

### Marine Collaborative Ground Segment of GMES Sentinel satellites

#### Network architecture of Sentinel 1 & 3 data in France

MCGS is planned to be interfaced with the ESA GMES WAN (Wide Area Network) dedicated to the Sentinel PDGS as a Collaborative Ground Segment providing supplementary Functions, Elements and Access to Sentinel Missions data. Yet, some MCGS partners will be connected to the WAN for core PDGS functions as Sentinel data Processing and Archiving Centre (PAC):

- CLS Toulouse hosts the PAC for Sentinel 3 SRAL (topography products) at CNES Toulouse

- ACRI-ST hosts the PAC for Sentinel 3 SLSTR & SYN Land (temperature and VEGETATION-like products) in the EUCLYDE facility in Sophia Antipolis.

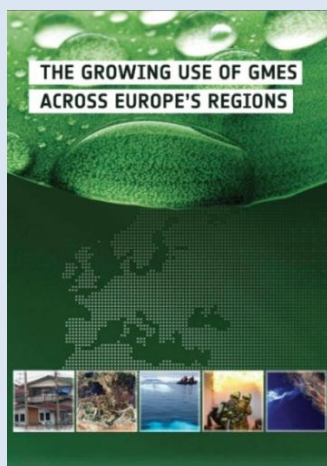
MCGS architecture is designed to ensure full interoperability with ESA infrastructure, taking into account in particular data security matters.



S3 PACs & SI Vigisat receiving station in France  
Background image: ESA/MERIS mosaic © Geoville

#### The Growing use of GMES across Europe's regions

MCGS has been published in the NEREUS and ESA joint publication, issued on 10<sup>th</sup> October 2012, as one of the 67 short descriptive case studies providing a broad insight into how the GMES Programme is being used in new applications and provision of services across Europe's regions. MCGS case study shows the implication of French Brittany, Midi-Pyrénées and PACA regions for marine environmental services.



The electronic brochure is available online at <http://esamultimedia.esa.int/multimedia/publications/NEREUS>

#### Ocean Colour workshop - Nice, 21-23 January 2013

For the 3<sup>rd</sup> consecutive year, the GIS COOC organizes a workshop gathering both scientists and users communities of ocean colour. In partnership with Pôle Mer PACA (economic competitiveness cluster), this edition will give a voice to professionals of marine, coastal and estuarine environments. Discussions and round-tables will help identifying and gathering public and private stakeholders requirements and preparing proper MCGS tailored services.

Program and registration (free) are available [here](#).

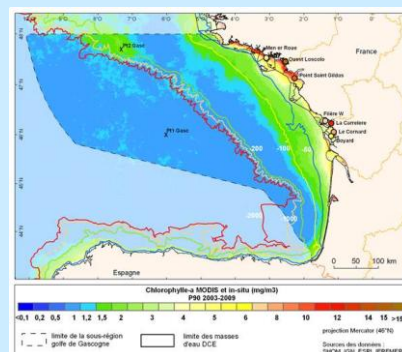


Maison du Séminaire in Nice

#### Operational monitoring of water quality

One of the major goals of MCGS is to provide products derived from Ocean Colour for a better monitoring of biological processes in coastal waters, including eutrophication impact. IFREMER and ACRI-ST have already started to address this issue from MERIS and MODIS reflectances, providing statistics of the phytoplankton biomass (through the Chl-a pigment) for the initial assessment of the state of French marine waters concerned by the MSFD (Marine Strategy Framework Directive). The next step will be to prepare the use of Sentinel-3 OLCI data in real time, in close relation with operational coastal oceanography (in situ data and models).

This image shows the percentile 90 of chlorophyll concentration during the productive season obtained from MODIS and covering a 7-year period, together with in-situ values measured at the coastal stations of the Ifremer REPHY networks.



From F. Gohin, DCSMM report, 2011

Limits of the coastal water bodies of WFD (Water Framework Directive) and MSFD Bay of Biscay sub-region are indicated on the figure.

#### Nomination at IEEE



Pr. René Garello  
(Telecom Bretagne)

We are pleased to report the election of Pr. René Garello, representative of GIS Bretel in the MCGS steering committee, as president of the IEEE Oceanic Engineering Society. René has been strongly involved since 1985 in the application of ICT for monitoring marine environment.