

Space Opportunities for Climate Challenges:

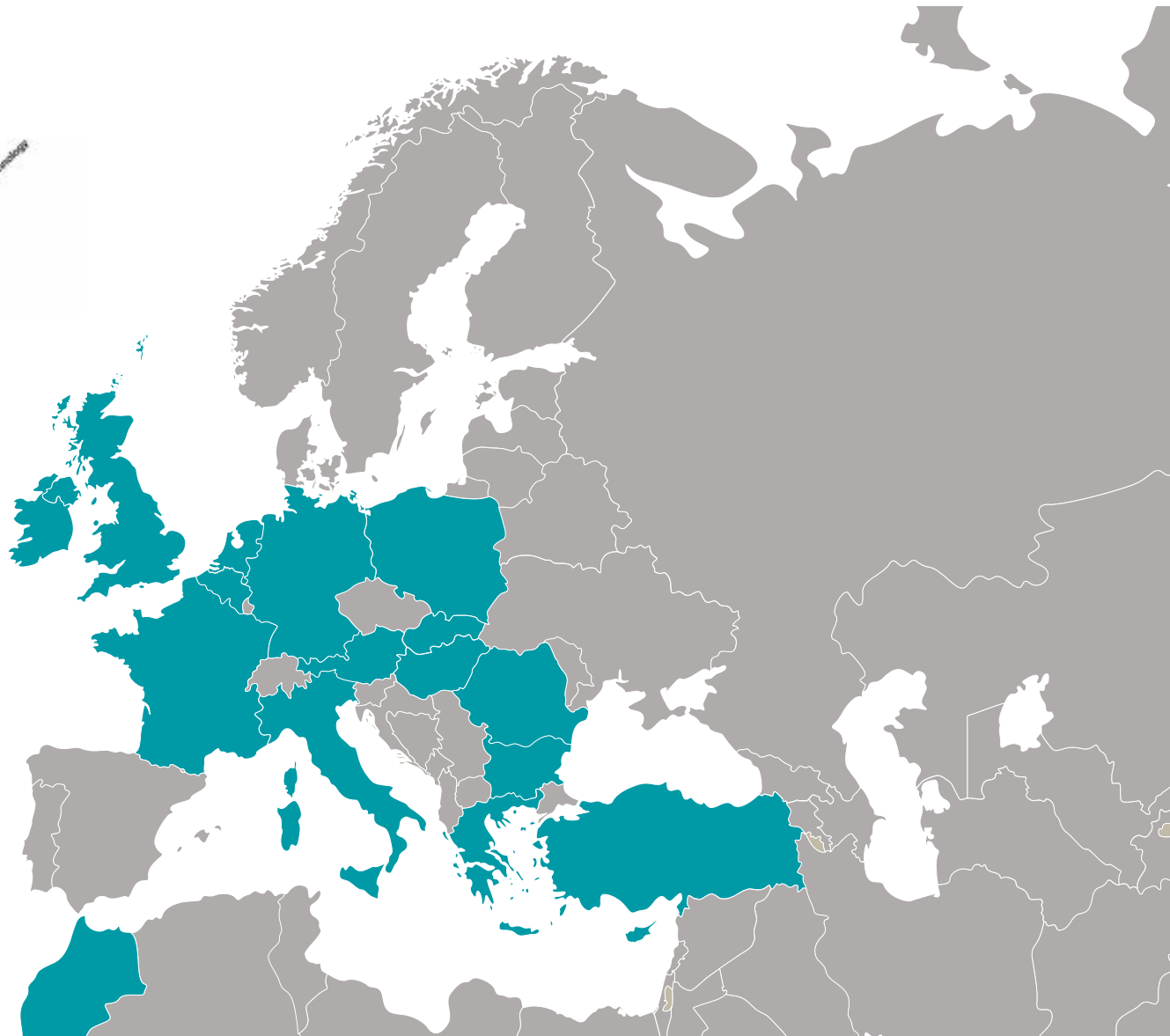
How space applications power green transition



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Eurisy

Space Opportunities for Climate Challenges

World Space Forum 2021



Approach



Facilitator → EXPLORE

Raise awareness of satellite applications to help professional communities in many sectors: from transport to risk management, from habitat protection to energy, from climate change to the IoT.



Matchmaker → CONNECT

Support potential end users of satellite applications by leveraging its vast network among space and non-space communities; understanding patterns and links and/or creating them for mutual benefits.



Adviser → INFORM

Provide feedback to decision-makers on possible measures to overcome obstacles in diffusing space-derived innovation in society.



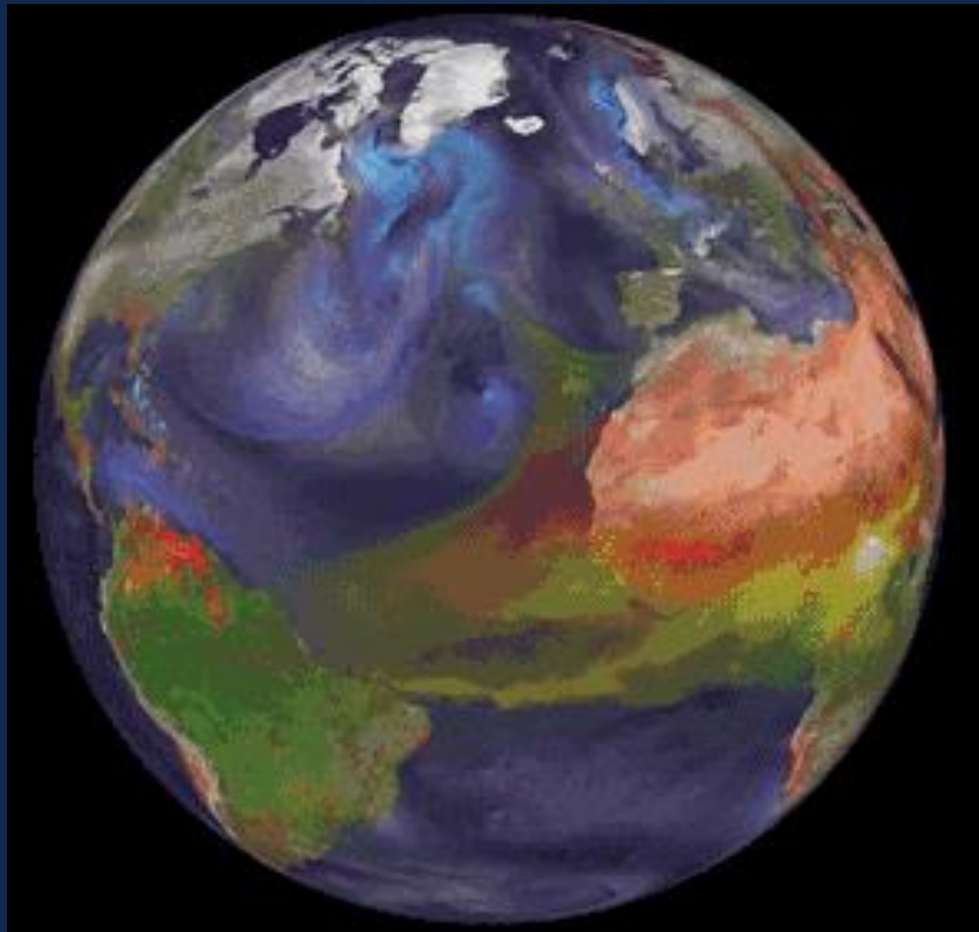
Why Space Applications?

Climate change

Increase of world population

Water scarcity

Food security



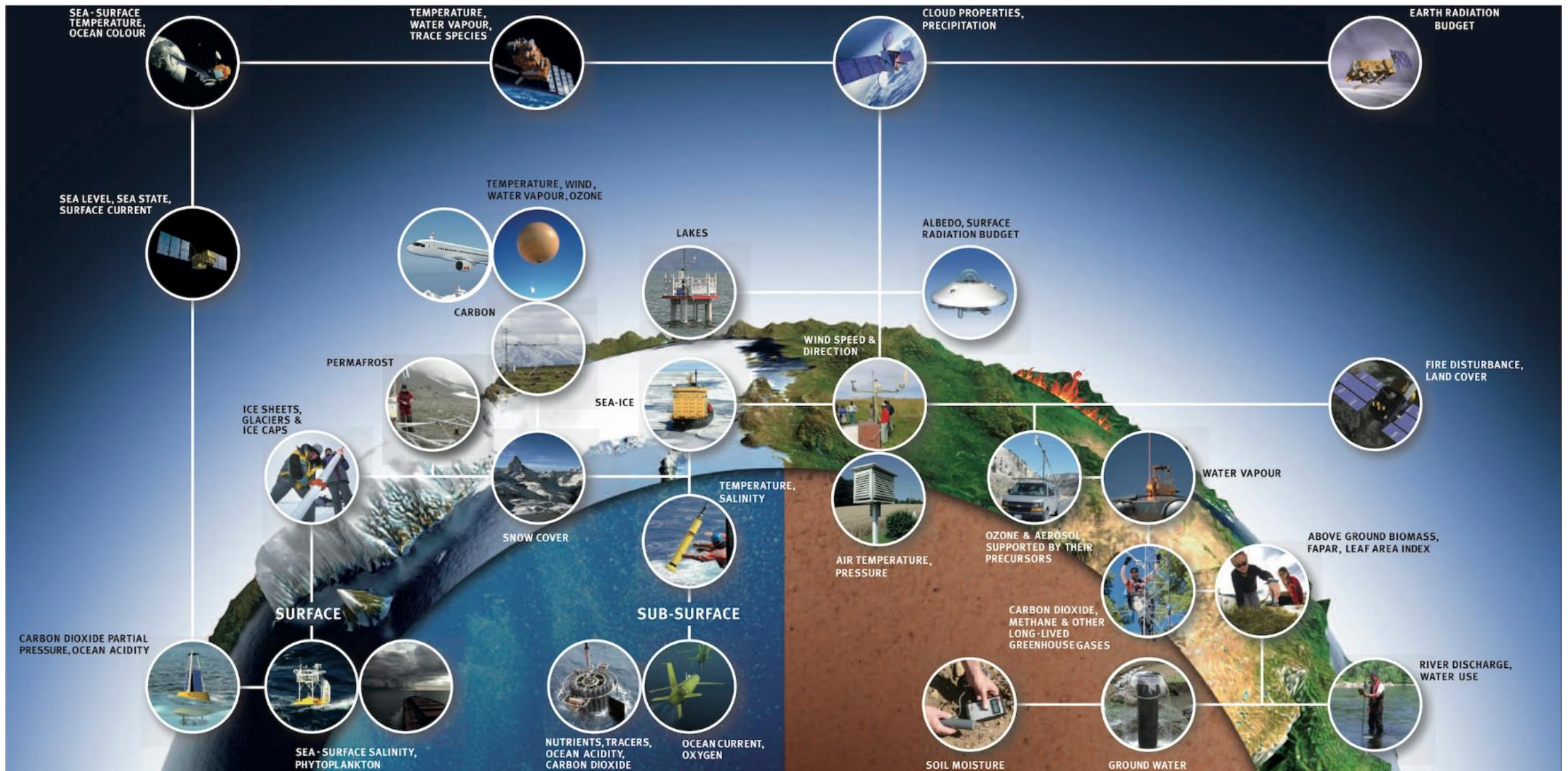
Habitat and biodiversity loss

Ocean conservation

Sustainable industrial development

Global Health

How space is contributing?




Space4Environment




Objectives


- Contribute to identification of **maritime users' needs and challenges** and favour their interaction with service providers;
- Contribute to the **promotion of satellite-based solutions' benefits** for the maritime professional community;
- Support the **development of policy recommendations** for a wider uptake of satellite-based solutions.




Climate Change Awareness



The Latest Satellite Applications



News, Funding Opportunities, Network



Monthly Recurring Webinar

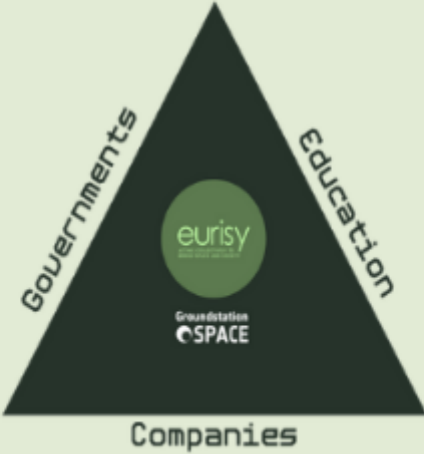













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Rooting for plant health



⚠ **Challenges:**

- Spread of plant pests through globalisation & trade
- Climate change effects such as droughts and floods
- Threat to human health and food security

✓ **Satellite remote sensing:**

- Regular monitoring of large areas
- Identify and map plants and trees
- Detection of stress in plants before they are visible to the naked eye

Setting course for sustainable maritime activities



SASEMAR: Protecting Spanish Coasts from environmental accidents

The user:

Sociedad de Salvamento y Seguridad Marítima-SASEMAR (ES)



Salvamento Marítimo

The challenge:

Oil spills and illegal discharges from ships threatening the Spanish coasts

The satellite solution:

IBISAR. Web-based platform. science and satellite-based downstream service . Helping coastal authorities in identifying ocean current datasets to improving SAR and pollution control operations

The benefit:

increased capacity reaction in case of an emergency at sea of its operators; Containment of potential natural disasters at sea;

Satellite applications for sustainable forestry



Sustainable forest management and reforestation through satellite imagery

The user:

Vojvodinašume, the serbian public entity in charge of the region's forests and forest land



The challenge:

Intensive farming and urban sprawl;
time and resources-consuming manual field inspections;
appropriate management plans for its forest units

The satellite solution:

High-resolution remote sensing data is purchased yearly through public procurement. The data is used as a complement to field observations to improve forest area estimations and plan sample plots.

The benefit:

Reduced time and human resources costs connected to field inventories; map forest and wood types, which translated into evaluations of forest growth.

Satellite data streams for Europe's freshwater



Satellite information to improve management of water resources

The user:

Tensift Hydraulic Basin Agency



The challenge:

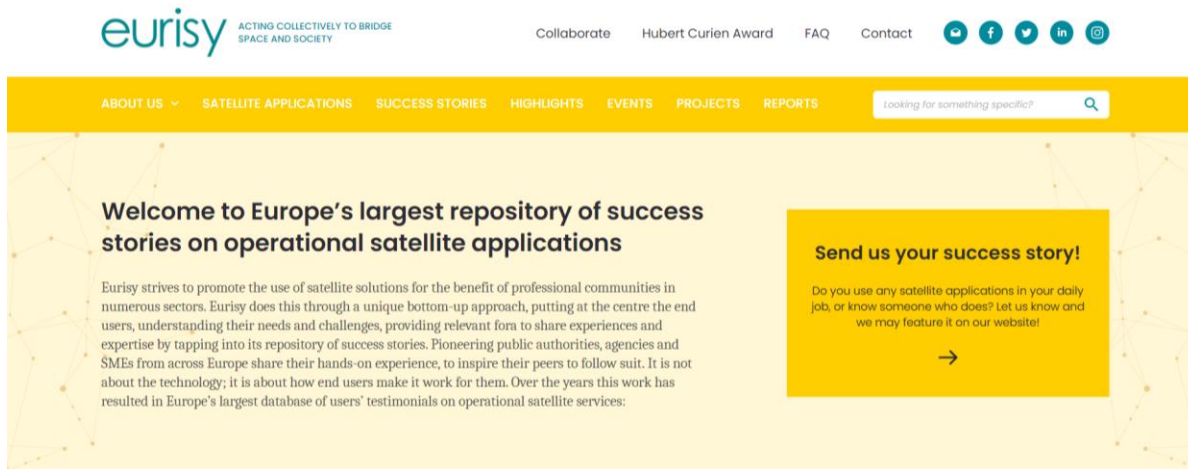
Intensive farming and droughts decreasing the level of aquifers;
Water waste

The satellite solution:

daily satellite imagery on the snow cover and its water equivalent, to estimate water availability
land cover maps and satellite imagery, combined to estimate evapotranspiration and assess water demand for agriculture.

The benefit:




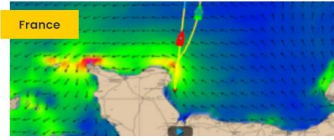

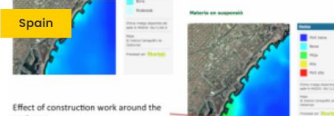
Satellite imagery allows to better estimate water availability and demand from agriculture, and to ensure an efficient and effective use



Success stories will foster the relations between service providers and end users.

The Success Stories aim at addressing communities outside the space sector and offer them the opportunity to express their needs and to present their challenges.

The objective is to favour the integration of satellite-based solutions in their workflow.

<ul style="list-style-type: none"> Communication and digital society > Energy, infrastructure and utilities > Environment, climate and health > Maritime > Risk management and emergencies > Smart cities > Tourism, culture and leisure > Transport and logistics > 	<div style="margin-bottom: 20px;"> <p>Montenegro</p>  <p>Montenegro: Protecting marine habitats thanks to a map based on satellite information</p> </div> <div style="margin-bottom: 20px;"> <p>Italy</p>  <p>Lazio Region: supporting coastal zone management with geo-information services</p> </div> <div style="margin-bottom: 20px;"> <p>Finland</p>  <p>Finland: All-year-round open ports due to efficient ice-breaking services</p> </div> <div style="margin-bottom: 20px;"> <p>France</p>  <p>Weather4D: smooth seas and fair winds ahead with satellite technology</p> </div> <div style="margin-bottom: 20px;"> <p>Sweden</p>  </div> <div> <p>Spain</p>  <p>Effect of construction work around the port area</p> </div>
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Thank you!



Do you want to partner with Eurisy or know more about satellite applications?

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