EU Space Supporting Biodiversity

KCEO Biodiversity Deep Dive, 16th November 2022

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CASSINI Maritime Prize

EUSPA
European Union Agency for the Space Programme

Open for submissions!

- Prize for the best **data-driven marine** or **maritime digital application**

- Solutions for the **detection**, **monitoring** and the **removal of microplastics**, plastic litter as well as of larger items in **rivers**, **shores** and **coastal zones**, in order to support the prevention of ocean pollution

- Use of **Copernicus and/or Galileo data** in combination with other data sources. Use of Artificial Intelligence, High Performing Computing, big data processing and management is also encouraged

- First **3 winners** will receive **EUR 950.000** cash prize each

The CASSINI Prize is open for submissions at the EC's Funding & Tenders portal

Image Credits: Naja Bertolt Jensen/Unsplash

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SustCoast: Digital platform for monitoring the transparent and shallow coastal waters

specifically designed for **large-scale monitoring of coastal waters** in high-resolution satellite imagery, such as **Sentinel-2** data. It enables greater spatial and temporal coverage of the monitoring area for water quality monitoring including rising eutrophication levels, degradation of biodiversity, and harmful algal blooms.
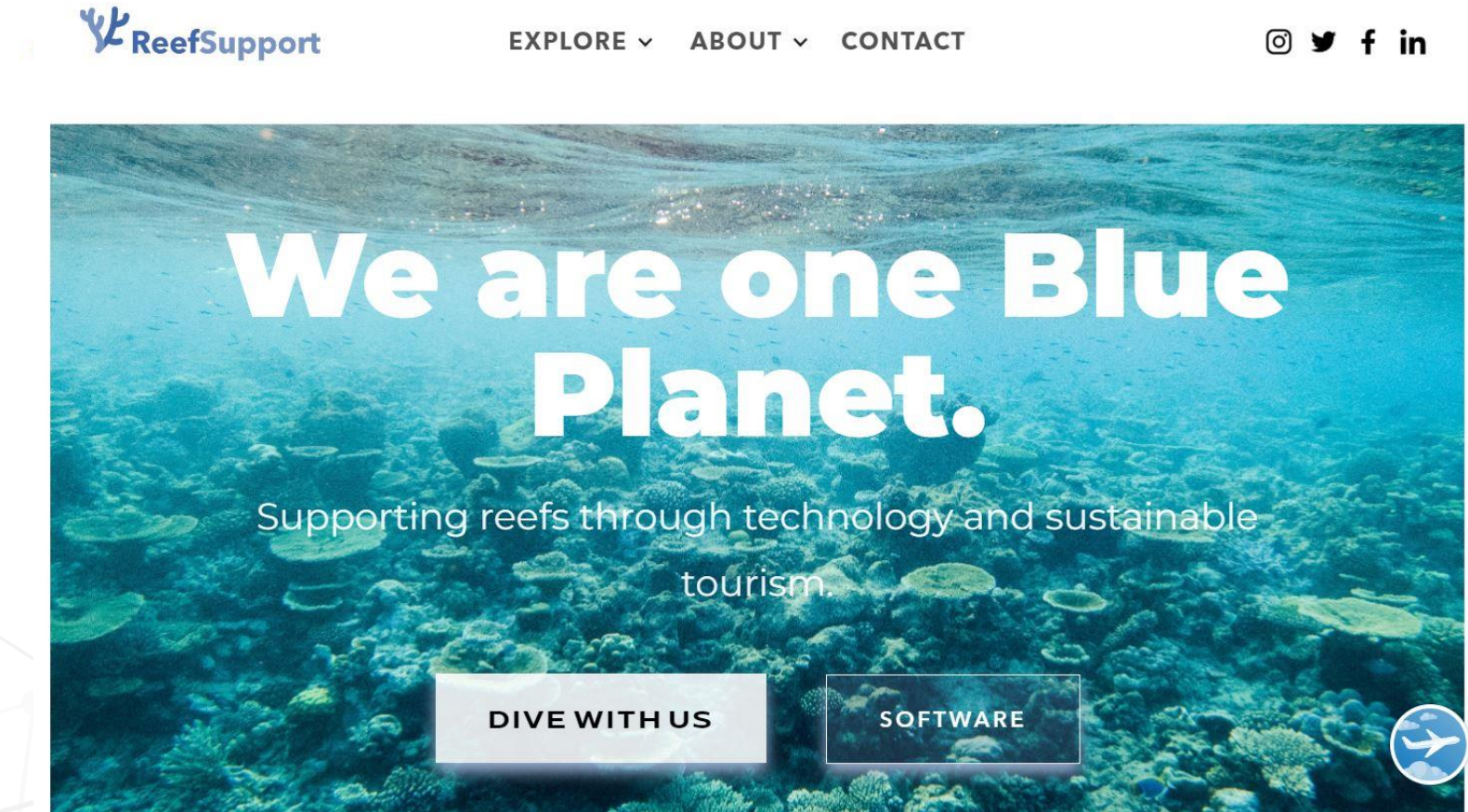
Website: https://seacras.com/en/

SeaCras is Earth Observation-AI company for water quality monitoring, specialized for highly challenging coastal waters.

Biodiversity supported by EU Space

Reef Support:

An aquaculture data management **online platform** that puts together data from **Copernicus**, drones and underwater cameras and generates **environmental reports and predictive models for the maintenance of the reefs**.

https://www.reef.support/

EGNSS & Copernicus applications fostering the European Green Deal: 100KTREES

Decision Toolbox for cities to improve air quality, biodiversity, human wellbeing and reduce climate risks by planting more trees in our cities

Galileo and Copernicus **supporting EU's biodiversity strategy** for 2030, improving urban planning and **life in European cities**, where 75% of the population lives

EGNSS & Copernicus applications fostering the European Green Deal: SWIFTT

Satellites for Wilderness Inspection and Forest Threat Tracking

Protect forest health and production with an early warning system of forest threats, using space data and Artificial Intelligence

EGNSS & Copernicus applications fostering the European Green Deal: BIRDWATCH

A Copernicus-based service for the improvement of habitat suitability of farmland birds via satellite-enabled monitoring, evaluation and optimisation of CAP greening measures

Leveraging EU Space data to **protect agricultural biodiversity** and improve farmland ecosystems health in Europe

Linking space to user needs

Get in touch with us

www.euspa.europa.eu

f EU4Space   in EUSPA   🐦 @EU4Space   📷 @space4eu   ▶ EUSPA

The European Union Agency for the Space Programme is hiring!

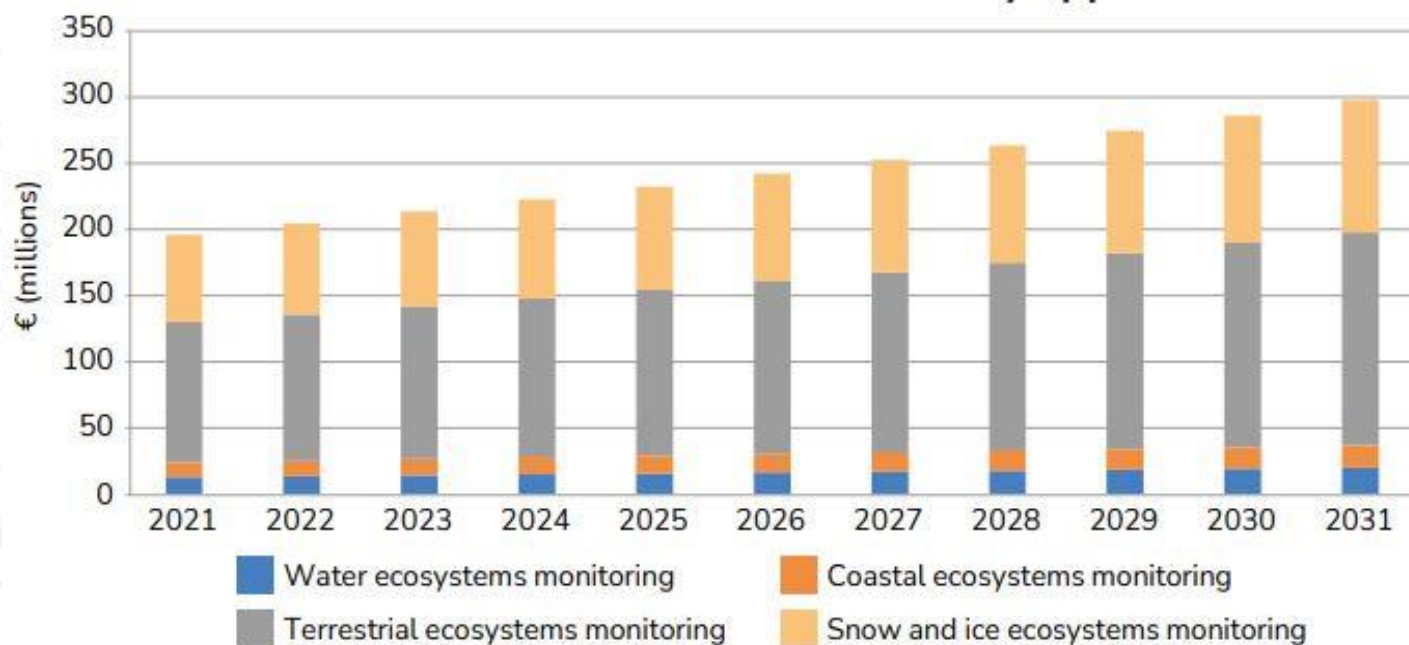**Apply today** and help shape the future of **#EUSpace!**

Biodiversity, Ecosystems and Natural Capital

Restore ecosystems and biodiversity

The revenues from the sale of both EO data and services in the Biodiversity sector in **2021** amounted to **€196 m**, and will grow over the next decade to reach **€297 m** in **2031**.
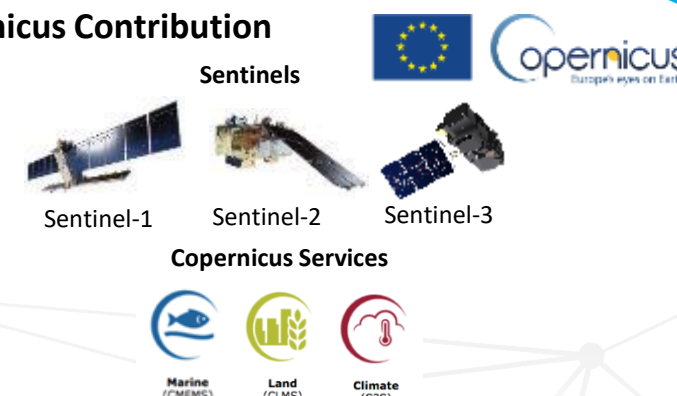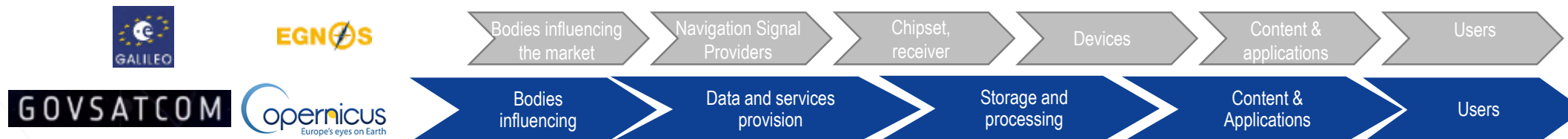
EO only applications:
➢ **Terrestrial ecosystems monitoring, Snow and ice ecosystems monitoring,** water ecosystems monitoring, coastal ecosystems monitoring

Revenue from EO data & services sales by application

Copernicus Contribution

Sentinels

Sentinel-1   Sentinel-2   Sentinel-3

Copernicus Services

Marine (CMEMS)   Land (CLMS)   Climate (C3S)

All EU Space Program components with an integrated market/user driven approach

New integrated segmentation

Bodies influencing the market	Navigation Signal Providers	Chipset, receiver	Devices	Content & applications	Users

Bodies influencing	Data and services provision	Storage and processing	Content & Applications	Users

Market & User Knowledge

Extended **Market and technology** monitoring and forecasting

Extended and synergic **User Consultation Platform**

Better understanding the **MS needs** and adding Copernicus Other Users satisfaction survey

Demand Support

A common **market segments** approach for all EU space downstream

Extended key account with **main players** of the value chain

Offer Creation

Creation of new "made in Europe" products and services.

Large implementation of end-to-end solutions leveraging synergies.

Supporting entrepreneurship, SME and start-sups

Copernicus Demonstrators

➢ **Lot 2 Consumer and Environment**:

o Proof of concept 6: **Fisheries and Aquaculture** (applications may include among others fish stock detection, Aquaculture floating platforms for best location determination and monitoring, phytoplankton monitoring)

o Proof of concept 7: **Digital Tourism and Cultural Heritage** (applications may include among others Tourism and biodiversity, Cultural Heritage risk assessment)

o Proof of concept 8: **Insurance & Finance** (applications may include risk assessment, parametric insurance, Commodity trading, ESG factors for investment risk and growth opportunity)

o Proof of concept 9: **Forest vegetation health monitoring** (applications may include among others biodiversity hot spots and human pressure monitoring)

o Proof of concept 10: **Green mining and Energy** (applications may include among others floating offshore wind farms; planning and operations of green mines and renewable energy plants, oil stock monitoring)

EGNSS and Copernicus supporting the Sustainable Development Goals

6 CLEAN WATER AND SANITATION
Water quality
Water management
Protect and restore water ecosystems

14 LIFE BELOW WATER
Marine pollution
Sustainable aquaculture and fisheries management
Fish stock detection and catch optimization

13 CLIMATE ACTION
Climate monitoring and forecasting
Climate mitigation and adaptation
Disaster management
Search and rescue operations

15 LIFE ON LAND
Halt deforestation and promote sustainable forest management
Combat land degradation and biodiversity loss
Forest inventory

FULL REPORT: https://www.unoosa.org/res/oosadoc/data/documents/2018/stspace/stspace71_0_html/st_space_71E.pdf