



Annual Report 2012



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Overview/Executive Summary



In its fourth year, NEREUS matured into an active and visible player in Europe's space policy arena. Whilst consolidating its strategy, establishing new collaborations, and expanding its activities, in 2012 the network achieved considerable recognition at regional, national and European level.

The NEREUS **regional strategy**, originally launched at the end of 2011, aimed to strengthen the network between its member regions. This strategy was further pursued in the reporting year. Numerous regions responded to this idea by organizing meetings and events in their own areas. These events were fundamental in raising awareness of the potential and scope of space technologies and their applications. Diverse audiences were informed of the NEREUS-platform and its activities, and the floor for further debate was opened.

Whilst strengthening links with the European Institutions, in 2012, NEREUS continued its efforts to develop relations with the European Space Agency (ESA). In this context NEREUS liaised with different ESA departments. With the ESA/ESRIN GMES-office the collaboration resulted in the production of a **joint publication "The growing use of GMES across Europe's Regions"**, launched with a festive event in the European Parliament. The collection of 67 short descriptive case studies about how the Global Monitoring for Environment and Security (GMES) Programme is already being employed across Europe, illustrates the potential of the GMES and the solutions it has to offer for economic and societal problems at both local and regional level.



During the Toulouse Space Show 2012, NEREUS continued its political dialogue with relevant European and national institutions by organizing a round table debate on **"Europe's Regions: a hot house for developing space applications?"** chaired by NEREUS-president Alain Bénétiau.

The Communication strategy, shaped to support the regional strategies, was another important pillar of NEREUS-activities in 2012. NEREUS promoted its ideas and activities in numerous conferences and events throughout the year. The **NEREUS video** "The voice of regions for Space", a 4-minute high quality production that showcases concrete regional examples of space-based services (EO/Copernicus, GNSS, Telecommunication etc.) was translated into all the native languages of the network. Additionally, general information on the network and its activities were produced in different languages and brought together on one page on the NEREUS-website.

Through its Communication Education and Training Working Group (CET), NEREUS pursued its attempts to mobilize strong activities and partnerships in the area of space-related education and training: engaging in collaboration with EUROAVIA (European Association of Aerospace Students); mobilizing an **ERASMUS project**; and working on the "NEREUS Training courses" **e-catalogue**.

Four Management Board meetings (16th February, 25th June, 10th September, 29th October) and the annual General Assembly on 30th October were organized during the year.

Regional strategy



Attempts to implement the regional strategy “*A better anchorage of NEREUS in the Regions*” were a cornerstone of NEREUS activities in 2012. NEREUS-Vice-President Christian Bruns (Bremen) had launched the idea of a stronger link to the regional level during the 2011 General Assembly.

Although the network had gained significant visibility at European level since 2009, an in-depth analysis of performance and perception led to the realization that a stronger presence at regional and local level is needed in order to grow and evolve further. NEREUS succeeded in establishing itself as a strong interlocutor and source of reference for matters on regional space policy towards European institutions and the space community. However, several members emphasized that a better understanding of the network and its potential, as well as of the dimension of space technologies in the **territories**, was vital.

Thus, in 2012 NEREUS concentrated its forces on increasing visibility and awareness of the network at regional level. The aim was not only to better understand the needs and concerns of member regions but also to involve more regional stakeholders and to enhance the support and involvement of member regions. NEREUS-president Alain Bénétteau addressed the presidents of NEREUS regions with the idea of regional strategies and suggested holding regional meetings and events. The secretariat complemented these efforts by orienting its communication efforts towards the needs at regional level (see below).

Member regions implemented the idea of regional strategies in different ways. Bringing their regional network community together in the form of meetings, events and conferences, they presented the network and its activities and created opportunities **to foster the inter-regional collaboration** – a fundamental prerequisite to mobilizing the forces necessary to exploit the potential of space applications and services.

Wallonia was the first region to take the initiative. On 16th February 2012, NEREUS President Mr. Alain Bénétteau had the opportunity to present the network and its activities to regional representatives and their stakeholders at the festive opening of the space exposition “*Down to Earth*”, an event that was jointly organized by the region and SKYWIN. Further to this, later in the year, Wallonia invited NEREUS to join its Space Days 2012¹, a bi-annual meeting organized by Wallonie Espace, for all actors involved in the space business.

Veneto Region and CORILA responded by organizing, in collaboration with NEREUS, a workshop on “*EGNOS and Galileo for marine and maritime applications: opportunities and challenges for European regions*”² on 16th-17th April in Venice. Bringing together a broad array of representatives of European, National - but mostly regional – institutions, the event was one of the first occasions to engage in a closer dialogue with end-users (here port authorities). Activities based on maritime space uses were identified as a pivotal field of interest of the network community and will be pursued in 2013. Several NEREUS partners seized the opportunity to present and showcase EGNOS and Galileo uses for application in the marine and maritime sectors and report on their experiences.



¹ <http://www.space-days.com/en/>

² http://www.nereus-regions.eu/EGNOS_GALILEO_WS_Venice

The NEREUS associate member, Scientific Interest Group Bretel, in collaboration with **Brittany** region, organized the first BreTel workshop “*Monitoring of the environment in the framework of the NEREUS working group on GMES*”³, in Saint Malo, Brittany region on 31st May-1st June. The two-day workshop was specifically aimed at presenting the activities of the region in NEREUS with a focus on GMES applications.



A large part of the NEREUS Italian community was mobilized for the international workshop “*Towards a smart specialization in the field of space technologies: the contribution of European regional policy to Europe 2020*” on 8th June 2012⁴, in Matera.

Organized by **Basilicata** Region in collaboration with NEREUS, the National Research Council, the University of Basilicata, the TeRN Consortium, and Sviluppo Basilicata, the workshop aimed at reflecting on the impact of space uses with respect to regional development and policies and more specifically on policies and initiatives supporting innovation and technological development. The event was also a very important occasion to promote the network and its activities to ESA representatives (Francesco Emma – ESA Partnerships Development Coordinator) and many Italian stakeholders who attended.

Midi-Pyrénées region and Associate Member CNES invited NEREUS to participate in the Toulouse Space Show 25th-28th June in Toulouse⁵. Whilst showcasing its space exhibition to an international public, NEREUS organized, in collaboration with regional partners, a round table debate centered on the role of regions as political and economic decision makers to promote the development of space applications and services across Europe. Chaired by NEREUS-president Alain Bénêteau, members of the European Commission (Deputy Director General Dr. Paul Weissenberg); Committee of the Regions (Secretary General Gerhard Stahl); European Space Agency (head of the ESA-IAP Department Amon Ginati); GSA and regional representatives, actively shared their views on “*Europe’s Regions: a hothouse for developing space applications*”.



The German network community convened in **Berlin** in September 2012 **on the initiative of Bremen** to exchange information and discuss matters of common interest. The meeting was also an opportunity to learn more about the national and European funding schemes for space applications and some representatives presented the flagship initiatives of their regions. The German Länder decided to continue these meetings annually.

Brandenburg initiated a conference “*Mobile Applications/Geoinformation*” on 8th November 2013 to develop, jointly with regional stakeholders from business and research communities, a strategy sketch to enhance the economic and societal exploitation of its considerable geo-scientific potential. The findings of the conference led to the recognition that the up-take of research results needs to be improved in order to develop new competitive business models in a collaborative effort of business and research. NEREUS was in this context valued as an asset that brings a European dimension into the process that facilitates trans-regional co-operations and exchange.

Madrid made efforts for a better regional anchorage by inviting NEREUS-president Bénêteau and Secretary General to further discuss with representatives of the regional administration and to meet the

³ <http://www.bretel.eu/workshop-bretel-2012>

⁴ http://www.nereus-regions.eu/Basilicata_WS

⁵ <http://www.nereus-regions.eu/TSS2012>

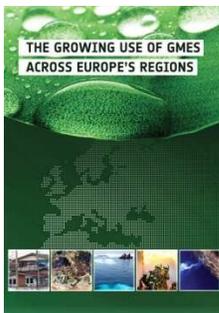
broader Madrilanian space community to exchange information. Madrid highlighted that its innovative SMEs are the protagonists of the regional NEREUS involvement, their interests and needs being central. Madrilanian space players suggested exchanging information about the first experiences on EGNOS uses in aviation on a European scale.

Lombardy region, together with NEREUS, organized a workshop on “*Agri-food and space*” in Milan to spread information and raise awareness about the opportunities offered by space in the field of agri-food with a specific focus on the impact on Lombardy regions’ territory.

Partnership with the European Space Agency (ESA)

Developing a strategic partnership with the European Space Agency (ESA) and exchanging information on matters of common interest was another vital element of NEREUS activities in 2012. NEREUS liaised in the reporting year within three departments:

- **ESA/ESRIN** (Rome) - ESA-GMES-Office: GMES-Initiative,
- **ESA-Policy Department** (Paris) Cooperation ESA and European Regions (Innovation, SME, Growth),
- **ESA/ESTEC** (Noordwijk) Linking NEREUS and Ambassador Platforms plus IAP Program



The exchange with the **ESA-GMES-Office** (Head Josef Aschbacher) resulted in strong cooperation in the reporting year. NEREUS and ESA-ESRIN jointly produced a collection of 67 articles about how the Global Monitoring for Environment and Security (GMES) Programme is already being employed at regional level. Through an open call for papers, descriptive case studies by 47 regional bodies from 17 European countries were collected. These papers were grouped into the generally recognized themes of GMES: Land, Maritime, Atmosphere, Emergency Response, Civil Protection, and Climate Change.

The publication entitled “*The Growing Use of GMES across Europe’s Regions*”⁶ emphasized the enormous potential of the system as a strategic tool for informed decision making and forward planning when managing territories or providing public services. By quoting specific end-users, the collection introduced GMES as an essential data source for supporting the responsibilities of local and regional authorities to comply with several environmental EU directives, e.g. INSPIRE, Water and Air quality etc. Striving to be a key reference source on the subject for politicians, policymakers and planners alike, the papers themselves showed the wide scale of applications already covered by GMES. NEREUS and ESA celebrated the launch of the publication with a **festive event at the European Parliament** in Brussels on 10 October 2012.



Organized with the support of the Member of the European Parliament (MEP) Norbert Glante (Brandenburg), members of relevant European Institutions and regional end-user representatives were invited to debate the growing use of GMES services and their impact at a regional level in Europe. The panel debate was meant to stimulate a broader debate with the audience and put strong emphasis on involving end-user representatives and their experiences. NEREUS was represented by Vice-president

⁶ <http://esamultimedia.esa.int/multimedia/publications/NEREUS/>

Prof. Wells and ESA participated through its Director Volker Liebig (Earth Observation Programmes), who explained the benefits that the future Sentinel satellites can bring to European citizens, stressing that the Sentinels are a major improvement compared to existing missions. Members of the European Parliament, V. Prodi and A. Patriciello, as well as R. Schulte-Braucks, Head of the EC-GMES Bureau, L. Dijkstra, DG Regional Policy and end-user representatives from the Danube macro region and the Warsaw Metropolitan area, contributed their views to the panel debate. The event was featured on the websites of both ESA and NEREUS websites⁷.

Following the launch event, NEREUS and ESA started a wide and broad **promotion campaign** across Europe. All member regions and parties are kindly invited to promote the publication widely at regional level, towards relevant stakeholders and administrations. We recommend also having it on display at regional and local events. All interested parties who wish to receive paper copies of the publication should contact the NEREUS Secretariat.

EU-funded projects and initiatives

As one of its core missions, NEREUS facilitates the involvement of its members in EU-funded activities. The network supports the creation of consortia of NEREUS partners when mobilizing project proposals and sustains them for the entire duration of the project.



The first EU-funded project mobilized on the NEREUS platform was the **DORIS_Net Project** (*Downstream Observatory organized by Regions active in Space_Network*⁸). Inaugurated at the beginning of 2011, the 13 DORIS_Net partners worked together to enhance the regional development of GMES downstream services by increasing the European network of Regional Contact Offices (RCO). The RCOs are focal points in regions to raise

awareness and strengthen regional involvement in GMES. In 2012 contact offices had been successfully established in seven NEREUS regions in Europe (Azores, Basilicata, Bremen, Brittany, East Midlands, Lombardy and Midi-Pyrénées/Aquitaine).

THE ISSUE Project (Traffic- Health- Environment. Intelligent Solutions Sustaining Urban Economies⁹), which brings together research clusters from five NEREUS member regions (East Midlands, Molise, Midi-Pyrénées, Aquitaine and Mazovia), is considered as the second NEREUS flagship project. Begun in January 2012, the three-year FP7 project aims to identify innovative solutions from leading research centers in France, Italy, Poland and the East Midlands, to reduce traffic congestion and emissions; improve air quality and journey times; promote a modal shift towards public transport; and support the achievement of sustainable urban economies in cities and towns in Europe.



⁷ http://www.nereus-regions.eu/Launch_NEREUS_ESA_GMES_Publication

⁸ <http://www.doris-net.eu/>

⁹ <http://www.theissue.eu/>



With respect to the upcoming Horizon2020 programme, the European Commission invited NEREUS to participate in a panel debate at the 2nd FP7 Space Conference, Larnaca, 15th & 16th November 2012. NEREUS-Secretary General Roya Ayazi participated with representatives of other relevant associations (ASD-Eurospace, EARSC, European Science Foundation, European Space University) in a panel debate on future directions in European Space Research. It was an opportunity not only to express the expectations of the network community with a view to the up-

coming Horizon2020 programme and to highlight the importance of targeted communication and promotion towards the general public but also to ensure that the future programme facilitates the involvement of regional stakeholders and SMEs.

In addition to the aforementioned EU-funded projects, NEREUS members collaborated in a series of other initiatives. As a channel to and from the regions, NEREUS' mission also involves efforts to make the situation and capabilities at regional level more transparent. The **Mini-Study "Smart Specialization in Space: The economic potential of space technology and downstream services for Europe's regions"**, produced by CEON/Bremen in collaboration with the Brussels based Bremen representation and the NEREUS Secretariat, was a step forward in accessing the potential benefits of GMES and Galileo for regional development. Ten NEREUS regions offered their contributions to investigate the economic potential of space technologies and downstream services for Europe's regions, with respect to the concept of Smart Specialisation. The study revealed that NEREUS regions, whilst expecting further benefits from the operational phases of GMES and Galileo, believed that investing in space technologies and its applications means investing in those economic areas that have competitive strengths in their respective regions. **NEREUS members interested in receiving a copy of the mini-study are kindly requested to contact the Secretariat.**

The study "**Territorial satellite technologies - the experience of the NEREUS' Italian members**" takes stock of the specific situation of Italian NEREUS-regions. Under the coordination of Lombardy region, the seven Italian member-regions, in collaboration with ten NEREUS associate members carried out a comprehensive study of the Italian supply and demand for space technologies. The survey resulted in an overview of the current standings of different regions. **The NEREUS members interested in the full English version of the study should contact the Secretariat.**

Communication strategy



The communication strategy in 2012 aimed to reach out to regional network communities. These attempts involved in the main part, producing promotion and information material in native languages of the network.

The **NEREUS video "The voice of regions for Space"**, a 4-minute high quality product that showcases concrete examples of space-based services (EO/GMES, GNSS, Telecommunication etc.) was translated into all native languages of the network¹⁰. Further to this, the secretariat produced NEREUS-information sheets in French, Italian and Spanish, which are available online¹¹.

¹⁰ http://www.nereus-regions.eu/NEREUS_videopage

¹¹ http://www.nereus-regions.eu/native_languages

The **mobile NEREUS-exhibition**, composed of the NEREUS-video and 24 illustrative poster presentations showcasing regional examples of space applications in different domains (security, civil emergency, agriculture, maritime etc.), travelled in the reporting year through different NEREUS-regions. A special dedicated section was created on the NEREUS website in order to present the Space Exhibition online to the general public also. In order to extend the range of the exhibition the secretariat launched a call inviting the submission of exhibits or interactive material showcasing and explaining space uses¹².

NEREUS participated in **international conferences and exhibitions** on several occasions during the year, some of which were organized in its member regions. For conference purposes NEREUS developed a stand comprising promotion and information material, as well as its video. To quote one example, from October NEREUS gave a key message about the ESTEL Conference, the first international IEEE-AESS conference in Europe about space and satellite telecommunications, (<http://www.estelconference.org/>) in Rome. Secondly, from 6th to 9th November Veneto region organized and hosted a NEREUS information stand at the ASITA conference (the Italian Federation of the Scientific Associations for Territory and Environment Information) in Vicenza (Veneto). ASITA is the biggest Italian technical and commercial exhibition on Geomatic.



Young network community

NEREUS is heavily involved in mobilizing sound activities and partnerships in the area of education and training, with the aim of offering to students and young professionals networking and study/training opportunities at a European level.



In 2012 several NEREUS initiatives were dedicated to the young network community. In the framework of the activities of the NEREUS Communication, Education and Training (CET) Working Group, the “**NEREUS training courses**” *e-catalogue*¹³, was further promoted. Active since November 2011, the interactive database became an important reference source of information for students, academia and young space professionals in the field of study and on training opportunities offered by NEREUS regions in Europe. Throughout the year the NEREUS Secretariat widely promoted the e-catalogue. In order to reach a wider range of interested young Europeans, **all NEREUS regions and associate members are called to contribute to this promotional activity in their respective universities and institutions**. The tool jointly developed by NEREUS and CNES needs also to be regularly **updated**. NEREUS asks its members to constantly provide updated information on the courses¹⁴.

The CET-WG managed to mobilize an ERASMUS-bid, which involved numerous NEREUS members. Under the lead of Martin Barstow/University of Leicester, the proposal was successful and selected by the EC. The project “**FORmation of Multi-disciplinary Approaches to Training in Earth Observation**”, involving eight universities and public institutions in six different NEREUS regions, is planned to set up a 12-day masters-level summer school to train students from partner institutes in the principles of Earth observation, with applications to land, atmospheric and ocean monitoring.

¹² <http://www.nereus-regions.eu/posters>

¹³ <http://www.nereus-space-training.eu/>

¹⁴ <http://www.nereus-space-training.eu/en/contact/>



Finally, the fruitful cooperation with **EUROAVIA**, the European Association for Aeronautics Students¹⁵ was further developed. Since 2011 the two associations have collaborated in the organization of an **academic competition** aimed at offering young people seeking a career in the space sector, opportunities to get in contact with potential employers and senior decision-makers. The first edition of this competition, specifically dedicated to the field of EO/GMES, ended in October 2012 with a special ceremony in the framework of the 2012 NEREUS General Assembly. The ceremony awarded Mr. Donato Impedovo from University of Bari (Apulia region) with 1000

EUR to participate in an International conference on GMES, for the quality and originality of his thesis, "Classificazione di immagini telerilevate multitemporali acquisite da sensori SAR ed ottici"¹⁶.

¹⁵ www.euroavia.net

¹⁶ http://www.nereus-regions.eu/2011_academic_competition

The NEREUS Secretariat

The 2012 activity report was compiled by the NEREUS Secretariat. The Brussels based permanent Secretariat is the main interface of the network at European level and responsible for advocacy and interest representation towards European institutions and relevant space organizations. Being in charge of the daily management of the association and the coordination of network activities the secretariat is the reference point for the network community and interested parties.

For more information on the network and its activities please contact:



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The NEREUS Regions - Full Members*

1. Abruzzo (Italy)
2. Andalusia (Spain)
3. Apulia (Italy)
4. Aquitaine (France)
5. Azores (Portugal)
6. Baden-Württemberg (Germany)
7. Basilicata (Italy)
8. Bavaria (Germany)
9. Brandenburg (Germany)
10. Brittany (France)
11. Brussels Capital (Belgium)
12. Castilla y Leon (Spain)
13. City of Vienna (Austria)
14. East Midlands (United Kingdom)
15. Free Hanseatic City of Bremen (Germany)
16. Guyana (France)
17. Hesse (Germany)
18. Lazio (Italy)
19. Lombardy (Italy)
20. Madrid (Spain)
21. Mazovia (Poland)
22. Mecklenburg-Vorpommern (Germany)
23. Midi-Pyrenees (France)
24. Molise (Italy)
25. Piedmont (Italy)
26. Veneto (Italy)
27. Wallonia (Belgium)

The NEREUS Associate Members*

1. ALTEC SpA (Piedmont)
2. Aratos Technologies SA (Western Greece)
3. Capital High Tech SARL (Aquitaine)
4. Compagnia Generale per lo Spazio CGS S.p.A. (Lombardy)
5. Centre d'Etudes Techniques de l'Equipement Sud-Ouest, CETE (Midi-Pyrénées)
6. Centre National d'Etudes Spatiales, CNES (Midi-Pyrénées)
7. Centro de Vulcanologia e Avaliaçao de Riscos Geologicos, CVARG (Azores)
8. Centro Interdipartimentale Studi e Attività Spaziali, CISAS, «G. Colombo» (Veneto)
9. Chambre de Commerce et d'Industrie du Gers, CCI Gers (Midi-Pyrénées)
10. Cité de l'Espace (Midi-Pyrénées)
11. Consorzio per la Gestione di Coordinamento delle Attività di Ricerca Inerenti il Sistema Lagunare di Venezia, CORILA (Veneto)
12. Consorzio per le Technologie per le Osservazioni della Terra e dei Rischi Naturali, TeRN (Basilicata)

13. CYBERMAP Lda (Azores)
14. CTOTUS project under POR CREO FESR 2007/2013 (Tuscany)
15. EADS Astrium (Midi-Pyrénées)
16. EDISOFT SA (Azores)
17. Enterprise Solutions Geo Team S.r.l.
18. Escola de novas tecnologias dos Açores, ENTA (Azores)
19. EURAC Research European Academy (South Tyrol)
20. Fundacion Aragonesa Para el Desarrollo de la Observacion de la Tierra, FADOT(Aragon)
21. France Développement Conseil, FDC SARL (Ile de France)
22. FFG, Austrian Research Promotion Agency (City of Vienna)
23. Geoville Information Systems (Innsbruck)
24. GIS Bretagne Teledetection (BreTel) (Brittany)
25. GLOBESTAR SYSTEMS Lda (Azores)
26. Institute for Electromagnetic Sensing of the Environment, IREA CNR UOS, Milan (Lombardy)
27. Observatoire Midi-Pyrénées (Midi-Pyrénées)
28. Politecnico di Milano, B.E.S.T. Department (Lombardy)
29. Politecnico di Torino (Piedmont)
30. SELEX Galileo (Lombardy)
31. SICOVAL, Communauté d'Agglomération Sud-Est toulousain (Midi-Pyrénées)
32. STAE Foundation (Midi-Pyrénées)
33. TELESPAZIO FRANCE (Midi-Pyrénées)
34. TéSA Laboratory (Midi-Pyrénées)
35. Thales Alenia Space (Midi-Pyrénées)
36. Tele-Rilevamento Europa, T.R.E. (Lombardy)
37. University of Surrey (South East)
38. University of Turin (Piedmont)

(*) as of 30 October 2012

