



ANNUAL REPORT 2020



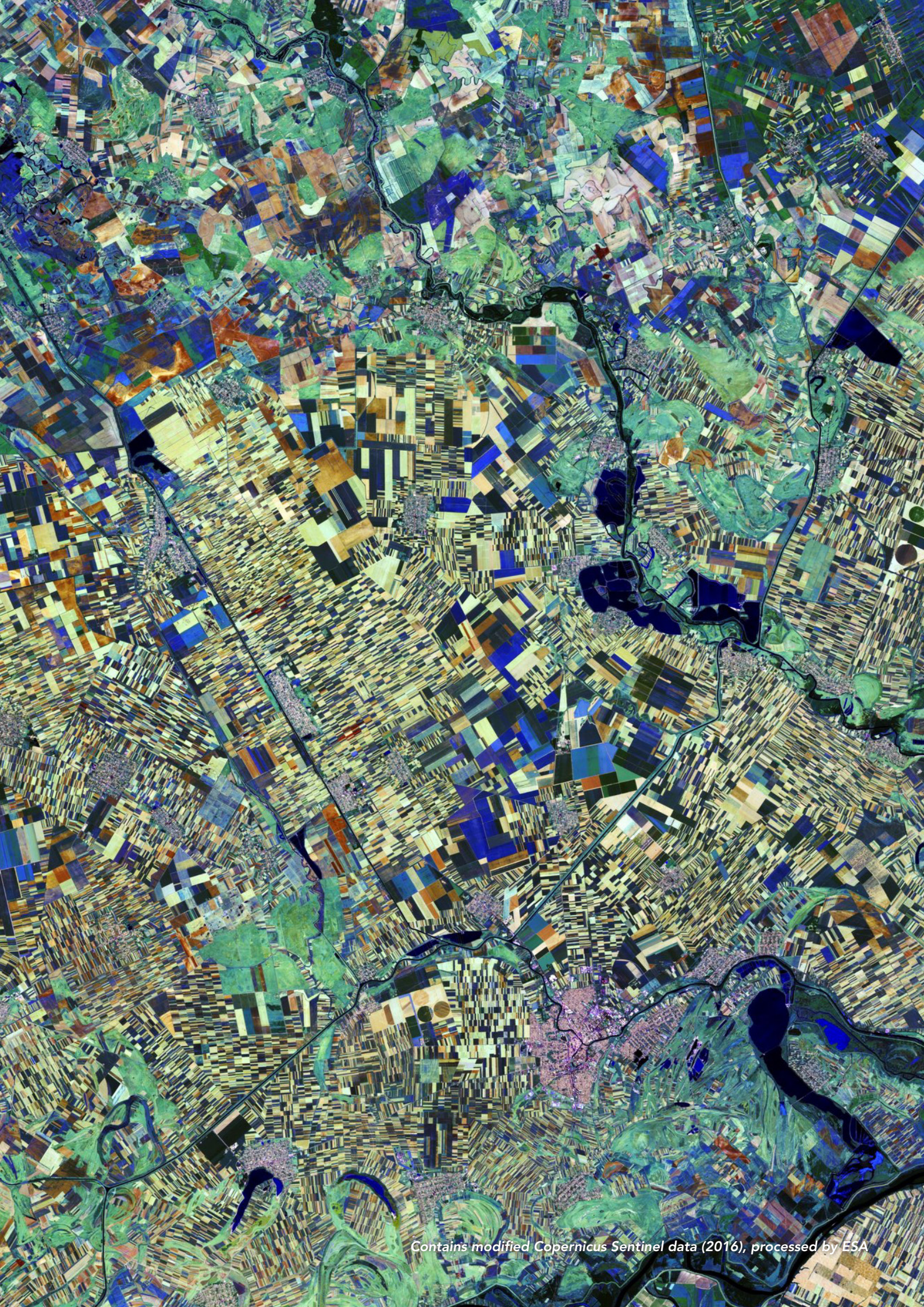
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Contains modified Copernicus Sentinel data (2016), processed by ESA



INTRODUCTION

NEREUS (*Network of European Regions Using Space Technologies*) represents the interests of European regions that use space technologies while simultaneously highlighting the regional dimension of European space policy and programmes. The member regions are responsible for the governance of the Network.

Regions are major users and procurers of space-based applications, products and services and NEREUS is committed to underlining this. By providing a dynamic platform, the Network offers its readers an opportunity to gain more knowledge about the potential of space, in particular the two flagship programmes Copernicus (Earth Observation) and Galileo/ EGNOS (satellite navigation), under the umbrella of the EU Space Programme. In this way, the use of space and its applications are associated with other non-space sectors for various economic, environmental, social and political purposes. This Annual Activity Report 2020 covers the period from January 2020 to January 2021.

QUOTES BY MEMBERS ABOUT NEREUS

"Horizon Europe and the Green Deal show that space technologies and applications are some of the key technologies of the future to master the challenges of the transformation processes. We need a strong voice in Brussels representing the upstream and downstream market to help Europe find answers to cyberattacks, climate change and in the application of artificial intelligence and quantum computing. NEREUS unites Europe's space regions in one voice."

Mr. Wolfgang Wolf,
Baden-Württemberg region
(Germany)

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

Eugenio Fontán,
Madrid region (Spain)

"The added value of being a NEREUS member is no longer to be proven: Examples of this added value include targeted information, project opportunities and recognition of the territorial dimension of spatial data."

Ms. Aude Körfer,
Brittany region (France)

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

Mr. Marshal Władysław Ortyl,
Podkarpackie region (Poland)

"NEREUS brings the regional dimension to the EU's space forum. Being part of NEREUS allows regions to become active players on that forum."

Mr. Francisco Wallenstein,
The Azores region (Portugal)

MESSAGE FROM THE PRESIDENT

Dear NEREUS community,

It is with great pleasure that I present the Annual Activity Report 2020 to you! As you all may know, this was a year that affected our lives at all levels and has led to major changes in our regions from a social and an economic perspective. In spite of all of this, regions can benefit from the advantages offered by the use of space for their societies. This is reflected by the large amount of EU funding that is dedicated to space and the new regulation for the EU Space Programme, which aims, among other things, to ensure ongoing investment in EU space activities. This will be achieved through the green and digital transition, offering unique opportunities to change and modernise regional ecosystems.

Echoing the words of the EU's Internal Market Commissioner Thierry Breton, that *Europe should be "THE hub of space entrepreneurship in the world"*, I invite you to seize this unique opportunity as regions to play a prominent and decisive role from this perspective! Through political dialogue, NEREUS plays a key role by highlighting the role of regions in the implementation of the EU's space policies and by inspiring better public policies by emphasising the user dimension.

As part of this effort, our ongoing flagship political initiative, Copernicus4regions, has demonstrated its relevance and usefulness with regard to EU policies such as the Green Deal and digitalisation. We therefore organised the Copernicus4regions Breakfast Debate at the European Parliament to illustrate how public administrations can benefit from Copernicus data and applications. In particular, this generated considerable attention and interest among key EU stakeholders and Members of the European Parliament. Apart from Copernicus4regions, NEREUS has been proactive in promoting and participating in other related policy/advocacy activities, such as the signed letter and the online petition underlining the importance of Copernicus in regions, in tandem with other major space actors in the EU arena.

Looking ahead, we remain committed to supporting the new policy ambitions of the European Union and to responding to the challenges of the new decade, namely the road to recovery and resilience at the local and regional level. In this regard, I would like to thank the Management Board and all members, as well as the Secretariat team, for their precious support in reinvigorating the future strategy and governance of NEREUS on the basis of my proposal for the NEREUS Road Map.

Last but by no means least, I would like to take this opportunity to celebrate our interregional collaboration and collective success in promoting the use of space for the betterment of our regional ecosystems. In this respect, I invite regional representatives to submit their candidacies for the next NEREUS Management Board to be elected in May 2021.

I wish you an enjoyable read!

Yours,



Bernard Plano
NEREUS President

FOREWORD FROM THE SECRETARY GENERAL

The use of space has entered a new era in political, institutional and financial terms. This new era is epitomised by the creation of the new Directorate-General for Defence Industry and Space (DEFIS) and a new EU Space Programme, which consolidates all EU space activities into one single piece of legislation. Besides defining the vision and strategy for the next decade, it provides the framework for investment under the EU's Space Programme, combined with other programmes such as the Horizon Europe and InvestEU programmes.

These developments will be fundamental in the functioning of NEREUS but, first of all, allow me to look back at what happened in 2020. Last year the network was considerably impacted by the consequences of the pandemic. But crises are also opportunities. This 2020 Annual Report is in a way symbolic in terms of illustrating how the Network adapted and transformed its activities in this new context.

Overall, the situation led to the increased digital interaction of the Network community, new approaches to advocacy, interregional partnerships and co-operation, new political topics and a strong focus on member's interests. The Secretariat will build on these experiences in 2021 and will do its best to tap into opportunities that benefit its partners' ambitions and needs.

With a number of targeted advocacy activities, the Network emphasised the added value of regional stakeholders to the European space ecosystem. Political dialogue will continue to be a major pillar of the Network's activities. Looking ahead, a number of meetings with relevant organisations are already being prepared and the focus of Copernicus4regions, our flagship initiative, will be on showcasing the regional best practices in the context of the Green Deal, boosting Europe's climate and environmental transition while going digital.

Through new online formats, thanks to strong communication tools and project activities, NEREUS kept in 2020 in touch with the membership and connected to new communities. By organising well attended webinars and meetings, the Network not only drew considerable attention to its activities and events via its communication tools but managed to grow its network. The aim of the update of the website was to bring members' organisations and activities to the fore in terms of raising the visibility of their space activities across Europe.

Another positive effect was that NEREUS attracted new members to its platform: a new member region, Emilia Romagna (Italy) and a new Associate Member, CISIS (Centro Interregionale per i Sistemi informatici, geografici e statistici) in the Veneto region (Italy), to whom we extend a warm welcome.

In light of the above, we would like to thank you for your cooperation and support during such a difficult time and hope that you will find the report useful and interesting!

Kind regards,



Roya Ayazi
NEREUS Secretary-General

PILLAR I: POLITICAL DIALOGUE/ADVOCACY 2020-2021

"Strengthening the dialogue between the NEREUS network and the EU institutions is of the utmost importance at the present moment due to Next Generation EU and the investments in the national recovery plans regarding healthcare, climate change, and digitalisation, all contexts getting benefits from the use of space technologies."

Vito Albino, Puglia region (Italy)

ONLINE CONSULTATION FOR REGIONS: IDENTIFYING THE CHALLENGES AND SOLUTIONS THROUGH SPACE

It is clear that one of the most striking developments has been the recent announcement of the new EU budget for 2021-2027, the largest stimulus package ever financed through the EU with a double structure: €1.8 trillion, including Next Generation EU, the €750 billion temporary instrument, which, together, are designed to support the recovery of Europe. These developments secure a generous budget for Europe's space programmes and activities, demonstrating that they are more than ever at the forefront of economic innovation and societal transition in many fields of daily life. Indeed, this presents a unique opportunity for NEREUS members to showcase how the use of space can help repair any social/economic damage for their region and advance the quality of life of their citizens.

There are two ways to achieve that: firstly, it is important to identify the challenges affecting their regional ecosystem, including businesses, universities and other key regional actors, and, secondly, it is important to identify how space can provide solutions for their territories. In this context, our Network has prepared an online consultation that will help members to share their thoughts, vision and best practices associated with the use of space in a transparent way. All regional stakeholders are invited to respond to the questionnaire in the following <https://bit.ly/339KMQ2>.



NEREUS ADVOCACY IN SUPPORT OF THE EU SPACE BUDGET 2021-2027

During the negotiations regarding the budget, the Network called for an ambitious amount of money to be dedicated to space. As far as the use of space is concerned, NEREUS's commitment to raise awareness about the importance of space was reflected in the following ways:

- the significance of regional space activities: regions and public authorities (PAs) are able to address their needs and maximise the social, economic and environmental impact to accelerate regional development and growth;
- the Earth Observation sector is key to make Europe a greener and more sustainable place;
- the use of space is a fundamental horizontal tool for all European policy priorities such as the Green Deal and digitalisation as well as an indispensable way to modernise public policies and services at local and regional levels.

It was in this spirit that NEREUS launched a petition, together with other stakeholders of the

Copernicus user community, calling for the sustainability and expansion of the Copernicus programme to be safeguarded. Over 3,000 signatures from key EU stakeholders and space organisations were collected and added to the petition, attracting the attention of EU policymakers.

In March 2019, the European Parliament requested an increase of the EU Space Programme budget to €16.9 billion. Building on the European Parliament's proposal, NEREUS joined forces with the European Space Agency (ESA) and other major stakeholders of the EU Space Programmes (the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), the European Environment Agency (EEA), the European Maritime Safety Agency (EMSA), Mercator OCEAN, The European Centre for Medium- Range Weather Forecasts (ECMWF), Eurospace, the European Association of Remote Sensing Companies (EARSC)), to call for the European Commission and the EU Council to consider financing the EU Space Programme as an integral part of the roadmap to recovery and resilience.

Both initiatives were intensively promoted through the Network's communication channels and discussions with relevant policymakers and organisations. These efforts led to a positive outcome as the EU ended up allocating a budget of over €13 billion to the EU Space Programme, the highest amount of funding ever dedicated to space in Europe. This budget will also play a complementary role in the investments that will be persuaded in the ESA and in EU Member States.

The use of space based on Earth Observation turns out to be a useful tool in the implementation of new policy agendas: the EU Recovery Plan, the Green Deal and the Digital Transition. In fact, the importance of Earth Observation remains a key priority for NEREUS as it creates benefits for the regional stakeholders, offers tremendous opportunities for growth, innovation and employment and supports better policymaking and modern societal needs. All the aforementioned elements have been effectively conveyed through our flagship project, Copernicus4regions.



COPERNICUS4REGIONS, A SPACE POLICY INITIATIVE FOR REGIONS

"With projects like Copernicus4regions, NEREUS aims for its members – and for all European regions – to grasp the greatest number of benefits from space applications. Regional authorities still need to be supported in order to increase their use of Copernicus, but we already have numerous examples which we can rely on. Public authorities' involvement in the publication is already a good sign of their interest and should be encouraged."

Bernard Plano, Occitanie region (France)

"It is important to keep showing how the Copernicus programme contributes significantly to life on Earth at local and regional levels. In times of trade conflicts and geopolitical frictions, space projects help to strengthen European collaboration and resilience. Moreover, with Copernicus4regions, we can raise the visibility of the space industry and convince policymakers to demonstrate their commitment to the space sector."

Wolfgang Wolf, Baden-Württemberg region (Germany)

"The Copernicus4regions initiative is making a considerable contribution to the mission of promoting the EU's Earth Observation Programme and take-up of the powerful resources that it provides for free."

Francisco Wallenstein, The Azores region (Portugal)

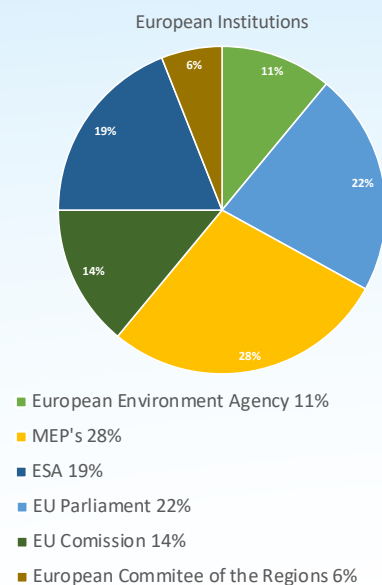
"The Copernicus4regions initiative is a recognition of the important role of the regions in the aerospace sector. The initiative is key to showcasing the development of regional ecosystems in the aerospace sector and in the creation of networks."

Vito Albino, Puglia region (Italy)

THE BREAKFAST DEBATE

The crucial role of Earth Observation/Copernicus is reflected by the conversion of Copernicus data into useful information in many regional sectors from agriculture and maritime to civil security and cultural heritage. NEREUS's flagship project, Copernicus4regions, explored its successful integration into the public sector. It is a joint initiative between the European Commission (EC), the European Space Agency (ESA) and NEREUS and is one that runs for more than three years. Moreover, it aims at raising awareness about the societal dimension of the ecosystem whilst showcasing the benefits of using Copernicus at the local and regional levels.

In January 2020, NEREUS organised the Copernicus4regions Breakfast Debate, hosted by MEP Eric Andrieu (S&D) in the European Parliament, where Copernicus users and NEREUS members were invited to share their experience and exchange insights with key political actors and a mixed audience of 120 participants. You can find the full recording of the event in English here: <https://bit.ly/32WB9UE>



NEREUS Secretary-General, Roya Ayazi



Videoshooting with all users



Josef Aschbacher, ESA Director of Earth Observation Programmes (left) and NEREUS President Bernard Pano (right)



MEP Eric Andrieu

NEW OUTREACH MATERIAL/ WEBINAR

"Copernicus4regions is an important initiative of NEREUS. Especially in the current difficult situation, it is necessary to increase the interest of regions in using Copernicus data. I am very pleased that Podkarpackie, as a NEREUS member region, has a chance to develop and learn through cooperation with more experienced European regions in this field."

Marshal Władysław Ortyl, Podkarpackie region (Poland)



During the pandemic, the Network took the chance to create a plethora of digital tools based on the Copernicus4regions publication:

The success of these tools is reflected in the large number of downloads and their presentation during targeted webinars.



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



- Dutch, English, French, German, Italian, Polish, Portuguese, Spanish
- 9 Copernicus users from 6 different countries (France, Norway, Spain, Slovakia, Italy and Latvia)

- a. a dynamic teaser (a synopsis of the project reflecting its main activities and achievements);



<https://bit.ly/32SDd05>



- b. a Search Engine with new translated stories and different parameters (where members can find and download more translated stories (in English, Spanish, German, Polish, Portuguese, Italian, French and Dutch) of their interest based on selective parameters, such as their native language or the user maturity level);



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



- A total of 16500 downloads
- Dutch, English, French, German, Italian, Portuguese, Spanish
- 7 parameters to find your story

- c. the Copernicus4regions brochure (a comprehensive summary of the initiative translated into all eight languages of member regions (in English, Spanish, German, Polish, Portuguese, Italian, French and Dutch))



<https://bit.ly/3x48IKs>



- Dutch, English, French, German, Italian, Polish, Portuguese, Spanish
- More than 300 downloads



- d. the new Copernicus4regions video: 'Copernicus, a solution to the challenges of Public Administrations' (with six more users' interviews from France, Norway, Spain, Slovakia, Italy and Latvia representing our vibrant and interregional community);



<https://bit.ly/32SDd05>

- e. the specific flyer on the Copernicus4regions flyer on the agriculture domain.



<https://bit.ly/3x48IKs>



THEY ARE ACCESSIBLE
AND FREE FOR DOWNLOAD
ON THE NEREUS WEBSITE

<https://www.nercus-regions.eu/copernicus4regions>



As part of the interaction with digital formats, the Network organised the Copernicus4regions webinar on 6th October 2020, with Alessandra Tassa (ESA) and Julien Turpin (European Commission) invited as guest speakers. A diverse audience of 30 participants joined the discussion. This was an occasion for NEREUS to emphasise the volunteering work of its members, who contributed to the initiative as regional representatives, experts and external reviewers: Mr. Silvano De Zorzi from the Veneto region and Ms. Branka Cuca from Politecnico di Milano (Associate Member) had the opportunity to share their experience when supporting the development of this publication and its impact at the local and regional levels.



<https://bit.ly/3u58855>

NEXT STEPS

"Stakeholders from our region are already calling for the next edition of Copernicus4Regions: an essential tool for monitoring changes in data usage."

Aude Körfer, Brittany region (France)

"Copernicus4Regions shows how public administrations across Europe can use Copernicus data and information to improve the quality of life and satisfaction of European citizens, contributing directly to Europe's well-being. Without these smart services, we would not be able to meet the challenges of economic and social sustainability as well as biodiversity, climate and environmental protection."

Wolfgang Wolf, Baden-Württemberg region (Germany)

"The use of the data and technologies that space provides us is an essential tool to solve the challenges of our future. The Copernicus4regions initiative offers to European regions the opportunity to work together and create a truly European collaborative environment."

Eugenio Fontán, Madrid region (Spain)

Following the success of the Breakfast Debate and the positive response to the digital tools produced so far, the Network will continue its collaboration with ESA and the European Commission within the Copernicus4regions initiative. More specifically, the Network will be active in:

- the development of a series of five Copernicus4regions webinars illustrating how the portrayed administrations have incorporated the use of Copernicus into their processes and the benefits for territories and public policies. The webinars will be based on key user domains linked to the Green Deal;
- the presentation of some updated success stories from the Copernicus4regions publication elucidating the ways in which some users have managed to upgrade the use of Copernicus.

ENHANCING THE REGIONAL LINKAGE WITH THE NEXT EU STRATEGIES

The new legislation for the EU Space Programme emphasises the crucial role of the downstream sector in the realisation of the Green Deal and the digital strategy. As a result, it creates opportunities for the market take-up and exploitation of space data and services. Apart from its Copernicus4regions partnership, NEREUS concretely defines its role in these new strategies and seeks exchanges with relevant space organisations.

In this context, the Network has been preparing for two high level meetings with ESA at the ESA/European Space security and Education Centre (ESEC) site in REDU Belgium and ESA/ESRIN (the European centre of excellence for exploitation of Earth observation missions) in Frascati, Italy, in 2022. In the context of making regional ecosystems more transparent, the visits would aim at a) promoting the work of regions and regional aerospace clusters by sharing their best practices/success stories pertaining to the use and commercialisation of space in the framework of sustainability and digitalisation, b) strengthening the links between our members with key space experts, c) participating in brokerage events, B2B meetings and networking, and touring ESA's establishments. Regarding the visit in REDU, the regions of Puglia, East Midlands, Hesse and the Azores volunteered to propose a regional success story for the symposium.



PILLAR II: A-INTERREGIONAL COOPERATION AND PARTNERSHIP: RAISING AWARENESS ABOUT THE REGIONAL DIMENSION TO THE EU COMMUNITY

"Despite unfavourable circumstances resulting from the epidemic situation in Europe and the world, I would give NEREUS's activities in 2021 a high rating. Participation in many projects plus the organisation of webinars and meetings improving the knowledge and skills of NEREUS members fosters the growth of the Network as one of the key players in the implementation of European Space Policy. I look forward to continued activity regarding the practical application of satellite technologies in European regions."

Marshal Władysław Ortyl, Podkarpackie region (Poland)

"NEREUS should focus on how to get SMEs to participate more in Horizon Europe funding programmes in addition to its successful and fantastic projects because they are the backbone of the economy and create secure jobs in times of crisis. Moreover, we need the know-how of our innovative SMEs to strengthen and show solidarity in coming out of the Covid 19 pandemic."

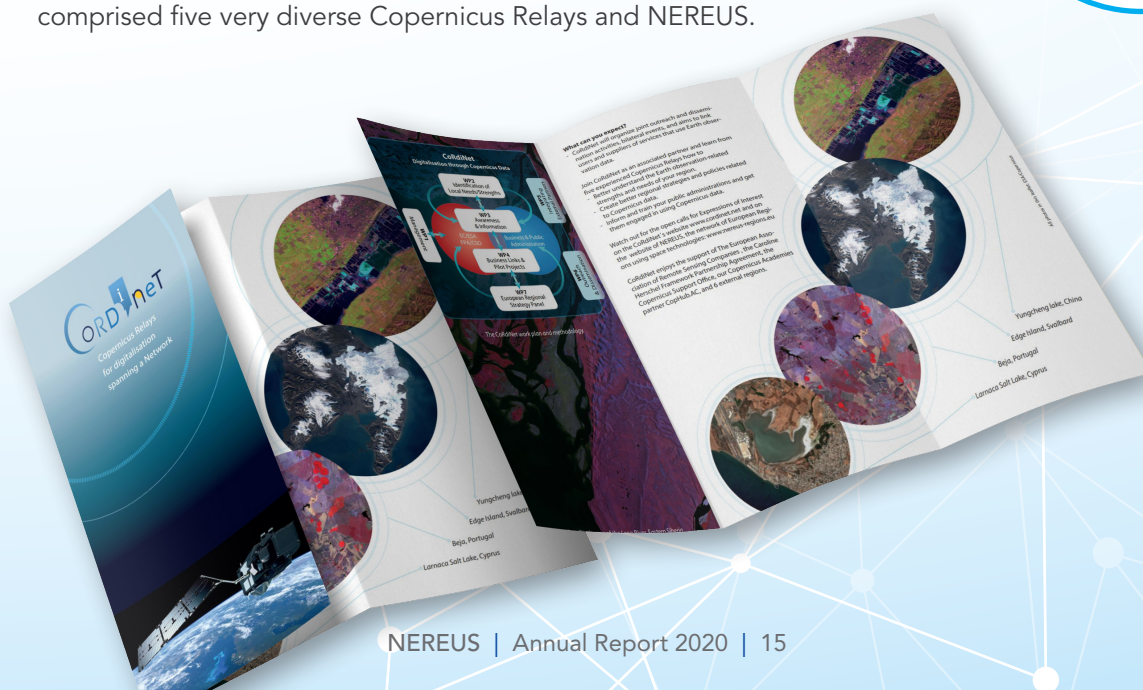
Wolfgang Wolf, Baden-Württemberg region (Germany)

NEREUS is a platform for its members to mobilise EU/ESA- funded projects as well as support its members during the whole project cycle. In this way, the Network opens up a wide array of opportunities for members to raise the profile of their space capabilities. It is important to note that NEREUS itself only gets involved in a small number of well selected projects of strategic importance for regions, which could act as models for other regions. Key criteria for the selection are the benefits for its members in terms of key topics and novelties in relation to the use of space. NEREUS is a partner of three EU-funded projects - IMPRESSIVE and CoRdiNet - under the Horizon 2020 programme, the biggest EU research and innovation initiatives, and EO4GEO, an Erasmus+ Sector Skills Alliance project.

CORDINET- COPERNICUS RELAYS FOR DIGITALISATION NETWORK



CoRdiNet was a Horizon 2020 funded model project for Copernicus Relays (<https://cordinet.net>) mobilised on the NEREUS platform. It is important to note that almost all partners, including the coordinator, were members of the Network (Basilicata, Bavaria, East Midlands and Madrid). The consortium comprised five very diverse Copernicus Relays and NEREUS.



As a model project for Copernicus relays, its objective was to support, promote and stimulate digitalisation and new business solutions based on Earth Observation (EO), i.e. Copernicus data. A key outcome of the project were the guidelines for Copernicus Relays and the policy recommendations for regional and EU-level policymakers (<https://bit.ly/3e1ZKhp>) compiled by the Copernicus European Regional Strategy Panel (CERSP). This Board was made up of consortium members and key stakeholder organisations.

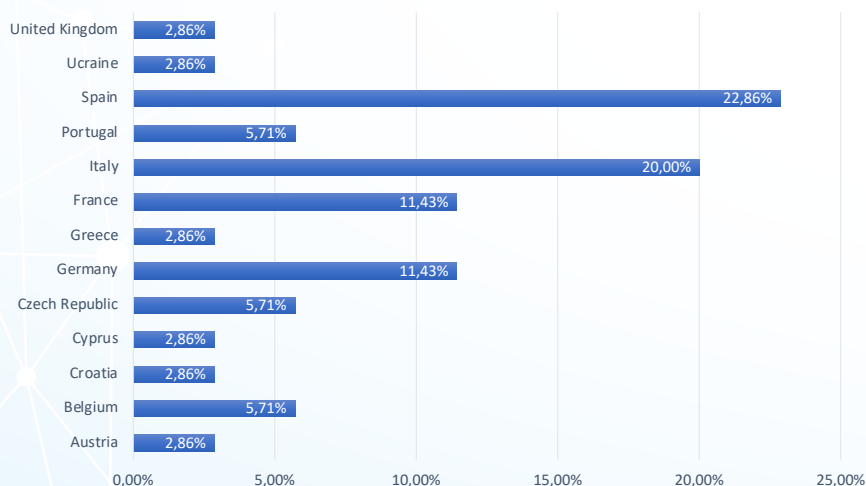


Due to its impartiality, NEREUS managed, within the consortium, a special fund with a budget of 100,000 euros set aside for small but successful projects of partners outside the consortium at the regional and local levels. The objective was to expand the outreach into the Copernicus stakeholder communities for the use of Copernicus and advanced digitalisation. Several associate members of NEREUS (regional networks, SMEs, research centres, etc.) bid successfully for this opportunity and carried out projects (11 of the associate partners in the CoRdiNet project were based in NEREUS member regions or were stakeholders coming from NEREUS member regions (for more information please refer to

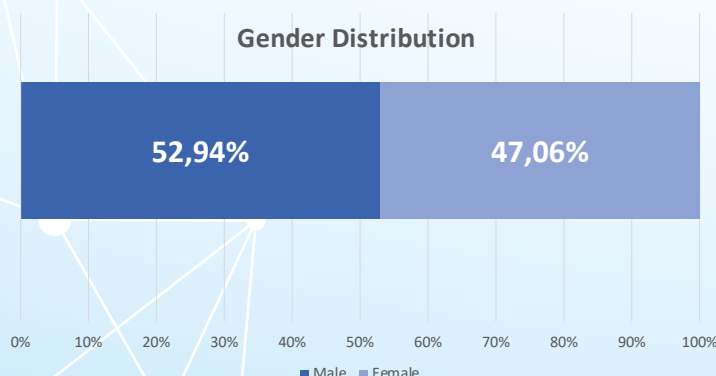


the detailed overview on the website- <https://bit.ly/3vwlfLJ>). The beneficiaries of the CoRdiNet fund covered a wide geographic area: Belgium, Italy, Portugal, Spain, France, Cyprus, Czech Republic, Germany and Ukraine. Thus, the works around the associate partners' projects contributed towards creating a new community from new regions.

Geographical Distribution



Gender Distribution

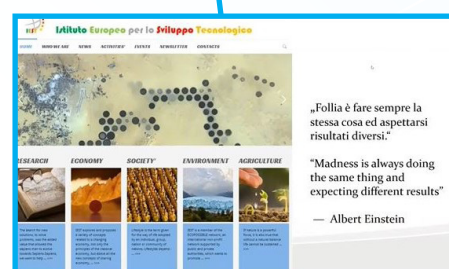


Other interesting facts are that most of the partners represent SMEs and the rest are research organisations and one AISBL, with 47% of the associate partners being female and 53% being male.

To cite another example, the project motivated regions to showcase their added value and share best practices: the aim of the 'Women in Copernicus' project is to identify, list, understand and gather stories about Copernicus Women; give a voice and a face to the women who work with Copernicus and also inspire girls and women by bringing them to the forefront of Copernicus. The core team includes NEREUS members operating in different institutional environments and from three European countries, IMT Atlantique – GIS BreTel - Brittany Remote Sensing Group (France), SPW - Public Service of Wallonia (Belgium), and UJI - University Jaume I (Spain).



The Network organised a dedicated webinar on 1st October 2020, with Jürgen Vogel (CoRdiNet's Coordinator & bavAIRia Aerospace Cluster), focused on the outcomes of the initiative. During the webinar, Stefania De Zorzi (President of Istituto Europeo per lo Sviluppo Tecnologico- European Institute for Technological Development (IEST), which is based in the Veneto region) showcased, through her involvement, how associate members benefited for their organisation from such a project.



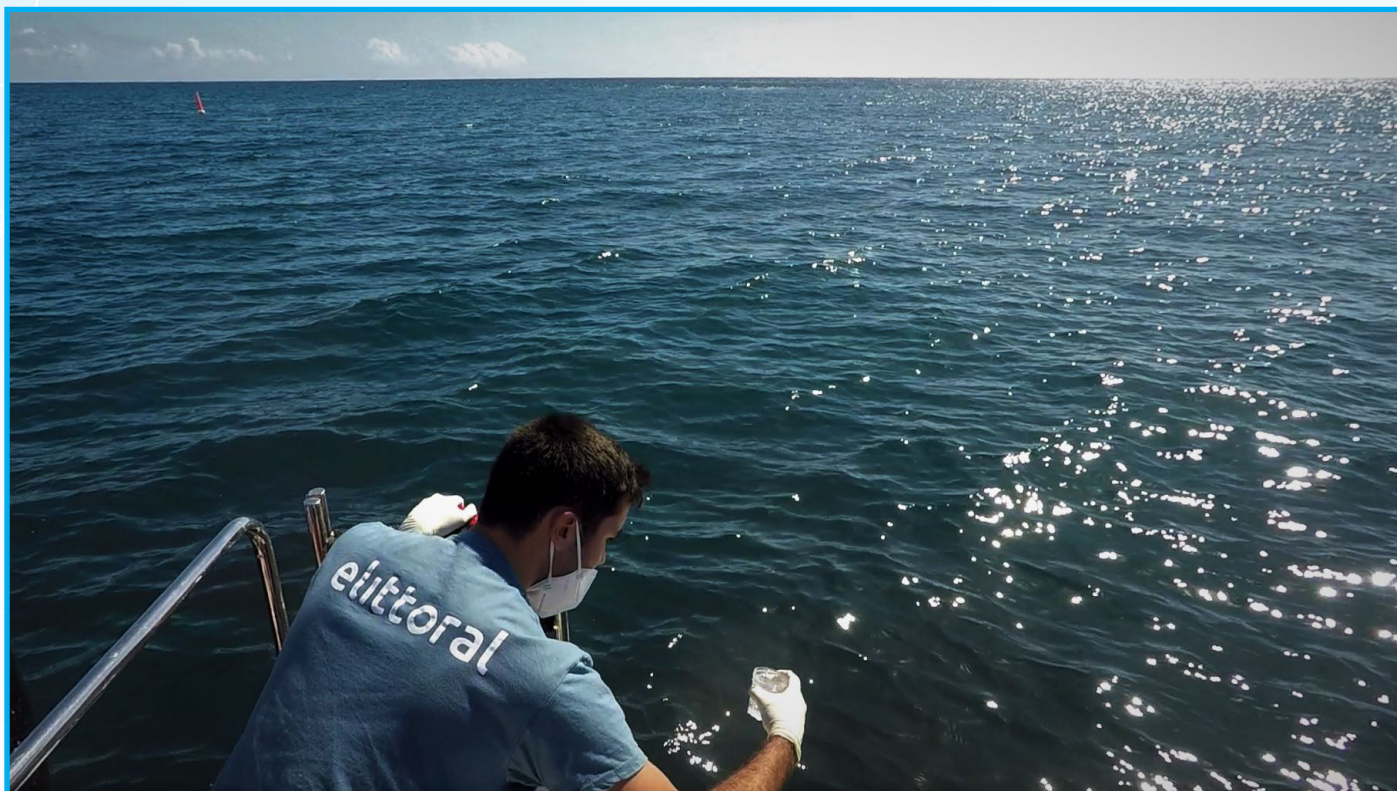
The Horizon2020 project concluded successfully with the final event entitled 'A hitchhiker's guide to digitalisation in Europe – the detour through space' (<https://bit.ly/2S4y5Ue>), where the Network highlighted the best practices of the candidates to bid for Copernicus opportunities.



To this end, the Network managed, through this project, not only to emphasise its members' activities but also to attract new organisations to become members (e.g. IEST).

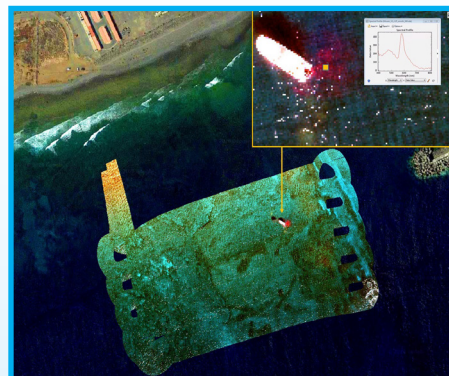


IMPRESSIVE: INTEGRATED MARINE POLLUTION RISK ASSESSMENT AND EMERGENCY MANAGEMENT SUPPORT SERVICE IN PORTS AND COASTAL ENVIRONMENTS



Maritime is one of the key sectors of interest for NEREUS given that 14 out of 23 Members are coastal, island and outermost regions. For this reason, the Network establishes links with key stakeholders in the EU maritime arena. In this respect, one objective is to mobilise regions with coastlines for better use of EO/Copernicus in the maritime applications and to provide them with available opportunities and solutions based on their needs and challenges.

A common challenge across regions' ports relates to serious marine pollution events such as oil spill accidents and waste water discharges that severely impact the environment at an EU and global level. The IMPRESSIVE platform is a supportive tool to achieve, at a low cost, better port management, which provides users with all the information needed to deal with pollution incidents. In view of the EU's blue economy and the green port strategies, IMPRESSIVE aims to contribute to the overall sustainability and better risk management of ports by implementing a complete supply chain for the evaluation of the environmental conditions in ports. An ultimate goal of this innovation action is to foster the exploitation of Copernicus by supporting efforts to reduce the amount of pollutants, to improve the quality of waters and to provide greater access and information to citizens. NEREUS's role is to stimulate and coordinate dialogue with relevant maritime stakeholders and users, such as port authorities. In this regard, NEREUS will organise the final event of the project and promote the initiative towards EU policymakers and potential users of the platform. The IMPRESSIVE project (<http://impressive-project.eu>) operates under the Horizon2020 umbrella and is coordinated by 12 partners from the private and the public sector.



sea trials in Grand Canaria (ES)

As the platform is now in its final development stage, NEREUS found it necessary to showcase this tool and the benefits. Thus, the Network organised a targeted webinar to present the added value of the IMPRESSIVE tool towards the member regions and their port authorities but also to gather their views on the tool. Over 30 participants coming from port authorities, regional administrations, companies with marine activities, universities and space agencies took part in the online event and were inspired to join the final event in autumn 2021.



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

impressive

Marine ports real time sustainability assessment and pollution preventing program

PILLAR II: B-INTERREGIONAL COOPERATION AND PARTNERSHIP: BRINGING EU EXPERIENCE AND KNOWLEDGE TO THE REGIONAL LEVEL

"Although faced with the difficulties imposed by the COVID-19 pandemic throughout 2020, NEREUS has managed to keep up an excellent pace in connecting regions with the EU's centre of decision."

Francisco Wallenstein,
The Azores region (Portugal)

NEREUS is committed to bringing EU developments and activities to the local and regional levels with the objective of benefitting the regional stakeholder community. In so doing, the Network organises targeted workshops to make local space capabilities more visible and give the opportunity to regions to develop useful insights for their organisations in a broad range of sectors, such as maritime, education, agriculture, etc.



EO4GEO

For regions, education/training is considered an essential factor for growing downstream markets. EO4GEO is an Erasmus+ Sector Skills Alliance initiative focussing on building education and capacity skills in the Earth Observation/Geo-information sector (<http://www.eo4geo.eu>). EO4GEO brings together experts from academia



and the public and private sectors to define and apply innovative solutions for education and training actions in these sectors. The project will implement the latter by bridging the reported gaps and mismatches between the supply of and demand for education and training that will ultimately support the take-up of Copernicus by users.

In the framework of EO4GEO, NEREUS is leading the initiative's communication and dissemination activities whilst promoting the opportunities offered by the projects to the regional stakeholder. In more concrete terms, NEREUS's role is to organise five outreach workshops in member regions and enhance a forward-looking dialogue focused on best regional strategies to better equip the current educational system and the future workforce with soft skills. Two of these workshops were organised in Nouvelle-Aquitaine (FR) (<https://bit.ly/3gOocVe>) and Brussels (BE) (<https://bit.ly/32YZmtA>) in 2019.



Given that it was not possible to hold any physical workshops due to the pandemic, the Network successfully developed targeted activities to benefit members with the following objectives:

- Supporting regional stakeholders by showcasing the dynamic progress of their local space community to shape education and training in Europe;
- Organising targeted webinars to give networking activities a boost and to build partnerships with key space actors in the framework of the project;
- Keeping regional stakeholders updated about new trends to boost and accelerate their organisation's daily working processes, research and innovation.

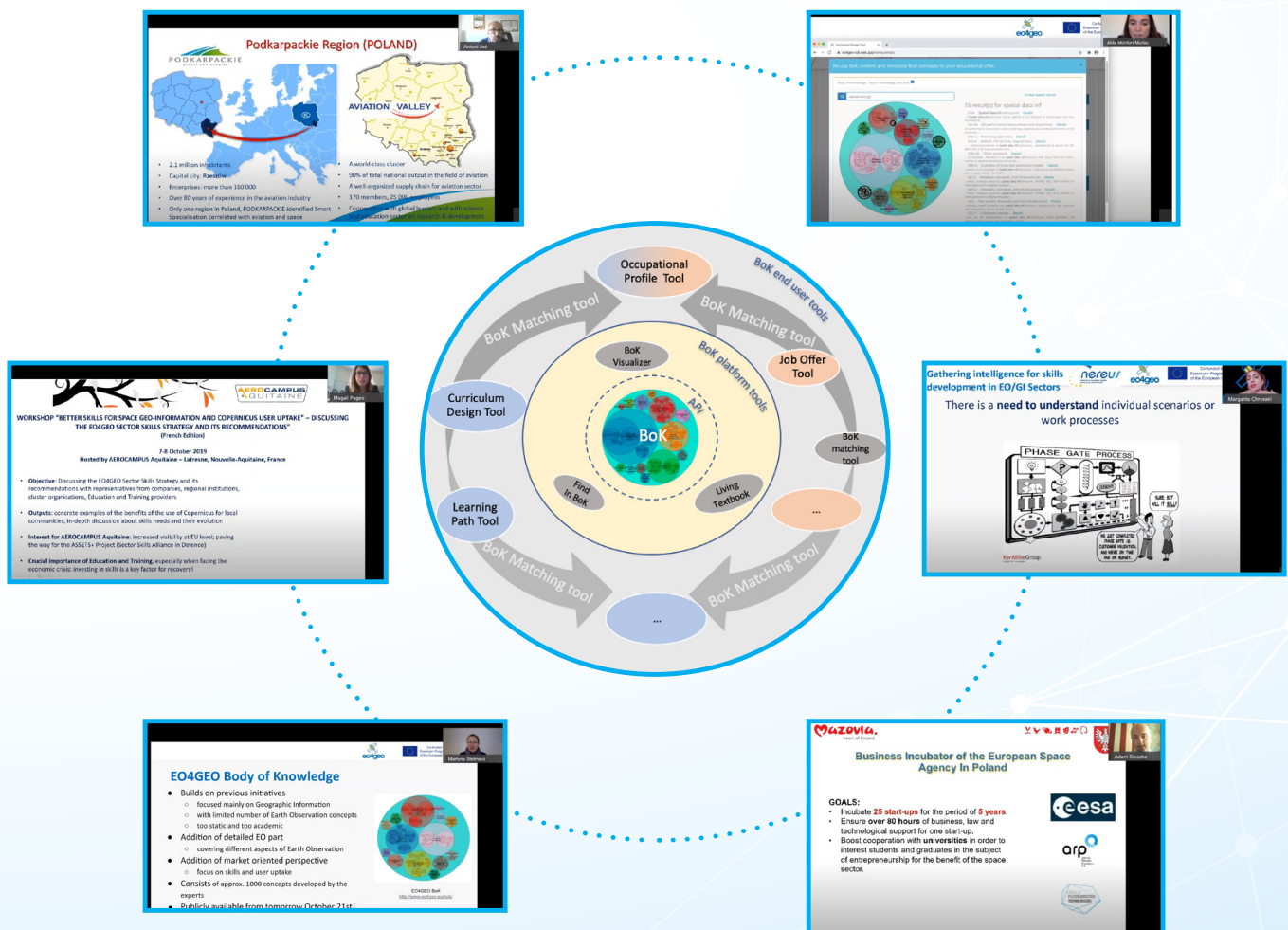
EO4GEO WEBINAR ON 20 OCTOBER 2020:

'TOOLS FOR EO4GEO REGIONAL ROLL-OUT'



The overall aim of the webinar was to promote the EO4GEO sector skills alliance and its tools towards the Member regions and universities but also to gather their views on the initiative (<https://bit.ly/3dZt7kj>).

The success of the webinar was also reflected by the number of participants: 107 space experts across Europe from universities, regional administrations, space organisations, companies, EU institutions, research centres as well as seven NEREUS Member regions (Emilia Romagna, Piedmont, Mazovia, Podkarpackie, Madrid, East Midlands and Bavaria) contributed to a fruitful debate. In addition, the international nature of this diverse audience was another positive feature during the webinar, showcasing the global interest in the take-up of EO/GI education skills. Participants from the following countries outside Europe joined the webinar: Japan, India, Brazil, Argentina, Ethiopia, Myanmar, China, Pakistan, Peru, Mexico, Thailand, Ecuador, Kenya, Tunisia, Philippines, Ghana and Cambodia.



OUTREACH ACTIVITIES AND NEXT STEPS

The potential of this project is to provide state of the art training and education for NEREUS Member regions. In this respect, the Network showcases the benefits that can accrue from the use of the EO4GEO tools for the public/private sector and the development of its current and future workforce at the regional and local levels.

By organising targeted workshops in regions, the Network succeeds in incorporating the regional dimension into the project's mission and vision. In this regard, NEREUS will organise two online workshops in 2021: The first online workshop will be organised in cooperation with the University of the Azores on 2nd July 2021 and will look into the cross-sector impact of the use of space data in the traditionally important maritime sector of the Azores region. The second workshop, which will be organised in cooperation with the regions of Podkarpackie and Mazovia, will focus on identifying current and future needs in EO/GI educational training for Polish business activities/ administrations.



<https://bit.ly/3xA2k5F>



UNIVERSEH



<https://universeh.eu>

Through projects, NEREUS identifies opportunities for partnerships and networking for its members aiming at establishing new links and synergies and fostering the take-up of space data at the regional level.

UNIVERSEH is an alliance of five universities from five European countries that aims to develop a new way of collaborating in the field of space within the new 'European Universities' initiative promoted by the European Commission (<https://bit.ly/2Pwvly4>). The Alliance aims at assessing current needs in the space sector in order to tackle current and future skills' mismatches. NEREUS supported the UNIVERSEH alliance and became a member of the UNIVERSEH Advisory Board led by the University of Toulouse, which is located in the NEREUS founding region, Occitanie. Furthermore, it connects UNIVERSEH with EO4GEO by ensuring the exchange of experience/expertise between both initiatives.



SPACE4OURPLANET, OUR NEW MOBILE EXHIBITION

NEREUS is also committed to making the next generation and more women increasingly aware of the opportunities of space technologies, such as employment and study opportunities.



In this context, NEREUS was a sponsoring partner of the Space Girls Space Women exhibition, which ended at the end of 2020 (<https://bit.ly/2R6SYhk>). Members greeted this joint mobile exhibition with considerable enthusiasm. It took place in more than 13 different NEREUS regions from Brussels, Belgium to Bari, Apulia; Milan, Lombardy; Chieti, Abruzzo; Santa Maria, Azores; Leicester, East Midlands; Matera, Basilicata; Venice, Veneto; Free Hanseatic City, of Bremen, Bremen; Toulouse, Occitanie; Madrid, Madrid region; different locations in Wallonia. The exhibition was shaped by members in their own local context. It was based on individual stories so that people, and especially young people, could identify with them and see that space is something that we share and experience as Europeans. In addition, the exhibition gave us the chance to interact with our members and to reach out to new regional audiences.



As this element is a key priority for the Network community, a dedicated webinar was organised with speakers invited from hosting NEREUS regions (Abruzzo, Madrid and Wallonia), who shared their stories and interacted with the co-creators of the exhibition (<https://bit.ly/3nxFXJR>).



Furthermore, the initiative helped generate interest in women's networks and activities in our regions. For example, some regional partners saw the exhibition as an opportunity to motivate other women working for and in space, which led to the development of other innovative projects (e.g. 'Women in Copernicus' project (<https://womenincopernicus.eu>)).



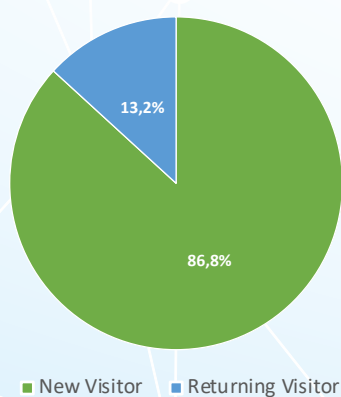
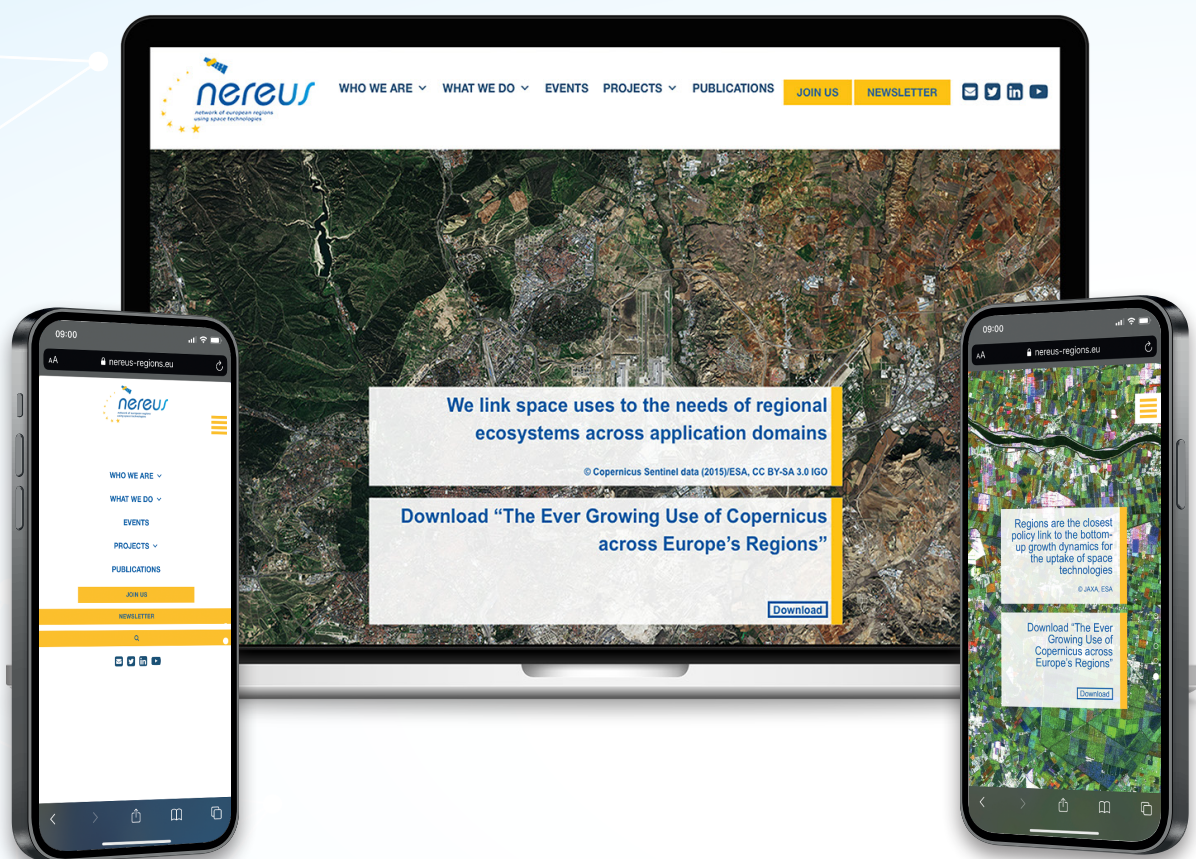
SPACE FOR OUR PLANET

Given that the exhibition was a tool to reinforce interregional cooperation and the sharing of experiences across regions, NEREUS became a co-sponsor of the new exhibition entitled 'Space4OurPlanet', which was put together by the same organisers, Ms Coliolo and Mr Delplanque.

'Space4OurPlanet' examines the key role of space technologies in the transition towards a sustainable planet whilst also showing how younger generations are empowered and involved in this transition. More concretely, the exhibition will encompass the portraits of 17 'actors of change' throughout the world: each portrait encapsulates one of the UN's Sustainable Development Goals (SDG) and will demonstrate how space technologies can be used as a solution to all the topics covered by the UN's Sustainable Development Goals.

Through this exhibition, NEREUS is stimulating cooperation at the intraregional and interregional levels. In this context, the organisers asked the regions to submit profiles associated with the sustainable development goals and how they responded to common challenges. We are looking forward to sharing this exciting experience with you!

PILLAR III: TECHNOLOGICAL TRENDS AND DEVELOPMENTS RELEVANT TO FUTURE SPACE SOLUTIONS AND USER NEEDS



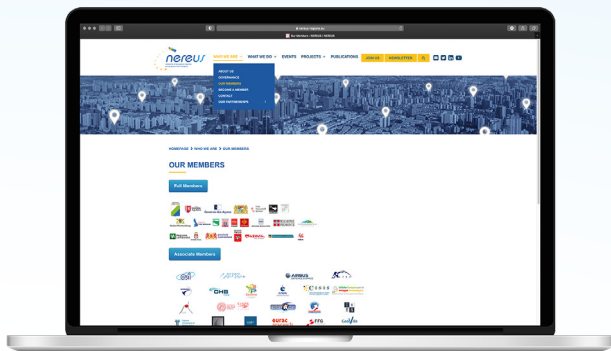
NEREUS WEBSITE, A WINDOW OF REGIONAL SPACE USES FOR THE SPACE COMMUNITY

One of the Network's main activities is to make regional activities more transparent. As a consequence of the growing demand for access to online information due to the pandemic, NEREUS fulfils the goal of this pillar by investing in online ground-breaking formats, such as a) targeted workshops to engage the user with the current technological novelties and the use of technology trends for the benefits of regional ecosystems and b) the update of our website, NEREUS's main communication tool.

In this regard, we found it particularly useful to enrich the website with new sections and updates:



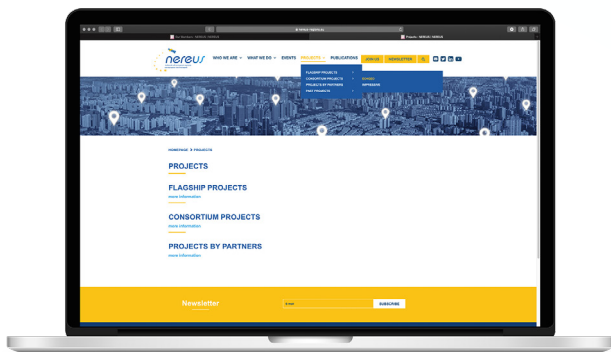
<https://www.nereus-regions.eu>



- The presentation of members. This newly shaped part offers members the possibility to demonstrate who they are and reach out to the space community as a whole. A dynamic profile will contribute to deepening existing partnerships and to building new ones;



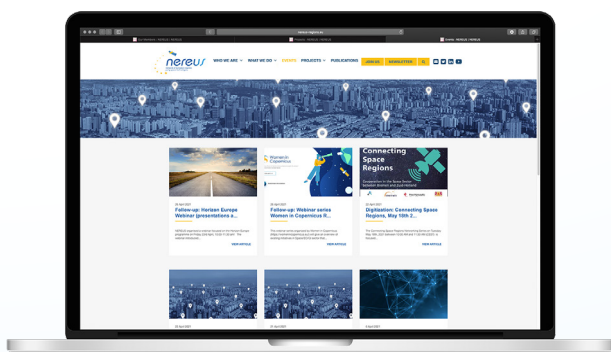
<https://bit.ly/2QIPjq3>



- The presentation of members' projects and their regional ecosystem (SMEs, universities, space agencies, research centres, etc) will illustrate how they can contribute to space technology markets and policies ();



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



- The joint forum for events (). This section of the website aims at improving the way in which NEREUS and NEREUS partners' activities and events are promoted;



<https://bit.ly/3u9qWjW>



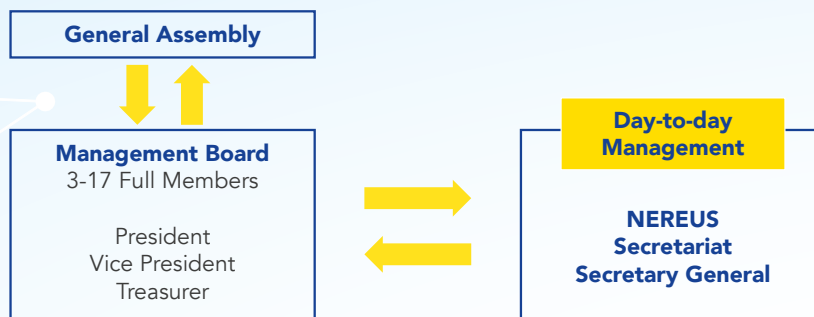
- 'How to become a member': This revamped section offers an explanatory introduction to new regions and organisations that may want to join NEREUS. It empowers them to become part of this vivid, creative and ever dynamic Network.



<https://bit.ly/3e2DOCM>

GOVERNANCE

NEREUS aisbl Structure



The General Assembly represents all NEREUS Full and Associate Members.

FULL MEMBERS



ASSOCIATE MEMBERS



The General Assembly 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 sit on the Management Board. The NEREUS General Assembly 2020 was held online on 25th November 2020. The Management Board met in January and in June 2020.

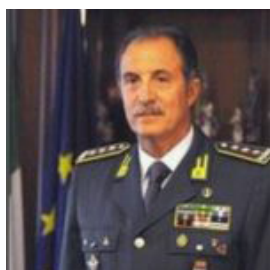
The Management Board, which is the Network's steering committee, decides on strategy and monitors the implementation of the work programme. It is entrusted with the overall responsibility of managing the association, appoints the Secretary General and engages in a regular exchange with the Secretariat on the Network's three main areas of work: political dialogue, interregional cooperation/partnership and technological trends and developments relevant to future space solutions and user needs. You can read more about our Management Board below:

NEREUS PRESIDENT Bernard Plano (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 6th February 2009. General Bardi holds a degree in economics, 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)



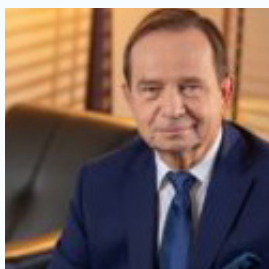
Mark Lester is Professor of Solar Terrestrial Physics at Leicester University. He has over 40 years of experience working on space plasma physics with personal research interests in ionospheric and magnetospheric physics and has published nearly 350 academic papers. He has also worked with a variety 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 passionately believes 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).

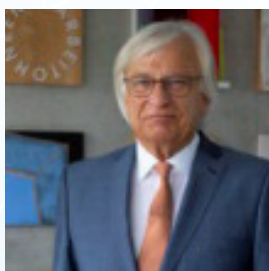
NEREUS VICE-PRESIDENT (Podkarpackie region)



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 the CoR he serves as the European Conservatives and Reformists Group's President and he is a chair of the Carpathians Inter-Regional Group. He was a CoR's rapporteur on the Carpathian macro-regional strategy and he has been appointed the CoR's rapporteur on the future of regional airports. In 1979 he graduated from the Faculty of Mechanical Engineering at Rzeszów

University of Technology (B.E., specialization in aviation constructions). In the years 2005-2013 he was a Senator of the Republic of Poland. Since 2015 Mr Ortyl has been a member of the National Development Council, and since January 2019 he has been the Vice-President of the Union of Regions of the Republic of Poland.

NEREUS TREASURER (Baden-Württemberg region)



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 the new space economy.

NEREUS BOARD MEMBER (The Azores region)



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, in 2017 he became Board Member of the Azores Mission Structure for Space, having been appointed to represent the Azores

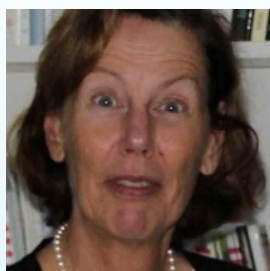
Government at the General Assembly of the AIR Centre, as well as in the NEREUS and Copernicus Relays networks. Since 2018, he has been the coordinator of the Scientific Council of RAEGE Açores, a position that he holds alongside that of Chairman of the Board.

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 to regional development and regional policies to European projects and policies.

NEREUS BOARD MEMBER (Hesse region)



Perdita de Buhr has been Head of Unit Economics, Energy, Transport and Housing at 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 read law at Passau University as well as Münster University. Once she had qualified as a German lawyer and once she had also obtained a PhD in law in 1993, she started her professional career at the Saxon State Ministry of Science and Art. From there, she moved to other positions related to economics and science, including 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 advisor in the Cabinet of the Presidency of Madrid Regional Government. He has extensive experience in the fields of broadcasting, mobile and satellite 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, 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 relating to geodesy, spatial data infrastructure, digitalisation and the use of new technologies, including satellite products.



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