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High resolution satellite image of Sochi city from above, Russia, background city map, aerial view, contains modified Copernicus Sentinel data [2018]

Introduction

NEREUS (Network of European Regions Using Space Technologies) is the only European association of its kind in that the responsibilities for governing the network lie with the regions that comprise its membership. NEREUS represents the interests of European regions that use space technologies whilst simultaneously highlighting the regional dimension of European space policy and programmes. By providing a dynamic platform, the Network raises awareness of the benefits offered by space and helps all regions and their citizens to avail of these.

In other words, space data and applications are advantageous for business, government and society, helping them to better respond to major societal and policy challenges. Regions are the key users and procurers of space-based applications, products and services. In particular, by using the two flagship space programmes - Copernicus¹, Galileo² /European Geostationary Navigation Overlay Service (EGNOS)³ - public authorities (PAs) are able to address their needs and maximise the social, economic and environmental impact at a local and regional level.

NEREUS is committed to emphasising that regions are key players in the growth of the European space sector. This Annual Activity Report 2019 covers the period from January 2019 to January 2020.

“NEREUS highlights societal benefits that have a territorial dimension resulting in territorial applications.”

Aude Körfer, Brittany region (France)

“NEREUS can provide a valuable meeting place to discuss European regional approaches to space applications and to identify proposals to address to the European institutions, including the European Space Agency (ESA).”

Eugenio Fontán, Madrid región (Spain)

“NEREUS will become the Mission Control Centre in the European space sector and will strengthen the industrial and research sector of many European regions, which is so indispensable today. As an enabler of new innovative technologies and to master the current challenges such as climate change, digitalisation, mobility infrastructure, health research and bio-economy, the competitiveness of this sector must be a top priority in Europe.”

Wolfgang Wolf, Baden-Württemberg Region (Germany)

“The voice of the NEREUS network must be heard during the creation of the European Space Policy, where it should raise the importance of space policy for the development of European regions.”

Marshal Władysław Ortyl, Podkarpackie Region (Poland)

“NEREUS is the best way that EU regions interested in space can make sure they are in the right place at the right time to be heard and taken into consideration.”

Francisco Wallenstein, The Azores (Portugal)

¹ Copernicus (<https://www.copernicus.eu/en>), the biggest provider of free Earth Observation data in the world, is estimated to deliver a total of EUR 8.2 billion in investments by 2020, making the downstream space sector one of the most competitive markets (PwC, Main trends and challenges in the space sector, June 2019, available at: <https://www.pwc.fr/fr/assets/files/pdf/2019/06/fr-pwc-main-trends-and-challenges-in-the-space-sector.pdf>)

² <https://www.gsa.europa.eu/european-gnss/galileo/galileo-european-global-satellite-based-navigation-system>

³ <https://www.gsa.europa.eu/egnos/what-egnos>

Message from the President

Dear NEREUS community,

It is with great pleasure that I present you this Annual Activity Report 2019. This was a year featuring a number of novelties for NEREUS and was also a significant year for European Integration and politics in many respects.

Following the elections of the General Assembly in May 2019, I now chair the NEREUS network with a new Management Board that has grown in terms of regional representation (12 regions out of 24 are represented) but also in terms of political weight. The political representation of the network is truly European: I act on behalf of the Occitanie Region, where I am a member of the Regional Council and mayor of the French city of Lannemezan. I am Vice-President of the Regional Council Industry Committee and am deeply involved in the economic development of the region. I have dedicated all my life to the development of space capacity-based and data processing-based applications in different companies: Matra Systèmes & Informations and Spacebel, for example.

The NEREUS Vice-Presidents Vito Bardi (President of Basilicata Region/Italy), Władysław Ortyl (Marshal of the Podkarpackie Region, Poland), Fabrizio Sala (Minister Vice President of the Lombardy Region and Minister for Research, Innovation, University, Export and Internationalisation) and Professor Mark Lester (University of Leicester) support me in representing NEREUS at the political level. Now more than ever, this representation is crucial for positioning regional interests appropriately in the latest evolutions of European space policy such as the ongoing negotiations in relation to the next Multiannual Financial Framework (MFF), the future EU budget. The last pages of the report provide you with short descriptions of the Board members, their space background and careers.

A feature of the election of the new European Parliament in May 2019 was that it delivered the highest turnout by voters in the past 20 years. European citizens clearly acknowledged the value of Europe. It was a symbol for the strength of European integration and its people. Europe needs more of this. We need to boost our commitment to make the added value of being part of the European Union more transparent, in particular at the regional level. Space and its use are a unique example to demonstrate these benefits. No single Member State on its own could have built Copernicus, the European Earth Observation Programme, and EGNOS/Galileo, the European Global Navigation Satellite System (GNSS). They are joint accomplishments of European integration and cooperation and serve us all as a common good. NEREUS is a platform to build partnerships for gaining a better understanding of these achievements to better access and exploit them.

As a core element of our political dialogue in the coming years, we will be highlighting the immense abundance of ways in which space can be used to modernise the public sector and thus to deliver better public policies, improve regional development and stimulate economic growth, innovation dynamics and employment opportunities. Finding ways to use space-based information and services optimally is a European endeavour. Pooling resources, sharing knowledge and information and working together inter-regionally on a European scale are important elements for regions to participate in Europe's space opportunities. Initiatives such as Copernicus4Regions and others illustrate how vital it is to showcase these positive experiences.



I wish you an enjoyable read.
Yours,

Bernard Plano
NEREUS President

Foreword from the Secretary General

Space technologies and products have given our economy impetus in so many different areas and have radically changed people's quality of life for the better. A growing number of regions already make use of space data and services provided by European programmes such as the European Earth Observation Programme Copernicus, which contributes to the technological, societal and sustainable development for their territories. However, much of the potential of space is still untapped. People and businesses could benefit even more.

NEREUS's fundamental role is to continuously promote the use of space on behalf of regional users in contexts outside the space sector, such as agriculture, cultural heritage, transport, environment etc. In so doing, the Network coordinates with a variety of key stakeholders at a regional and EU level to voice the regional dimension of European space policies and programmes, to mobilise EU/European Space Agency (ESA)-funded projects and other initiatives that contribute to better exploiting space in different domains and to raise the awareness and understanding of space solutions for all public users.

This annual report provides a short overview of NEREUS's most important activities in the past year along the three main axes of the Network's activities: firstly, advocacy/ political dialogue, secondly, interregional collaboration and partnerships and thirdly, public outreach and new trends. It goes without saying that the highlight of this report is the Copernicus4Regions initiative, which gave us the opportunity - particularly through the 2020 Breakfast Debate - to:

- strongly convey messages to EU policy-makers about the regions' capability to shape the space downstream sector to sensitize for the regional and territorial dimension of European space policies;
- call on a proper level of investment in the EU Space Programme – with respect to the next Multiannual Financial Framework - which is beneficial for a plethora of key sectors for Europe's future development and innovation.

The report also gives you a brief overview of the projects that the Network is currently involved in and summarises their latest developments. NEREUS project activities offer Network partners with a particular interest in key topics such as marine, education/ training to get actively involved, raise their visibility and regional profile and to gain more knowledge and expertise. Often EU/ESA-funded activities contribute to stimulate related regional/local activities and events. On this occasion, we would like to express our gratitude to all members for their harmonious and fruitful cooperation with the Secretariat.

Looking forward, NEREUS is committed to building on these types of cooperation and delivering real impact for our regions, a strong community of space users.



Roya Ayazi
NEREUS Secretary General

EU Political Dialogue 2019-2020: The ongoing Copernicus4Regions success story

"The Apulia Region is pleased that NEREUS has promoted [its] objectives through an active and inclusive dialogue with stakeholders such as the European Commission (EC), European Parliament (EP), European Space Agency (ESA) and through the publication entitled 'The ever growing use of Copernicus across Europe regions'."

Vito Albino, Apulia region (Italy)

Undoubtedly, Copernicus4Regions has continued to be a flagship project in 2019. The joint initiative between NEREUS, the European Commission (EC) and the European Space Agency (ESA) is committed to contributing to the ongoing use of Copernicus data and information across Europe's regions, which is now spreading throughout society at all levels.

The Copernicus4Regions initiative aims at a) showcasing regional use cases, b) helping other regions to learn from these clear and in-depth examples and finally deploy Copernicus and c) stimulating interregional cooperation and the sharing of knowledge and experience amongst regions.

NEW DEVELOPMENTS AND PREPARATION FOR THE FINAL EVENT

The initiative is imbued with a strong interregional element as it has become a place for different Copernicus user communities to meet. NEREUS continues to share this experience with members and the NEREUS community with the following actions:

- producing outreach material in the native languages to improve outreach to public administrations and politicians;
- the profiles will help policy-makers to emphasise the regional dimension in their decision-making at a regional and EU level;
- presenting new user stories at the European Parliament to raise the awareness of European representatives and authorities about the benefits of Copernicus at a local and regional level whilst highlighting the importance of EU investment in the programme.

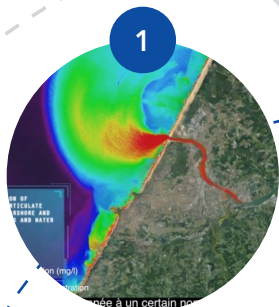
THE VIDEOS

As material to support this publication, NEREUS was tasked with producing five short movies with subtitles in native languages which depict and explain how public administrations from Milan (Italy), Navarra (Spain), Greece, Wallonia (Belgium) and Nouvelle Aquitaine (France):

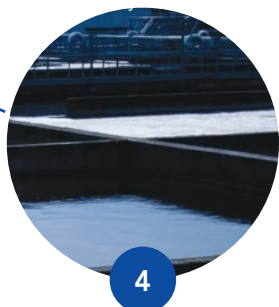
- tackle common challenges in a concrete context such as civil infrastructure, agriculture, environmental protection, urban planning and coastal management by developing and using a Copernicus-based product and/or service;
- derive tangible benefits for their own administrative daily routine and therefore have a positive impact on society;
- invite other regions to take advantage of the programme's benefits.

The videos are produced in the language of the region of application (French, Spanish, Greek and Italian) with subtitles in English. You are warmly invited to watch these videos and disseminate them within your organisations.

Available in 5 languages



5 videos
14 interviewees



Over 1,500 views
in Youtube

Over 50,000
Twitter
impressions

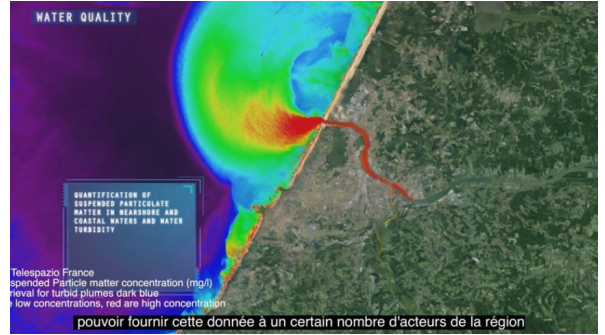


<https://bit.ly/3gScrKZ>

1



Frédéric Laurent
Space Project Officer, Nouvelle-Aquitaine Region
Our issue here is a 720 km-long coastline.



2



Alberto Lafarga Arnal
Chief Officer of R&D, INTIA



3



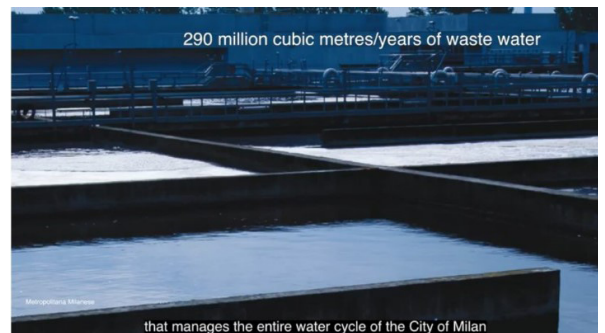
Dr. Dimitris Vakalis
Director General of Forests and Forest Environment of the Hellenic Ministry of Environment and Energy
το κόστος για τον πολίτη γιατί μειώνονται και οι ανάγκες για ενδελεχείς ελέγχους ιδιαίτερα



4



Andrea Aliscioni
Director of integrated water service division, Metropolitana Milanese Spa
Our company, MM



5



Dr. Eric Hallot
Head of the Remote Sensing and Geodata Unit at the Institut Scientifique de Service Public
Currently our field staff keep updated this database,



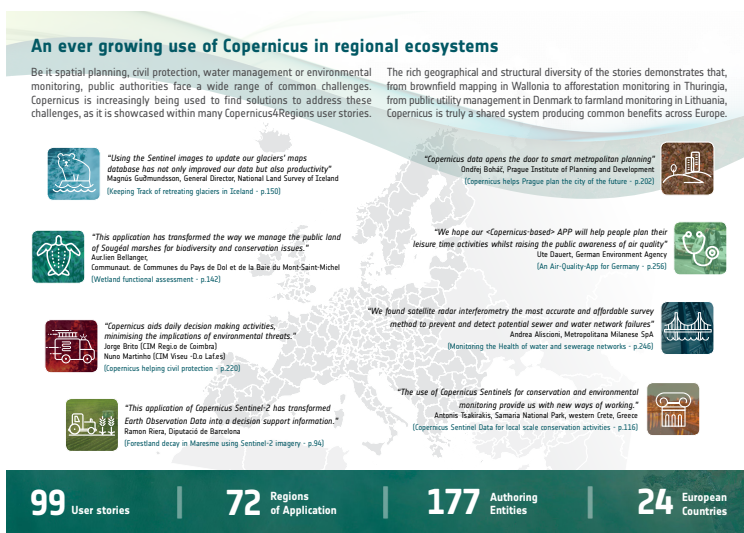
OTHER COMMUNICATION MATERIAL

Other core material complementing this publication aims to briefly present the initiative whilst delivering clear messages to Members of the European Parliament (MEPs), other policy-makers and Public Authorities (PAs). This material can also inspire PAs to renew and build up their regional strategies on the main public domains and services. The following items have been developed in a way that is more appealing and comprehensive to these specific groups. Namely, these are:

- a **two-page brochure** summarising the whole initiative with special graphics and featuring quotes from regional users. The brochure is translated into all eight languages of member regions (English, Spanish, German, Polish, Portuguese, Italian, French and Dutch).



The brochure cover features logos for the European Union, NEREU, and ESA. The title is 'COPERNICUS4REGIONS' with a subtitle 'A selection of user stories portraying the ever growing use of Copernicus across Europe's regions'. It includes a list of actions: 'Download the Publication', 'Watch the user stories videos', 'Explore the user stories info-sheets', and 'Request hard copies for institutional purposes'. A text box explains that Copernicus4Regions is managed by NEREU and funded by the European Union. It also provides the website www.copernicus.eu and <https://sentinel5.copernicus.eu>.



The infographic is titled 'An ever growing use of Copernicus in regional ecosystems'. It features a map of Europe with several callout boxes containing user stories and icons. The stories include:

- 'Using the Sentinel images to update our glaciers' maps database has not only improved our data but also productivity' - Magnus Guðmundsson, General Director, National Land Survey of Iceland (p.150)
- 'Copernicus data opens the door to smart metropolitan planning' - Ondřej Boháč, Prague Institute of Planning and Development (p.202)
- 'This application has transformed the way we manage the public land of Soudal marshes for biodiversity and conservation issues.' - Aurélien Bellanger, Communes de Communes du Pays de Dol et de la Baie de Mont-Saint-Michel (Wetland functional assessment - p.142)
- 'We hope our <Copernicus-based> APP will help people plan their leisure time activities whilst raising the public awareness of air quality' - Ute Duanzi, German Environment Agency (An Air-Quality App for Germany - p.256)
- 'Copernicus aids daily decision making activities, minimizing the implications of environmental threats.' - Jorge Brión (CIM Regue de Gumbes), Nuno Martins (CIM Visu - Oo Lafes) (Copernicus helping civil protection - p.220)
- 'We found satellite radar interferometry the most accurate and affordable survey method to prevent and detect potential sewer and water network failures' - Andra Alexian, Necropolisana Hlasene SpA (Monitoring the Health of water and sewerage networks - p.246)
- 'This application of Copernicus Sentinel-2 has transformed Earth Observation Data into a decision support information.' - Ramon Nera, Diputació de Barcelona (Forestland decay in Maresme using Sentinel-2 imagery - p.94)
- 'The use of Copernicus Sentinels for conservation and environmental monitoring provide us with new ways of working.' - Antonis Tsadirakis, Samaria National Park, western Crete, Greece (Copernicus Sentinel Data for local scale conservation activities - p.116)

 At the bottom, a green bar contains statistics: 99 User stories, 72 Regions of Application, 177 Authoring Entities, and 24 European Countries. A QR code is located on the right side.

YOU CAN DOWNLOAD IT HERE
<https://bit.ly/3cvkSsb>

- **Infosheets.** The NEREUS online platform hosts an advanced search engine which allows the user to find and download any of the 99 stories of their preference based on the following parameters: Title of the Copernicus User Story, Language, Country, Thematic Area, Region of Application, Relevant Copernicus data and information, Usage Maturity Level.



<https://bit.ly/3gLV6VJY>

- **Flyers for the main thematic domains.** This unique tool segments different use cases under their common domain of application: agriculture, maritime etc. MEPs will find this item valuable when they are developing policies on major issues in several fields where the use of space data can provide solutions. This material will soon be available on NEREUS's website.

AN INITIATIVE FOR POLITICAL DIALOGUE

The Copernicus4Regions initiative highlighted the role of regions in bringing the use of the system forward. NEREUS organised two politically-targeted events at the European Parliament, through which the Network managed to:

- bring regional user stories to the attention of EU policy-makers to raise awareness about the societal dimension of the system;
- inform MEPs and their assistants as well as representatives of relevant Brussels-based organisations (e.g. Permanent Representations of EU Member States, regional offices) about the Copernicus Programme and its benefits;
- engage in a fruitful way with decision-makers and newly elected MEPs at the European, regional and local level by contributing to policies that enable regions to fulfil their potential in using space to benefit citizens.

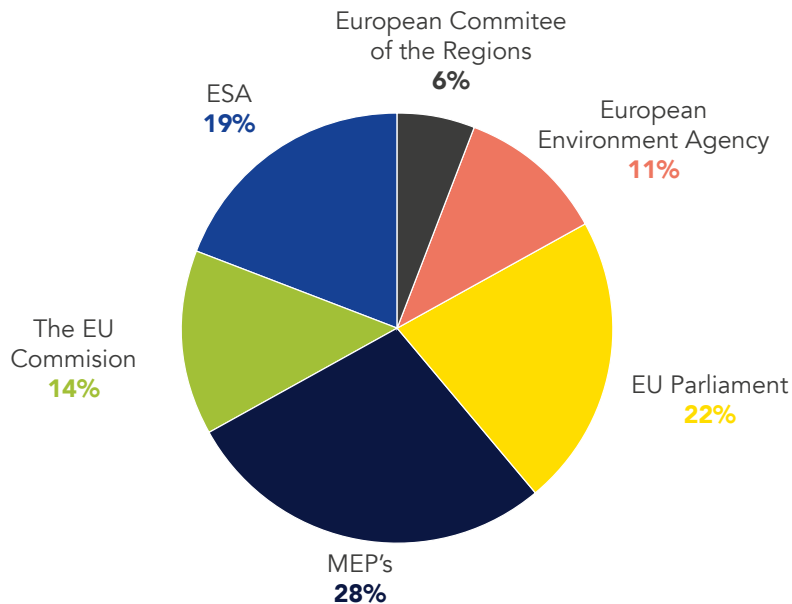
2020 BREAKFAST DEBATE: COPERNICUS4REGIONS STORYTELLING AT THE EUROPEAN PARLIAMENT



Following the successful launch event in 2018, which brought the collection of 99 user stories to the attention of EU policy-makers, NEREUS organised a second event at the European Parliament on 23 January 2020. The event took the form of a debate which shared more advanced regional experiences. Under the auspices of MEP Eric Andrieu (The European People's Party - (EPP)), this time the Network brought new stories to the attention of EU and regional politicians whilst showcasing the benefits of the Copernicus Programme at the local and regional level.

Another highlight of the debate was the presence of 120 participants - a mixed audience including participants from EU institutions, Brussels-based regional and national representations, and Member State representatives from space agencies; associations, companies and research centres.

EUROPEAN ORGANISATIONS



The fact that the following MEPs – Antonio Tajani (EPP), Christophe Grudler (Renew Europe), Michael Gahler (EPP), Younous Omarjee (GUE/NGL), Tsvetelina Penkova (S&D), Andrea Caroppo (Identity and Democracy Group), Hannes Heide (S&D), Michal Wiezik (EPP) (to mention just a few) – attended was due to the dedicated efforts made by NEREUS members to mobilise MEPs linked to their regions. The NEREUS Secretariat expressed its deep gratitude to them for their commitment and motivation. Our special thanks are also extended to MEPs who joined this moderated policy debate on how PAs already use Copernicus successfully in many areas of application outside the space sector, such as agriculture, civil infrastructure and safety, climate, water and energy, biodiversity, civil protection and urban planning.



Vincent Toumazou, CNES



Antonio Tajan, MEP



Andres Jaadla, The European Committee of the Regions



Christophe Grudler, MEP



Władysław Ortyl, NEREUS Vice-President



Roya Ayazi, NEREUS Secretary-General



Jean Rapp, Directeur General ADAUHR ATD68

PAs from Italy (Grand Paradiso), France (Haut Rhin), Spain (Cadiz), Slovakia (Upper Nitra), northern Hungary and Norway presented their advanced user stories to the audience, pointing out that Sentinel-data provides tailored solutions to specific and high priority matters that are relevant to each region. The users debated new ways to work with Sentinel data to achieve internal public sector innovation and to inspire other regions to join the Copernicus Programme.

High level participants coming from the political EU and regional ecosystem debated with the users expressing their admiration for their efforts and the capabilities of the Copernicus Programme:

Hosting MEP **Eric Andrieu** (S&D) highlighted the following: *"It is important to defend the key role of regions in the emergence of space technology applications and to allow regions to have their place in European space policy. In this period of geopolitical instability, the strategic autonomy of Europe is essential."*



NEREUS President **Bernard Plano** noted: *"The Copernicus4Regions initiative shows with concrete examples how our member regions – and regions of Europe more broadly – can derive the greatest benefit from space applications. Regional administrations still need to increase their use of Copernicus and they have already been provided with many examples as to how they can do it. The participation of public authorities in the publication is a sign of their interest and should be encouraged."*



Matthias Petschke, Director of Space at the European Commission, stated that *"Copernicus is an essential tool for the implementation of policies at regional level, for example the Common Agriculture Policy and area-based payments. Other examples include the monitoring of wildlife in natural reserve parks or the monitoring of air pollution. For the future, we will continue to analyse user needs and we aim at an even wider access to data and products, through enhanced access platforms."*

Josef Aschbacher, ESA's Director of Earth Observation Programmes, concluded that: *"The use cases we heard today show that Copernicus is already benefitting public authorities and users in Europe. The future missions that ESA is currently studying will boost these applications even further and help public authorities to make more informed decisions."*





Photos Bruno Maes



After the event was brought to a close, Copernicus users were filmed at the Parliament and at NEREUS's premises with the aim of showcasing the following points in three new videos: i) Copernicus as a solution to Public Administrations' challenges, ii) how Public Administrations use this data and iii) how to ensure benefits to the citizens for the future. In addition, a teaser summarising the whole initiative will be available on NEREUS's website in the next months.

COPERNICUS INFOSESSION WITH MEPS' ASSISTANTS

The success of the Breakfast Debate would not have happened without a preparatory meeting to introduce MEPs' assistants to Copernicus and inform them about the Copernicus Programme in the context of regional strategies. This info-session was organised at the European Parliament on 20 January 2020 under the auspices of MEP Marian-Jean Marinescu (EPP).



The info-session highlighted the benefits of the Copernicus Programme and its six core services for users, decision-makers, businesses and citizens. Representatives of the European Commission, the European Space Agency and representatives of different core services explained the role played by Copernicus as a valuable source of information. In fact, they demonstrated the need for policy-makers and MEPs to understand the programme's uses in different horizontal public policies, such as climate change, agriculture, environment, civil/natural emergencies, transport, urban planning and regional development.

Over 20 MEPs' assistants from different political groups had the opportunity to interact with those experts and to identify key objectives that should be at the core of any EU policy targeting regional growth and local development. Moreover, this preparatory meeting provided the necessary framework to understand the main objectives of the upcoming Copernicus4Regions Breakfast Debate, ensuring engagement at a political level and maintaining the momentum of discussions in the European Parliament.



<https://bit.ly/2UVVVA7>



Following the success of this meeting, NEREUS identified an innovative and efficient method that will be used in the future to engage in EU political developments, namely short infossessions with MEPs' assistants and call on the key role of regions in the use of space.

The Copernicus4Regions project will live long in the memories of those who took part in it. Through the initiative, participants had the opportunity to look at new regional partnerships, actively exchange experiences, raise the visibility of their local space communities and attract more regions to join Copernicus.

Highlighting the importance of transforming data into valuable information, NEREUS supported its members by strengthening interregional collaboration through this growing Copernicus community of stakeholders. As well noted by NEREUS's Secretary General, Roya Ayazi, "Copernicus4Regions is about community building", which provides the building blocks to keep these synergies connected and growing in the long term.



Interregional collaboration: Bringing the regional dimension to EU projects

"[The Network provides] information on the preparation of post-2020 programmes and opportunities for our associate partners who have the technical expertise."

Aude Körfer, Brittany region (France)

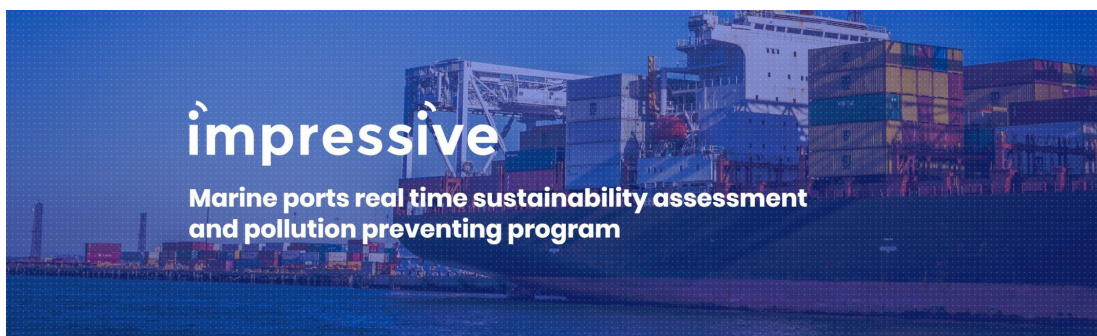
"We all benefit from the European space programme but, to get 100% of it, our involvement in NEREUS initiatives is crucial. After good preparation for projects carried out in 2019, I'm enthusiastic about the results for 2020."

Ewa Janczar, Mazovia region (Poland)

Over the past year, the Network has increased its presence in European projects with the aim of promoting regional space uses and reinforcing the regional dimension in European space policies and programmes. By using its platform, member regions can participate in EU projects and better showcase their space capabilities.

NEREUS is a partner of two EU-funded projects under the Horizon 2020 programme, the biggest EU research and innovation initiative. NEREUS helps its members to join these EU partnerships and projects through which they can exchange experience and expertise with co-partners in key topics and novelties in relation to the use of space.

IMPRESSIVE: INTEGRATED MARINE POLLUTION RISK ASSESSMENT AND EMERGENCY MANAGEMENT SUPPORT SERVICE IN PORTS AND COASTAL ENVIRONMENTS



This project aims to develop a universal relocatable platform to track, in real time, marine pollution events in the wider area of EU harbours. A consortium of 12 partners from the business, research and institutional sectors will work towards the development of a platform which will be composed of remotely operated, sophisticated tools integrated with very high resolution models and Earth Observation (EO) products for pollution control in harbours and coastal areas. It is a graduated system of alert that will help to tackle pollution incidents as quickly as possible.

NEREUS is tasked with supporting all dissemination activities and organising the final conference in Brussels to present this novel product to EU representatives and interested stakeholders. Further to this, the conference will act as a catalyst for discussions at a political level as to how Copernicus data and integrated applications such as the IMPRESSIVE platform benefit local and regional authorities and EU citizens and impact their daily lives. During this conference, local and regional administrations and port authorities will have a unique opportunity to meet IMPRESSIVE experts and listen to narratives of user experiences that will help them understand how they can improve their port management and their control of pollution incidents by using this product.



<https://bit.ly/2XwfUHB>

In 2019, NEREUS participated in the first review project meeting by the Commission and discussed, in depth, the next steps in view of the final event. In order to derive the maximum benefit from the Network's participation in the project, member regions, especially those with a port in their territory, should follow the new developments related to the product closely through NEREUS communication tools and ensure that they take part in the final conference.

CORDINET- COPERNICUS RELAYS FOR DIGITALISATION NETWORK



CoRDiNet is also an EU-funded Horizon 2020 initiative which was initially mobilised on the NEREUS platform. NEREUS is the 6th partner of this successful consortium of which three other partners are members of the Network (Basilicata, Bavaria, East Midlands and Madrid). The overall objective of the project is to give a boost to digitalisation and new business solutions based on Earth Observation data from the Copernicus project.



LEARN MORE HERE
<https://bit.ly/2Y3yxRY>

Through dissemination activities and outreach events, the project offers the opportunity to better understand the Earth Observation-related strengths and needs of your region, create better regional strategies and policies related to Copernicus data, inform and train your public administrations and get them engaged in using Copernicus data. NEREUS's role is to integrate associate partners into the activities and to coordinate a fund of 100,000 EUR, which has been set aside to support partners outside the consortium and to fund their projects.

In 2019, the Network was busy with: i) setting up an evaluation board of independent experts which volunteered to review the projects received in response to a call for expressions of interest; iii) launching four successful calls for expression of interest for projects to raise awareness of the benefits of using Copernicus data and applications; iv) acting as an interface between the applicants and the Evaluation Board and v) hosting the Copernicus European Regional Strategy Panel (CERSP) meeting in Brussels with itself being an active member of this panel.

After receiving a large number of applications per call, the selection procedure highlighted successful candidates from the Network. The majority of these associate partners are regional clusters, research centres of NEREUS Full and Associate Members: (Associação RAEGE Açores (The Azores), Apulian Aerospace Cluster (DTA-Apulia), Cyprus Remote Sensing Society (part of the NEREUS associate member, the Cyprus University of Technology), Pôle Mer Bretagne Atlantique (PMBA-Toulouse) and Scientific Institute of Public Services (ISSeP-Wallonia).



YOU CAN READ THEIR
SUCCESS STORIES HERE:
<https://bit.ly/2AHbynG>



In 2020, NEREUS will continue to contribute to the dissemination activities, the overall financial management of the selected activities and the supervision of proposals for the last call (published in 2019) and their final selection in 2020. A final event organised by NEREUS in Brussels will set out the highlights in terms of the successful outcomes of the project.

Interregional collaboration: Bringing EU developments and activities to the regional level

"In 2019 NEREUS has done an excellent job in defending the regional perspective within the European policies for space – a Herculean task!"

Francisco Wallenstein, The Azores (Portugal)

"The ESA conference has shown that the activities of the NEREUS network are working and that the European space landscape has been strengthened. In times of New Space, however, [...] projects must be promoted and regional SMEs must be supported in commercialising their know-how."

Wolfgang Wolf, Baden-Württemberg Region (Germany)

Every year, NEREUS strives to bring the regional dimension into EU initiatives and opportunities to make local space capabilities more visible and help regions to develop useful insights in a broad range of sectors such as maritime, education, agriculture, etc. NEREUS bridges these EU initiatives with the regional needs and brings this EU experience at a local and regional level by organising workshops so that everyone can benefit whilst being present in their territory. Through these workshops, local politicians, businesses and the research community and other key regional stakeholders can update themselves on new trends to boost and accelerate their businesses, research and innovation.

COPERNICUS MARINE FOR OUTERMOST AND MARITIME REGIONS (FOCUS AREA: MARINE)

Through events organised at a regional level, NEREUS offers a fruitful platform for sharing solutions to common problems concerning its member regions, such as marine issues. Under the framework of their Memorandum of Understanding, NEREUS organised, together with Mercator Ocean International (entrusted entity mandated by Copernicus Marine Environment Monitoring Service) and the Azores Regional Government, an international conference on 'Copernicus Marine for Outermost and Maritime Regions' on 6-7 June 2019 on the island of Fayal (Azores, Portugal).



One of the main achievements of the event was that outermost regions can overcome barriers and benefit from the experiences of other maritime regions in Europe. The event was relevant to regions with different levels of maturity in the use of space-derived products and services or skills capacity in the maritime sector.

Together with the organisers, high-level speakers and participants from EU institutions, the EU and regional political landscape, the private sector and LRAs (Local and Regional Authorities) actively took part in a two-day event focused on:

- a) outlining important issues that PAs are facing regarding their maritime activities (based on the outcomes of the pre-event online consultation form, science and climate, water quality and marine conservation and policies were identified as main topics for consideration);
- b) presenting Copernicus Marine Service experts and users who addressed those issues with existing examples and known solutions;
- c) drawing the attention of Copernicus Maritime Service representatives to their level of expertise, needs and priorities in terms of marine data and information;
- d) providing thematic hands-on technical training sessions to a dynamic audience as to how to download and use the Copernicus Marine Service data and which products are available.

In conclusion, the event underlined that these challenges can be overcome through strong collaboration amongst regions but, also underlined: awareness raising and training/ education on technical matters concerning marine and maritime affairs; Copernicus Relays and Academy networks as an important channel of information on Copernicus; the existence of an intermediate user level with local expertise; the exchange of expertise between regions; and collaboration at sectoral levels.

An overall report, presentations and photographic material on the event can be found here:



<https://bit.ly/2XU86yc>

EO4GEO- INNOVATIVE SOLUTIONS FOR EARTH OBSERVATION/ GEOINFORMATION (EO/GI) TRAINING (FOCUS AREA: EDUCATION AND TRAINING)



NEREUS leads the communication and dissemination activities for the EO4GEO initiative aiming at bridging the skills gap between the supply of and demand for education and training in the EO/GI sector. The growing increase in new technological developments and trends (such as digitalisation) related to these sectors as well as the vast amount of free and available Copernicus data requires new skills in order to support this change and build the future workforce.

The project is an Erasmus+ Sector Skills Alliance supported by a successful consortium of 26 core partners and 22 associates that will work for four years on the definition of a long-term sectoral skills strategy for space/geospatial sectors to maximise the benefits of space for society and the EU's economy. The project itself aims at identifying a spectrum of diverse skills, such as soft skills, in order to have an understanding of how to foster the development of these sectors in a timely manner. It started on 1 January 2018 and will run for four years.

Education/training is considered a key topic for regional strategies and future needs in space products and experts for the public and private sector at a local and regional level. NEREUS involvement in this project reflects the need for regions to be updated and to participate in the development of an appropriate educational framework that will provide the right skills and competencies for the future development of human resources.

By organising outreach workshops, NEREUS brings the benefits of the project at a regional level and highlights the importance of the regional landscape and education as an important arena for the development of EO/GI skills capacity. In parallel, the Network improves connections within the EO4GEO community given that the regional and local needs/views are addressed during these workshops so that EO4GEO partners can shape their long term strategy and training tools according to this feedback.

2019 has been a very interesting year for NEREUS with regard to the EO4GEO activities. Two outreach workshops were organised in Nouvelle-Aquitaine and in Brussels, where members met and interacted with other user communities and important actors in shaping education and training in Europe. In parallel with these activities, NEREUS developed a short report to identify expectations on future skills in the EO/GI sector and to explore what would be the lack of specialised and scientific skills that could prevent employers (companies or Public Authorities) from exploiting the opportunities offered by space data. The Azores, Wallonia, Mazovia and Veneto were the member regions that provided their valuable feedback and contributed significantly to the results of this exercise. The participants had identified the lack of know-how in terms of using EO data as a main challenge in the EO/GI sector. As a solution, they proposed intensive customer-based training together with awareness-raising activities for the Earth Observation sector.

WORKSHOPS:

'Better skills for Space/Geoinformation and Copernicus user uptake- Discussing the EO4GEO Sector Skills Strategy and its recommendations'

7-8 October Nouvelle-Aquitaine (FR)

The workshop was organised by NEREUS and its local partner, the Aerocampus Aquitaine in its Member region, Nouvelle Aquitaine (Latresne, France). With a regional focus on bringing together the French stakeholder community (educational centres, training organisations and aerospace centres, businesses active in the geo-information and space sectors), NEREUS stimulated debate amongst these experts by:

- a) fostering awareness about the project's objectives on better skills development and capacity building in the EO/GI field;
- b) gathering valuable input about the current landscape of Copernicus data user uptake with real case scenarios from the participants/speakers;
- c) exploring training actions (vocational training, educational training or apprenticeship) to make optimal user of EO/Copernicus data according to the needs of the public and private sector.



The workshop took place at the facilities of Aerocampus Aquitaine in a wooded park with a 13th century castle



<https://bit.ly/3da0VHB>

24 October European Committee of the Regions, Brussels (Belgium)

A Brussels-based edition of the workshop was organised under the auspices of Isabelle Boudineau, Vice-President of the Nouvelle-Aquitaine Regional Council, at the European Committee of Regions. It reached a wide audience of regional representatives, EU authorities, Brussels-based and other associations and students.

NEREUS President Bernard Plano summarised the main topics of the workshop, reflecting the emergence of new technological developments and movements such as New Space. In this context, he mentioned that the Network supports this initiative through workshops that help regional stakeholders in the education sector to become more transparent. He also mentioned that these workshops offer stakeholders the opportunity to better connect, share knowledge/expertise and converse with EO4GEO partners.



The debate addressed common problems in training in key sectors – such as Earth Observation or spatial geo-information- and explained to regions how they can use it as a model project to learn and engage more for training and education in the use of geographic information and Copernicus.

The workshop identified how EO4GEO can provide a better understanding of the needs of the companies and develop some tracks to build appropriate training programmes. A special focus had been placed on the education/skills and training development for LRAs to allow them to develop to tender, define needs and improve administrative competences.

NEREUS will continue organising outreach workshops in 2020 - one of them being hosted in one of its member regions, Podkarpackie (PL) - with the aim of identifying current and future needs in EO/GI educational training for Polish business activities/ administrations. There, the Network will strive to establish new initiatives for cooperation between regional stakeholders from the public sector and business community and enhance a forward-looking dialogue focused on best regional strategies to better equip the current educational system and the future workforce.



<https://bit.ly/2Nb1MgR>

SPACE GIRLS SPACE WOMEN

At the end of 2019, astronauts Christina Koch and Jessica Meir became the focus of global attention for making the first historic all-woman spacewalk. As the space sector continues to evolve in a range of different ways, a growing number of women are becoming more and more active in a broad spectrum of space activities and applications.

NEREUS attaches vital importance to the need to attract women and girls to study or follow a career in the area of space. Therefore, the Network is sponsoring the 'Space Girls Space Women' exhibition together with other partners such as the European GNSS Agency (GSA), the French Space Agency (CNES), the Italian Space Agency (ASI), Women in Aerospace (WIA). This mobile photo exhibition is a shared joint infrastructure, where NEREUS owns the usage rights and offers the possibility to all member regions to co-own and present the exhibition to their territory. Each region can present the exhibition in its territory and organise an event around it with its own local characteristics.

This exhibition aims at showcasing, via portraits of space women photographed by female reporters: a) the broad range of professional opportunities for women in the space sector and b) capture moments of many women and girls working on the spot who achieve a space career and study projects in space.

The regions that presented the exhibition in the year 2019 are listed below and feature photos and links to the website:



Bremen, Germany, from 16 January until 2 July 2019 ► in the state representation Bremen at the federal government in Berlin.



<https://bit.ly/3csovPv>



Madrid, Spain, 11 February

<https://bit.ly/2BriENC>



Liège, Belgium, from 22 February until 29 March



<https://bit.ly/2BriHsM>



l'Abbaye de Villers-la-Ville, Wallonia, Belgium, from 26 July until 18 August

<https://bit.ly/3cspijr>



Walloon Parliament, Belgium, 23 September



<https://bit.ly/3eLDHcf>

TAKEAWAY: Bring the mobile photo exhibition to your region! 'Space Girls Space Women' exhibition's usage rights have been extended until 31 December 2020. The NEREUS Management Board approved the extension of the usage rights for the 'Space Girls Space Women' exhibition for another year. All regions are invited to present the exhibition in their region.



FOR FURTHER DETAILS, PLEASE
CONTACT THE SECRETARIAT HERE

<https://bit.ly/2Xz2Q4e>

ANCHORING NEREUS IN THE REGIONS: A 2019 SNAPSHOT OF OTHER OUTREACH ACTIVITIES

- *The Final Conference of the Horizon 2020 project 'ReDSHIFT: an holistic approach to space debris mitigation' was organised by the Institute of Applied Physics (IFAC-CNR), National Research Council of Italy based in the Tuscany region in Florence, on 13-14 March 2019. NEREUS Secretary General Roya Ayazi presented the Network's positions and gave a brief update on the latest space policy developments related to Space Situational Awareness (SSA).*
- *NEREUS and the Podkarpackie region concluded a Memorandum of Understanding on 21 May 2019 to engage in a specific collaborative approach focus on the regional business community.*
- *The Rural Development Innovation Week in Florence organised in member region Tuscany by the European Regions for Innovation in Agriculture, Food and Forestry (ERRIAF) focused on innovative projects and solutions in agriculture and forestry. NEREUS implemented a series of interviews with the participants raising visibility about the regional event.*



<https://bit.ly/37Ja5dk>

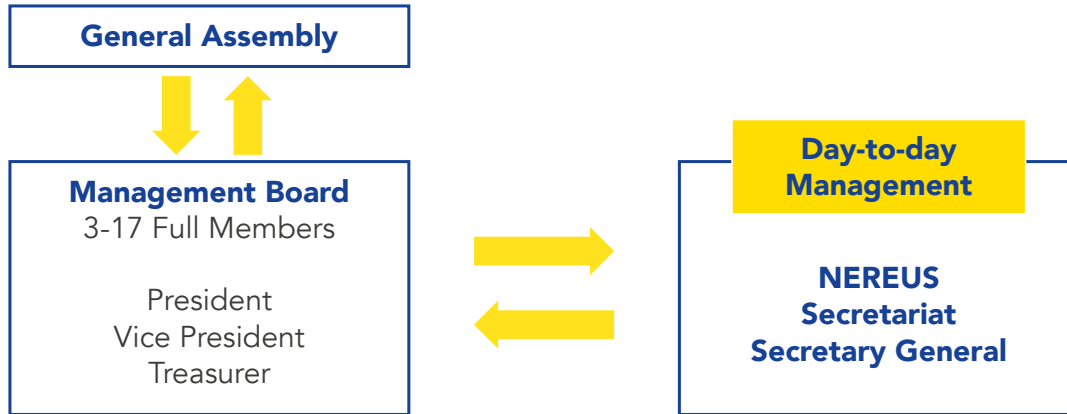


<https://bit.ly/37GCKQ6>



<https://bit.ly/3hHcEAS>

NEREUS aisbl Structure



THE GENERAL ASSEMBLY REPRESENTS ALL NEREUS FULL AND ASSOCIATE MEMBERS.

Full members



Associate members



Management Board

It is the key decision-making body and supreme authority of the organisation. NEREUS is a network of regions in which Full Members play an essential part and have full voting rights while Associate Members may only express views in a consultative role and participate in the General Assembly in a non-voting capacity.

Only the regions (Full Members) may nominate representatives to the Management Board. The General Assembly 2019 was held in Brussels at the European Committee of the Regions on 14 May 2019. In 2019, the Management Board met in January and in May 2019.

The Management Board is the steering committee of the Network: it decides on strategy and monitors the implementation of the work programme. It is entrusted with the overall responsibility of the association management, appoints the Secretary General and engages in a regular exchange with the Secretariat on the three main areas of work of the Network: political dialogue, interregional collaboration and public outreach. You can read more about our newly elected Board below:

NEREUS PRESIDENT (Occitanie region)



Bernard Plano, Regional Councillor of the Region Occitanie / Pyrénées-Méditerranée, was elected President of NEREUS in 2019 after having served for two years as Vice-President. Bernard Plano has been involved in the economic development of the region for over 30 years and is Vice-President of the Industry Committee. He also represents the Occitanie Region in the Pyrénia Syndicate, which manages Tarbes airport and the associated aeronautic campus.

NEREUS VICE-PRESIDENT (Basilicata region)



General Vito Bardi is currently President of the Basilicata Region. He started his long military career in 1967 and was promoted to his current grade on 6 February 2009. General Bardi holds a degree in economy, law, international and diplomatic sciences, financial economic security sciences and a second-level master's in company tax law at the Bocconi University in Milan.

NEREUS VICE-PRESIDENT (East Midlands region)



Mark Lester is Professor of Solar Terrestrial Physics at the University of Leicester. He has over 40 years of experience working on space plasma physics with personal research interests in ionospheric and magnetospheric physics and has published nearly 350 papers in the scientific literature. He has also worked with a variety of spacecraft data sets and is currently working on a project involving various spacecraft on the planet Mars. As a Professor at one of the UK's leading universities involved in space research, he also believes passionately in the training and education of the next generation of space scientists and engineers.

NEREUS VICE-PRESIDENT (Lombardy region)



Fabrizio Sala is the Vice President and the Lombardy Region's Minister for Research, Innovation, University, Export and Internationalisation. He is also a member of the Academic Council of the LUdeS University of Lugano (Switzerland), Vice-President of the Network of European Regions Using Space Technologies (NEREUS) and President of the European Chemical Regions Network (ECRN).

NEREUS VICE-PRESIDENT (Podkarpackie region)



Władysław Ortyl is a Marshal of the Podkarpackie Region, Poland (elected in May 2013) and a member of the European Committee of the Regions (Commission for the Environment, Climate Change and Energy (ENVE) and Commission for Territorial Cohesion Policy and EU Budget (COTER)). In 1979 he graduated from the Faculty of Mechanical Engineering at Rzeszów University of Technology (B.E., specialization in aviation constructions). In years 2005 - 2013 he was a Senator of the Republic of Poland. In 2005-2007 he served as the Secretary of State at the Ministry of Regional Development, where he was responsible for the implementation of Regional Operational Programmes.

NEREUS TREASURER (Baden-Württemberg)



Senator Wolfgang Wolf studied economics at the Eberhard-Karls-Universität Tübingen. Wolfgang Wolf has been working for the Baden-Württemberg-based Industry Association (LVI) since 1980. He was appointed to the management of the LVI in 1981 and became a member of the Executive Board of the LVI in 1994. He headed the founding of the Aerospace Forum in Baden-Württemberg (LR BW) in 2005 and since then has been Managing Director of LR BW. He is also a managing director and board member of other associations and clusters and holds numerous honorary offices in economically oriented institutions.

NEREUS BOARD MEMBER (Apulia region)



Vito Albino is a Professor of Innovation and Project Management at the Politecnico di Bari in Italy. At the same university, he is the founder of the Knowledge Management Lab, where he chaired the Dipartimento di Ingegneria Meccanica e Gestionale (Mechanical Engineering and Management Department) for six years and served as Vice-Rector for research and technology transfer. Vito Albino is now President of the Agency for Technology and Innovation (ARTI) of the Apulian Region (Italy). His research fields are related to innovation processes in production chains and industrial clusters with a particular focus on environmental aspects and, more recently, on new space economy.

NEREUS BOARD MEMBER (The Azores)



Francisco Luís Wallenstein Faria e Maia de Macedo graduated in Economics (Universidade Nova de Lisboa, 1994) and in Biology (Universidade dos Açores, 2002) and has a PhD in Marine Biology (Heriot-Watt University, Edinburgh-Scotland, 2011). After ten years conducting research on the coastal ecosystems of the Azores and five years working as Project Officer in the Fisheries and Science & Technology Departments of the Regional Government of the Azores, he was recently appointed to represent the region in NEREUS and Copernicus matters and invited to join the Cabinet of the Regional Secretary for Sea, Science and Technology and the Azores Mission Structure for Space.

NEREUS BOARD MEMBER (Brittany region)



Aude Körfer has been Permanent Delegate of the Brittany Region European Office in Brussels since 2015. She represents the Regional Council of Brittany within the Nereus Management Board. She has graduated in both comparative literature and in integrated coastal zone management. Through her different positions, Aude Körfer has developed many levels of experience ranging from local spatial planning projects through regional development and policies to European projects and policies.

NEREUS BOARD MEMBER (Hesse region)



Perdita de Buhr has been Head of Unit for Economics, Energy and Transport in the Representation of the State of Hessen to the European Union since 2011 and became a member of the Management Board of NEREUS in 2015. She grew up in the Netherlands and studied law at the University of Passau as well as the University of Münster and qualified as a German lawyer in 1992. Subsequently, she started her professional carrier in the Saxon State Ministry of Science and Art. Since then, she has held many other science-related positions including at the Federal Foreign Office in Berlin.

NEREUS BOARD MEMBER (Madrid region)



Eugenio Fontán, has an MSC in telecommunications at the Universidad Politécnica de Madrid. He is currently the General Director of Cooperation with the State and International Affairs in the Madrid Regional Government. He has extensive experience in the fields of telecommunications, space industry and political management both as a senior consultant for European public administrations and private companies. He was also the principal advisor of the Prime Minister of Spain, José María Aznar, for telecommunications, space and aeronautics. He has been a partner and coordinator of a significant number of projects in Horizon 2020, Erasmus and Interreg calls.

NEREUS BOARD MEMBER (Mazovia region)

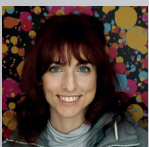


Ewa Janczar holds a PhD in Engineering and is Deputy Director of Spatial Information and Digital Innovation, Department of Digitisation, Geodesy and Cartography in the Marshal's Office of the Mazowieckie Voivodeship in Warsaw. She is a Chairwoman of the Spatial Planning Commission in the Council of the Capital City of Warsaw and a Vice-President of the Council of European Municipalities and Regions (CEMR) and a member of the Management Board of Polish Counties. In her work she deals with issues related to geodesy, spatial data infrastructure, digitalisation and the use of new technologies, including satellite products.



Notes

NEREUS Secretariat
21, Rue Montoyer | B-1000 | Belgium
Phone +32 2 230 57 75



Editor: Margarita Chrylaki,
NEREUS Communication/Project Officer



www.nereus-regions.eu
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