

EU SPACE FOR MARINE
ECOSYSTEMS PROTECTION

WEBINAR:

CASSINI Prize for Digital Space Applications

18 January | 15:30 CEST

We will start soon ...

#EUSpace



Part of the
CASSINI initiative



Copernicus
Marine Service



**MERCATOR
OCEAN**
INTERNATIONAL



EU SPACE FOR MARINE
ECOSYSTEMS PROTECTION

WEBINAR:

CASSINI Prize for Digital Space Applications

18 January | 15:30 CEST

#EUSpace



Part of the
CASSINI initiative



Copernicus
Marine Service



**MERCATOR
OCEAN**
INTERNATIONAL



Welcome!

How to interact during the webinar

- Make sure your headphones are switched on and turn up the volume
- Participants' microphones are **muted**. If you want to address any questions during the webinar, **please use the Q&A tab**
- For any technical issues that may arise during the webinar (sound problems, not viewing content, etc.) you can use the **chat** and we will support you.



How to interact during the webinar

- Questions are collected and addressed at the end of the session
- All questions and answers will be also published in form of clarifications on the EUSPA website
- The webinar **is not recorded**
- The slides will be available on EUSPA's website shortly after the webinar



#EUSpace

EUSPA

Leila Ajjabou – European Agency for the Space Programme



Part of the
CASSINI initiative



Copernicus
Marine Service



**MERCATOR
OCEAN**
INTERNATIONAL

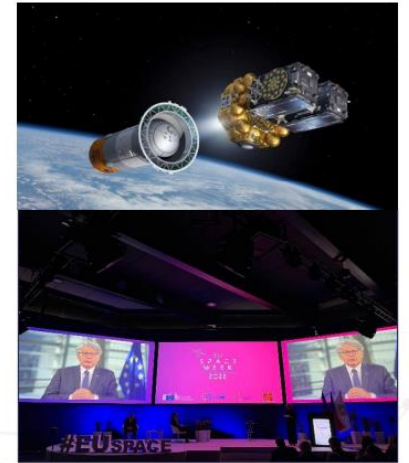


A new EU Space Programme and new Agency



EU space activities under one umbrella:

- Providing European satellite navigation services
- Promoting the commercialization of Galileo, EGNOS, and Copernicus data and services
- Coordinating the EU's GOVSATCOM
- Responsible for security accreditation of all the EU Space Programme components



Galileo

Global satellite navigation and positioning system (GNSS)



EGNOS

Makes navigation signals more accurate and reliable



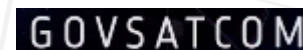
Copernicus

Earth Observation (EO) and monitoring based on satellite and non-space data



GovSatCom

Secures satellite communications for EU governmental actors



SSA

Space Situational Awareness monitors and protects space assets.

A market and user-driven approach



Market & User Knowledge



Extended **Market and technology** monitoring and forecasting

Demand Support



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

Offer Creation



Creation of new “made in Europe” products and services.

Supporting entrepreneurship, SME and start-ups

CASSINI can leverage synergies with EU space R&I funding programs

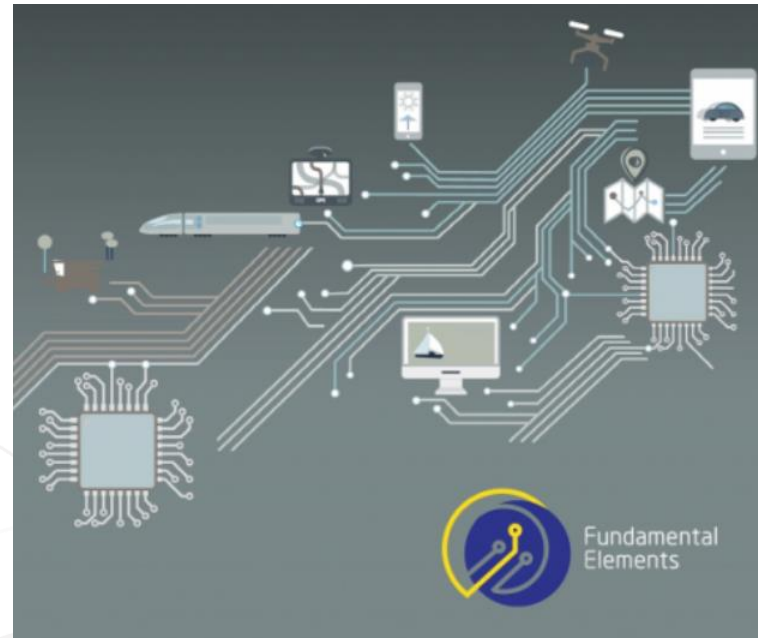
Horizon Europe

User Technology

Entrepreneurship support



HORIZON EUROPE



**CASSINI SPACE
ENTREPRENEURSHIP
INITIATIVE**



#EUSpace

Copernicus Marine Service General overview

Tina Silovic- Mercator Ocean International



Part of the
CASSINI initiative



Copernicus
Marine Service



**MERCATOR
OCEAN**
INTERNATIONAL



CASSINI Maritime Prize WEBINAR

18 January 2023



Marine Monitoring

Copernicus Marine Service General overview

Tina Silovic- Mercator Ocean International



Implemented by



FULL, FREE AND OPEN ACCESS TO DATA



-  ATMOSPHERE MONITORING
-  MARINE ENVIRONMENT MONITORING
-  LAND MONITORING
-  CLIMATE CHANGE
-  EMERGENCY MANAGEMENT
-  SECURITY



Copernicus Marine Service

Implemented by [Mercator Ocean International](#) as part of the [Copernicus Programme](#) Resources News Events Contact [REGISTER](#) English



[Services](#) [Opportunities](#) [Access Data](#) [Use Cases](#) [User Corner](#) [About](#)

Copernicus Marine Service

Providing free and open marine data and services to enable marine policy implementation, support Blue growth and scientific innovation.

[Access Data](#) >

DATA

OCEAN PRODUCTS

A robust ocean data catalogue, to download or visualise data including hindcasts, nowcasts and forecasts.

EXPERTISE

OCEAN STATE REPORT

Extensive annual analysis on the state of the ocean over nearly 20 years and severe/notable annual events.

TRENDS

OCEAN MONITORING INDICATORS

Essential variables monitoring the health of the ocean over the past quarter of a century.

EXPLORATION

OCEAN VISUALISATION

Dive into our 4D digital oceans through our 3 visualisation tools for beginner, intermediate and advanced users

Online catalogue
marine.copernicus.eu

More than 300 scientifically qualified products & Ocean monitoring indicators

User driven

Common format (Netcdf - Shapefile)

Open and Free

Ocean Explainers: Oceanography Educational webpages



- Why is the ocean important?
- What is operational oceanography?
- How is the ocean monitored?
- What is ocean acidification?
- What are the current policies that help safeguard the ocean?

Find the answers to these and more questions in this section

[Learn more](#)

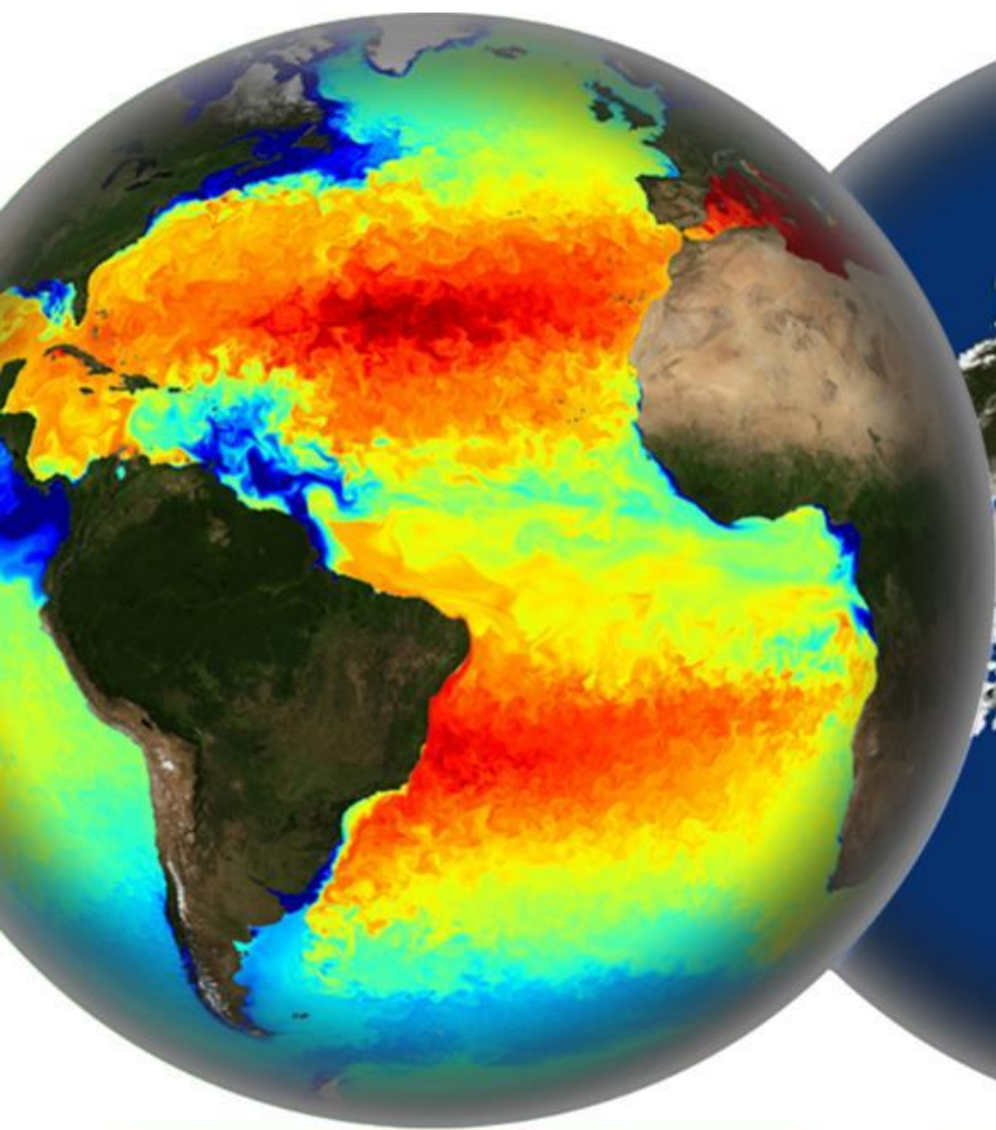


Copernicus Marine Portfolio



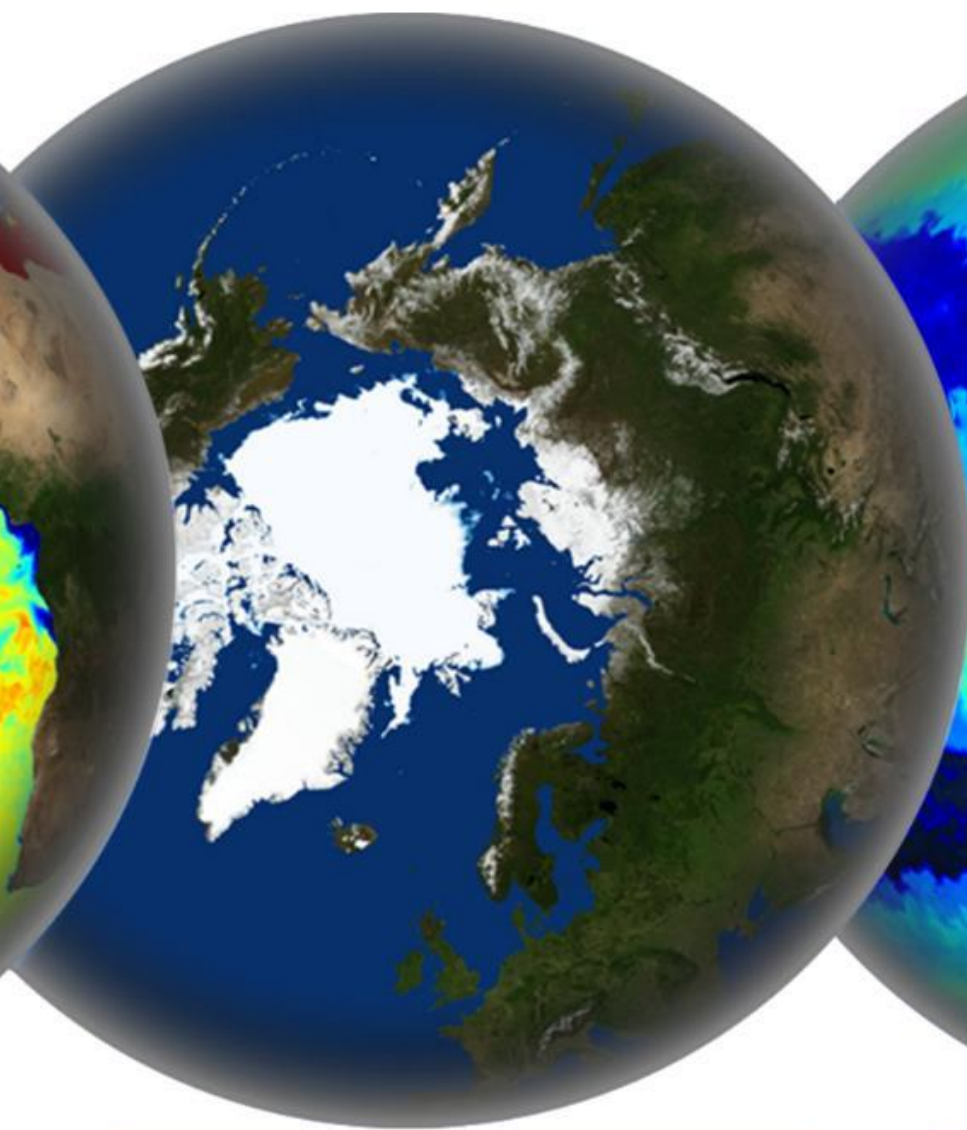
COPERNICUS MARINE REGIONAL OCEAN PRODUCT DIVISIONS

- ① Global Ocean
- ② Arctic Ocean
- ③ Baltic Sea
- ④ European North West Shelf Seas
- ⑤ Iberian Biscay Ireland Seas
- ⑥ Mediterranean Sea
- ⑦ Black Sea



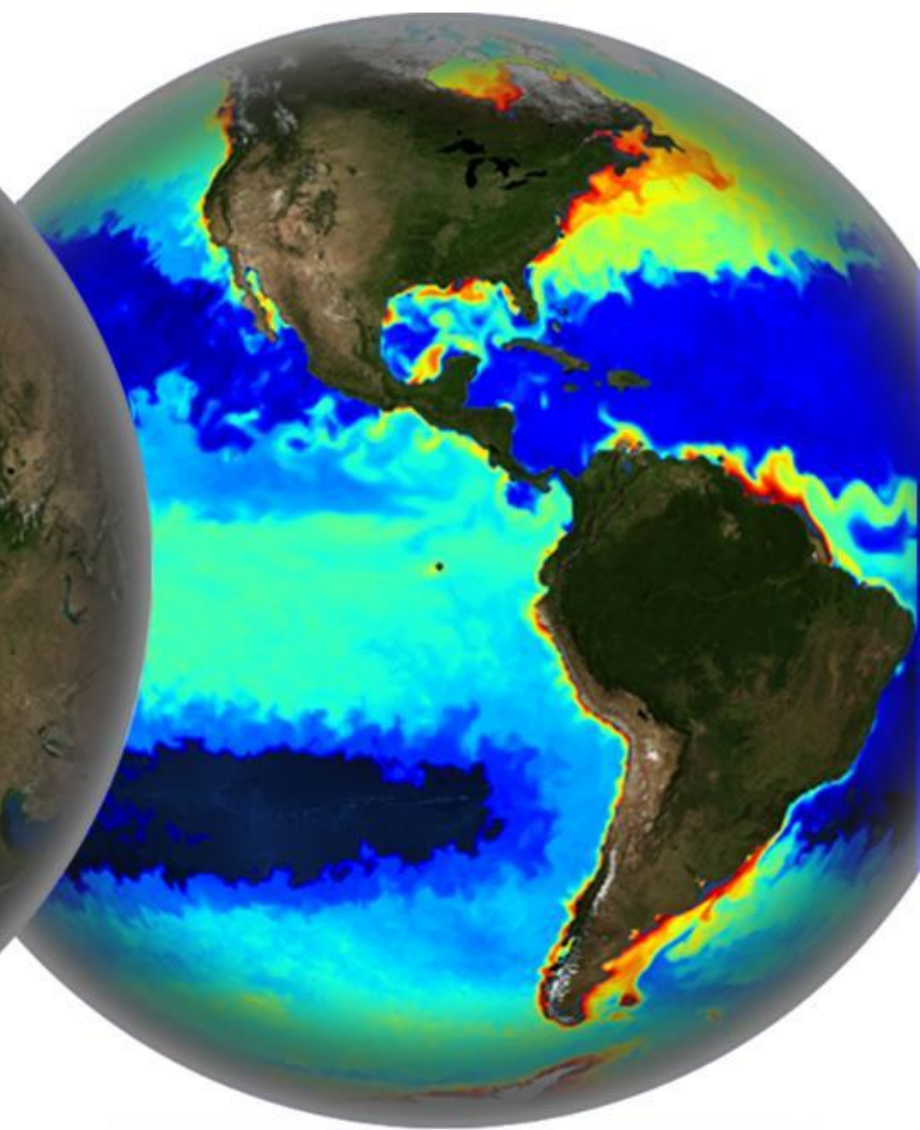
BLUE OCEAN

Currents, temperature,
waves, sea level, ...



WHITE OCEAN

Ice coverage, velocity,
concentration, Icebergs ...



GREEN OCEAN







CO₂, nutrients, oxygen,
primary production, ...



Copernicus Marine Product Offer








BLUE OCEAN



-  Temperature
-  Salinity
-  Currents
-  Waves
-  Sea Surface Elevation
-  Wind
- Others






GREEN OCEAN



-  Nekton
-  Plankton
-  Organic Carbon
-  Nutrients
-  Oxygen
-  Carbonate System
-  Optics
- Others

WHITE OCEAN



-  Sea Ice Concentration & Thickness
-  Sea Ice Extent
-  Sea Ice Velocity
-  Snow
-  Ice Surface Temperature
- Others



Plastic Pollution

YEARLY DEATHS DUE TO PLASTIC DEBRIS

100,000,000 sea birds

100,000 marine mammals



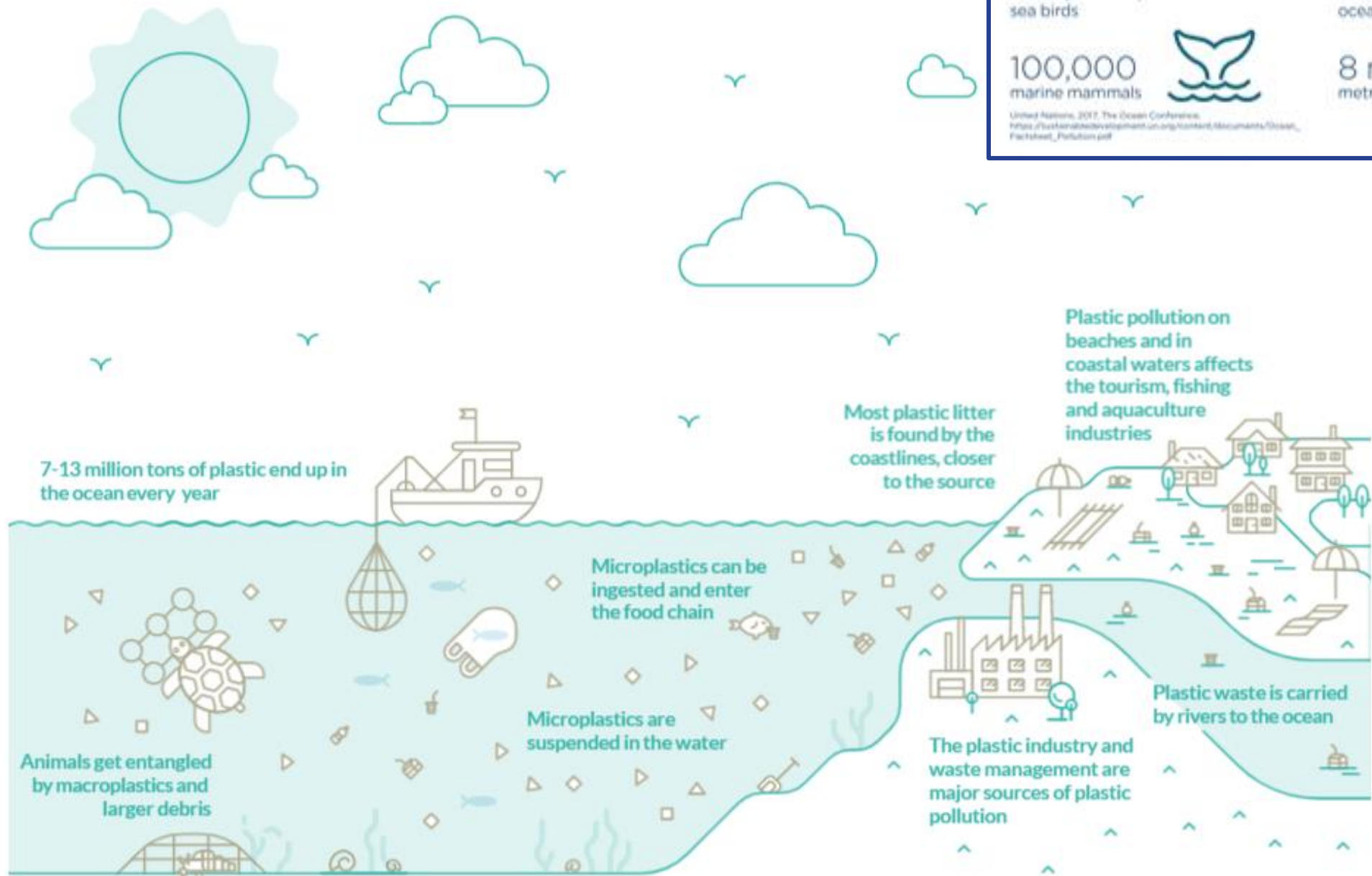
PLASTICS

80% of all litter in our ocean is made of plastics

8 million metric tonnes each year



United Nations, 2017, The Ocean Conference, https://sustainabledevelopment.un.org/content/documents/04691_FactSheet_Pollution.pdf





Copernicus Marine Products

Implemented by [Mercator Ocean International](#) as part of the [Copernicus Programme](#)



[Home](#) [Search](#) [Access Data](#) [User Corner](#) [Contact Us](#)

BETA



[Login](#)

General catalogue

ICE Services

Search

Regional domain: All Area

From: 1992-01-01 To: 2022-06-26

Parameters: Current Velocity Protocols:

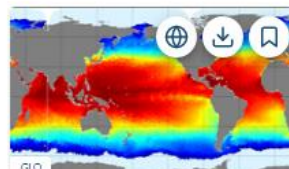
Only the whole selected time range Only with depth level

[Reset filters](#)

[Full catalogue](#)

[Ocean Monitoring Indicator catalogue](#)

There is 28 ocean products corresponding to your criteria



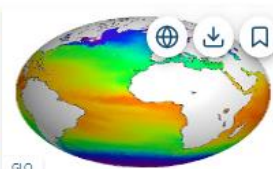
GLO

Global Ocean 1/12° Physics Analysis And Forecast Updated Daily
GLOBAL_ANALYSISFORECAST_PHY_001_024
T bottomT S SSH UV MLD SIC SIT SILV

From: 2019-01-01 To: Present

0.083 degree x 0.083 degree
Model assimilation

50 depths level
hourly mean - daily mean - monthly mean - 6 hourly ins...



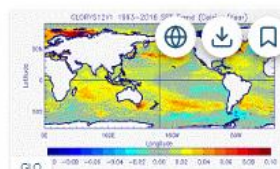
GLO

Global Ocean 1/4° Physics Analysis And Forecast Updated Daily
GLOBAL_ANALYSISFORECAST_PHY_CPL_001_015
T bottomT S SSH UV MLD SIC SIT SILV

From: 2015-12-30 To: 2022-01-10

0.25 degree x 0.25 degree
Model assimilation

43 depths level
hourly instantaneous - daily mean



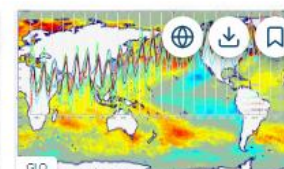
GLO

Global Ocean Physics Reanalysis
GLOBAL_MULTYEAR_PHY_001_030
T bottomT S SSH UV MLD SIC SIT SILV

From: 1993-01-01 To: 2020-05-31

0.083 degree x 0.083 degree
Model assimilation

50 depths level
daily mean - monthly mean - monthly-climatology mean



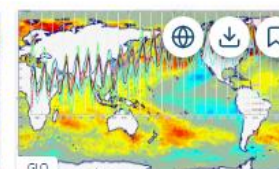
GLO

Global Ocean Ensemble Physics Reanalysis - Low Resolution
GLOBAL_REANALYSIS_PHY_001_026
T S UV SIC SIT

From: 1993-01-01 To: 2019-12-15

1 degree x 1 degree
Model assimilation

75 depths level
monthly mean



GLO

Global Ocean Ensemble Physics Reanalysis
GLOBAL_REANALYSIS_PHY_001_031
T S UV MLD

From: 1993-01-01 To: 2019-12-31

0.25 degree x 0.25 degree
Model assimilation

75 depths level
daily mean - monthly mean



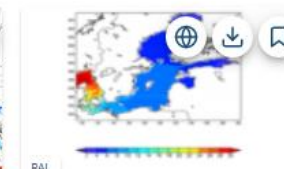
ARC

Arctic Ocean Physics Analysis And Forecast
ARCTIC_ANALYSIS_FORECAST_PHY_002_001_A
T bottomT S SSH UV SIC SIT SILV SNOW SIAGE SIALB

From: 2019-05-04 To: Present

12.5 km x 12.5 km
Model assimilation

12 depths level
hourly instantaneous - daily mean



BAL

Baltic Sea Physics Analysis And Forecast
BALTICSEA_ANALYSISFORECAST_PHY_003_006
T bottomT S SSH UV MLD SIC SIT

From: 2019-05-04 To: Present

2 km x 2 km
Model assimilation

56 depths level
hourly instantaneous - daily mean - monthly mean - 15...



Implemented by
MERCATOR OCEAN
INTERNATIONAL



FML-TRACK: Floating Marine Litter Tracking in Coastal Areas

Powered by [SUEZ](#)

MARINE DRIFT FORECAST: LITTER-TEP

Powered by [Litter-TEP](#)



#EUSpace

LITTER-TEP: Marine drift forecast

Anne Vallette - ARGANS



Part of the
CASSINI initiative



Copernicus
Marine Service



**MERCATOR
OCEAN**
INTERNATIONAL





Marine Litter tracking and forecast of stranding in the English Channel, the North Sea, and the North Atlantic Shelf of the European Union and United Kingdom

Valette Anne & ARGANS' team





LITTER-TEP



INTRODUCTION

- The beach debris (vegetation material or anthropogenic waste) has direct impact on tourism and beach visits [1], but anthropogenic waste also called marine-litter has, in addition, an environmental impact (pollution, health risks or injuries, etc....). 85 % of people don't want to visit a beach with more than 2 litter items per meter[6]
- ⇒ **In our works, we consider as marine litter, all floating debris (i.e. anthropogenic waste and natural material).**
- 80% of marine Litter is from land-based sources (rivers, beaches, piers, harbours, marinas, docks, coastal cities, due to public littering, poor waste management practices, industrial activities, sewage related debris, storm water discharges, etc....) with regional variation for this proportion [7].
- ⇒ **The studied marine litter is macro-litter: It has been proven that micro-litter can't be detected on satellite data nor by the tourists' eyes.**
- If litter from rivers strands nearby to the river estuary during non-flood periods, it can beach far from its source during flooding period and after storm events [1]. According to OSPAR, 70% of marine litter sinks, 15% floats in the water column and 15% washes up on shore.
- ⇒ LITTER-TEP is designed to predict the **potential beaching of macro-litter** (not only plastics) introduced into sea by **rivers** in the **European North-West Shelf Seas**





This service is organised in 4 components :

⇒ **A forecast of litter introduction in the ocean from the land through rivers:** A daily map of estimated items of litter washed out on watersheds, carried to the sea by rivers, calculated with river flow and populations assessment.

The river flow is based on monthly statistics issued from 30 years of statistics. Why ?

- A demonstrator needs real-time data freely accessible
- An operational service can integrate the cost of data acquisition or the cost to process them.

But

- We have already performed developments to implement watershed modelling and calibrated it for one watershed as example, based on the HYPE model (open source – SMHI).

Daily Number of Litter items from rivers in January





⇒ A forecast of litter drift in the ocean

- dispersion of marine litter from each river/watershed with a 5 days' forecast;
- total volume of floating macro-litter at sea.

⇒ A forecast of landing litter (drifting litter back to shore)

⇒ A hindcast module to track back the possible source of the beaching litter observed



How can we estimate the volume of Macro-litter from a riverine source ?

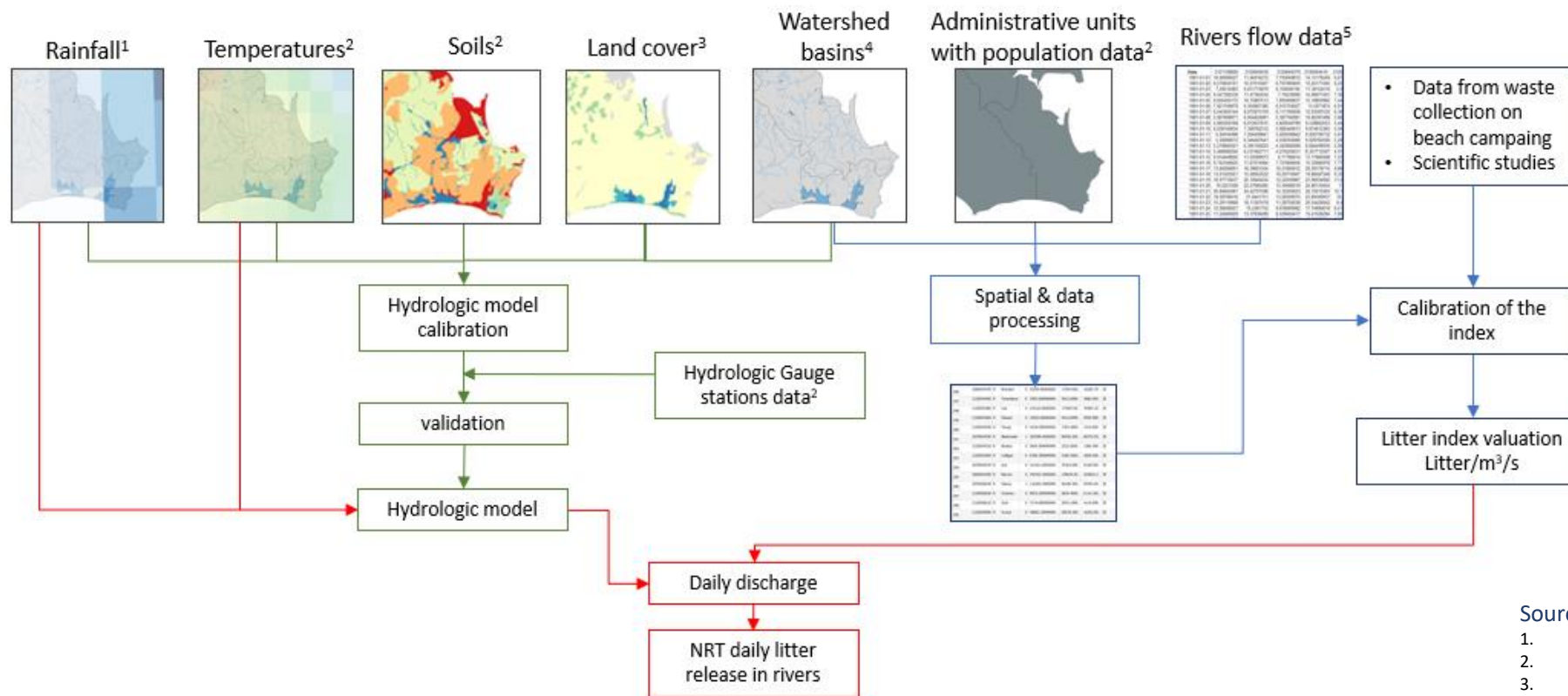
- Macro-litter volume is more difficult to quantify than micro-litter.
- **Beach litter analysis** seems to be the best way to model/estimate land litter sources :
 - several years of beach litter observation in Cornwall-UK, concludes that beach visitors contribute to 10% in winter compared to 30% in summer with an average of 18%, Fishing activities provide 32%, shipping 4% and 40% are un-sourced[12];
 - another study based on 9 years of regular beach surveys in UK conclude 36 % from beach visitors, 15% from fishing and 40% un-sourced[13].

⇒ **We assume that : 40% of litter (un-sourced part) is the 15% of the riverine litter destined to beach, closed to their source.**





Full process to estimate the daily volume of litter introduced at sea



Sources:

1. NASA
2. National Agencies
3. Corine Land Cover
4. hydrosheds.org or National Agencies
5. hypeweb.smhi.se



LITTER-TEP



Our choices

- Service Sets-up with rivers from 6 countries: Belgium, France, Germany, Ireland, Netherland, United-Kingdom.
 - Currently the demonstrator runs with 37 watersheds with related main rivers but is set-up to be able to integrate additional rivers
 - Litter from coastal cities, beach-users litter, etc... are not yet taken into account because
 - The coastal cities waste management differs from city to city
 - The beach cleaning campaign differs depending on the local communities, regions or seasons and there are little records available (for example Cannes (France) cleans its beaches every day in high season and every week in low season)
 - Tourists' behaviour is different according to their origin and place of vacation
 - Public data is missing, etc...
- ⇒ need to introduce local specificities which are not yet handled

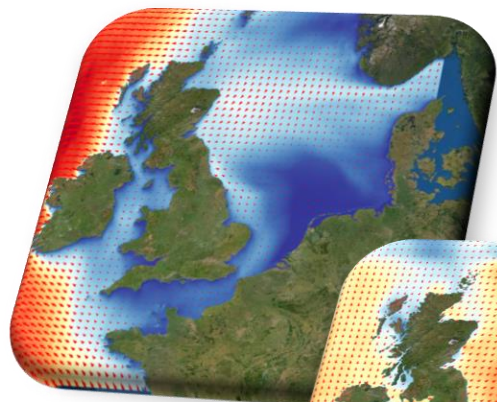


LITTER-TEP



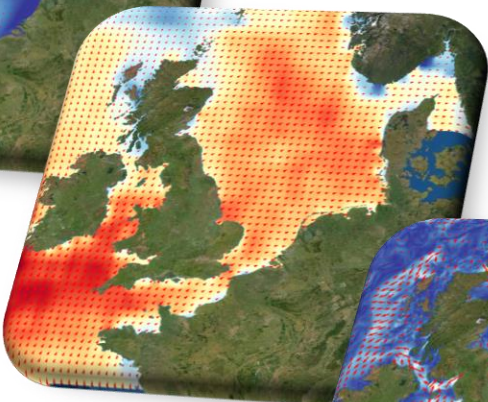
Drift model

Stokes currents¹ +

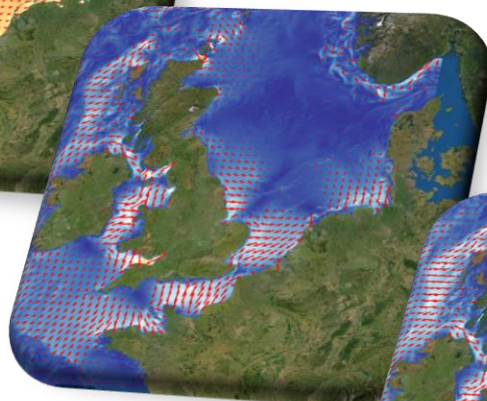


Situation on the 29/12/2020

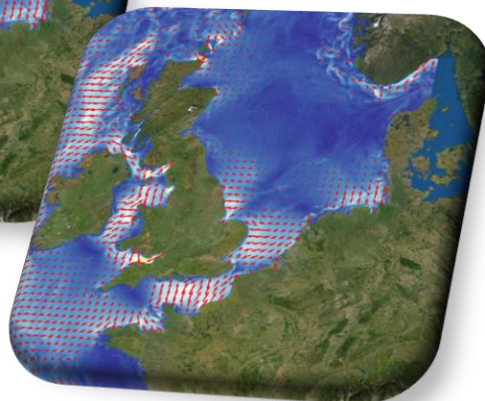
Wind speed² +



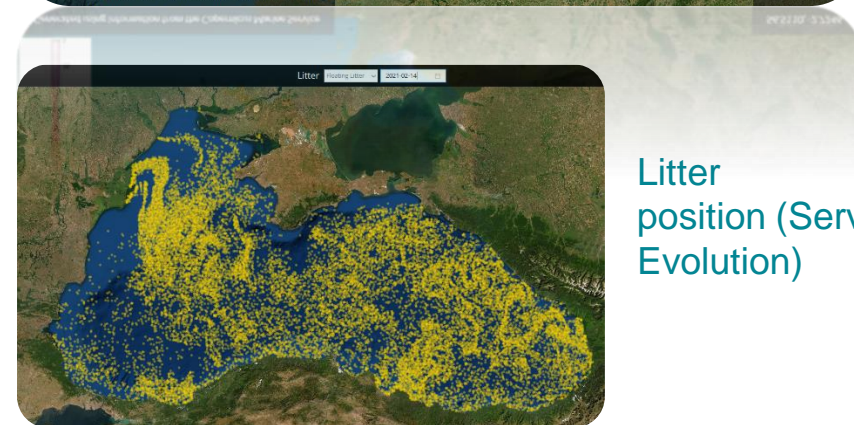
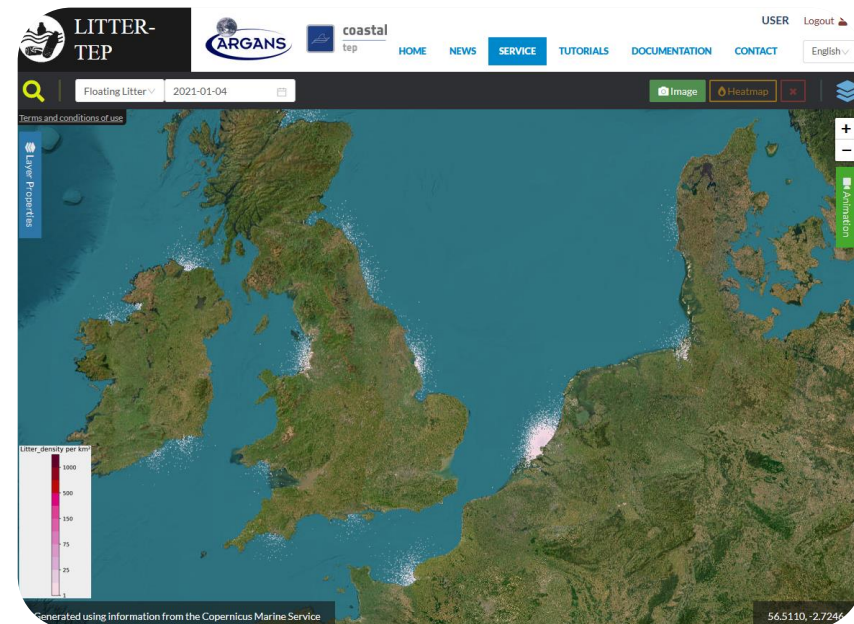
Sea currents¹ =



Drift speed and direction



Density maps in Litter-TEP



Litter position (Service Evolution)

Sources: Copernicus Marine Service

1. NORTHWESTSHELF_ANALYSIS_FORECAST_PHYS_004_013
2. WIND_GLO_WIND_L4_NRT_OBSERVATIONS_012_004





LITTER-TEP



Beaching model

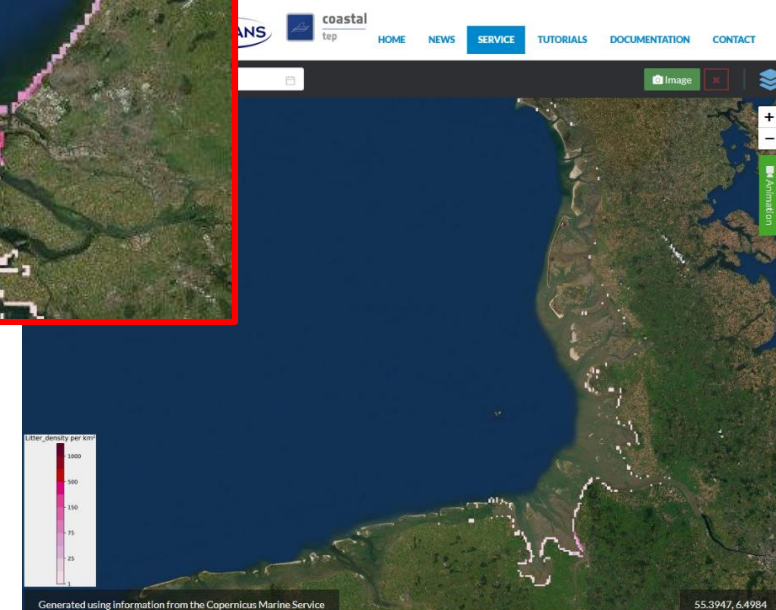
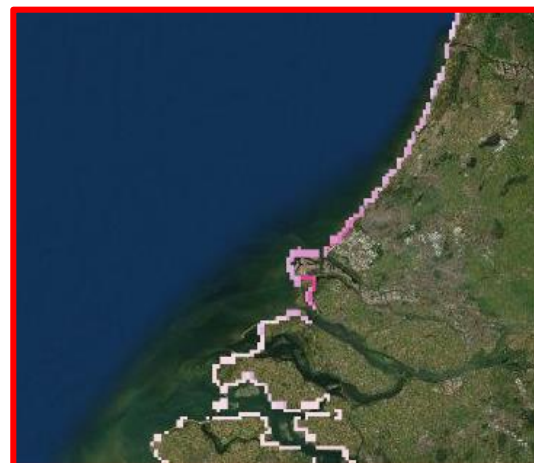
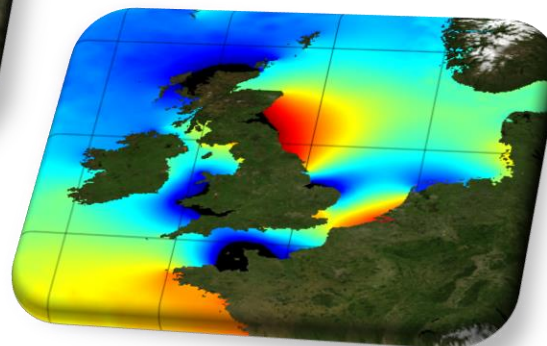
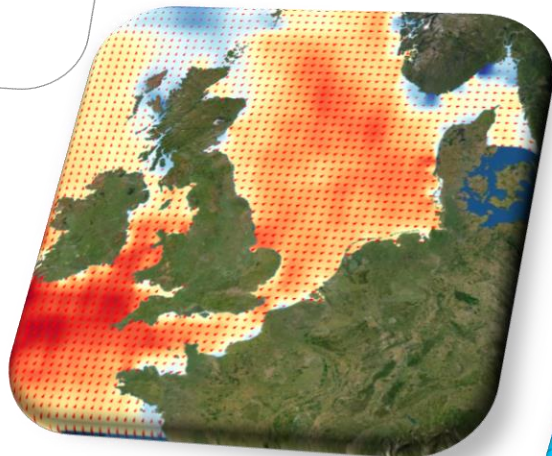
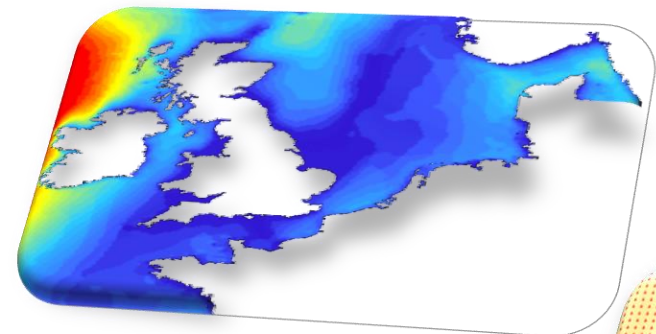
Waves² +

Wind speed³ +

Sea surface height¹



Daily map of probable potential of stranded litter



Sources: Copernicus Marine Service

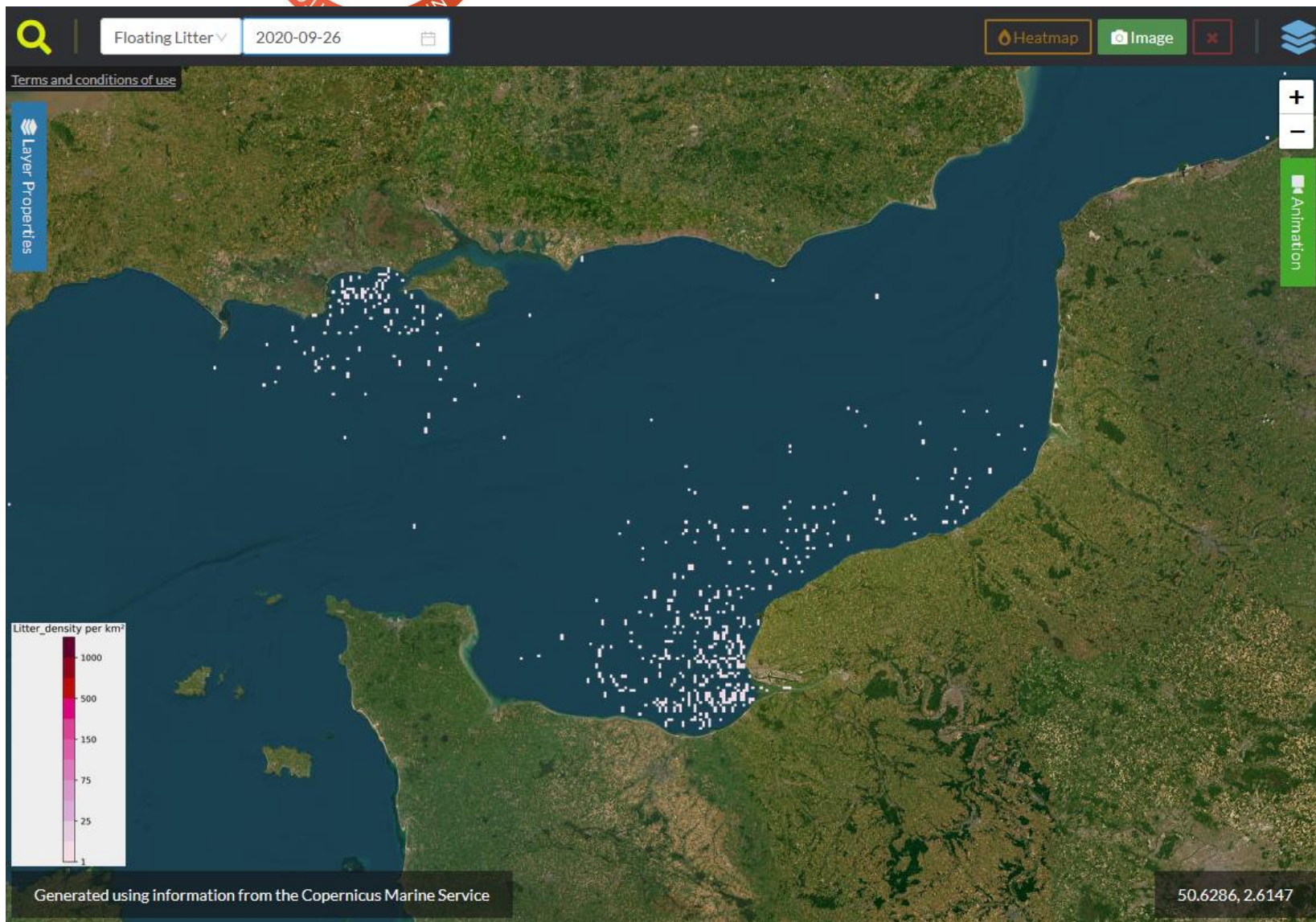
1. NORTHWESTSHELF_ANALYSIS_FORECAST_PHYS_004_013
2. NORTHWESTSHELF_ANALYSIS_FORECAST_WAV_004_014
3. WIND_GLO_WIND_L4_NRT_OBSERVATIONS_012_004

Landing & refloating model





LITTER-TEP





LITTER-TEP



Hindcast model

The derivative particles are saved in a relational database. The hindcast menu allows, after selection of an area and a date, to obtain the source of beached litter.

Date of release	Issue	Number Of Litter
2020-02-18	Bann	4
2020-02-18	Forth	5
2020-02-25	Moy	2
2020-03-01	Weser	2
2020-03-02	Tweed	1
2020-03-04	Forth	4
2020-03-06	Ringkobing_Fjord	1
2020-03-09	Ringkobing_Fjord	5
2020-03-11	Forth	3
2020-03-12	Ringkobing_Fjord	7



LITTER-TEP



Conclusion

We present the LITTER-TEP as a functional service

- i. to forecast the position of Litter from rivers, and
- ii. to track back the Litter.

However, it is essentially based on ocean currents, winds and waves but there are numerous other factors that change the distribution of marine litter on the beach like:

- prevailing wind directions nearshore (e.g. katabatic winds => topography and HR met models),
- bathymetry and coastal offshore currents,
- sedimentology & nearshore currents such as the rip currents,
- runoff on the beach, etc.
- Litter form and characteristics

⇒ **necessity to evolve modelled scales of the litter dynamics** (local scales)
to offer a more reliable service to local authorities



LITTER-TEP



References

- [1] Y. C. Jang, S. Hong, J. Lee, M. Lee, et W. Shim, « Estimation of lost tourism revenue in Geoje Island from the 2011 marine debris pollution event in South Korea », *Marine Pollution Bulletin*, vol. 81, avr. 2014, doi: 10.1016/j.marpolbul.2014.02.021.
- [2] A. P. Krelling, A. T. Williams, et A. Turra, « Differences in perception and reaction of tourist groups to beach marine debris that can influence a loss of tourism revenue in coastal areas », *Marine Policy*, vol. 85, p. 87-99, nov. 2017, doi: 10.1016/j.marpol.2017.08.021.
- [3] C. Axelsson et E. van Sebille, « Prevention through policy: Urban macroplastic leakages to the marine environment during extreme rainfall events », *Marine Pollution Bulletin*, vol. 124, n° 1, p. 211-227, nov. 2017, doi: 10.1016/j.marpolbul.2017.07.024.
- [4] Mouat et al., « KIMO_Economic-Impacts-of-Marine-Litter.pdf », 2010. http://www.kimointernational.org/wp/wp-content/uploads/2017/09/KIMO_Economic-Impacts-of-Marine-Litter.pdf.
- [5] M. C. B. de Araújo et M. F. Costa, « Municipal Services on Tourist Beaches: Costs and Benefits of Solid Waste Collection », *coas*, vol. 2006, n° 225, p. 1070-1075, sept. 2006, doi: 10.2112/03-0069.1.
- [6] Balance A. How much is a clean beach worth ? *South African Journal of Science* 96-2000
- [7] GESAMP, « The State of the Marine Environment », *GESAMP*. <http://www.gesamp.org/publications/the-state-of-the-marine-environment>.
- [8] L. Lebreton, J. Van der Zwet, J.-W. Damsteeg, B. Slat, A. Andrady, et J. Reisser, « River plastic emissions to the world's oceans », *Nature Communications*, vol. 8, juin 2017, doi: 10.1038/ncomms15611.
- [9] William A.T. et al. (1997) *Journal of coastal research* 4 pp 1159-1165
- [10] Willis, K. (2017) DOI:10.1038/srep44479
- [11] Galgany, F. (2000) [https://doi.org/10.1016/S0025-326X\(99\)00234-9](https://doi.org/10.1016/S0025-326X(99)00234-9)
- [12] Watts, A.J.R et al. /<http://dx.doi.org/10.1016/j.envpol.2017.05.2016>
- [13] Nelms S.E. et al. /<http://dx.doi.org/10.1016/j.scitotenv.2016.11.137>
- [14] UNEP 2005. Marine Litter, an analytical overview
- [15] G. Lindström, C. Pers, J. Rosberg, J. Strömqvist, et B. Arheimer, « Development and testing of the HYPE (Hydrological Predictions for the Environment) water quality model for different spatial scales », *Hydrology Research*, vol. 41, n° 3-4, p. 295-319, avr. 2010, doi: 10.2166/nh.2010.007.
- [16] G. Lindström, « Lake water levels for calibration of the S-HYPE model », *HYDROLOGY RESEARCH*, vol. 47, n° 4, p. 672-682, 2016.
- [17] B. Arheimer et al., « Global catchment modelling using World-Wide HYPE (WWH), open data, and stepwise parameter estimation », *Hydrology and Earth System Sciences*, vol. 24, n° 2, p. 535-559, févr. 2020, doi: <https://doi.org/10.5194/hess-24-535-2020>.
- [18] Owen Kelley, « The IMERG multi-satellite precipitation estimates reformatted as 2-byte GeoTIFF files for display in a Geographic Information System(GIS) », avr. 22, 2020. <https://arthurhou.pps.eosdis.nasa.gov/Documents/README.GIS.pdf>.
- [19] J. C. M. Andersson, *HYPE - Automatic Calibration*, vol. youtube.com/watch?v=Usv8OaVOgp0. 2017.



LITTER-TEP



Contact

Thank you for your attention

<https://litter-tep.argans.eu/>

<https://argans.eu/>

If you want to contact us :

 Email littertep@argans.eu

#EUSpace

CASSINI Prize for Digital Space Application

Leila Ajjabou - EUSPA



Part of the
CASSINI initiative



Copernicus
Marine Service



**MERCATOR
OCEAN**
INTERNATIONAL





The CASSINI Prize for Digital Space Applications



EIC Horizon and CASSINI Prize in the field of digital space applications under the Horizon Europe Work Programme 2021-2022, Cluster 4, “Digital, Industry and Space”



Prize for the best data-driven marine or maritime digital application to support the prevention of ocean pollution



The Objectives

1. **Stimulate** the development of innovative solutions using Copernicus & Galileo data
2. **Solve problems** related to the detection, monitoring and the removal of microplastics, plastic litter as well as of larger items in rivers, shores and coastal zones, to support the prevention of ocean pollution;
3. **Attract** dynamic innovators, to mobilise private investment and generate “close-to-market” solutions

The Prize // Expected results

The prize will be awarded to one or several best data-driven marine or maritime digital application

The total prize is **EUR 2.85 million.**

The top three proposals will receive **EUR 0.95 million each**





What to submit?

The presented solution shall be:

- a **data-driven marine** or maritime **digital application**, which uses Copernicus data and/or Galileo/EGNOS signals in combination with other data sources;
- **able to detect, monitor and/or track plastic pollution** in rivers, lakes, shores and coastal zones and to support its removal in order to support the prevention of ocean pollution by using EU Space Programme data and services, such as Copernicus Sentinel satellite data, Copernicus information services and Galileo/EGNOS signals at the core.
- able to withstand a **demonstration in an operational environment (TRL7)**

Some examples of solutions

- a **combination** of satellite **data**, with EGNSS powered UAVS, aircrafts, balloons, vessels, buoys, imagery from installed cameras at land, as well as other **non-space relevant data** and technologies;
- the **integration** of very high resolution satellite data or **other space data from commercial providers**, preferably European, and other useful data and services, as they see fit to solve the challenge;
- the use of suitable **technologies such as UAVs** or piloted aircraft empowered by EGNSS, with specific sensors (ex.high-resolution and hyperspectral cameras) to gather data on the presence of plastics, **identifying concentration hotspots**;



Applicants are otherwise free in their choice of technical solutions and can use various approaches, including but not limited to the ones presented today

Some examples of solutions

- **passive remote sensing technologies** (e.g. optical spectroradiometry, high spatial resolution imaging, microwave radiometry, altimetry) as well as **active technologies** (e.g. LIDAR and radar);
- **new remote sensing data processing techniques/algorithms, modelling** and experimental techniques.
- **digital service, data processing** and/or analytics tools, and/or systems or subsystems, making use of innovative technologies, such as (but not limited to) **artificial intelligence**;



Applicants are otherwise free in their choice of technical solutions and can use various approaches, including but not limited to the ones presented today

Note on AI

The use of **artificial intelligence, high performing computing, big data processing and management**, and other relevant technologies are **encouraged** for prediction and modelling as fit to solve the challenge





Evaluation- Excellence

- the clarity and pertinence the solution has in order to meet the objectives of the Prize the extend to which the application uses Copernicus and/or Galileo/EGNOS data in combination with other data sources
- the extent to which the solution is ambitious and goes beyond the state of the art, demonstrates innovation potential, novel concepts and approaches, new services
- the feasibility and capability of the solution to reliably and consistently detect, monitor and track plastic pollution in rivers, lakes, shores and coastal zones
- the level of consideration of the customers requirements and targeted market



Evaluation- Impact

- to which extent the application creates significant benefits, in support of the objectives of the Green Deal. Specifically, to which extent the solution contributes to the support of the removal of plastic pollution in rivers, lakes, shores and coastal zones
- the level of impact on users and target group/regions level to which the solution solves problems or meets customer needs related to the detection, monitoring and tracking of plastic pollution
- important environmental impact, and long-term effects to the marine environment and human health
- the extent to which the solution is replicable in other regions and areas and usable on a broader scale
- the capacity to create new market opportunities.



Evaluation- Business Model & Demonstration

- a) Business model:
 - to what extent the business model makes a viable and sustainable business proposition for users or customers amongst companies, authorities, organisations or individuals
 - the cost efficiency of the solution
 - market potential of the solution
- b) Demonstration: whether the solution is well demonstrated and functional



Who can participate in the challenge ?

In order to be eligible, the applicants must be:

- **small and medium-sized enterprise (SME)**
- be established in one of the **eligible countries**, i.e. EU Member States or countries associated to the Horizon Europe (associated countries) or countries which are in ongoing negotiations for an association agreement and where the agreement applies before the award
- Joint applications by a group of participants are eligible
In this case, you must appoint a lead applicant (coordinator) to submit the application and represent you towards the awarding authority. All applicants will be jointly responsible and must all fulfil and respect the conditions set out in these Rules of Contest.





How to take part in the competition?

- Application submitted electronically via the Funding & Tenders Portal

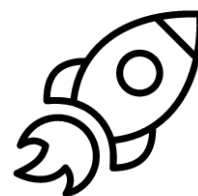
CASSINI Prize for digital space applications HORIZON-EUSPA-2022-MARITIME-PRIZE		Call for proposal Grant	
Programme	Horizon Europe (HORIZON)	Status	Open for submission
Type of action	HORIZON Inducement Prize	Deadline model	single-stage
Opening date	05 July 2022	Deadline date	03 May 2023 17:00:00 Brussels time

- Form A (applicants) and Form B (technical solution)
- Mandatory annex – if the proposed solution is a software, applicants must include the working docker container



What is the timeline?

29th June 2022



Call opening

**3rd May 2023
17:00 Brussels time**



Deadline for submission

June/July

**Evaluation:
hearing in front of evaluation committee**

**October –
November 2023**



**Information on evaluation
results/award**

How to submit a good proposal?



- 1 Read the **Rules of Contest** of the prize to be sure you don't miss anything!
- 2 Register your proposal on the Funding and Tender Portal and use the forms provided inside the Submission System. All applicants must register in the Participant Register before the call deadline
- 3 Upload the required administrative documents:
 - Application Form A (admin information about applicants)
 - Application Form part B (50 pages max.)
 - Mandatory annex and supporting documents (as ZIP files). Docker container if application is a software.
- 4 You can edit your application if needed until the deadline!

Good luck!

Other opportunities

EUSPA Horizon Europe call 2022



Opening: 27 October 2022
Deadline: 02 March 2023

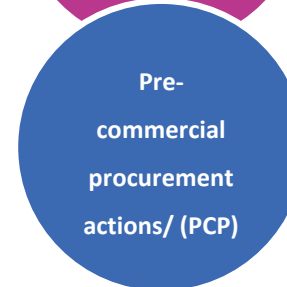
Type of Action	Topic	Indicative budget (EUR mln)	Funding rate
IA	EGNSS applications for Smart mobility	9.5	70% (except for non-profit legal entities, where a rate of 100% applies)
PCP	Public sector as Galileo and/or Copernicus user	5.2	100 %
IA	Copernicus downstream applications and the European Data Economy	9.6	70% (except for non-profit legal entities, where a rate of 100% applies)
RIA	Large-scale Copernicus data uptake with AI and HPC	9.6	100%
RIA	Designing space-based downstream applications with international partners	5,1	100%
RIA	GOVSATCOM Service developments and demonstrations	9,1	100%
TOTAL budget:		48,1	



Activities to produce plans and arrangements or **designs for new**, altered or **improved products**, processes or services.



Activities to **establish new knowledge** or to **explore the feasibility** of a new or improved technology, product, process, service or solution.



Activities that aim to help a buyers' group to strengthen the public procurement of research, development, validation and, possibly, the first deployment of new solutions

New myEUspace competition just launched as part of CASSINI



Do you have...



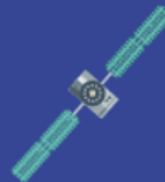
a **theoretical idea** with a high market potential?



a **prototype** that you want to bring in the market?



a **product** and you want to scale-up your business?



Are you...

an **entrepreneur, start-up, scale-up** or **university student** coming from **EU Member States**, Norway, Switzerland or Iceland?

Apply now!

We are looking for the **best commercial solutions** (mobile apps, wearables, robotics etc.) using **EU space data** and their synergies



€ 1.000.000
PRIZE POOL



30
AWARDS

<https://www.euspa.europa.eu/myeuspacecompetition>

#EUSpace

Thank you!



Part of the
CASSINI initiative



Copernicus
Marine Service



**MERCATOR
OCEAN**
INTERNATIONAL

