

# Gmes4REGIONS

AND LOCAL AUTHORITIES

The system of Regional Contact  
Offices for promoting Copernicus  
services and the use of Space  
Technologies in EU regions

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***DORIS\_Net: “Downstream Observatory organised by Regions active In Space – Network,, - Coordinated Action SPA.2010.1.1-07, FP7 Space, Feb 2011-Jan 2013***

**Objectives**

***To create Copernicus Regional Contact Offices (RCO) in European Regions with people expert in Copernicus to support regional actors (companies, research, end-users, regional authorities, ...) in***

- 1. being aware of the opportunities of Copernicus***
- 2. being trained and guided in developing new products***
- 3. participating in dissemination events on Copernicus***

***To link RCOs in a network, sharing knowledge, tools, events and practices***

***To spread knowledge from the network to the interested public in the regions, countries, Europe (e.g. Copernicus , CoR)***

## **Tasks of a Regional Contact Office:**

- Maintaining a detailed and updated picture of the regional actors in Copernicus (**inventory of capacities and needs**)
- Creating **events** to inform actors **on Copernicus** and leverage their **awareness**
- Participating in the shared activities of the network; in particular
  - producing **market observatories** (catalogue of services, review of needs)
  - **dissemination** (production of success stories, fact sheets, presentations, research briefs)
- Tutoring new regions in their activities on Copernicus , **recruiting new RCOs**

## **RCOs established in:**

- CNR IREA, **Lombardia**, (It) Coordinator
- CEON, **Bremen** (D)
- CETE, **Midi Pyrénées + Aquitaine** (Fr)
- G-STEP, Univ of Leicester, **East Midlands** (UK)
- SRCTE, **Azores** (Pt)
- TERN, **Basilicata** (It)
- POLE MER + GIS-BreTel, **Bretagne** (Fr)

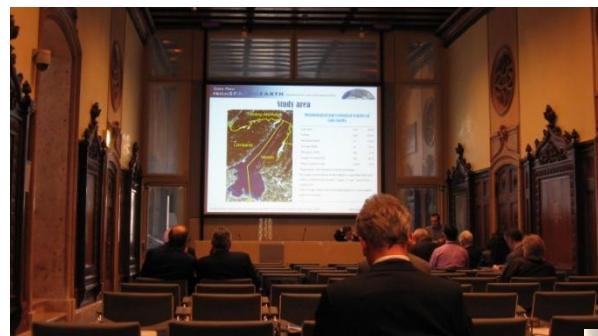


DORIS\_Net is the first project fully mobilised on the **NEREUS platform**; it has been appointed “**NEREUS flagship project**”



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***Creating events in and to regions: more than 50 events held***





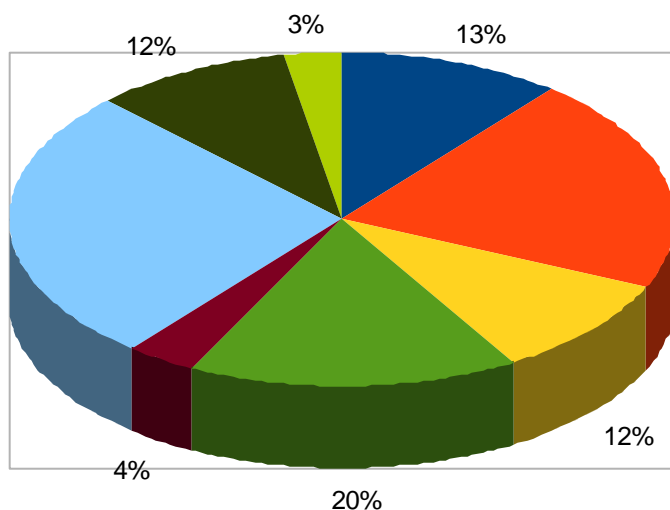
## *Producing market observatories: catalogue of services, review of needs*

### **D3.4: “Downstream Service Catalogue”** a public report aimed at regional end-users

#### • Introduction

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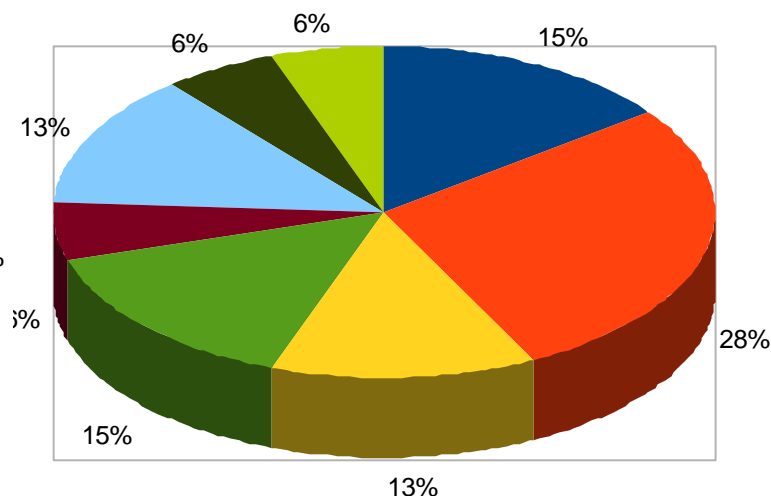
Services in all regions



### **D3.5: “Report on segmentation of user needs”** a public report aimed at potential providers of services to inform them on users’ needs

Introduction on LDAs, their priorities and interests, the

Needs in all regions



- R1 Management of Urban areas
- R2 Sustainable development and nature protection
- R3 Regional and local planning
- R4 Agriculture, Forestry and Fisheries
- R5 Health
- R6 Emergencies
- R7 Infrastructure, Transport and Mobility



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## Dissemination: within GMES4regions



## Information on each RCO

### Bringing Regions and GMES closer: the network of GMES Regional Contact Offices (RCO)

The European Network of GMES Regional Contact Offices (RCO) is based on the awareness and strengthened regional involvement in GMES. A GMES Regional Contact Office (RCO) acts as a focal point in its region to assist regional authorities in the use of GMES services and to act as a bridge between GMES service providers, research and development actors, regional users and policy makers.

It is an independent entity and mandated by its regional authority, a RCO serves as a regional centre of GMES expertise.

The main tasks of the RCO are to:

- Identify potential users of GMES services;
- Make awareness of the benefits offered by GMES and Earth Observation based services;
- Make business opportunities for local GMES actors;
- Have an extensive and up-to-date knowledge of the GMES portfolio and new services;
- Assist users in the expression of their needs or in the search of services answering their needs;
- Facilitate dialogue between users and service providers;
- Coordinate new services developed by regional authorities.

GMES RCO network in Europe consists of actors on the Earth Observation stage exchanging information, expertise, good practices, on GMES and satellite applications and support on market opportunities, innovation, and participating in ongoing initiatives.

The idea of setting up a European network came to life out of the aim of strengthening regional and transregional dialogue, linking regional and local authorities, service providers, local RCO institutions and policy makers. Such a network is organized by the regions themselves.

The benefits of having an RCO in a region are manifold and arise from various possible impacts on the economy, environment and the quality of life of the citizens, but also contribute to such regional strategic objectives as boosting regional competitiveness, stimulating innovation and collaborations, and increasing the visibility of the region as a European level.

Since July 2011, all RCOs have been established in the following regions that are all members of INSIS (www.insis.eu):

- Aquitaine - Midi Pyrénées (PR) at CETE
- South Coast
- Basileia (IT) at UNIBAS
- Bavaria (D) at G-STEP
- East Midlands (UK) at G-STEP, University of Leicester
- Lombardia (IT) at CNR-IREA

RCOs are in preparation in another fifteen European regions (see map on left of the RCO network).

The 'Window on GMES' issue presents several GMES User Portraits collected by the following RCOs:

RCO Lombardia hosted by CNR-IREA, a public research centre in remote sensing and its applications. With its versatile economic activities of space system development, agriculture, industry, and services, constantly offers perfect framework conditions to promote and integrate the services of GMES. Priorities are: agro-food, climate change, health and environment, and risk and civil protection.

RCO Aquitaine - Midi Pyrénées hosted by G-STEP at the University of Leicester. It aims to boost the development of GMES applications into urban planning and quality. By promoting space technologies within the region, the RCO actively contributes to the development of GMES and its applications. Through the organization of regional events to build awareness of GMES capabilities and follow-up workshops, the RCO creates networking opportunities between users and providers and facilitates the use of GMES in the development of new products and services.

RCO East Midlands, hosted by G-STEP at the University of Leicester. It aims to boost the development of GMES applications into urban planning and quality. By promoting space technologies within the region, the RCO actively contributes to the development of GMES and its applications. Through the organization of regional events to build awareness of GMES capabilities and follow-up workshops, the RCO creates networking opportunities between users and providers and facilitates the use of GMES in the development of new products and services.

RCO Basileia, run by UNIBAS. Technological Cluster of the Basileia University. Its mission is to increase the use of space technologies for the benefit of potential users and develop innovative applications and products. The RCO creates networking opportunities between users and providers and facilitates the use of GMES in the development of new products and services.

RCO Bavaria, run by G-STEP at the University of Leicester. It aims to boost the development of GMES applications into urban planning and quality. By promoting space technologies within the region, the RCO actively contributes to the development of GMES and its applications. Through the organization of regional events to build awareness of GMES capabilities and follow-up workshops, the RCO creates networking opportunities between users and providers and facilitates the use of GMES in the development of new products and services.

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GMES Regions & Local Authorities

Natural Disaster Management

### Landslide and Natural Risks Monitoring

Keywords: Disaster Management and Prevention, EO data software

**Application field:** MORFEO (Morpho) is a pilot project of the Italian Space Agency implementing the use of Earth Observation technologies to obtain useful information to the management of landslides risk in the pre-event (after alert) and post-event, in the frame of MORFEO project. MEA-CAN proposes an approach to model landslide susceptibility of a territory, based on a supervised learning technique that mines fuzzy emerging patterns on a set of classified data used as training data (CNR EO data, ground-based data). In the approach the training set contains positive and negative examples of homogeneous areas, slope units of a given territory, unstable or stable to the occurrence of landslides. The complete knowledge base of fuzzy rules exploit the main characteristics of the slope units that are stable and unstable to landslides and are then used for classifying other slope units of the same territory.

**Methodology used / workflow:** MORFEO has designed a system to support the civil protection activities on landslide risk through the use of techniques already established and the definition of new methodologies based on satellite data. In the context of the project were carried out researches to test the integration of technology and data EO maps in support of Italian Civil Protection Department.

**Key Results:** The multi-disciplinary team comprises research institutes, university departments and Italian enterprises collectively experts in landslide identification and mapping, slope monitoring, landslide and environmental hazard and risk assessment and mitigation, and in the innovative exploitation of EO data and technologies.

**Innovative Impact:** For the purpose, MORFEO implements five specific functionalities: identification and mapping of landslides, including dynamic 3D visualization; landslide monitoring; Landslide susceptibility; Forecasting of potential induced landslides; Landslide vulnerability and damage assessment. The system includes three sub-systems: EO products elaboration (optical and SAR data); Final Users products generation; Infrastructure for data integration and exchange.

Research Brief of the Virtual GMES Academy

## Research briefs

What?

Advanced Search

Results: 24

Sort by: Type

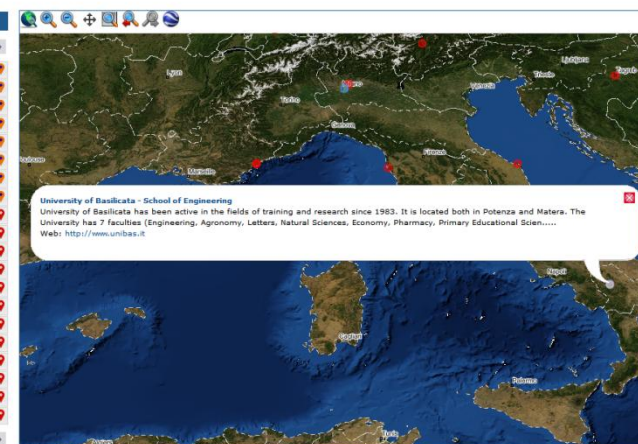
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- Hepul Solar Energy
- Air Quality North Rhine Westphalia
- Campania: sustainable use of water in th...
- Farmers' Cooperative
- Basileia Fire Risk
- Energy audits of photovoltaic power plan...
- GMES ed il monitoraggio
- GMES and land monitoring
- Phyby S.r.l.
- CHIELYS
- Starlab
- Planetek Italia
- Planetek Italia
- SI2G (Geographical Information Systems)
- GDI GISDATA d.o.o.
- R3 GIS srl
- ACRI-ST
- ACRI-ST
- GeoSpazio Italia
- Exelis Visual Information Solutions

## Information on regional research institutions

Success Stories Providers Local and Regional Authorities Research Centres Academia

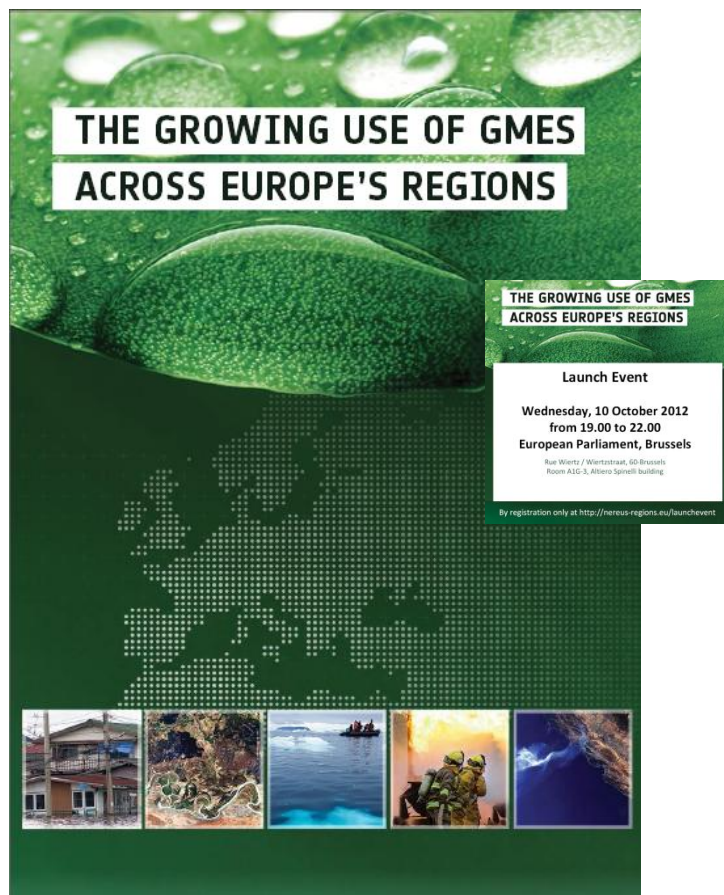


## Users' portraits on "Window on GMES" (launched Dec 2012)

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**Dissemination:** beyond regional events and GMES4regions channels

Fact sheets on **ESA-NEREUS brochure**  
presented at Eu Parliament:



Special issue of the  
**Eu J. of Remote Sensing**  
on

## **“Satellite Remote Sensing in the Service of Regional and Local Authorities” (vol. 45, 2012)**

Linking GMES Space Component to the development of **land policies in Outermost Regions– the Azores (Portugal) case-study**

Monitoring urban development consolidation for **regional management on water supply** using remote sensing techniques

Use of satellite remote sensing for **coastal conservation** in the Eastern African Coast: advantages and shortcomings

Synergy between **GMES and regional innovation** strategies: Very High Resolution images for local planning and monitoring

Ten years of **local water resource management**: Integrating satellite Remote Sensing and Geographical Information Systems

A hybrid multi-step approach for **urban area mapping in Milan Province, Italy**

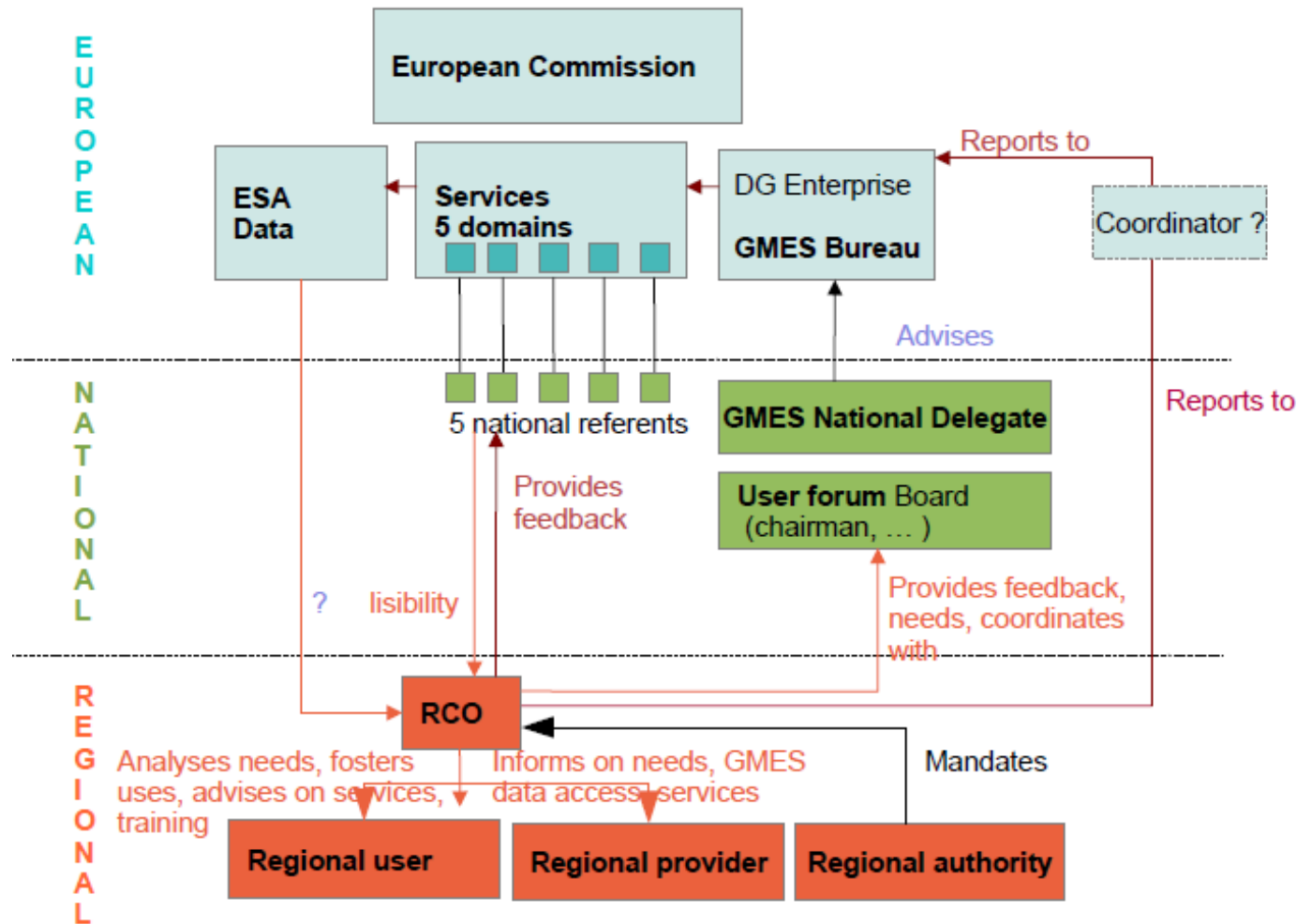
Remote sensing supports the definition of the **water quality status of Lake Omodeo (Italy)**

An application of COSMO-SkyMed to **coastal erosion studies**

Portability of neural nets modelling **regional winter crop acreages** using AVHRR time series

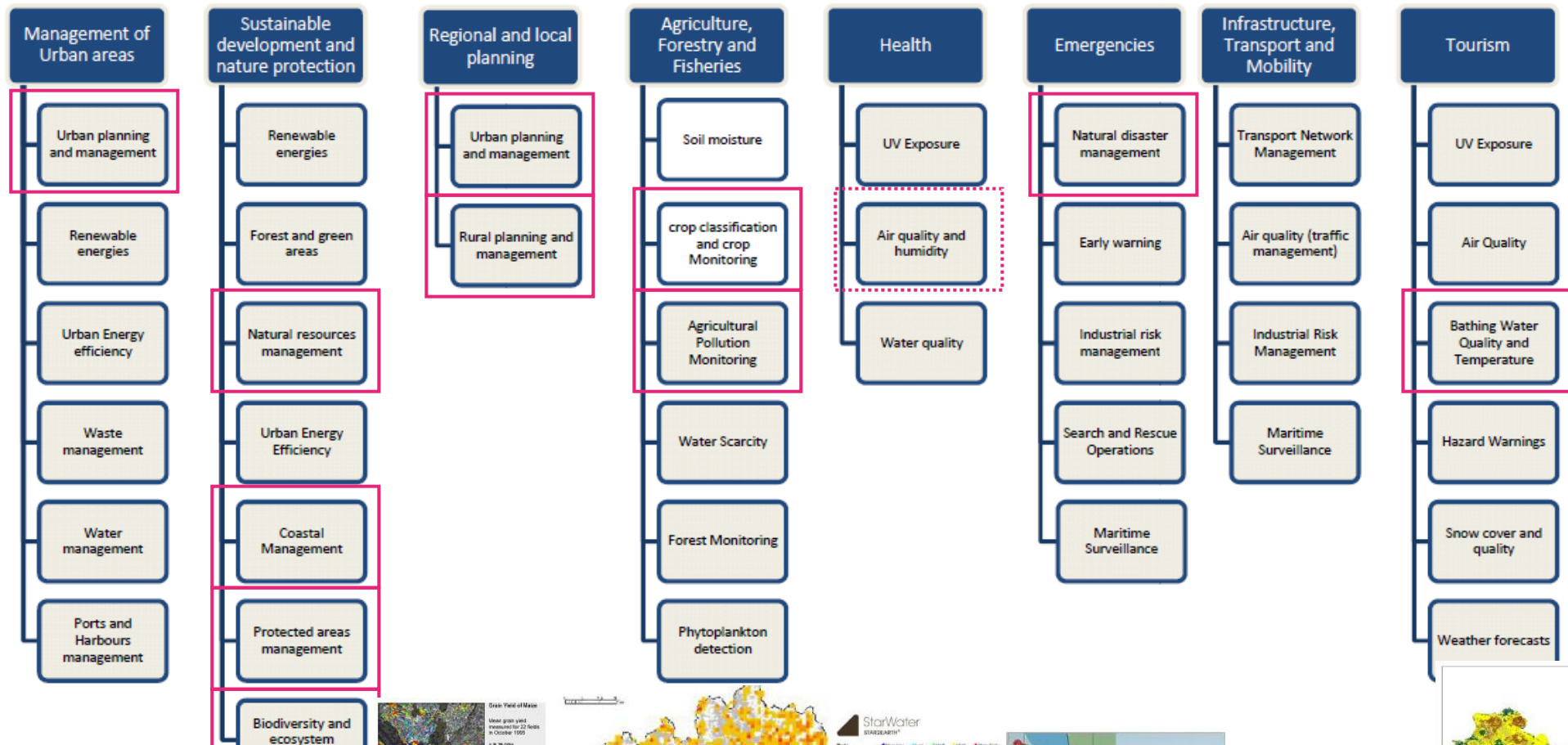
Optimised Pattern Size for **land cover–land use** information conversion

## *Report on recommendations to include regions in the Copernicus Governance*





## ***Report on correlations between SMEs capability and user needs***



## ***We learned that***

- ... acting as a network is not easy nor fast, but it creates precious synergies
- ... that ST awareness and potential is higher in regions hosting a RCO
- ... that RCO job and success is based on person-to-person relationships and deep knowledge of its own territory -> ***it takes time to grow! We're still at the beginning!***

## ***Conclusions***

- DORIS\_Net raised ***interest in many regions*** and organizations
- It seems to be one of the more lively communities ***in NEREUS***
- RCOs are pursuing ***a promising activity to the benefit of Space Tech*** (regional awareness, local market development) and regions (innovation, end users federation, ...) -> they deserve trust and breath!

# THANK YOU

ANY QUESTIONS?

*GOOD BYE by DORIS\_Net!!!*