



Copernicus for Public Users

R o y a A Y A Z I ,
N E R E U S S e c r e t a r y G e n e r a l



Copernicus

NEREUS stands for „Network of European
Regions Using Space Technologies“



26 Full Members
(Regions)
36 Associate Members

Regional Authorities
Regional Administrations
Potential End users



PLATFORM





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Grasping Space Opportunities starts with **people** and their **needs**





OUTLINE

- Public Users: Key takeaways for Local and Regional Authorities (LRA) in Europe
- LRA&Copernicus- **get to know your clients!**
- Value of Interregional collaboration for Copernicus Deployment: **better informed and interlinked users potentially lead to more up-take and more opportunities!**



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Local and Regional Authorities in EU - General

- 276 regions in Europe (NUTS_II)
- 55% of public spending is done at local and regional level
- Considerable public policies are across Europe in the competence of local and regional authorities
- 70% of EU legislation is implemented at regional and local level



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Local and Regional Authorities in Europe (1)

One definition of LRAs at European level...



LOCAL AND REGIONAL AUTHORITIES IN EUROPE (2)

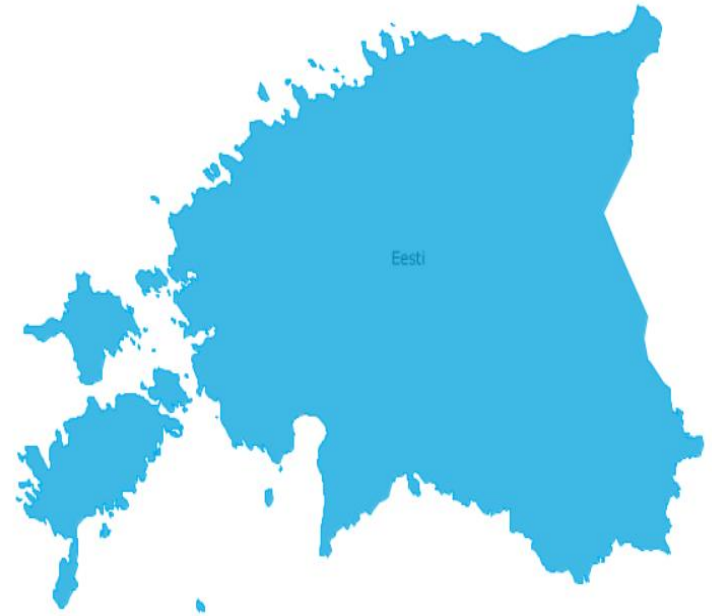
.....yet **many variations** at Member State level!

- Different tiers of government (villages, municipalities, districts, counties, provinces, regions, ...)
- In charge of different public policies related to territorial management tasks (Port authorities, ...)
- Broad variations related to governance: local government system, mandates and competences, human and financial resources including budgetary autonomy, separation of powers, degree to which they are accountable and representative.
- Broad variations related to geographical characteristics: population size, urban vs. rural, with or without coasts, mountainous regions, ...



LRAs in Estonia

- Local self-government is guaranteed by the Estonian Constitution, which states that “all local issues shall be resolved and managed by local authorities, which shall operate independently pursuant to law” (Article 154)
- 226 local authorities including 193 rural Municipalities (vald) and 33 urban Municipalities/Towns (linn) and Counties (maakonnad)





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COPERNICUS AND COMPETENCES OF LRAs

WHICH COPERNICUS-BASED SERVICES FOR WHICH REGIONAL COMPETENCES?

Taxonomy matching **available services** based on Copernicus data with **regional competences**!

R1 Management of Urban areas	R4 total
Urban planning and management	R5 Health
Renewable energies	UV Exposure
Urban Energy efficiency	Air quality and humidity
Waste management	Water quality
Water management	R5 total
Ports and Harbours management	R6 Emergencies
R1 total	Natural disaster management
R2 Sustainable development and nature protection	Early warning
Renewable energies	Industrial risk management
Forest and green areas	Search and Rescue Operations
Natural resources management	Maritime Surveillance
Urban Energy Efficiency	R6 total
Coastal Management	R7 Infrastructure, Transport and Mobility
Protected areas management	Transport Network Management
Biodiversity and ecosystem wardship	Air quality (traffic management)
R2 total	Industrial Risk Management
R3 Regional and local planning	Maritime Surveillance
Urban planning and management	Monitoring great yards
Rural planning and management	R7 total
R3 total	R8 Tourism
R4 Agriculture, Forestry and Fisheries	UV Exposure
Soil moisture	Air Quality
Crop Classification and Monitoring	Bathing Water Quality and Temperature
Agricultural Pollution Monitoring	Hazard Warnings
Water Scarcity	Snow cover and quality
Forest Monitoring	Weather forecasts
Phytoplankton detection	Cultural heritage
	R8 total

Source: DORIS_Net Final Report



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Copernicus & LRA-competences in Estonia - regional level

Local and Regional
Authorities are in charge
of organisation and
management of local
issues (counties)

Responsibilities:

- Environmental management;
- Economic and spatial development;
- Supervision over certain acts of local government;
- Coordination of emergency situations.

⇒ **Copernicus
provides to
almost all
competences
vital information!**



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Copernicus & LRA-competences in Estonia - local level

At local level local and regional authorities are responsible for

- Upkeep of public areas;
- Provision of public services and amenities;
- Housing and utilities;
- Water supply and sewer maintenance;
- Local planning;
- Maintenance of local public roads;
- Local public transport;

⇒ **Copernicus provides to almost all competences vital information!**



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LRA Using Copernicus

- Copernicus can be a **game changer** for Local and Regional Authorities (LRAs)
- **Significant benefits** can be gained if LRAs use Copernicus information:
 - better informed decision-making,
 - long-term planning,
 - more efficient deployment of resources.
- **Entrepreneurs have a crucial role** in offering products and services based on Copernicus which can support LRAs in their territorial management tasks.



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Copernicus & LRA-competences

Copernicus provides information for

- Measuring
- Monitoring
- Analysing
- Forecasting/Planning



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COPERNICUS AND COMPETENCES OF LRAs



The screenshot shows the Copernicus website with the following elements:

- Header:** Copernicus logo (Europe's eyes on Earth), Data Access logo, social media icons (YouTube, Facebook, Twitter, RSS, Print), and a search bar.
- Left Navigation Menu:**
 - Overview
 - Application Domains
 - Products and Services
 - Support Activities
 - Tenders and Grants
 - Document Repository
 - Project Database
 - News
 - Events
 - Press Room
- Main Content:**
 - Home > Application Domains**
 - Text:** "Through the different thematic areas it addresses (land, marine, atmosphere, climate change, emergency management and security), Copernicus supports applications in a wide variety of domains." and "These include agriculture, forestry and fisheries, biodiversity and environmental protection, climate and energy, civil protection and humanitarian aid, public health, tourism, transport and safety, as well as urban and regional planning." and "This section illustrates with concrete examples the benefits that Copernicus can bring to users in these various domains. Concrete examples are also available through a series of [Copernicus Briefs](#) produced by ESA."
 - Grid of Application Domains:**
 - Agriculture, Forestry & Fisheries
 - Biodiversity & Environmental Protection
 - Climate & Energy
 - Civil Protection & Humanitarian Aid
 - Public Health
 - Tourism
 - Transport & Safety
 - Urban & Regional Planning
 - Footer:** Copernicus logo and European Commission logo.

Source: www.copernicus.eu/main/application-domains



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LOCAL AND REGIONAL AUTHORITIES IN EUROPE

Think that

LRAs competences = Territorial management tasks

LRAs needs = user requirements

EU Directives = framework conditions

This helps to imagine, prototype and define the
product / service to develop!



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COPERNICUS AND COMPETENCES OF LRAs

THE EUROPEAN COMMISSION

*“Copernicus users’ means (a) **Copernicus core users**: Union institutions & bodies, European, national, regional or local authorities entrusted with the definition, implementation, enforcement or monitoring of a public service or policy in the areas”*

The European Commission, EU Regulation No.377/2014, Art.3

Innovative public procurement

Structural Funds

Alternative business models

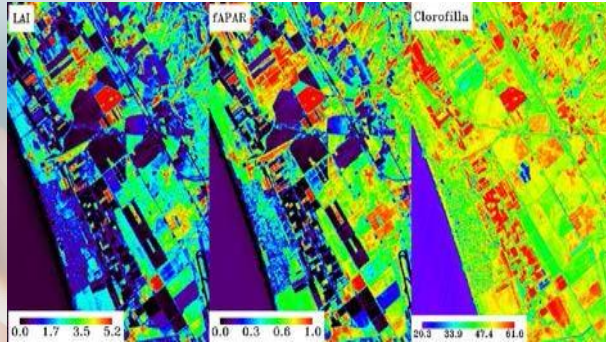
Awareness raising campaigns



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Value of Interregional Collaborations

⇒ **Interregional Collaborations** can be effective to bring the process from



from satellite imagery



for public administrations

**and motivate more administrations
to actually use it even better**



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Situation in public administrations

Although Copernicus entered stage of operability and SENTINEL-data is free and open available –

- ⇒ Use and understanding of the system is very diverse across Europe
- ⇒ Very different levels of maturity when it comes to using Copernicus data
- ⇒ Different interests, profiles and framework conditions



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Commonalities of European Regions - 1

- Territorial challenges and natural assets, mountains, lakes, rivers, and coasts have no borders (Mediterranean Sea, Alps, Pyrenees, Danube, River Rhein, etc.)
- EU-regions manage joint territorial tasks (flood, snow, preservation flora & fauna) and need to broaden and improve Copernicus-uses
- EU-regions have to implement EU-Directives and EU-environmental legislation



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Commonalities of European Regions - 2

- Regional administrations face similar challenges when it comes to Copernicus-deployment
 - ⇒ Building of political will (mandate)
 - ⇒ Establishing and raising awareness and understanding of benefits and added value of the system, capacity building, education, training, collecting convincing indicators
 - ⇒ Definition of profile and needs for Copernicus uses (Copernicus is global **but definition of needs is regional/local**)
 - ⇒ Assuring adequate technical infrastructure
 - ⇒ Designing smart financing models



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Why Interregional Collaborations? - 1

- Experiences on NEREUS-platform (gained in projects, conferences, seminars, workshops, publications) showed that **interregional collaborations** are a vital tool to broaden and improve Copernicus uses:
 - ⇒ critical mass,
 - ⇒ knowledge and experience sharing,
 - ⇒ pooling of resources, avoid duplication of efforts
 - ⇒ collective problem-solving
 - ⇒ collective experiencing benefits and added value



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Why Interregional Collaboration? - 2

- Groups of regions face similar territorial challenges and have common interests with respect to Copernicus-uses e.g.:
 - South European regions: Forest fire
 - Maritime regions: Evolution of coasts, jelly fish monitoring
 - Riparian regions: Flood management

WHAT CAN SENTINELS DO FOR REGIONS?

A TRIP FROM MOUNTAINS TO VALLEYS
Copernicus satellites as "sentinels"
of environmental and economic challenges

20 October 2015
from 09.30 to 17.30

Palazzo Lombardia, Milan

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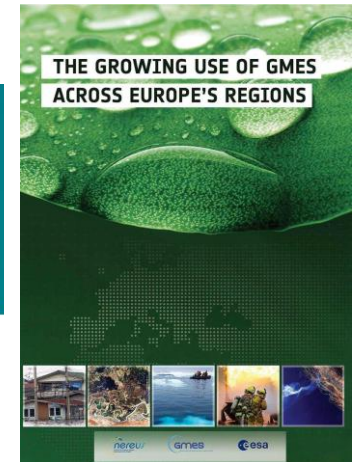
Palazzo Lombardia, Milan

O uso de dados Sentinel para apoio na gestão e ordenamento do território terrestre e marinho
The use of Sentinel data for supporting land and marine spatial planning and management

Especificidades de pequenas ilhas oceânicas
Specificities of small oceanic islands

28 Setembro
September 2015

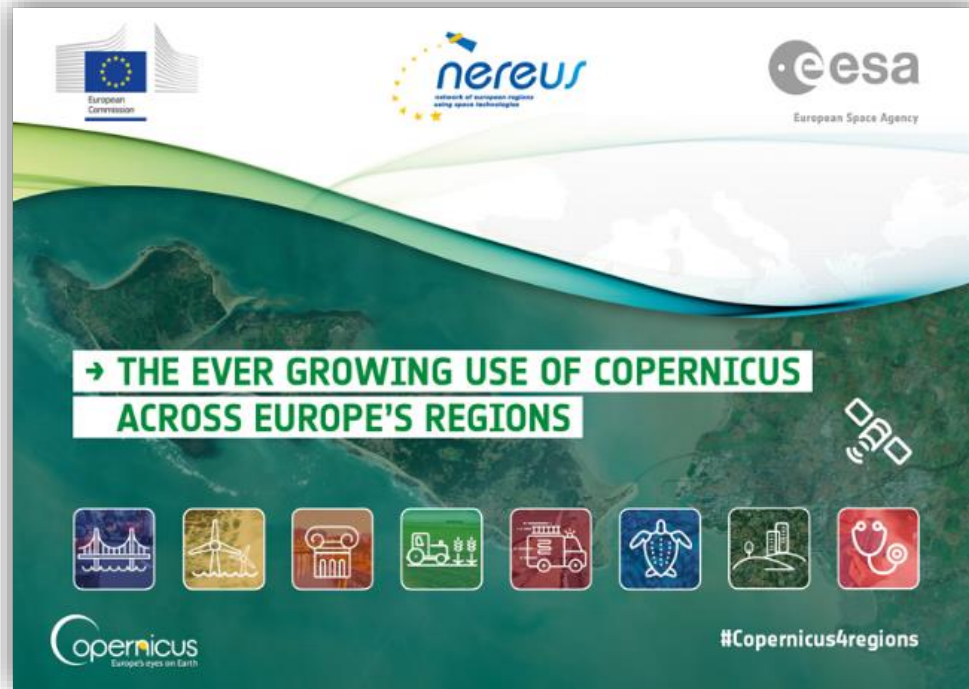
Laboratório Regional de Engenharia Civil
Ponta Delgada, São Miguel - Açores





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Interregional collaboration



www.nereus-regions.eu/Copernicus4Regions
#Copernicus4Regions



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Value of Interregional Collaborations

- ⇒ Copernicus is a common good
- ⇒ Let's make it a collective experience reaping the benefits for Europe's citizen and territories



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Thank you for your attention

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www.nereus-regions.eu