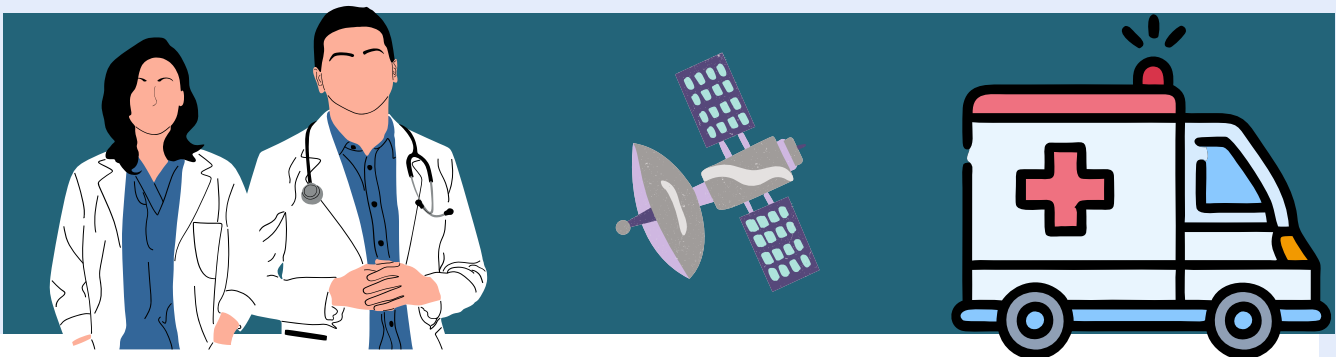




SPACE DATA/SERVICES FOR HEALTH



4RTH FEBRUARY 2025, 15.30-17.00 (BRUSSELS TIME)



**WEBINAR I ON SPACE DATA/SERVICE FOR HEALTH -
SPACE4HEALTH**

SERIES OF ONLINE EVENTS

[PLEASE CONFIRM YOUR ATTENDANCE BY REGISTERING HERE.](#)

PROGRAMME

Welcome and short introduction by NEREUS (Roya Ayazi, NEREUS-secretary General);

- Presentation of **GEO E04HEALTH initiative activities** by Juli Trtanj, NOAA; and John Haynes and Helena Chapman, NASA;
- Presentation of the “**Copernicus Health Hub**” by Cristina Ananasso, ECMWF;
- Presentation of **EUSPA activities** on health applications and collaboration with medical companies by Gerda Kuum, EUSPA;
- Best Practices/examples by companies, start-ups, research, universities etc.:

- Q&A/ Discussion

- Closing

Short description of the session:

The session is part of a series that introduces the participants to the dimension of space technologies for different application domains. This session focuses on Space4Health and wants to highlight the opportunities of space-based services and products but also identify needs of the regional/local level in the health sector. Bearing in mind that public health and the environment are closely linked, Earth Observation (EO) and satellite-based services provide data and tools in helping us understand, track, and predict diseases and public health developments.

PROGRAMME

To quote some examples highlighted by the Group on Earth Observation (GEO), Earth observation and SENTINEL data can

- Monitor and forecast potential health risks such as air quality deterioration or disease outbreaks.
- Understand and predict environmental factors that might lead to respiratory illnesses, malnutrition, or disease transmission.
- Offer early warnings for potential health crises, like contaminated seafood from algae blooms or respiratory challenges from dust storms.
- Track environmental changes that may open pathways for diseases, such as Lyme or HIV/AIDS.

A solid information base on these factors allows public authorities to take better-informed decisions to design and implement effective public health programs.

Objectives:

- Better understanding of challenges and needs of public authorities responsible for health policies
- Explore how satellite technologies can be employed to support the health sector (see above)
- Bringing best practices, model use cases and projects to the floor that highlight how space technologies contribute to addressing challenges of public and individual health, highlight projects and initiatives that have successfully integrated space technology.
- Discuss the impact of climate change the health sector and its implications for citizen's health
- Stimulating knowledge exchange and sharing innovative solutions
- Encourage partnerships and cooperations to integrate new health solutions
- Discussing the significance of interregional cooperations/ European cooperations between the space industry, health sector, and local communities to implement effective solutions.
- Address legislative framework, the role of regional strategies and current environmental legislation on promoting new health solutions

PROGRAMME

To quote some examples highlighted by the Group on Earth Observation (GEO), Earth observation and SENTINEL data can

- Monitor and forecast potential health risks such as air quality deterioration or disease outbreaks.
- Understand and predict environmental factors that might lead to respiratory illnesses, malnutrition, or disease transmission.
- Offer early warnings for potential health crises, like contaminated seafood from algae blooms or respiratory challenges from dust storms.
- Track environmental changes that may open pathways for diseases, such as Lyme or HIV/AIDS.

A solid information base on these factors allows public authorities to take better-informed decisions to design and implement effective public health programs.

Objectives:

- Better understanding of challenges and needs of public authorities responsible for health policies
- Explore how satellite technologies can be employed to support the health sector (see above)
- Bringing best practices, model use cases and projects to the floor that highlight how space technologies contribute to addressing challenges of public and individual health, highlight projects and initiatives that have successfully integrated space technology.
- Discuss the impact of climate change the health sector and its implications for citizen's health
- Stimulating knowledge exchange and sharing innovative solutions
- Encourage partnerships and cooperations to integrate new health solutions
- Discussing the significance of interregional cooperations/ European cooperations between the space industry, health sector, and local communities to implement effective solutions.
- Address legislative framework, the role of regional strategies and current environmental legislation on promoting new health solutions

INTRODUCTION

In recent years, we have witnessed a renewed interest in space observation and exploration across society. European space infrastructures have grown increasingly mature, implying a new dimension of data availability, leading to more space solutions at the service of society. In other words, space data and applications are advantageous for business, government and people, 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. This is strongly the case in Catalonia, where the government approved in October 2020 a NewSpace strategy. This strategy is coordinated by the Government of Catalonia in collaboration with the Institute of Space Studies of Catalonia (IEEC), the i2cat Foundation, and the Cartographic and Geological Institute of Catalonia (ICGC), with the objective of boosting a NewSpace innovation hub in the region, globally connected.

At regional level space is increasingly recognised as a strategic asset and important driver for innovation, economic growth, high-level employment and but also as an important source of knowledge to be better prepared for adaption to climate change. In fact, many regions integrated the use of space into their regional economic and Smart Specialisation Strategies. Other regions follow the example of Catalonia and define their own space strategies. NEREUS (Network of European Regions Using Space Technologies) offers them a platform to exchange, develop joint positions and share information and knowledge. NEREUS represents the interests of European regions that use space technologies whilst simultaneously highlighting the regional dimension of European space policy and programmes.

This renewed interest in space activities has led the Government of Catalonia, NEREUS and IEEC to organise an event in Brussels to highlight the role of European regions in Europe's space policy.

The event "Regions as Key Players in European Space Policy" will take place on 20 March 2023, from 2:30 PM to 5:30 PM, at the Delegation of the Government of Catalonia before the EU, in Brussels.

This event will be part of the series of events being planned in Europe and the USA on the occasion of the 100th anniversary of the birth of Dr. Joan Oró (1923-2004), a Catalan biochemist whose research contributed to space exploration and led him to participate in several NASA missions. In this regard, the event in Brussels will begin with a panel that will introduce the legacy of the biochemist and will show up two experiments at the forefront of space exploration: the Hypatia I Mission to the Mars Desert Research Station in Utah; and the MELiSSA Pilot Plant, a key infrastructure led by ESA and devoted to develop life support systems for long-term space missions.

**PLEASE CONFIRM YOUR ATTENDANCE BY REGISTERING
HERE.**

FOLLOW-UP: REGIONS AS KEY PLAYERS IN EUROPEAN SPACE POLICY

On March 20, 2023, the IECC and NEREUS co-organized the event "Regions as Key Players in European Space Policy" at the Delegation of the Government of Catalonia to the European Union. The purpose of the event was to emphasize the role of European regions in Europe's space policy. The discussion was divided into two panels, the first focusing on Catalonia's contribution to space exploration, and the second on regional space activities that impact the European space strategy.

The conference was opened by Mr. Ignasi Centelles, the Representative of the Government of Catalonia to the EU, who discussed the catalytic role of space in the future development of regions. He highlighted Catalonia's position as a significant hub for companies, SMEs, universities, and scientific infrastructures that facilitate technology transfer. Further to this he highlighted the importance his region puts on the digital transition and combining space and digital technologies.

Mr. Thierry Cotelle, Regional Councillor of the Occitanie region and NEREUS President outlined NEREUS's role in promoting the interests of European regions that use space technologies for the benefit of citizens. He discussed NEREUS's core activities, including interregional collaboration and political dialogue, which enhance collaboration among regions and their ecosystem and help them to position themselves strategically in a wide range of European policies such as the Green Deal. With this, he drew attention to the annual NEREUS Regional Symposiums and extended the invitation to the upcoming Regional Symposium 2023 focused on using space data for agriculture and tourism organised in Matera/Basilicata, Italy on 28-29 September 2023.

The first panel, moderated by Mr. Lluís Juncà, DG for Innovation, Digital Economy and Entrepreneurship at the Government of Catalonia, focused on space exploration in the past and present. Mr. Joan Anton Català highlighted the contribution of Joan Oró, a Catalan biochemist associated with NASA's early efforts to find life beyond planet Earth. The other two panellists presented two experiments which are at the forefront of space exploration: Ms. Mariona Badenas discussed The Hypatia I Mission to the Mars Desert Research Station in Utah, emphasizing the need for more women to pursue space-based careers, while Mr. Francesco Gòdia presented the MELiSSA Pilot Plant, which develops regenerative life support systems for long-term human space missions. During the Q&A session, it was reported that collaboration between nations is a prerequisite for successful space missions given their high costs and sharing of know-how. Further, the speakers discussed the importance of collaboration between nations for successful space missions and emphasized the need to consider ethical parameters in space exploration.

The second panel of the programme, which focused on how regions can best contribute to the EU's space policy and programmes, was moderated by Ms. Roya Ayazi, the Secretary General of NEREUS. She noted that in recent years, several NEREUS member regions have developed regional space strategies (Catalonia, the Azores and Hesse, and Occitanie's strategy will follow soon), or integrated space into their smart specialisation strategies, while some regions defining data exploitation strategies to tackle challenges like climate change and digital transition.

Ms. Paraskevi Papantoniou, Director for Space at DG DEFIS, European Commission, emphasized in a video message that regions are important users and procurers of space-based services, and the EU's space programmes focus on the needs of citizens to tackle challenges in the public sector. She also highlighted the importance of the new secure connectivity initiative, IRIS2, in combining the dynamics of the space industry and start-ups at the regional level.

FOLLOW-UP: REGIONS AS KEY PLAYERS IN EUROPEAN SPACE POLICY

Then, Ms. Isabella Poldrugo, Deputy Head of Unit for Space Policy at the European Commission, emphasized the significance of the regional dimension and synergies in developing a coherent European space policy and identified several initiatives that recognize the crucial contribution of space and the key role of regions. To quote just a few, the next strategy on the uptake of space uses will put an emphasis on all programmes making the best possible use of all data. Further, the role of space becomes more and more prominent for the resilience of critical infrastructures in regions given the recently adopted directive. Next, 2023 has been identified as the European Year of Skills in which regions play a fundamental role given their strong link with universities and synergies to develop the right skills for the upstream and downstream sectors. Finally, she referred to Cassini, another EU initiative supporting start-ups and attracting private investment at regional and local levels.

From the side of the ESA, Mr Xavier Lobao, Head of Future Projects Division at ESA, through his presentation 'the Global Space4Earth Goals of ESA and the New Space Paradigm' illustrated that the phenomenon of NewSpace represents a paradigm in the development of satellites that allows start-ups to develop space-based solutions and contribute to innovation at the regional level.

During the panel discussion, Mr. Cotelle noted that NEREUS empowers regions and their stakeholders to use space-based information and services to address regional challenges. In this regard, the NEREUS joint project with the European Commission and the European Space Agency, Copernicus4regions, showcases how regions already use space programmes, such as Copernicus and are capable to build related businesses, and bringing these regional use cases in concrete policy contexts with Members of the European Parliament and regional politicians.

Next, Mr. Jalil Benabdillah, Vice-President in charge of the Economy, Employment, Innovation and Reindustrialisation of the Occitanie / Pyrénées-Méditerranée Region, elaborated on the Occitanie's space ecosystem and the activities in defining a regional space strategy. Mr. Benabdillah highlighted that the region hosts a rich ecosystem of SMEs, clusters, and research centres whose needs are reflected in their regional policy aligned with the national and the European level. Apart from this he stressed the importance of space technologies for the green, digital, climate and social transition in Europe.

Ms. Fulvia Quagliotti, President of the Piedmont Aerospace District, presented the Piedmont space ecosystem, which is an aerospace district that links member companies with other aerospace districts and clusters across regions and at an EU-scale and is a facilitator for SMEs to help them grow and support them in their projects and interaction with academia and research centres. The Piedmont region is one of the key players in space exploration and economy, hosting large industries like Thales, Airbus, EADS, Boeing, clusters (eg. Altec), the ESA BIC, and a strong group of SMEs in the supply chain. Further, the region entertains collaboration through projects with international space organisations, such as NASA.

Ignasi Ribas, Director of the Institute of Space Studies of Catalonia (IEEC), discussed the Catalan space sector and its relationship with the regional government. He noted that the government and various organizations, including the IEEC, the i2cat Foundation, and the Cartographic and Geological Institute of Catalonia (ICGC), are working together to establish a NewSpace innovation hub in the region by promoting market applications and supporting start-ups. The government acts as the primary customer for these services and issues public procurement offers to encourage industry response. The strategy has identified six key pillars, including the adoption of use cases by the administration, the development of space-based infrastructure, R&D programmes for the industry, talent generation mechanisms, regulatory frameworks, and outreach. The event was attended by over 90 participants and was part of a series of events being planned in Europe and the USA to celebrate the 100th anniversary of the birth of Dr. Joan Oró (1923-2004).