



# The Space4Ocean Alliance

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UNOC3 - Nice





# RATIONALE FOR THE SPACE4OCEAN ALLIANCE WHY?

- Our Oceans are at high risk. It requires **decisive, rapid and unified efforts** to remedy to their critical condition
- Monitoring the ocean is challenging: **Oceanography and Earth Observation from space** are invaluable assets in addressing ocean and coastal challenges
- There is a **significant lack of coordination** and communication between the space sector, marine and maritime stakeholders
- **Several gaps remain** in addressing ocean challenges: data usage, applications to meet users needs, assesment indicators, space missions providing all necessary data...

The Space4Ocean Alliance objective is to coordinate and create more synergies, avoiding overlaps and leveraging operational solutions



# RATIONALE FOR THE SPACE4OCEAN ALLIANCE HOW?



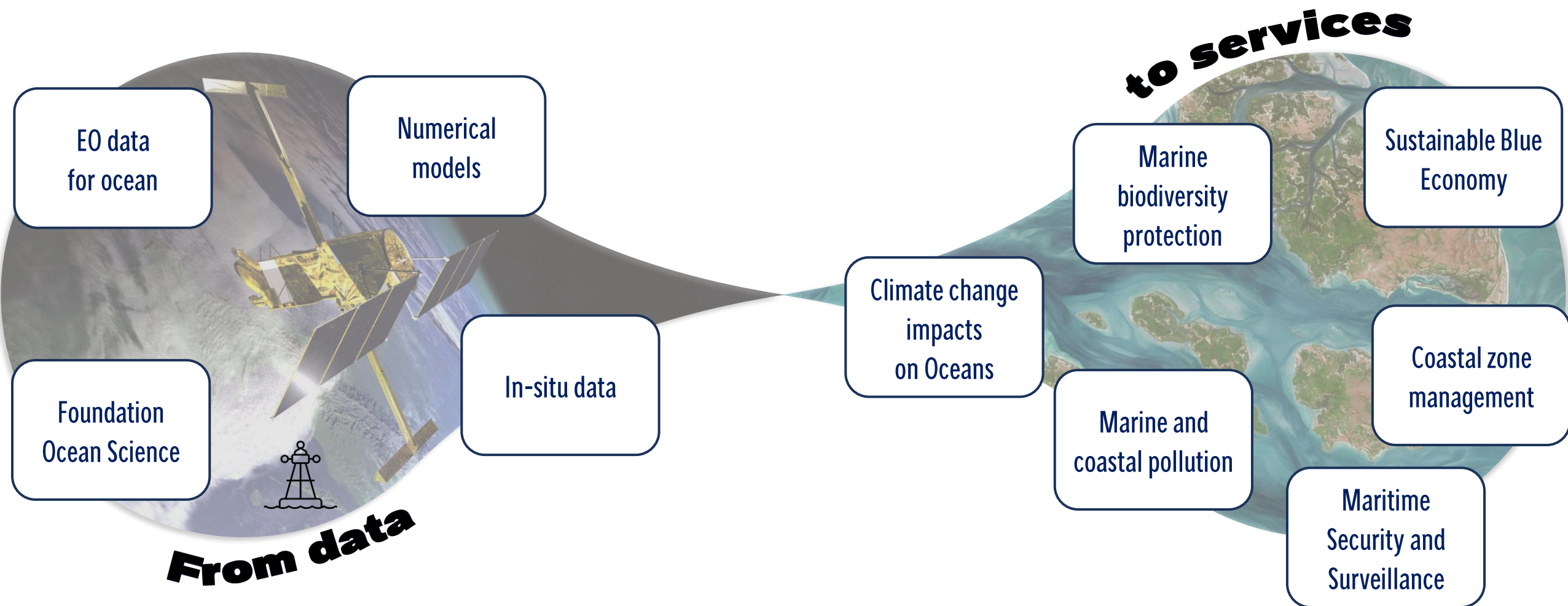
**From data**

**The Space4Ocean Alliance**  
will strengthen synergies and foster  
coherence with existing frameworks,  
without duplication



**to services**

# KEY ISSUES TO BE ADRESSED BY THE SPACE4OCEAN ALLIANCE



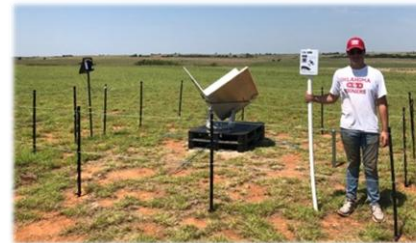
# FUNDAMENTALS OF THE SPACE4OCEAN ALLIANCE

Performance and  
gaps of EO data  
for ocean

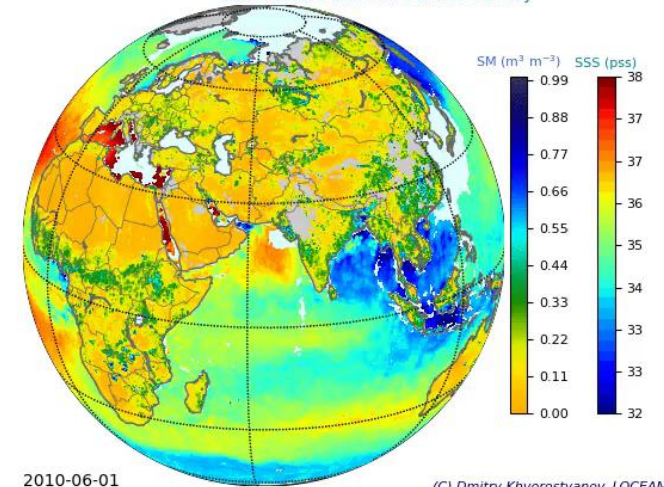
Foundation  
Ocean Science



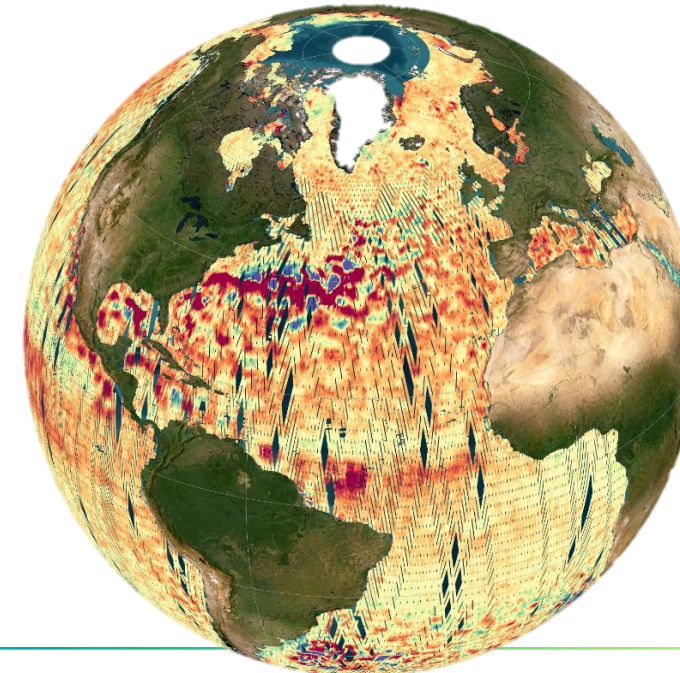
resolution  
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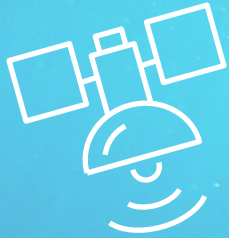
Earth seen by SMOS  
Soil Moisture and Sea Surface Salinity



(C) Dmitry Khvorostyanov, LOCEAN, 2024



# FUNDAMENTALS OF AN ALLIANCE GROUNDED IN SCIENCE



**Space  
data**



Offer a global vision from space,  
allowing to monitor and anticipate  
changes to the oceans



**In-situ  
data**



Collected directly in the field,  
like sentinels and  
warrants of the best accuracy



**Numerical  
models**



Merging all data into practical tools  
and operational solutions, providing  
scenarios and forecasts allowing  
informed decision making

# OBJECTIVES

1

**Strengthen  
collaboration  
between space  
sector and  
marine/maritime  
stakeholders**



2

**Develop  
capacity building  
to empower  
frontline countries**



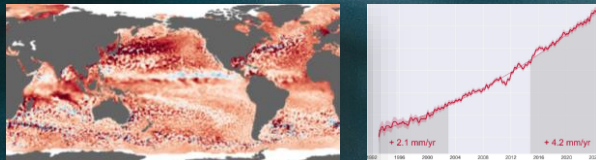
3

**Share  
good practices  
based on relevant  
science**



4

**Support the  
development  
of advanced  
ocean indicators**



5

**Support the  
development  
of innovative  
space missions**



6

**Promote  
the delivery  
of operational  
services**



# FUNDAMENTALS OF THE SPACE4OCEAN ALLIANCE

Performance and gaps of EO data for ocean

Foundation Ocean Science

depth  
biology  
currents  
interfaces  
coasts  
ice  
tides  
sea  
ocean  
level  
color  
salinity  
dynamics  
temperature  
waves  
life  
processes  
tsunami  
health  
ocean

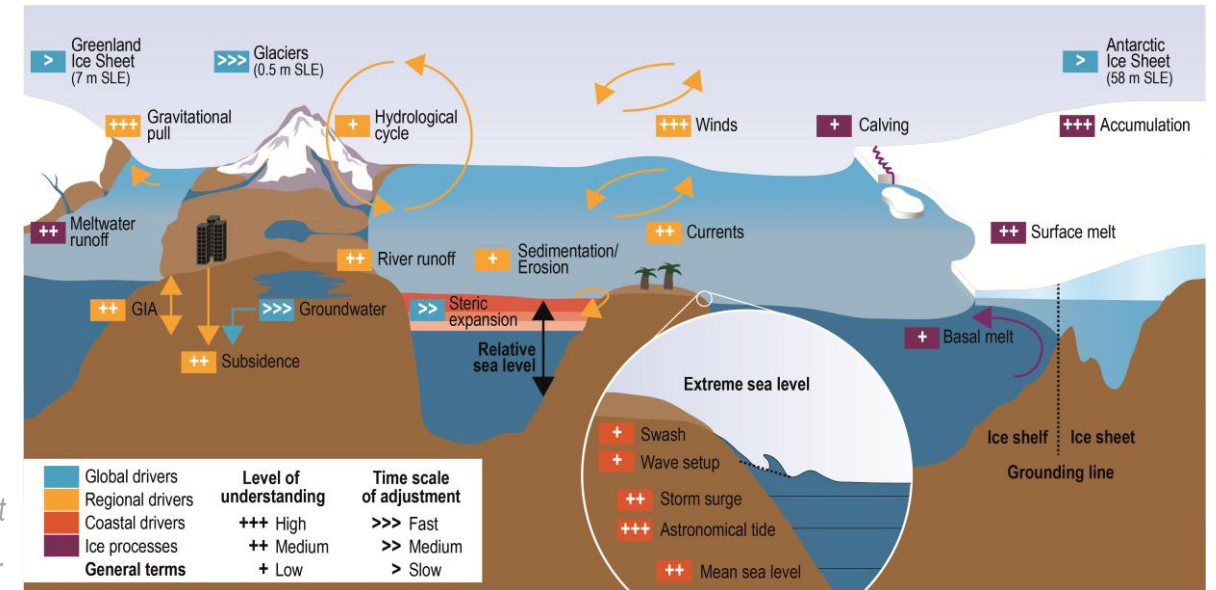


Fig 4.4 from IPCC 2019 Chapter 4 report  
Oppenheimer et al.

# PROPOSED GOVERNANCE

## Membership

- The Alliance is open to all Member States of the United Nations, national/regional/international institutions and organizations, public and private stakeholders
- A focal point is designated for each signatory member of the Alliance
- UNOC-3 is an opportunity for stakeholders to join the Alliance

## Role of the Steering Committee








- Will designate a Member in charge of the Alliance Secretariat
- Will design, approve and follow a multi-annual Implementation Plan

## Meetings

- Steering Committee meetings at least twice a year to oversee progress on the Implementation Plan
- Annual event to follow-up on Alliance achievements and way forward
- Future UNOCs dedicated events and technical workshops







# 2-YEAR PERSPECTIVE (2025-2027)

## Success criteria

- **Structure** and enlarge the Alliance  *Number of new members*
- **Identify** user needs  *Publish a Users Requirements Document*
- **Provide** the state of the art of existing services and applications
- **Define** ocean health indicators  *TBD*
- **Identify** observation gaps, if any, and establish a roadmap to fill those gaps  *TBD*
- **Identify** missing operational services, if any, and implement 5 new operational services
- **Promote** Earth Observation for ocean science and applications at international level  *TBD*
- **Provide** dedicated training on Ocean Science  *TBD*
- **Define** a « capacity building package » and move on with a first implementation
- **Organize** and coordinate the space contribution at UNOC-4  *TBD in the UNOC declaration*

# 5-YEAR PERSPECTIVE (2030+)

## Success criteria

- **Further enlarge** the Alliance  *Number of new members*
- **Update Users Needs**  *Update the Users Requirements Document (URD)*
- **Implement** the ocean health indicators and inform the community about the results  *Publication of indicators*
- **Start implementing** the roadmap of projects and services  *TBD in the roadmap, e.g. 25 new projects/services provided to the community*
- **Assess the impact** of the Alliance  *Number of new members*
- **Organize and coordinate** the space contribution at UNOC-5, UNOC-6  *TBD in the UNOC declaration*

# HERE WE ARE! SIGNATURE EVENT OF THE JOINED DECLARATION OF INTEREST

And this Declaration of Interest for a Space4Ocean Alliance means :

**RECOGNIZING** that the ocean, our world's largest biosphere is facing many challenges that need action

**RECALLING** the importance of United Nations Sustainable Development Goal No. 14 (SDG 14)

**HIGHLIGHTING** that space is a major asset to assess climate and biodiversity changes, and other anthropogenic pressures

**RECOGNIZING** that there is a significant gap in coordination and communication between the space sector and marine and maritime stakeholders for addressing ocean challenges

**AFFIRMING** our capabilities to address those ocean and coastal challenges, particularly for frontline countries

This Declaration constitutes a non binding expression of interest to support the Space4Ocean Alliance Priorities, Objectives and Contributions for the preservation, protection and conservation of the ocean, while complementing existing initiatives.

# **ONE EARTH, ONE OCEAN: BUILDING A SPACE4OCEAN ALLIANCE UNOC SIDE EVENT (EVENT ID 129)**

Event organized by UNOOSA with the support of CNES, NOSA, MSRO, Gouvernement Princier de Monaco, IOC UNESCO, Mercator Ocean

Where: inside the UNOC Venue (**Blue Zone, Room 4**) in Nice, France

When: **June 13, 2025, from 12:15 PM to 1:30 PM**

Purpose: Official announcement of the launch of the Alliance, with the delivery of the signed declaration to **Peter Thomson, United Nations Secretary-General's Special Envoy for the Ocean**

You are welcome to participate

**Only accredited representatives will have access to the Blue Zone**

# NEXT STEPS

## Steering Committee in Septembre

- ☐ Purpose:
- 1st meeting of the Steering Committee of the S40 alliance officially created at the UNOC
- Discuss the roadmap and agree on the broad outlines: charter, governance, implementation plan. No draft document provided in advance
- ☐ Details will be sent to all signatories shortly after UNOC

## Next events

- ☐ SIAE 2025 (Salon international de l'aéronautique et de l'espace), Paris Le Bourget: Space4Ocean Alliance event (18/06/2025 12:20 p.m. - 1:30 p.m. Common Stage - Paris Space Hub)
- ☐ IAC 2025, Sydney, Australia: Space4Ocean Alliance interactive presentation (IAC-25,E5,IP,2,x100215), 36TH IAA SYMPOSIUM ON SPACE AND SOCIETY

## Looking further

- ☐ Expand the Alliance : After UNOC, we will work on expanding the Alliance by involving more countries, notably SIDS and LDCs. All signatories will be ambassadors of the Alliance, and we are counting on you to use your networks to promote it.



**THANK YOU FOR JOINING  
THE SPACE4OCEAN ALLIANCE**



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