#### **ISECAD**

Information System for Environmental and Crisis Management Assessment: A Capacity Building Program

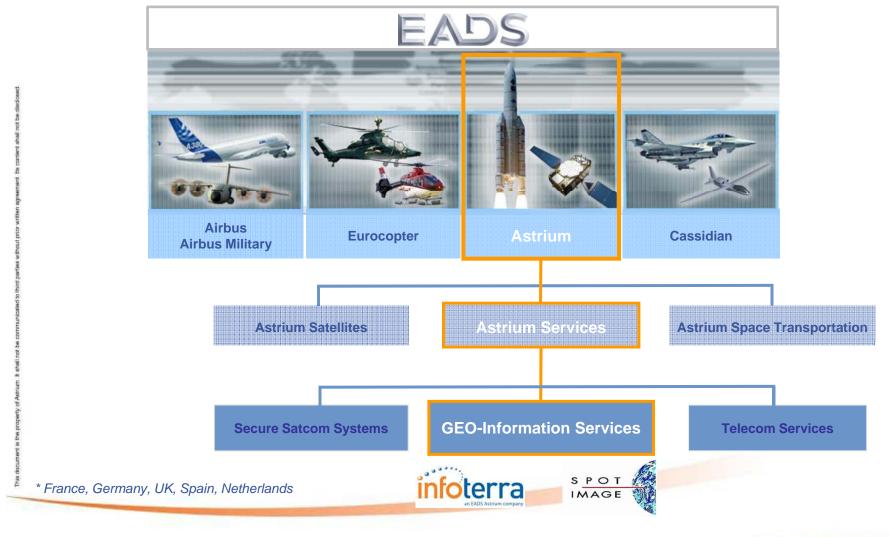
Suzanne Baltay
UN-SPIDER Workshop on Disaster Management and Space Technology
April 24 - 26, 2012
Bonn, Germany



#### Who We Are...



#### Who We Are





#### **GEO Services Offer**

#### **GEO Imagery**

« Multi-resolution & multisources imagery »



## Optical Satellite

#### **GEO Products &** Services

« Generic standard offers »



Reference data production thanks to Innovative & powerful systems

#### Mapping

**DEM** production from all sensors

3D cities

Data processing

**Training** 

#### **GEO Access**

« Managing, hosting and accessing geospatial data



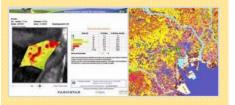
**Access to information** 

E-Business, Data Hosting and software solutions

**Direct Access Services** Telemetry & DRS

#### CEO Apps

«Tailored offers »



Serving an extensive range of business segments in public & private sectors

Defence & Security, Emergency & risk management, land information, Exploration & Energy, Change monitoring, Maritime Surveillance Environment, Agriculture, Insurance



## **GEO Imagery**

- Multi-source, multi-resolution optical & radar satellites, airborne imagery, from 25m down to 50cm;
  - SPOT 4 & 5, FORMOSAT-2, TerraSAR-X, TanDEM-X, DEIMOS ...
  - Digital aerial photography (optical & lidar)
- Wide-range coverage and high revisit capacity
  - From 600km down to 15km swath;
  - Any point on Earth covered at least once per day.
- Five new satellites to be launched in the next few years, data security until 2023

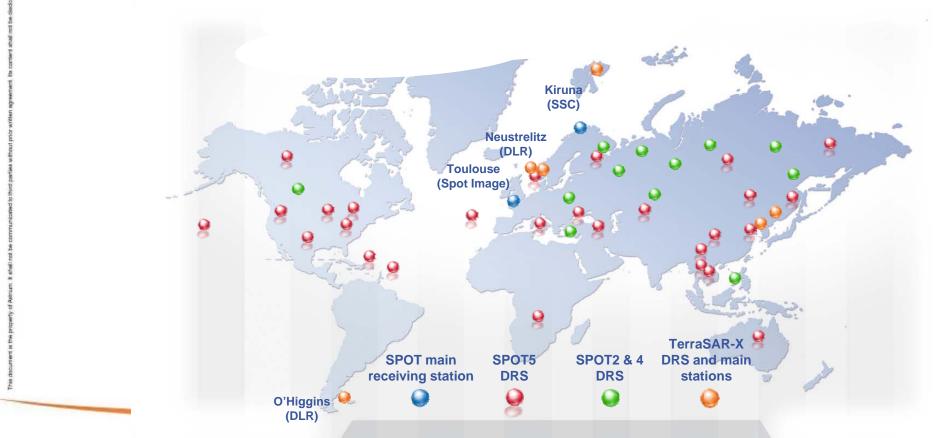


The most extensive network of Direct Receiving Stations (DRS) in the world, with optical and radar satellites



# **Direct Receiving Stations**

 The most extensive network of Direct Receiving Stations (DRS) in the world, with Optical and SAR satellites





**OGC**° Principal Membe

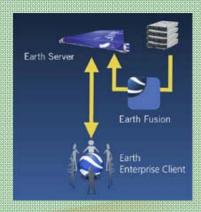
- Standard and customized solutions for efficient access to geospatial datasets
  - Data hosting managed services
  - Access to our data catalogues and online delivery
  - E-commerce solutions
- Direct Receiving Stations, equiptment & telemetry, for:
  - Imagery reception in real-time
  - High production rate
  - On site development of applications

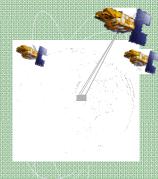










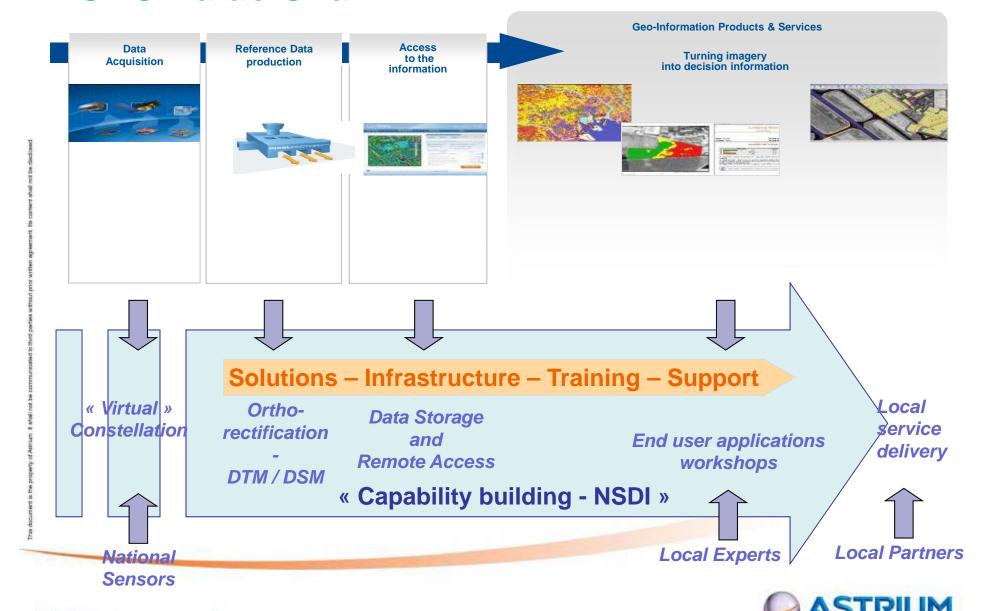




# **GEO Applications**



#### **GEO Value Chain**



All the space you need

# ISECAD Proposal



- to support regional strategy frameworks with the development and the implementation of an *Information System for Environmental and Crisis Management Assessment (ISECAD)* which shall allow to structure and federate several priorities common to several countries
- to develop this project in cooperation with local partners in order to support local / regional initiatives which all deal with environment matters

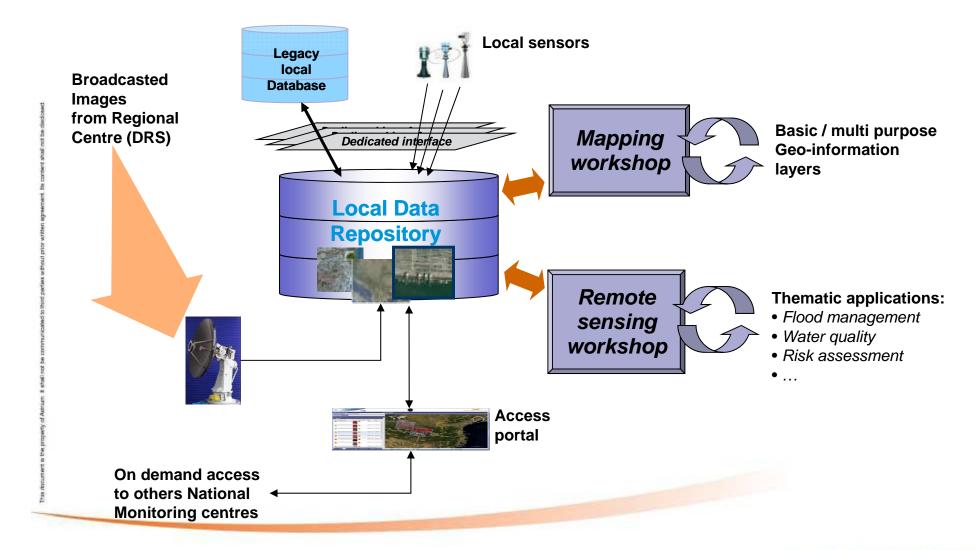


## **Proposed Concept: "ISECAD"**

- ISECAD = Information System for Environmental and Crisis Management Assessment
  - aims at setting up an integrated regional Spatial Data Infrastructure (SDI) gathering facilities and services within several countries of a region (ex. river basin region)
  - is composed of generic facilities interconnecting these key regions
  - optimizes data access thanks to central acquisition site
  - enables step by step establishment of thematic applications
- Each key region operates independently and may benefit from data / value added products built by the "community"
- A unified approach thanks to a generic "capacity building" program based upon the following pillars:
  - optimized GIS based infrastructure
  - privileged access to remote sensing data
  - capacity building
  - training and know how transfer to local operator



# **ISECAD: National Monitoring Centre Design**



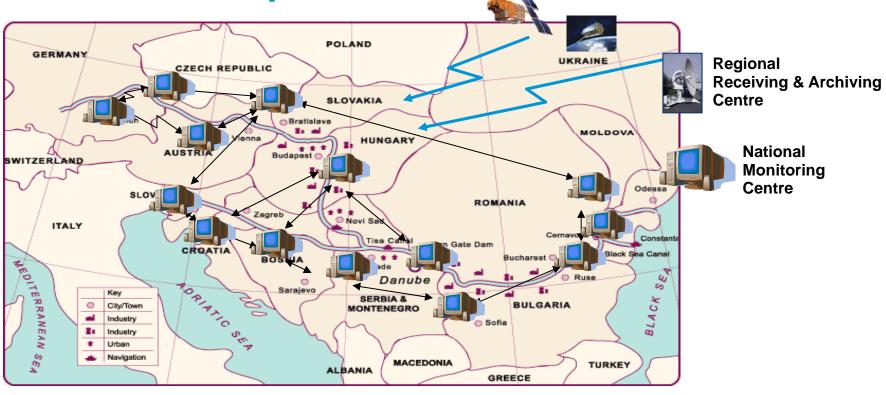


# **Applications**

- => Set up a distributed spatial data infrastructure as a support to sustainable development across countries, for the multiple benefit of:
- National planning
- Environment monitoring
- Water quality / quantity monitoring
- Ice monitoring
- Risk prevention / Early warning
- Crisis situation management
- Post crisis / damage assessment
- Critical infrastructure monitoring
- Irrigation prescription



ISECAD – example of the Danube River Basin



- The Regional Receiving and Archive Centre
  - stores images acquired over the whole Danube river basin
  - Will make them "ready to use" to all National Monitoring Centres
- Each National Monitoring Centre include thematic workshops
- All Centres are inter-connected and may share products / information / services



- value of cross-border / regional co-operation
- coordination between several countries.
- "harmonized" approach
- active cooperation at all levels to be successful
- convergent point for many policies and programs
- opportunity for countries to apply for funding which:
  - aims to set up a distributed spatial data infrastructure as a support to sustainable development across countries of the macro-region
  - is hinged upon priorities: environment protection, risk management, development of the knowledge economy



## **Main Opportunities**

- countries cooperation is required
- to provide services for innovative projects
- to provide products, services or partial projects for bigger flagship projects
- for implementation / expansion in the region
- possibilities for enhanced cooperation on in cross-border issues such as environmental protection, flooding..
- to strengthen existing Directives (such as EU Flood Directives), National Priorities, Millennium Development Goals
- to help build cooperation among local and national stakeholders
- to help identify and secure the appropriate funding mechanism
- to create local operators for ISECAD
- to provide GMES downstream services



# Thank you for your attention!

