

Actions and programs towards developing the national GMES capacity in Romania

GMES Operational Capacity Workshop

25-26 March 2010

Sofia, Bulgaria

International context

- .. global initiatives aiming to enhance human health, safety and welfare
- .. protecting the environment, reduce disaster effects, sustainable development
- .. in time, rich, appropriate, effective, valuable user driven Earth Observation data
- .. be informed, think global, act locally using the right tools

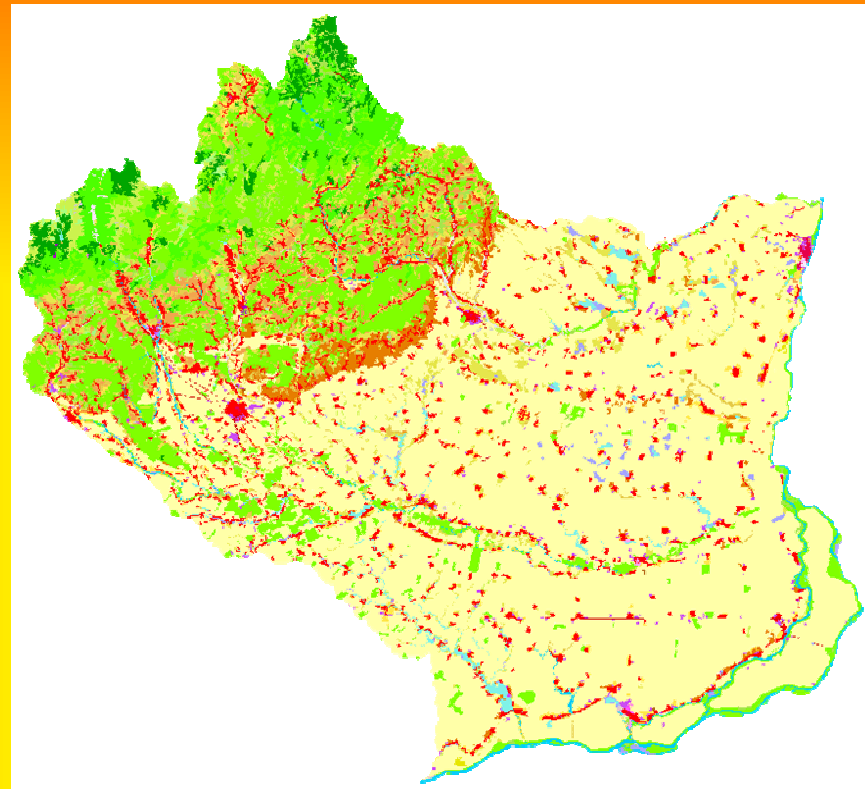
Increased data availability

Free

- .. SRTM DTED
- .. Landsat archive
- .. Global Aster GDEM
- .. Open Street Map datasets
- .. CLC (2000, 2006)
- .. Soil Sealing, Forest, Urban Atlas
- .. Biodiversity

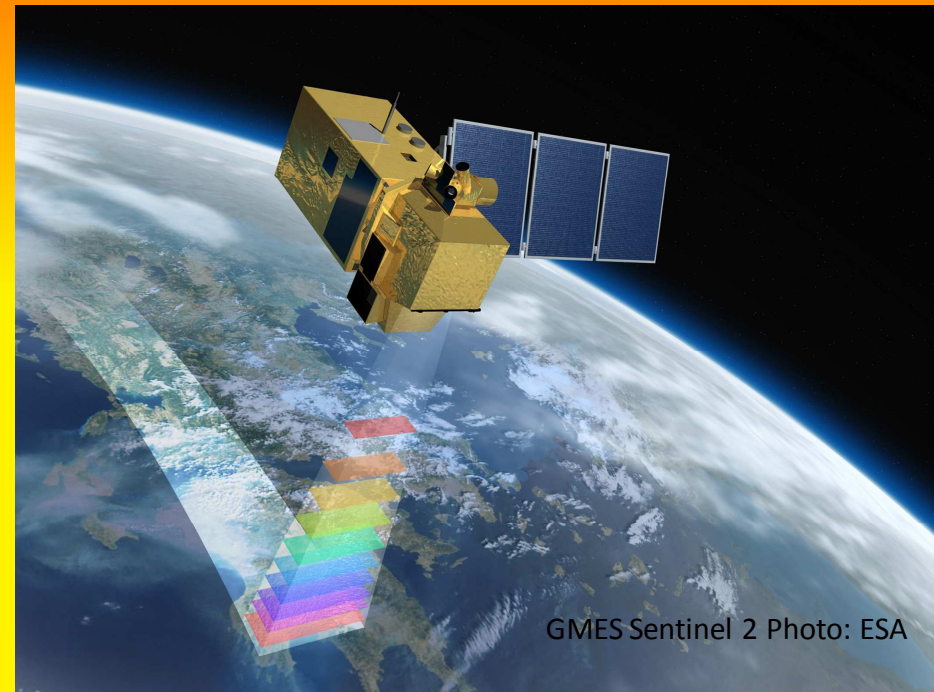
Commercial services

- GeoEye, Digital Globe, SPOT Image, Infoterra ..



.. of better resolution characteristics

- SPOT
- FORMOSAT, KOMPSAT
- RAPID EYE
- TERRASAR-X
- COSMO SKYMED
- RADARSAT 2
- TANDEM-X
- GEOEYE, IKONOS, ORBVVIEW
- QUICKBIRD, WORLDVIEW
- PLEIADES
- GMES SENTINELS



.. and better data access policy

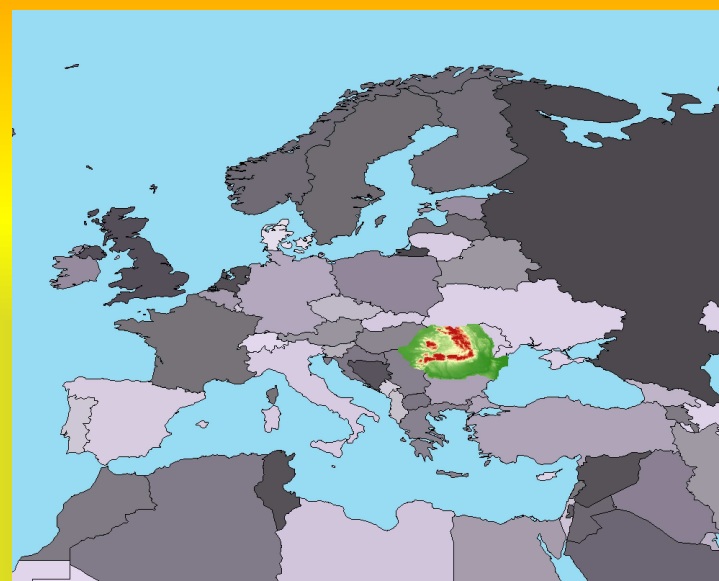
- Services component – led by ESA
- In-situ component – led by EEA
- Space component – led by ESA

All to contribute to consolidated monitoring tools for land, emergency response, ocean, atmosphere, security, climate change in an open and freely accessible way



GMES in Romania

- Due to its geographical position, all the GMES services are of interest for Romania
- GMES was introduced by means of National Program for R&D i.e. complex and CS Actions
- ROSA, the Romanian Space Agency - coordinator and major player at national level



ROSA – Romanian Space Agency

- 1991 - ROSA become in 1995 an independent public institution under the coordination of the Ministry of Education and Research
- Agreements with space agencies all over the world;
- Legally mandated to represent the government in space programs, initiatives and projects
- 2006 - Romania strengthened its relations with ESA by signing the European Cooperating State Agreement
- Full ESA membership negotiations already started

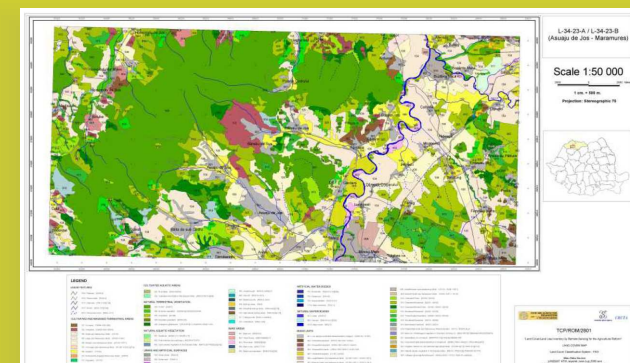
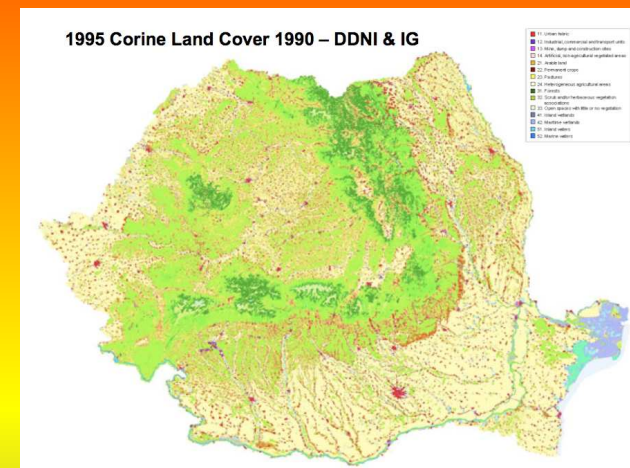


Status of GMES activities

- Many projects under the National R&D Program involving relevant national organizations (public and private sector);
- All GMES specific components are addressed: space, in-situ and services, involving both public and private organizations
- Participation in the FP projects developing the GMES pre-operational core services for land, emergency response, atmosphere, ocean
- Good coordination and cooperation between national organizations having different types of expertise for GMES
- Awareness raised in the context of other relevant EU and international initiatives (GEO's GEOSS, UN COPUOS, UN SPIDER, INSPIRE, SEIS, ..)
- Significant results already existing in use of EO data for emergency response, land use and land cover mapping, geospatial intelligence
- Operational capacity for setting-up GMES security services built on-top of existing geospatial intelligence capabilities
- Important steps forward are done on the way to develop capacity for building new observation systems based on nano-satellites

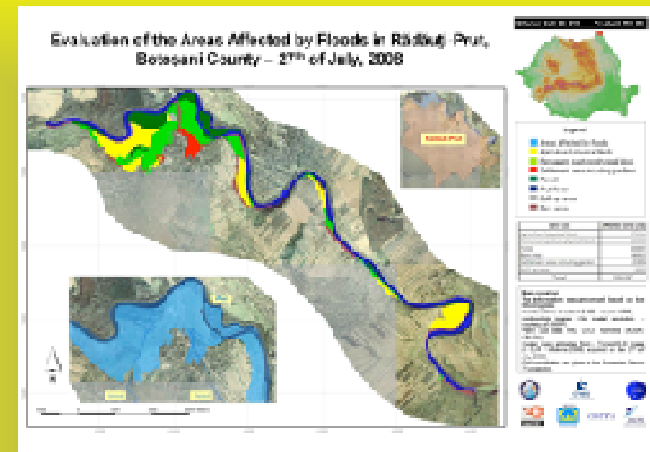
Status – Land Monitoring

- EU CLC developed and updated since 1995
- UN FAO LCCS applied since 2004 to develop and update land cover data
- Collaborative network of national organizations led by INCDD (Danube Delta Institute and), ROSA and CRUTA (Centre for Remote Sensing Applications in Agriculture)
- Actions taken towards setting up a national service complementary to the GMES core service for land monitoring



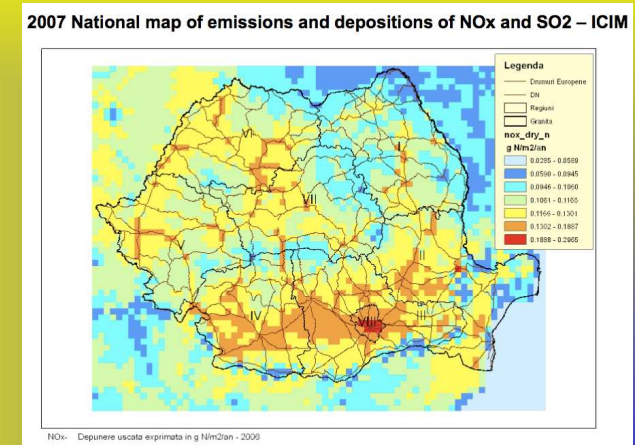
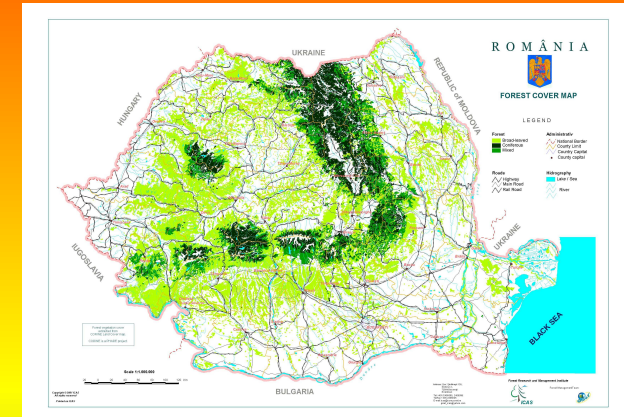
Status – emergency response

- Floods monitoring using EO data – events in 2005, 2006, 2008
- Actions coordinated by ROSA, CRUTA and the Remote Sensing and GIS Laboratory of the National Meteorological Administration
- Actions taken towards setting up a national service complementary to the GMES core service for emergency response



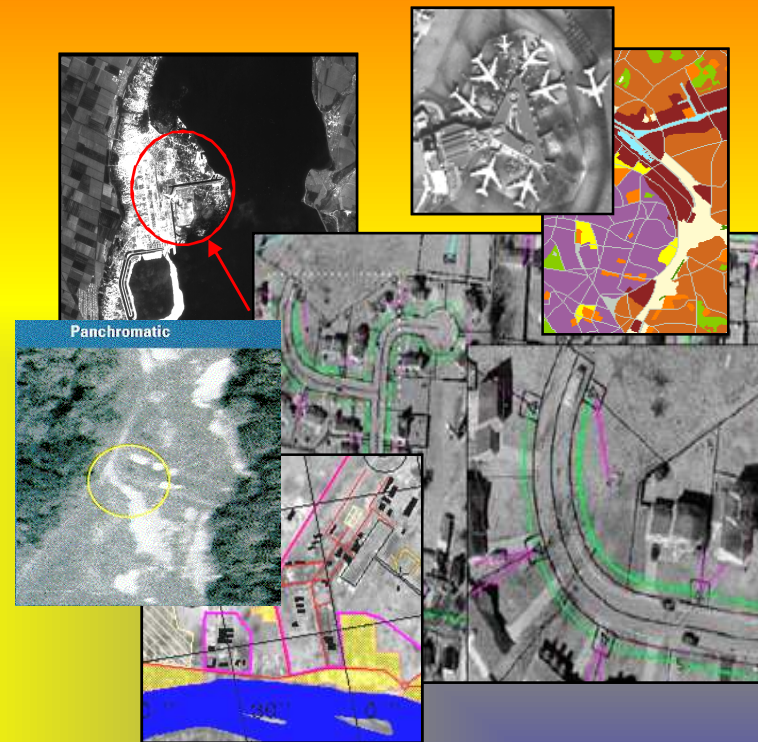
Status – thematic mapping

Significant results also achieved in thematic mapping - proof of adequate integration of in-situ data: see examples maps produced by Forest Research and Management Institute and the National Research Institute for Environment Protection



Status - security

Capacity building for GMES security services is done on top of geospatial intelligence operational experience towards using this capabilities not only for security issues but also for emergency response and crisis situation management



Way forward

- Continue existing activities towards establishing services that are complementary to the GMES core services for covering national, specific needs
- Keep the private sector involved and create favorable conditions for the downstream sector
- Take more actions towards increasing awareness on the current status and the operational phase
- Define and promote a regulatory framework for formalizing existing cooperation and coordination at national level
- Participate in regional initiatives allowing better knowledge and measures for monitoring the environment and security

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