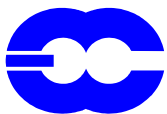


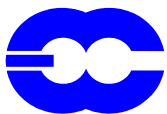
HALO - GMES Specific Support Action

- Harmonised coordination of Atmosphere, Land and Ocean integrated projects of the GMES backbone
- *Geoland (2004-2006) - Global and regional observatories & core services*
- *GEMS (2005-2008) - Global greenhouse and reactive gases, global aerosol and regional air pollution, EO-data assimilation and modelling*
- *Mersea (2004-2007) - Global to coastal scale models, EO and in-situ data assimilation and modelling*
- HALO aims at formulating agreed recommendations to GAC and IPs
- Scientific thematic analysis of links:
 - Direct product exchange (CO₂, Aerosol,...)
 - Unaccomplished data demands (River inflow, precipitation, ...)
 - Common data (EO, Meteorological forcing, in-situ)
- Coordinated solutions to infra-structure in operational mode
 - Candidate solutions by Alcatel and Astrium



Geoland - GEMS

- Focus on *ONC* and *CSP* as well as *GHG* and *AER* (global modelling)
- Data exchange
 - *ONC* biospheric land carbon fluxes (Carbon modelling, inversion model)
 - *CSP* Burnt areas (Emission), Precipitation (Wet deposition)
 - *GEMS* Aerosol (Atmospheric correction in EO retrieval)
 - Research is still needed to data (Data quality, interface process)
- Common sensors (VIS-IR Imagers)
- Operational Services:
 - *ONC* Carbon - Land - Vegetation model and *GEMS* EO-data assimilation system are part of ECMWFs operational model (available 2006)
 - Meteo data supply , ECMWF infra structure (archiving, data acquisition)
 - *ONC* and *GEMS* have commitment for operational mode and Re - analysis mode
 - *CSP* products till 2003 (current portfolio) - LAI (new *CSP*, Land SAF, NESDIS,...)
- Vision for *GMES*
 - *ONC* and *GEMS* carbon models become building blocks of a Global Carbon Data Assimilation system as proposed in IGOS Carbon theme report - Mersea could become the missing ocean part.



HALO web site

Overview

- Project summaries (data inventories)
- Carbon cycle
- Workshop presentations
- Working group minutes

www.ecmwf.int/research/EU_projects/HALO

