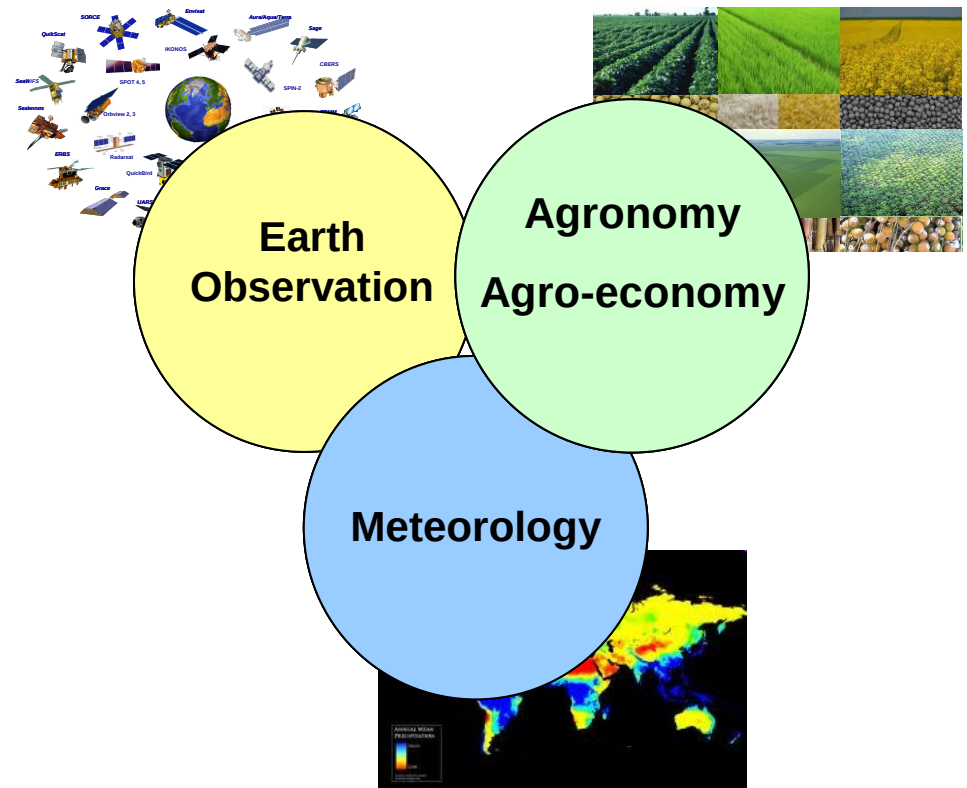
To reinforce the international community's capacity to produce and disseminate relevant, timely and accurate forecasts of agricultural production at national, regional and global scales.



Cultivated area / crop type area



Crop yield forecast



The G20 Agriculture Priority (2011)

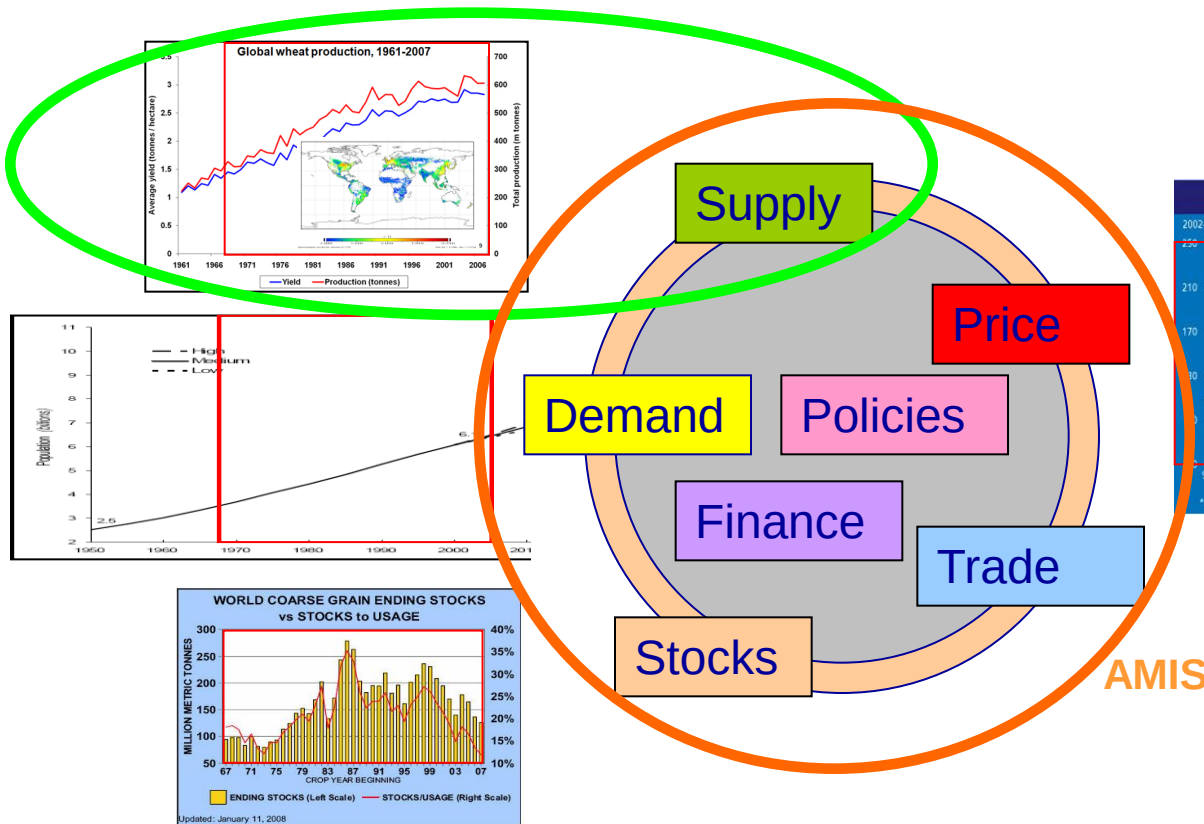


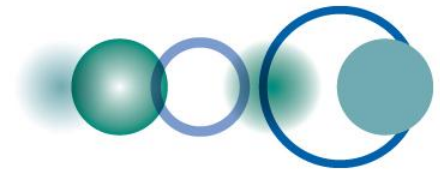
G20 Final Declaration

44. We commit to improve market information and transparency in order to make international markets for agricultural commodities more effective. To that end, we launched:
- The "Agricultural Market Information System" (AMIS) in Rome on September 15, 2011, to improve information on markets ...;
 - The "**Global Agricultural Geo-monitoring Initiative**" (**GEO-GLAM**) in Geneva on September 22-23, 2011. This initiative will coordinate satellite monitoring observation systems in different regions of the world in order to enhance crop production projections and weather forecasting data.

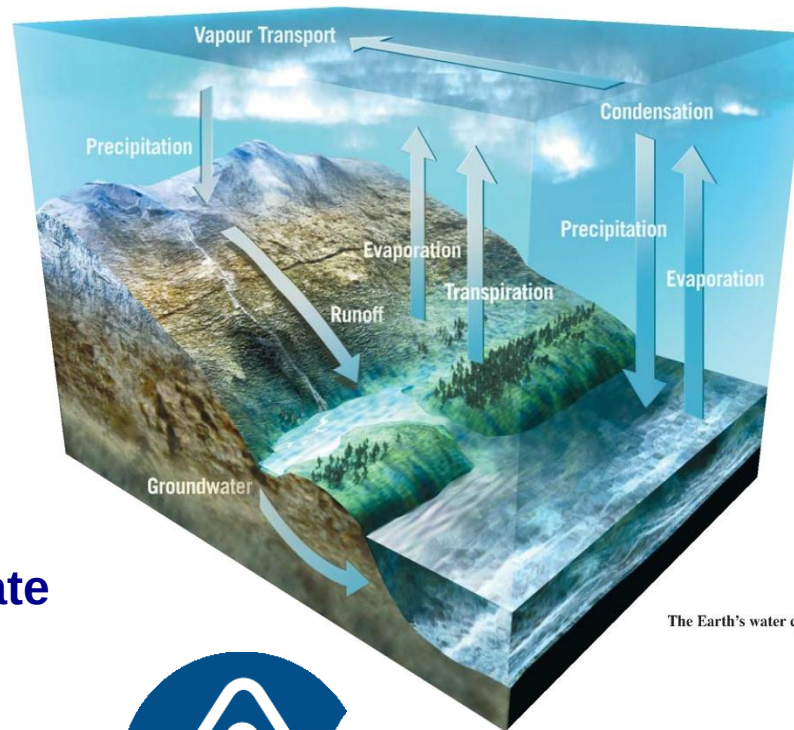
2 initiatives to increase information availability, quality and transparency

GEO-GLAM





Monitoring the Water Cycle



Energy



Health



Climate



Disasters



Agriculture

The Earth's water cycle

Thank you!

