



# Bretagne Télédétection Brittany Remote Sensing

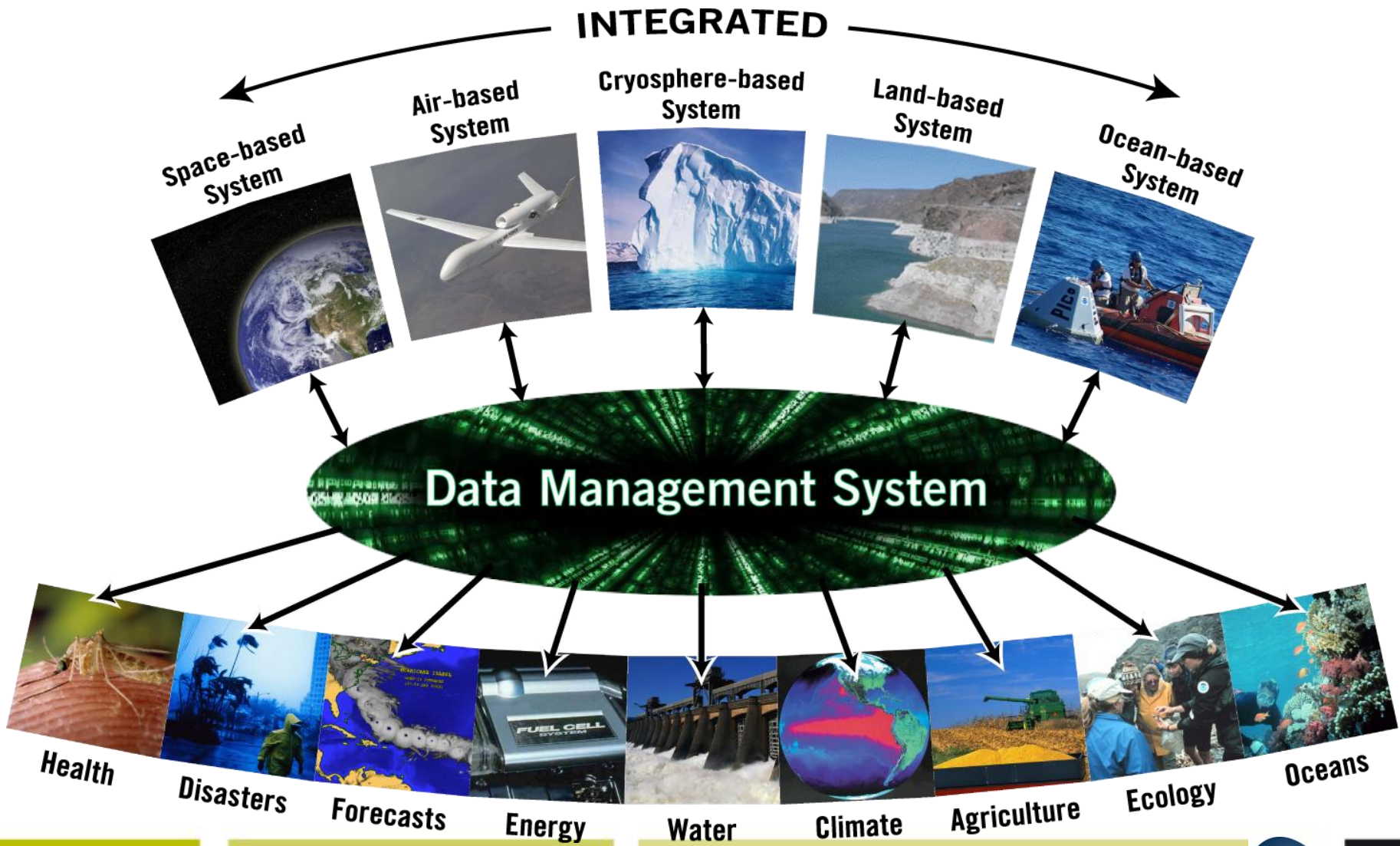
## GIS BreTel Scientific Interest Group

René GARELLO



# GEOSS

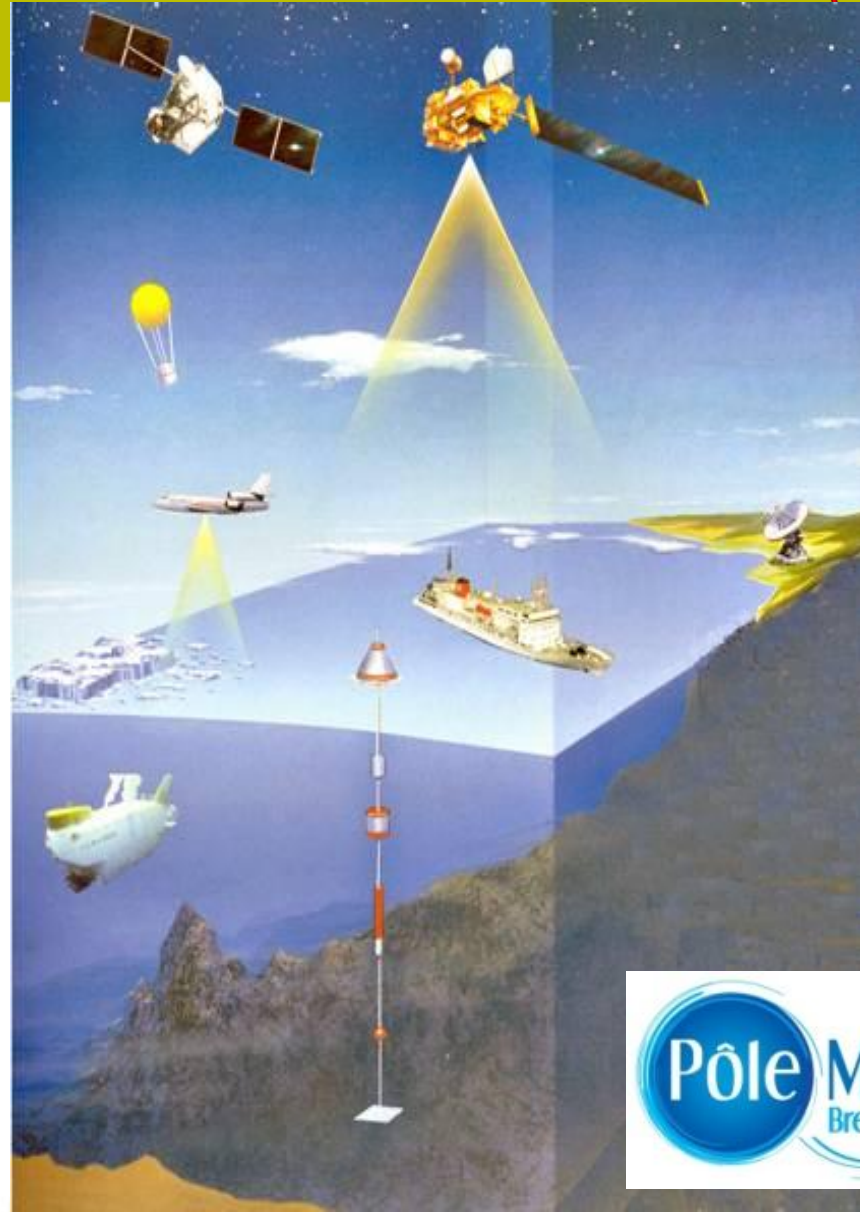
## A Global Earth Observation System of



# Observations, Information, Decisions

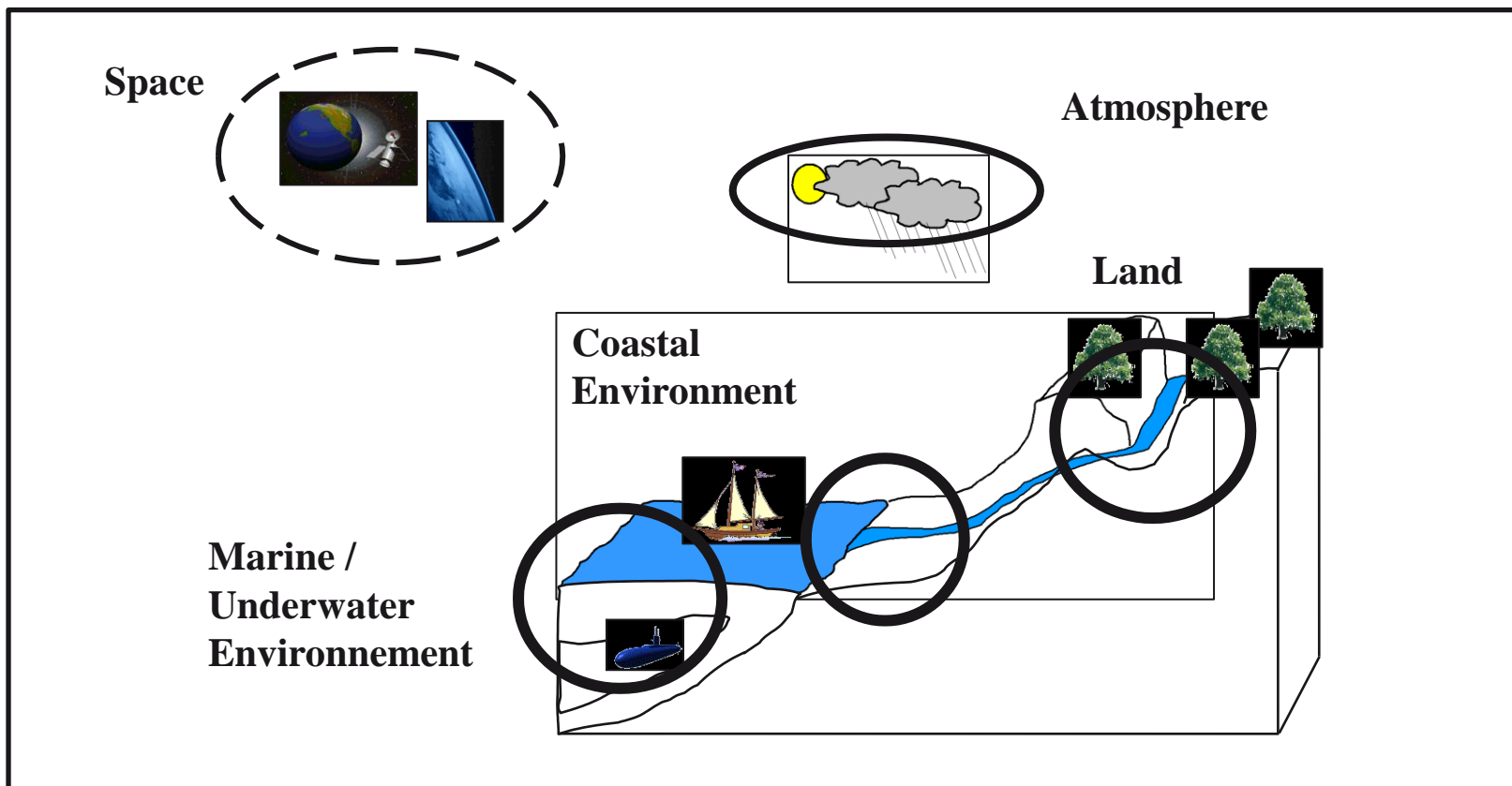


- Means (satellite, *in situ*, underwater vehicles, ...)
- Models
- Geophysical parameters (physics, chemistry, biology)
- Observations / Measurement
- Processing
- Interoperability
- ...



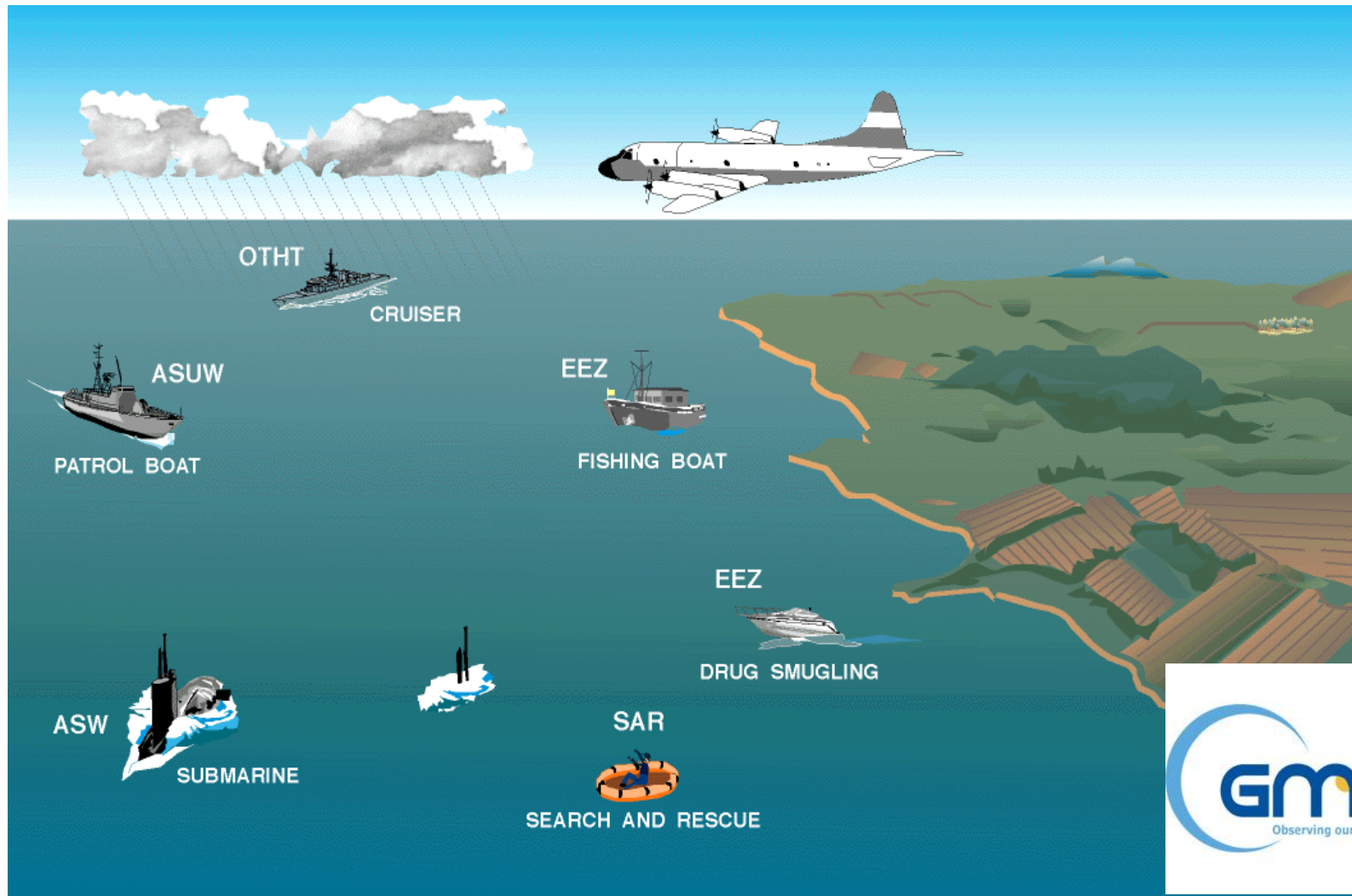
# Monitoring of the Environment

## ■ 5 Main themes





# Global Monitoring for Earth and Security/ GMES



# Partners



# GIS BreTel: Goals and objectives



## ■ Research

- Federation of academic research teams
- Development of collaborative projects:
  - Industrial,
  - European initiatives (GMES, GEOSS)
  - Agencies: ESA, CNES, ...
- Improved knowledge on environment and applications on safety and security

## ■ Development of a high level set of courses (MSc) in Remote Sensing

- Multi-sites
- Topics: Acquisition – Processing- Thematics



## ■ European Initiative NEREUS (Network of European Regions Using Space technologies) / GMES

## ■ Expertise and developments

- Sensors (signal processing / antennas)
- Data Processing (signal/image, synergies)
- Environment and physics (interactions wave/surface)

## ■ Interactions

- « Thematic » Teams
  - Geographers, oceanographers, ...
- « Methodologies » Teams
  - Information Processing (ICT)

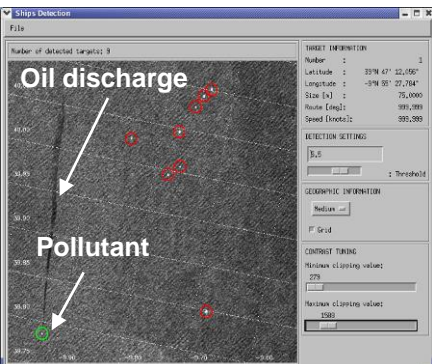


# VIGISAT receiving ground station

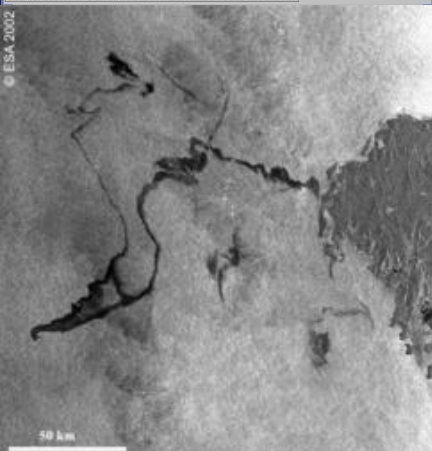


- **Brittany Region / Europe support for the use of VIGISAT SAR data (ENVISAT, RadarSAT, SENTINEL)**
- **Brittany, reference Region for Remote Sensing**

# Environmental Monitoring

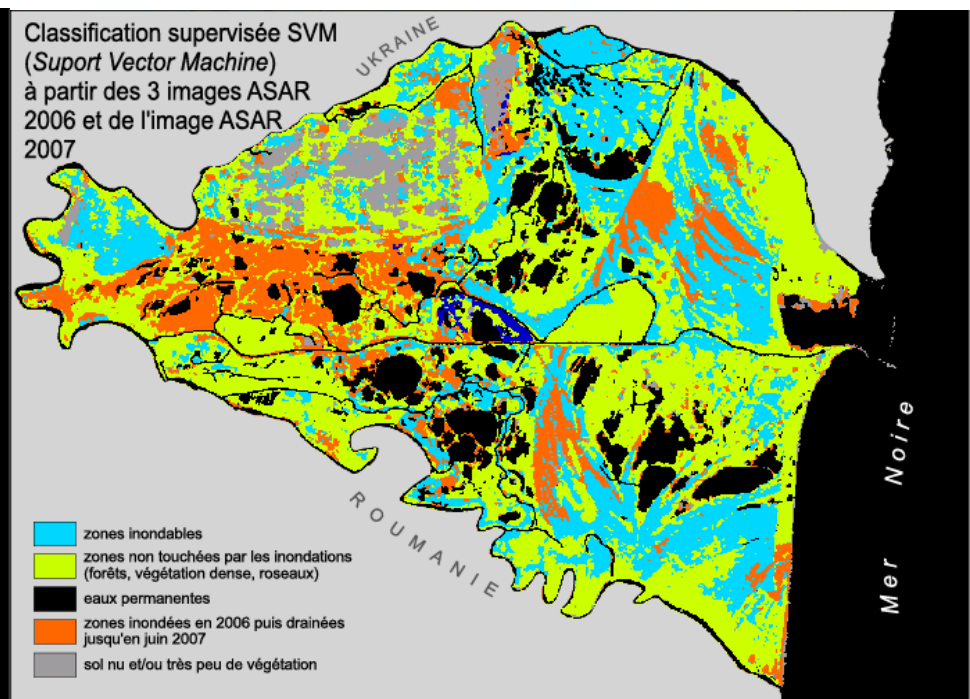
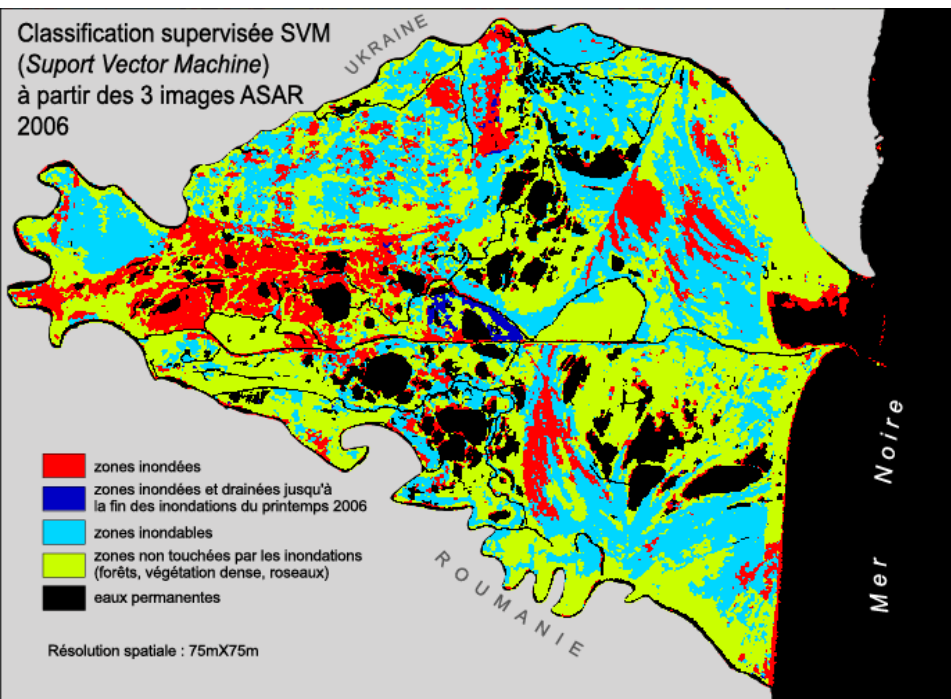


## ■ Pollution monitoring in sensitive zones



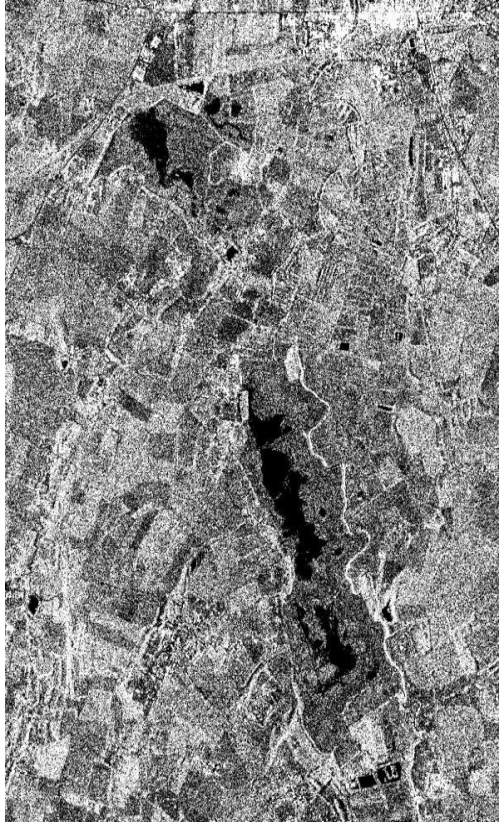
# Potentially floodable regions

## Data fusion before/after floods in the Danube delta region

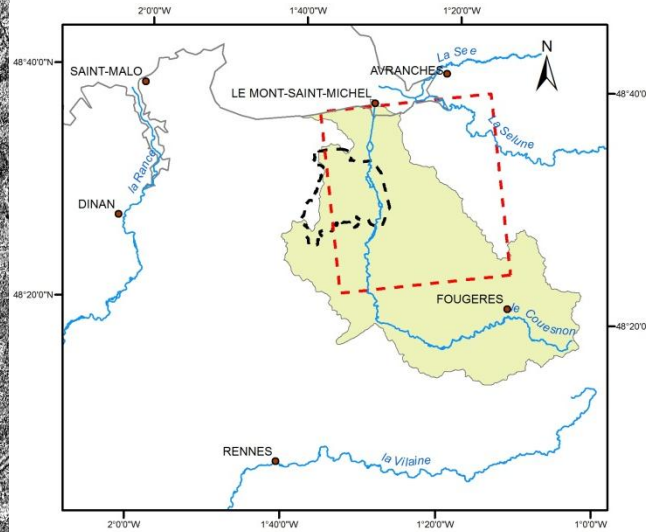




# Synergy (RadarSAT2, ALOS/A VNIR2) SOAR- EU project



## Monitoring and mapping wetlands

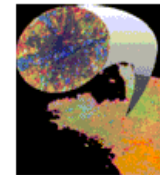


IETR UMR CNRS 6164

Rennes 1

Page 12

GIS BreTel First Workshop



COSTEL UMR CNRS 6554 LETG  
UFR Sciences Sociales Rennes 2

May, 31 – June 1 2012

