

NEREUS Working Group on Earth Observation

NEREUS General Assembly 2023
Thursday, 20th April 2023, 09.30 – 13.15h



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INTRODUCTION

During recent years, the availability of data deriving from the use of earth observation technologies has experienced an exponential evolution. The increase of satellites number, the technologic development of sensors and their spatial and radiometric resolution, made available a large amount of precise data and applications both to the private and to the public sector.



APPLIED EARTH OBSERVATION AND SPACE TECHNOLOGIES: SOME EXAMPLES OF APPLICATIONS IN VENETO REGION

During recent years, also in Veneto Region several practical applications of earth observation and space technologies have been deployed. Some examples:

- Positioning → GNSS Network Regione Veneto
- Urban planning → land cover update, urbanized areas detection
- Emergency → Crashed trees areas detection
- Emergency → Wildfires detection
- Forestry → Health forest monitoring
- Land Monitoring → Monitoring of soil deformations
- Land Monitoring → Impact of seasonal drought on Po river
- Spatial data infrastructures → remote sensing webGIS (IDT Veneto Region)

PROMOTE THE USE OF EARTH OBSERVATION AND SPACE TECHNOLOGIES

As one of the historical members of NEREUS, Veneto Region suggested some actions to boost NEREUS activities. Following the inspiring principle “Bringing the benefits of space uses to European regions and their citizens” the proposal was to reestablish the Working Group of experts on Earth observation and space technologies in order to effectively share experiences, ideas, tools, methodologies between European regions and promote an “open science” approach.

OBJECTIVES:

- **Spread** the knowledge of earth observation data and space technologies;
- **Promote** sharing of experiences, ideas, tools, methodologies and creation of synergies;
- **Support** local institutions, citizens and companies in the use of space technologies;
- **Inspire and ease** positive policy responses to local institutions.

PROMOTE THE USE OF EARTH OBSERVATION AND SPACE TECHNOLOGIES

HOW?



Boost NEREUS working group on earth observation, in order to effectively **share experiences, ideas, tools, methodologies** on earth observation and space technologies between European regions and promote an “open science” approach.

Some proposals:

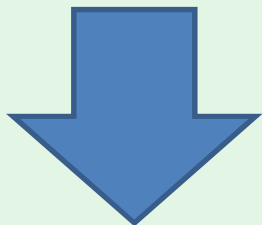
1. Sharing specific **best practices, experience, methodologies** between NEREUS members (periodic meeting);
2. **Creating synergies** between members and other interested institutions, such as academia, local and regional authorities, and SMEs, with the objective of improving best practices;
3. Provide NEREUS-members the opportunity to join yearly a **general consortium meeting**, hosted by a participating region;
4. Setting-up **periodical reports** with high diffusion to collect the most significant experiences and/or case history regarding earth observation and space technologies.

In addition to macro-goals listed previously, the EO Working Group suggests to develop a profitable environment of interchange **connection between GNSS/Galileo WG and Earth Observation**.

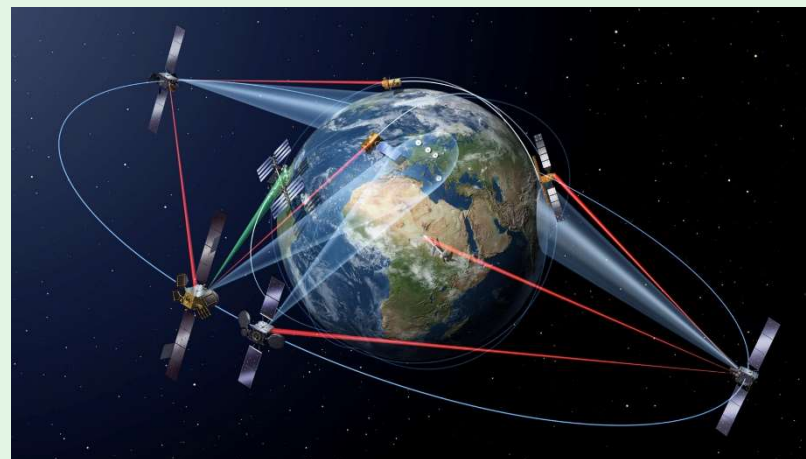


NEREUS EARTH OBSERVATION WORKING GROUP

The EO Working Group is comprised of Earth Observation Specialists and Space Experts ...



The EO Working Group can support actively the work of NEREUS and its management board



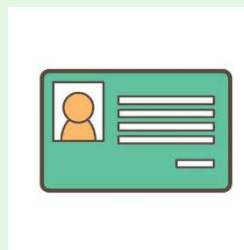
Regional Experts are invited to join the group and give their contribution!



EARTH OBSERVATION WORKING GROUP CHAIR – who we are

CARLO MASETTO (Chief)

- Background: degree in Environmental engineering, specialization course in GIScience and remote;
- GIS & remote sensing specialist at the Veneto Region - Territorial Planning Department - Cartographic Office;
- Veneto Region Spatial data infrastructure Specialist (INSPIRE directive framework);
- Contact person For Veneto Region at NEREUS
- Contact person for Veneto Region at National Council for Territorial and Environmental Information (CNITA, in Italian: *Consulta Nazionale per l'Informazione Territoriale ed Ambientale*)



SILVANO DE ZORZI (Co-chief)

- Background: degree in Geographical Information Systems at the University Institute of Architecture in Venice (IUAV).
- *Visionary President* of IEST (European Institute for Technology Development) → IEST is a Copernicus Academy and a Copernicus Relays;
- Member of Digital Lab (laboratories for the use of digital technologies);
- With IEST, I participated within the European Space week 2020 in user groups for the development of earth observations and satellite communication and positioning systems.
- Inside Nereus, I am also member of the Standing Committee (Scientific body supporting the NEREUS Management Board)

Questions for the EO WG

1. The earth observation sector is rapidly developing. What are the new emerging business models that are driving this change?
2. What is the role of AI and key challenges ahead for Earth Observation to start to prepare the data?
3. How Regional Authorities are using satellite data?
4. How are the regulatory aspects limiting and/or pushing the Regions forward in the use of satellites?
5. How Satellite Data will improve the state of the world?



Thank you.

