

First GIS BRETEL WORKSHOP – First NEREUS regional workshop
Monitoring of the environment in the framework of the NEREUS working group on
GMES

Conclusions
René Garello

This workshop was a success, thanks to the speakers and participants during the regular sessions as well as for the panel sessions. The level of the presentations was quite high and the exchanges were fruitful. Of course, the success is also due to the organizers (Laurence, Philippe, Eric) and the welcoming team (Martine, Joëlle) and all the supports we had from NEREUS, GMES, DORIS-Net and also the sponsors Brittany Region, OSUR Rennes, Université Rennes 1, Institut Mines Telecom and CLS.

The workshop was a way for the GIS BreTel to show the level of collaboration between members (research labs) within the framework of the VIGISAT project supported by the Brittany region and operated by CLS. The access to 200 scenes per year and the development of joint projects were exemplified.

Several levels were addressed during the presentations: European and Regional infrastructures, academic and industrial R&D, institutional and industrial services, large projects and directives (GEOLAND, MyOcean, DORIS-Net, etc.). One main concern was immediately raised: what of the future of the European satellite missions after the loss of Envisat. The Sentinel series of missions is underway up to 2020, but the regulating body, GMES has to keep going, especially in terms of finances. An argumentation from the Regions as well as from NEREUS is necessary, but not sufficient, of course.

During the talks, the presenters were able to show the use they make from the data coming from VIGISAT on the one hand and in synergy with other sources on the other hand. Of course, the methods are comparable, but the context is very specific in terms of sensors: mainly radar, altimeter, ocean color, SST for the OCEAN and visible, hyperspectral and possibly lidars for LAND. This structure is a very good example of a collaborative approach. The next step will be to develop services based on the research developments. The MCGS (Marine Collaborative Ground Segment) project is a step forward such an achievement. We had another example from the collaboration around the GEOSUD project, presented during the second panel session.

When dealing with the methods the speakers showed that they are really medium dependent, sensor adapted and mainly related to the physics of the observed process. This showed also the high level of difficulty when dealing with satellite data and images for Earth Observation.

The panel sessions were the place for a lot of interaction between the presenters and the audience. They are briefly summarized on the next pages.

Finally, I'd like again to thank all the participants and the supporting organizations and I give you a "rendez-vous" in two years for the second edition of the workshop.

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May 31st – June 1st
St Malo, France

Pannel 1 Session – Maritime Services
Chair: René Garello, Telecom Bretagne (France)

Speakers:

Christelle Bosc – SAR MEDDTL (France) – Quelles applications satellitaires pour répondre aux besoins du MEDDTL à l’horizon 2015

Vincent Kerbaol – CLS (France) – New maritime services

Marc Bœuf – France Energie Marine (France) – France Energies Marines, Apports du satellitaire pour les EMR

Panel:

Marc Bœuf – France Energies Marines (France)

Hervé Jeanjean – GMES (France)

Christelle Bosc – SAR MEDTEL (France)

Jean Yves Le Traon – IFREMER (France)

Vincent Kerbaol – CLS (France)

René Garello – Telecom Bretagne (France)

Key messages

1. Satellite data have wide and transverse applications: maritime transportation, pollution monitoring, resource management (energy, fishing ...), etc.
2. Satellite data provide a very high added value to forecast services when they are used in conjunction with models.
3. There is a trend nowadays for stabilizing the present state, perpetuate the quality and continuity of services especially in the GMES framework.
4. A large quantity a data acquired in the previous two decades remains to be exploited.

Summary of the intervention from the panel

Maritime services using satellite seems to be better structured than the ones dealing with land. For instance, projects such as MyOcean, CleanSeaNet, Aviso or Previmer are often cited. This is partly linked to the important issues at stakes. The regional dimension has of a particular importance as the major part of the activities is near the coastal zones. The GIP (groupement d’intérêt public) ATGERI - Aménagement du Territoire et Gestion des Risques (<http://cartogip.fr/spip.php?rubrique24>) is a good example of this regional dynamics. Many State or Regional services are interested and in collaboration. This group has, among many others, the aim of developing all means for preparing forecast, prevention and protection in the framework of sustainable development and risk management (providing data to the users, setting and maintenance of terminals, developing and experimenting new products, etc.). Nevertheless, political actions and strategies remain a key element for the development and the perpetuation of maritime satellite services. The economic model sets by GMES is yet to develop, mainly for what concerns the core services.

The user needs are still new for the « sea-project » developers. The use of data and satellite services in this domain is largely under-exploited. In this respect, an institution like France Energies Marine (FEM) will have to be able to detect some needs and to propose specifications linked to these needs.

Thanks to the ability to perform large scale observations with a very high resolution, satellites will be able to answer some of the problems encountered within the Marine Renewable Energy field such as wakes at the marine windmill farms, sea-state, piracy, etc. An effort in upstream research must be produce in order to improve the existing services and to create new ones aimed to the maritime world.

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Pannel 2 Session – Land applications
Chair: Selma Cherchali, CNES (France)

Speakers:

Selma Cherchali - CNES (France) – Pôle de gestion des données et d'expertise pour les surfaces continentales
Pascal Kosuth – CNRS UMR TETIS - Retour d'expérience sur le projet GEOSUD - GEOInformation for
Sustainable Development (Equipex)

Panel:

Selma Cherchali - CNES (France)
Gilles Pinay - OSUR
Pascal Kosuth - IRSTEA
Rozelyne Lacaze – GMES land

Key messages

1. The thematic Pole “continental surfaces” is working quite well due to a national multi-institutions strategy with a large diversity of key players.
2. The GEOSUD project example shows that it is a success from a technological point of view, but a failure when dealing with technology transfer. Therefore, the pooling of infrastructure and products (images) resources must be put forward, along with the support of new application developments.

Summary of the intervention from the panel

This “pole” doesn't deal with the maritime aspects. But the acquired data are nevertheless including the coastal zone (about 5km deep). The presentations and the related questions are focused on the thematic pole architecture and more specifically on the role of the “Expertise Centers” supported by the CNES. Several key points of the GEOSUD platform are discussed as well:

- Image access conditions,
- Eligibility for receiving specific images,
- Lack of expertise concerning the provided software,
- Availability of the SPOT archive images (so far the data acquisition is scheduled for 2010 to 2015, but years 2004/05 and 1997 are under consideration),
- Use of the data by “design offices” (through subcontracts with a public entity only)
- Cost of licenses (and open licenses?).