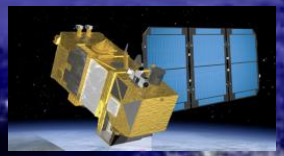


NEREUS

„67 Uses of Copernicus....“

– Efforts to learn more about the regional deployment situation

Naumur, 23th October 2015

Roya Ayazi, NEREUS

ISSeP

Wallonie

Wallonia.be

Skywin
Aerospace cluster of Wallonia

NEREUS

„67 Uses of Copernicus....“

– Efforts to learn more about the regional deployment situation

Naumur, 23th October 2015

NEREUS: 25 Full Members (regions)+ 43 Associate Members

Abruzzo (I)
Andalusia (Spain)
Apulia (I)
Aquitaine (F)
Azores (Portugal)
Baden-Württemberg (D)
Basilicata (I)
Bavaria (D)
Brandenburg (D)
Brittany (F)
East Midlands (UK)
Free Hanseatic City of Bremen (D)

Guyana (F)
Hesse (D)
Lazio (Italiy)
Lombardy (Italy)
Madrid (Spain)
Mazovia (Poland)
Midi-Pyrenees (F)
Piedmont (I)
Provence-Alpes-Côte d'Azur (F)
South Holland (NL)
Tuscany (I)
Veneto (Italy)
Wallonia (B)

Core mission NEREUS

Spreading use of space technologies at regional level

Stimulating the development of space applications

Awareness raising/Promotion for potential of space and its benefits for regions and their citizen

Advocacy for matters of regional space uses

What do we offer to regions?

NEREUS

Advocate for regions on matters of space uses

Direct channel to European regions and its stakeholders

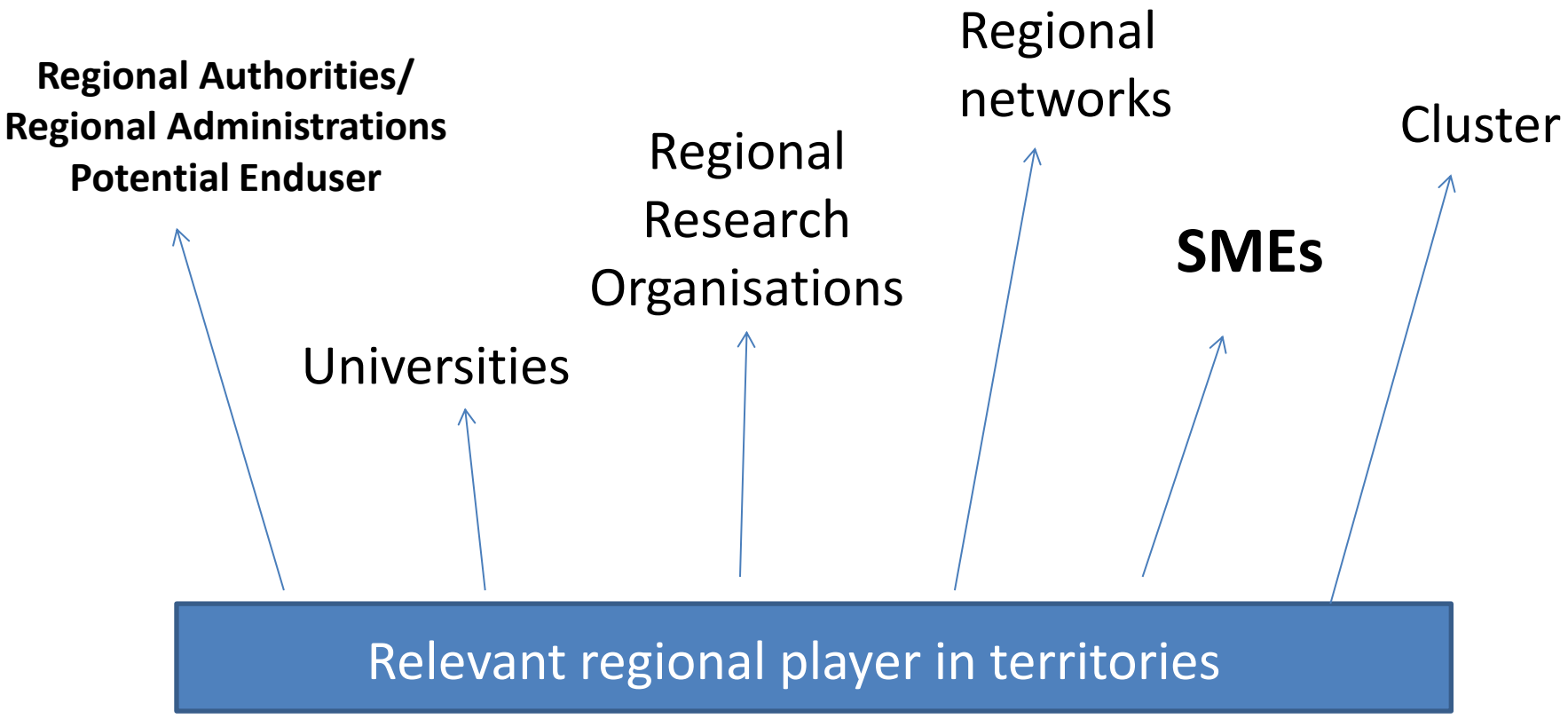
Dynamic Platform-

Mobilising EU-funded projects

Info/Knowledge exchange

Promotion of regional space activities

Different regional player in territory



Plattform bringen together End-user and Service provider

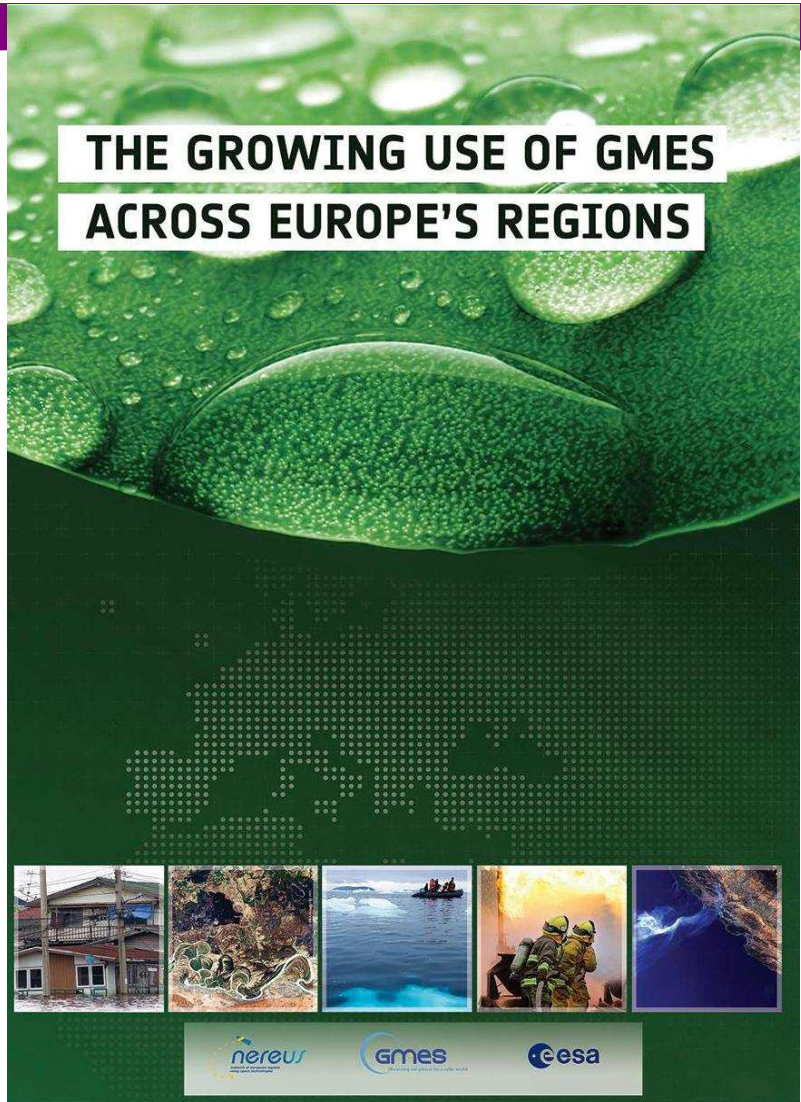
Regional Authorities/
Regional Administrations
Potential Enduser

Service Provider
Service Developer

NEREUS-Plattform

First NEREUS/ESA-cooperation (1)

- Collection of regional Copernicus uses (joint NEREUS/ESA publication)
- Through a call for articles project team gathered 67 regional GMES-uses from 47 different regions covering 17 Members States
- Reference book for policy makers to understand the social and economic benefits of Copernicus uses in Europe



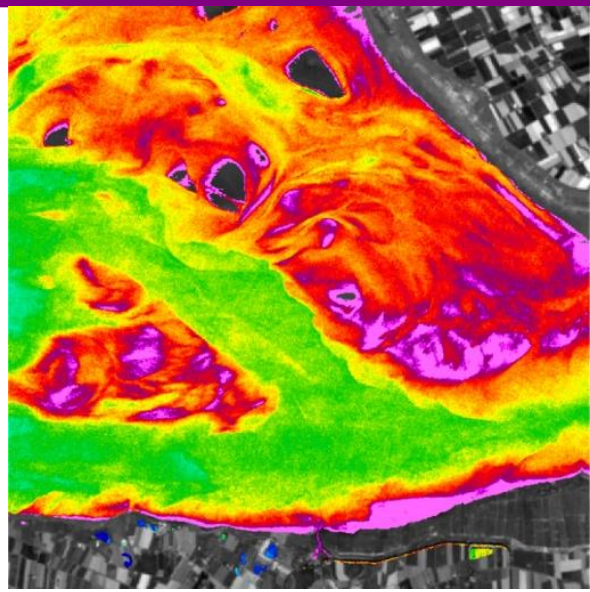
First NEREUS/ESA-cooperation (2)

- Objectives had been to demonstrate to a non-technical audience the added value of Copernicus uses by portraying cases where Copernicus contributed to better informed decision making, better deployment of available resources, cost- and energy savings, more precision etc
- Benefits for the citizen key criteria
- In which areas are Copernicus uses relevant for regions?

First NEREUS/ESA-cooperation (3)

Using Copernicus data for environmental purposes and Crisis Management were identified
as areas of significant importance to regions:

- Crisis Management - 9 articles: Forest Fires; Flood Management, Earth Quakes: Copernicus data contributes to supporting the rescue service responding to various natural and manmade disasters; identifying risks to buildings and bridges from subsidence, oil spills, rapid response to forest fires.)



Suspended matter content of the river Elbe. The dynamic and varying concentration can be highlighted

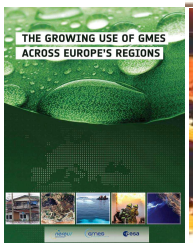
First NEREUS/ESA-cooperation (4)

Using Copernicus data to monitor

- Water Quality was identified as an important area (5 articles: Andalusia, Bavaria, Flanders/Wallonia/ Bxl-Capital, Brittany, Balaton Lake)
- The Balaton Limnological Institute used satellite imagery and highlighted in its article that Sentinel data will support the initiative by providing high-resolution data
- Air Pollution from traffic and industry/Air Quality is of high relevance for many regions (4 articles: East Midlands, Lombardy/Emilia-Romagna, Tuscany)
- Agriculture/Forestry
- Managing coastlines

Advocacy for regional space uses

- NEREUS invited **end-user representatives** to join a Parliament Debate and festive launch event of NEREUS/ESA-GMES-publication on 10/10/2012
- Among the invited speakers ESA-Director Volker Liebig, MEP Glante, Prodi, A. Patriciello, Head of EC-GMES-Bureau Schulte-Braucks,Prof. Wells
- 114 registered participants
- Covered on ESA-website and more info on NEREUS-website



Lessons learnt

- Numerous examples are already available to demonstrate that Copernicus is an important tool to contribute to better informed decision making, more effective deployment of resources and long term planing and decision making
- Space community and service provider need to communicate more effectively with non-specialist audience, more focused on solutions, benefits etc.
- Potential end-user better defined and approached
- Dialogue/interaction between LRA and service-provider needs to be enhanced
- More knowledge and information about needs of LRA‘s is needed

Next NEREUS/ESA-Initiative

"***Improving Copernicus take-up among Local and Regional Authorities via dedicated thematic workshops***" -

Launching a dialogue between local and regional authorities (LRA) to collect information and learn more about their specific needs and the obstacles/roadblocks for deployment of Copernicus Services

Online Consultation of Local & Regional Authorities (LRAs)

- Who?

(…public institutions with legal personality, component of the State structure, below the level of central government and accountable to citizens. Local Authorities are usually composed of a deliberative or policy-making body (council or assembly) and an executive body (the Mayor or other executive officer), directly or indirectly elected or selected at local level. The term encompasses different tiers of government, e.g. villages, municipalities, districts, counties, provinces, regions, etc. Local and regional authorities are also responsible bodies in charge of certain public policies of managerial tasks of territory management e.g. Port Authorities, Environment agencies etc.)COM (2013) 280 final

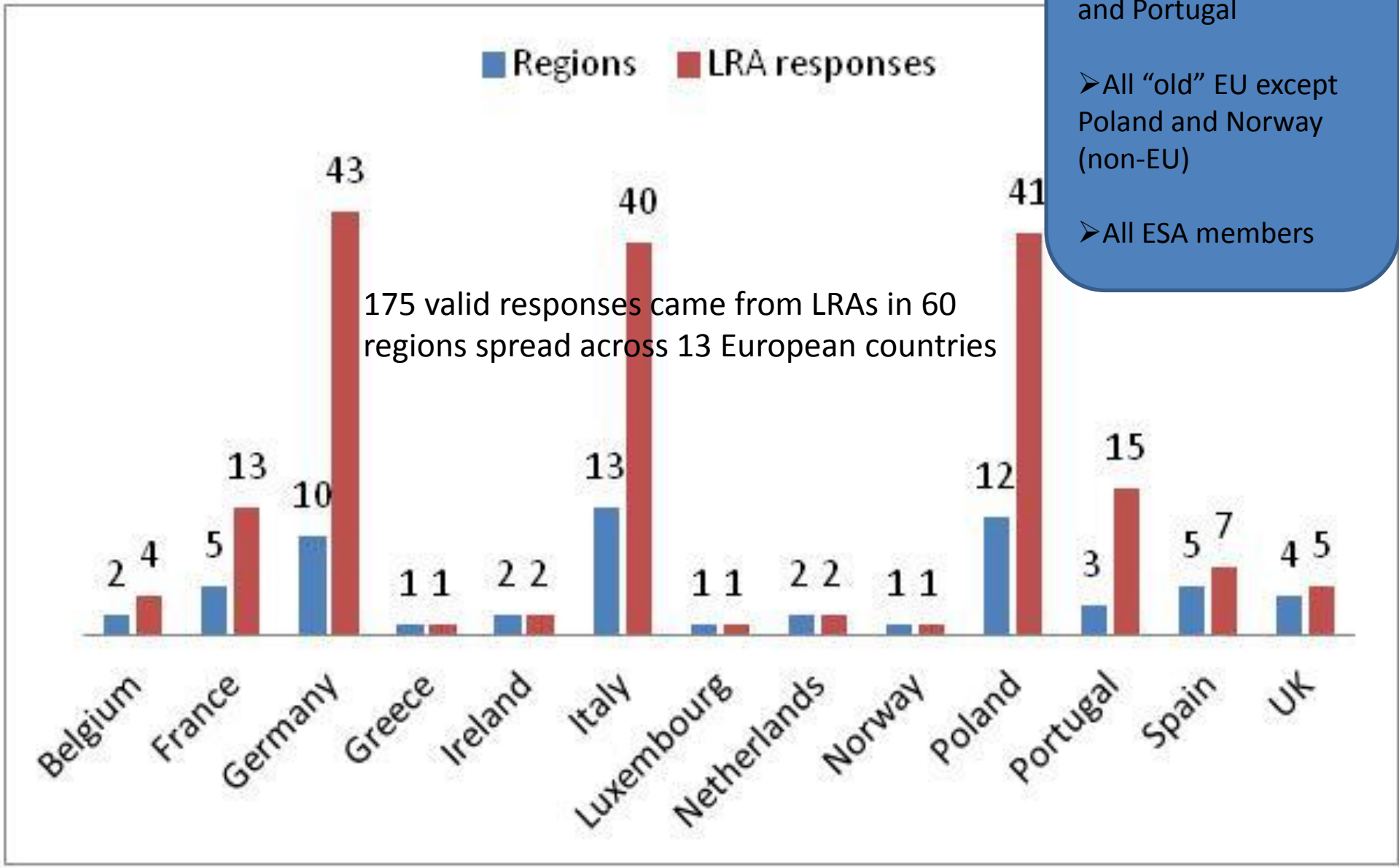
- Duration: 8 months (24/4/14 to 15/12/14)
- Online questionaire in English, French, German, Italian and Polish to identify LRA's areas of interest, success & problems in the use of EO, in particular Copernicus data

Responses by LRAs

- LRAs had to select max. 3 topics from 12 proposed topics and respond to some general questions (max. 5 min.)
- In total, 256 responses received but not all were valid: **175 valid responses** came from LRAs in **60 regions** spread across **13 European countries**
- The online consultation was not a comprehensive survey but influenced by the following factors:
  - Languages, Networks, NEREUS Membership, Communication channels, Previous awareness/involvement of regions in Copernicus

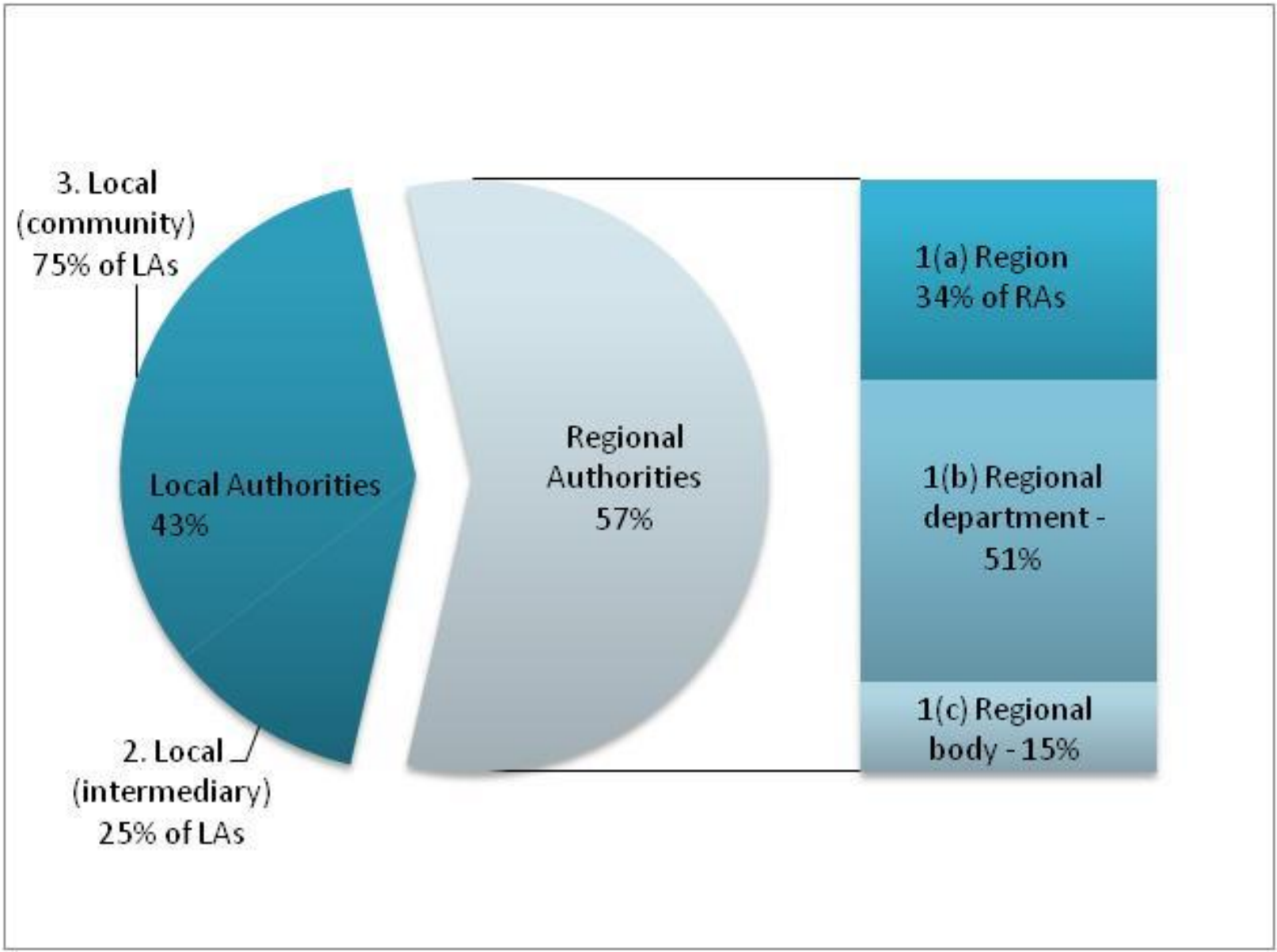
⇨ The analysis provides a snapshot of local and regional interests in Europe.

Geographic Spread



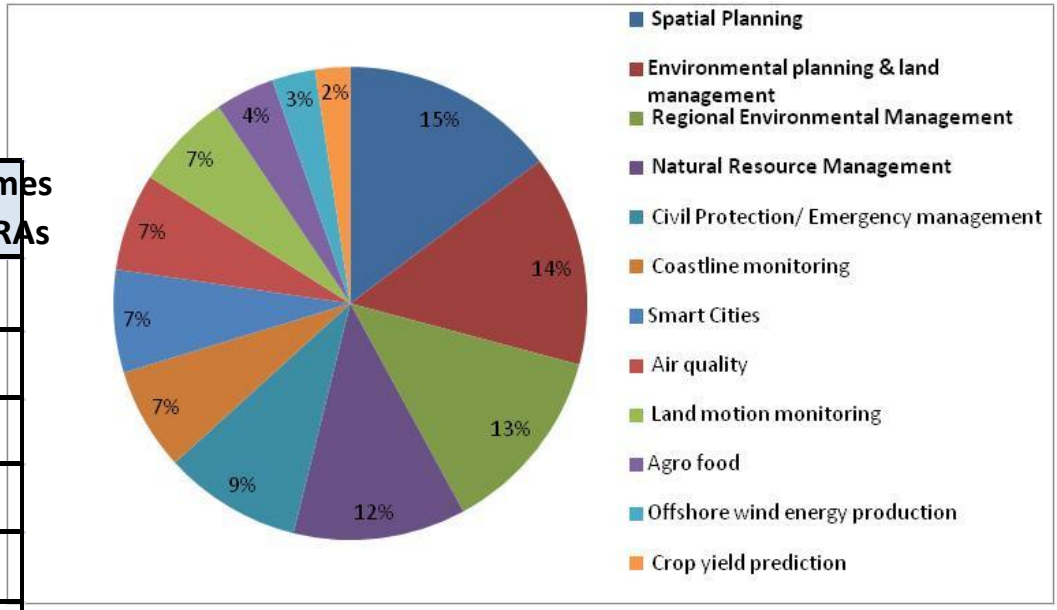
- Most LRA responses from Germany, Italy & Poland then France and Portugal
- All "old" EU except Poland and Norway (non-EU)
- All ESA members

Types of LRA in the sample



Part 1: Topics of Regional Interest

Topic	Number of times selected by LRAs
Spatial Planning	80
Environmental Planning & Land Management	78
Regional Environmental Management	70
Natural Resource Management	64
Civil Protection/ Emergency Management	51
Coastline Monitoring	38
Smart Cities	38
Air Quality	36
Land Motion Monitoring	36
Agro Food	22
Offshore Wind Energy Production	16
Crop Yield Prediction	13
Crop Yield Prediction	13

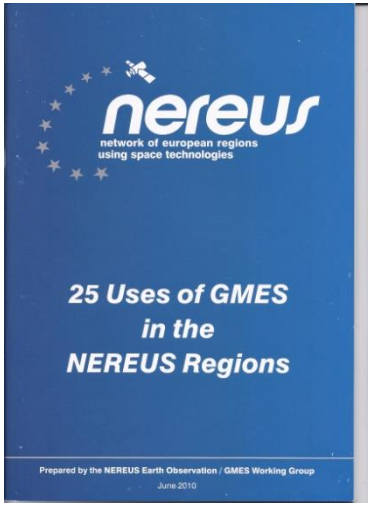


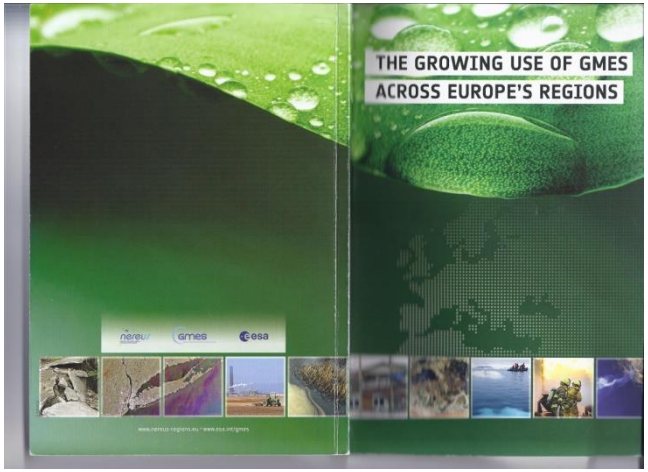
- First 4 topics > 50% of responses
- Last 3 topics < 10%
- All other topics account for 7% each (9% Civil Protection/Emergency man.)

Part 2: Copernicus Awareness

- Smaller sample for this optional part (<50%)
- >70% had heard of the Copernicus programme
- 30% use Copernicus/EO services (either operationally or experimentally)
- 69% were unaware of Copernicus/EO services in their region
- Most responses came from Germany followed by Italy
- However, amongst other countries, a relatively high # of Polish LRAs answered Q1&2 and indicated much less awareness and use of Copernicus than Germany/Italy.

Previous ESA/NEREUS publications





Online Consultation
"Improving Copernicus take-up among LRAs via dedicated workshops"

2010, Nereus
25 applications
17 Regions

2012, NEREUS/ESA
67 applications
47 Regions

2015, NEREUS/ESA
12 topics/175 LRAs
60 Regions

Comparison with previous publications

Previous Publications

Methodology

Open call for EO based applications & services developed or used in the region

Stakeholder Sample

-Commercial Service Providers
-Research Institutes
-LRA users
-Other users (inter-regional, national, commercial, research)

Online Consultation

Methodology

LRAs asked to choose from 12 general, thematic topics of interest in their region

Stakeholder Sample

- LRA users
- LRA potential users

Conclusions on Regional Interests

- Online consultation has contacted LRAs (users) – some using EO data but some with no experience *whereas* previous publications contain applications authored by EO community (service provider/research organisation/region)
- For all 12 topics, more regions expressed an interest than indicated by previous publications
- As before, the largest area or interest remains land with significant interest in marine and emergency services as well as atmosphere (air quality)

Selected NEREUS/ESA-Workshops

- 28th September 2015 – "***The use of sentinel data for supporting land and marine spatial planning and management – specificities of small oceanic islands***" – hosted by Azores in cooperation with Bremen.
- 20th October 2015 – Workshop "***Copernicus satellites as "sentinels" of environmental and economical changes: Trip from Mountains to Valley***" hosted by Lombardy region in Milan around Expo2015.

⇨ 12th November 2015 – Workshop "***Natural Resource Management using Copernicus' Data and Services***" hosted by Bavaria in cooperation with Wallonia. –

YOU ARE VERY WELCOME TO JOIN!!!!

Next Steps

- ⇨ NEREUS/ESA plan for June 2016 large political event to present project‘s outcomes to a political audience

You are welcome to join!

Thank you for your attention

Why regions?

Regions in their institutional role:

- large end-user group
- thus key market for space based data and services
- Regions need Copernicus data to comply with current EU-environmental legislation, to implement wide range of EU-Directives e.g. EU-Air Quality Directives, Ground Water Directive, INSPIRE etc.

Regions as a fertile ground to develop space applications

- Regions are the closest level to the European citizen
- Regions host different institutional player and different economic and business communities (non-space sector and space sector)
- Regions support and host innovation stimulating structures (such as business parks, clusters, networks, etc.)