



Global Ocean Observing System



3. NFP Reports

PORTUGAL

João Vitorino – GOOS NFP



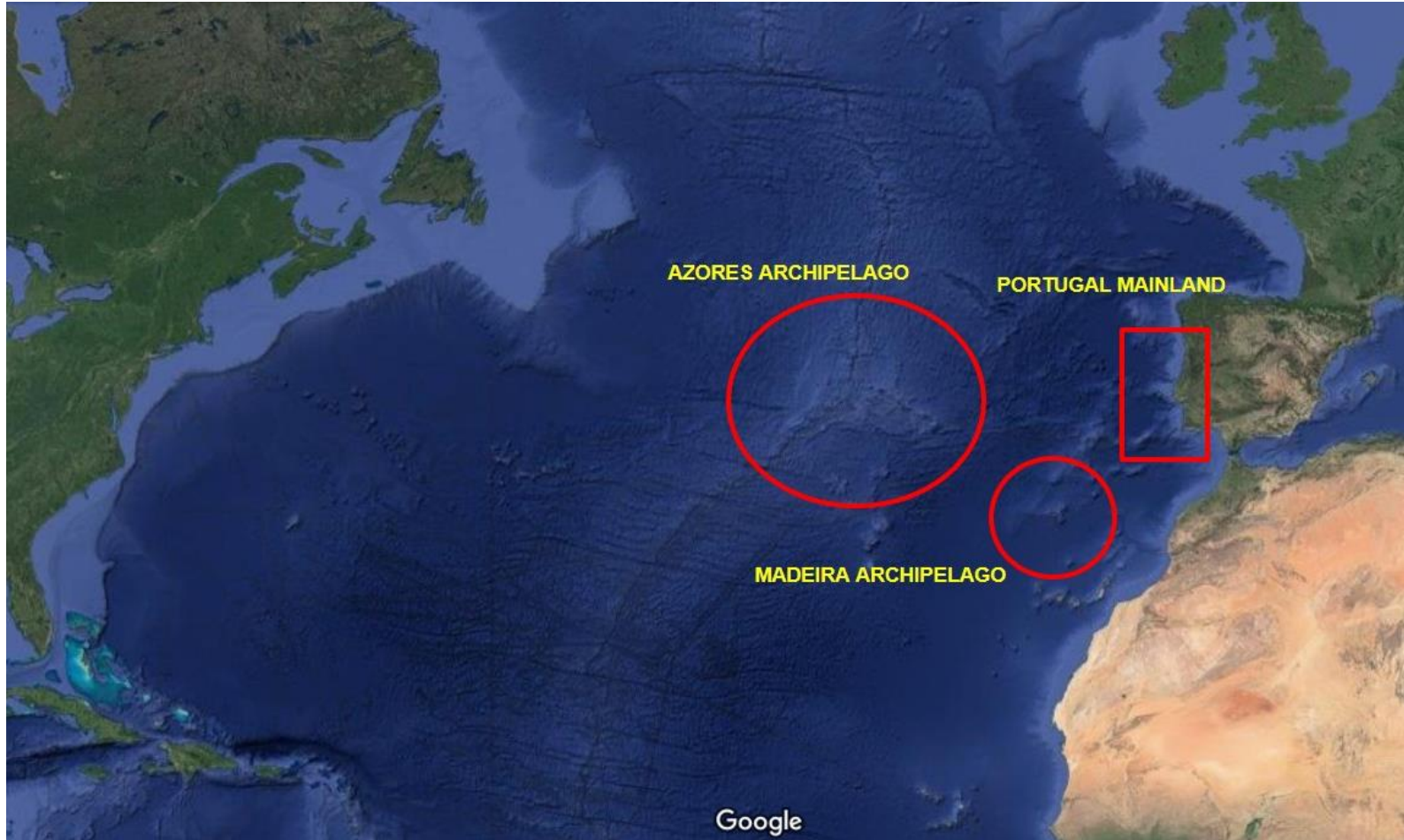
1. National Updates on Ocean Observations

PORTUGAL



RECENTE DEVELOPMENTS ON THE COORDINATION & IMPLEMENTATION OF NATIONAL OCEAN OBSERVING CAPACITIES & ACTIVITIES OFFSHORE:

- THE PORTUGUESE MAINLAND
- THE AZORES ARCHIPELAGO
- THE MADEIRA ARCHIPELAGO



1. National Updates on Ocean Observations

NATIONAL COORDINATION ACTIVITIES

1st GOOS/EOOS meeting

(Instituto Hidrográfico - Lisbon, April 23rd 2025)



Participants: 30 in presencial + 25 online, comprising Main Actors in Ocean Observation, Users & Stakeholders

Informing National Community about:

- GOOS and EOOS (2 communications from NFPs)
- The Working Groups in IOC and GOOS and the National Representation (13 communications from NRs)
- National Infrastructures & Capacities (10 communications)

2nd GOOS/EOOS meeting to be held in 2026, probably in Porto

Continue the shared view on National Infrastructures

Discuss national priorities and potential for articulation



1. National Updates on Ocean Observations

INVESTMENT AND INFRASTRUCTURE



Argo.PT – National Contribution to Argo Program



Deployment of four (4) Argo floats:

- Two (2) core Argo floats (21JUL2025 & 13OCT2025)
- One (1) Full BGC (13OCT2025)
- One (1) core with DO (13OCT2025)



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INVESTMENT AND INFRASTRUCTURE

Argo.PT



ARGO.PT
Observar para Conhecer

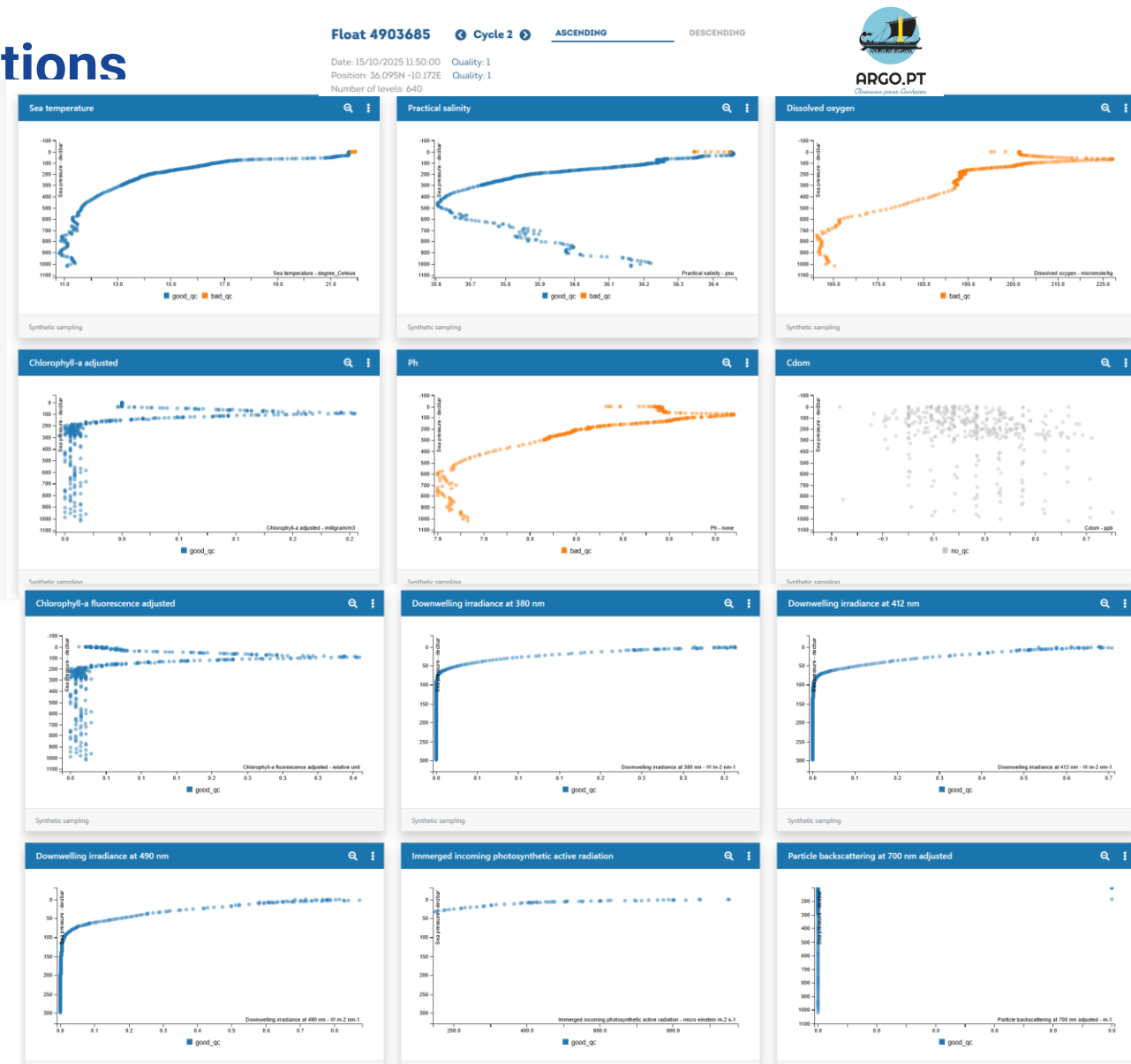


Full BGC (13OCT2025)

- CTD_PRE, CTD_TEMP, CTD_CNDC
- OPTODE_DOXY
- RADIOMETER_DOWN_IRR380,
RADIOMETER_DOWN_IRR412
RADIOMETER_DOWN_IRR490,
RADIOMETER_PAR
- FLUOROMETER_CHLA
- BACKSCATTERINGMETER_BBP700
- FLUOROMETER_CDOM
- SPECTROPHOTOMETER_NITRATE
- TRANSISTOR_PH



ipma.pt



1. National Updates on Ocean Observations

INVESTMENT AND INFRASTRUCTURE

Recent Expansion of National Capacities in Marine Robotic Systems



GLIDERS

Instituto Hidrográfico

Glider Caldas – CTD Seabird

Glider Leonor – CTD RBR; Turbidity; Chlorophyll a; DO₂

Fundo Regional dos Açores

Glider Sea093 – CTD RBR; Total Particle Concentration;

Chlorophyll a; DOM; DO₂; Radiance

LSTS - FEUP

Glider SeaExplorer – CTD; Turbidity

INESCTEC

Gliders SeaExplorer – CTD; Passive Acoustics



AUVs

LSTS - FEUP

LAUV - CTD, Echosounder, Multibeam, Sidescan Sonar



Instituto Hidrográfico

GraalTech X300 AUV – RBR CTD; Sidescan Sonar, Video Camera

USVs

LSTS - FEUP

Caravel (AutoNaut) - CTD, Turb, Chl, CDOM, DO₂



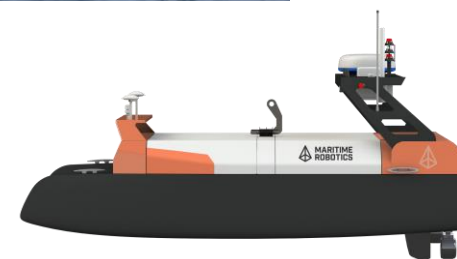
Oceanic Observatory of Madeira

Observatório II (DRIX) - Kongsberg EM712; ADCP; winch CTD; GAPS; Phins; Meteo Station



Instituto Hidrográfico

Maritime Robotic Otter Pro "Pleione" - Multibeam CTD winch with AML multiprobe



Instituto Hidrográfico

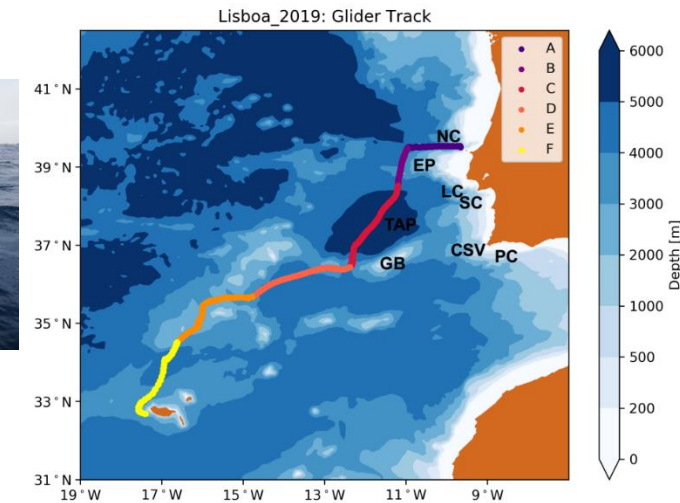
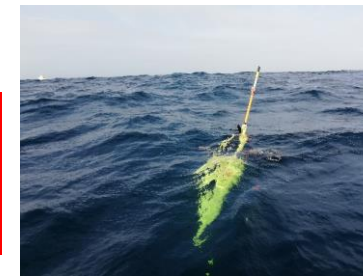
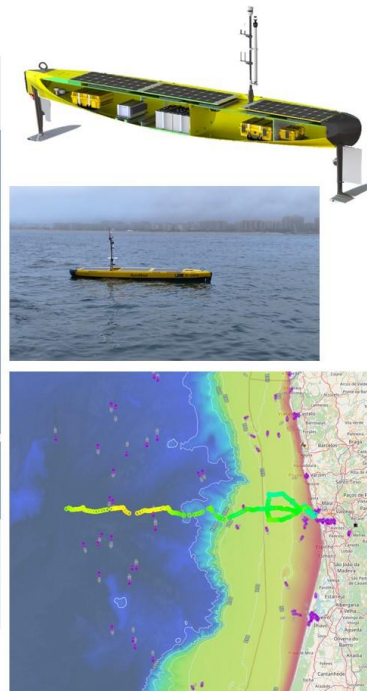
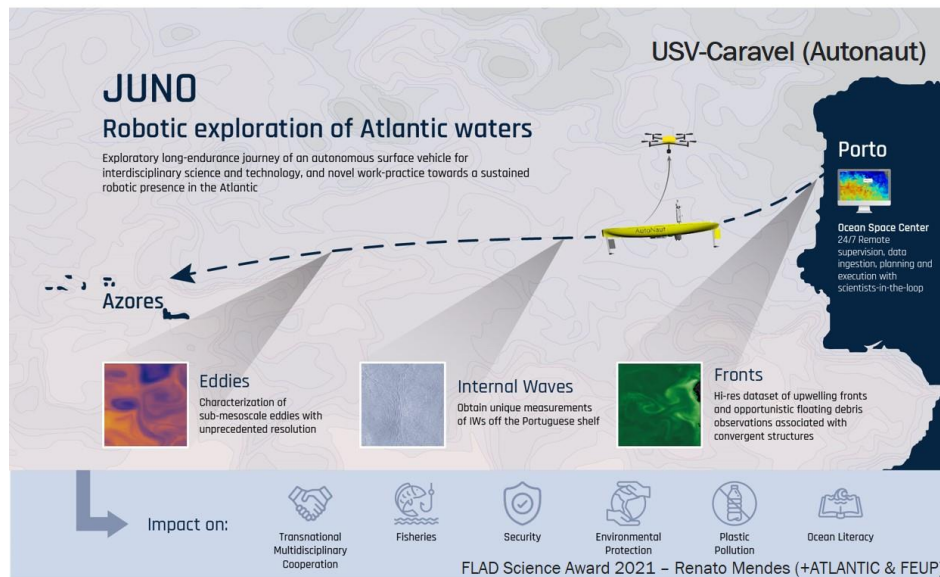
Maritime Robotics Otter X "Atlas" - Multibeam CTD winch with AML multiprobe

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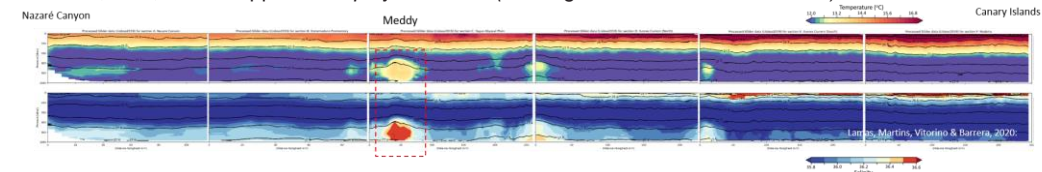
INVESTMENT AND INFRASTRUCTURE



Recent Expansion of National Capacities in Marine Robotic Systems



Glider Section W Portugal - Canary Islands
Collaboration PLOCAN (Spain) - Instituto Hidrográfico (Portugal)
2019,2020, 2021- support from projeto iFADO (Interreg Atlantic - EAPA_165/2016)



Sharing know-how among the national community



MIT Marine Robotics Summer School

National Capacities in SMART cables

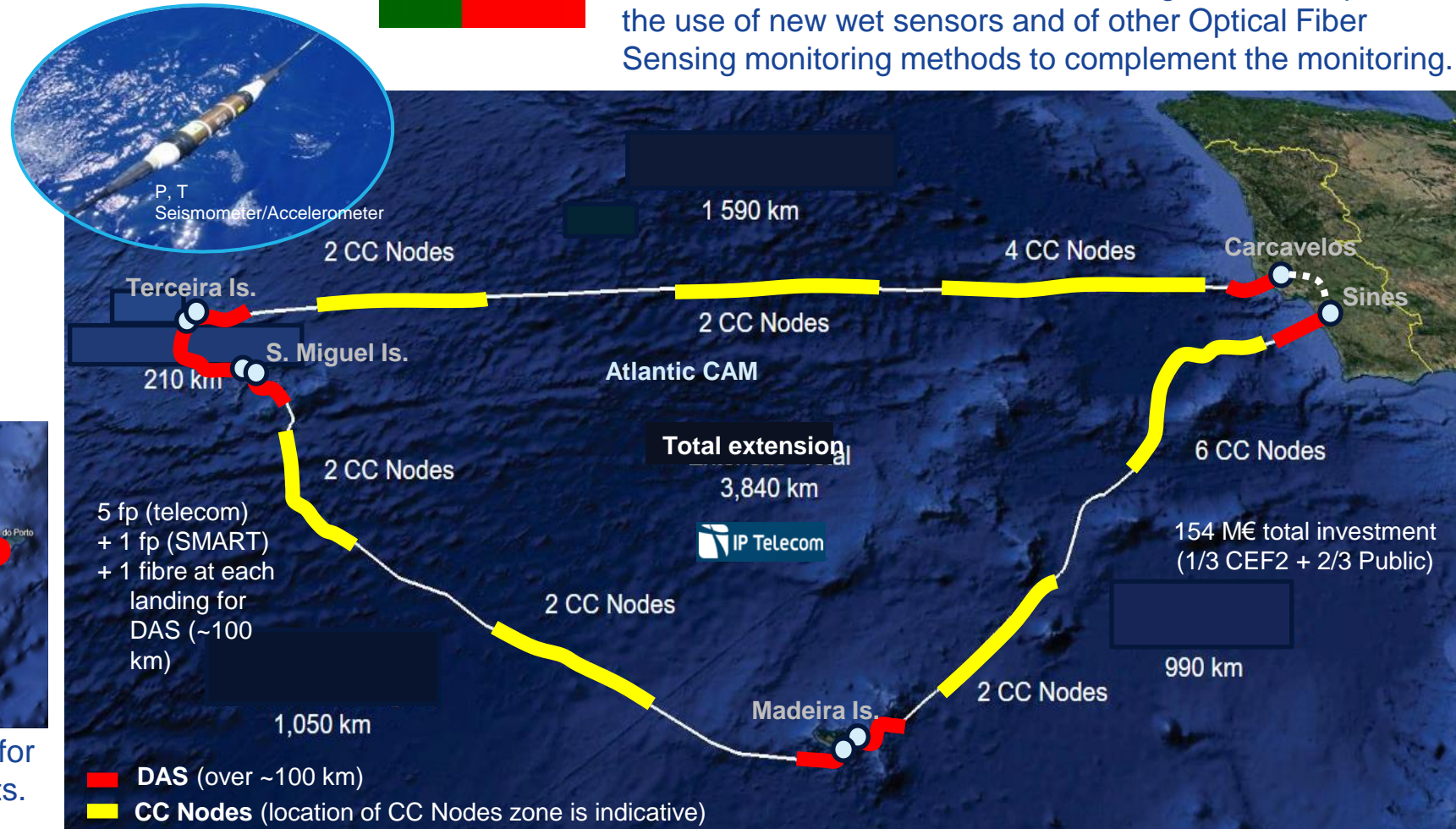


- ## 2027 Systems:

- **Atlantic CAM**
- Tamtam



The future Atlantic Azores SMART Ring will be receptive to the use of new wet sensors and of other Optical Fiber Sensing monitoring methods to complement the monitoring.



1. National Updates on Ocean Observations

DATA MANAGEMENT

NODC-PT



Officially inaugurated on 23 October 2025

Will contribute to:

- strengthening national coordination
- promoting open access to marine data
- enhancing Portugal's participation in international ocean data networks.



Marine geospatial data infrastructure.



Global network of National Oceanographic Data Centres.



International Oceanographic Data and Information Exchange (IODE) programme



Ensure the management and access to national oceanographic data



COMITÉ PORTUGUÊS PARA A COI
PORTUGUESE COMMITTEE FOR THE IOC
COMITÉ PORTUGAIS POUR LA COI



Co-funding:



1. National Updates on Ocean Observations

DATA MANAGEMENT



NODC-PT



Themes

- ✓ Human Activities
- ✓ Bathymetry
- ✓ Marine Biology
- ✓ Marine Geology
- ✓ Oceanography
- ✓ Marine Chemistry



<https://nodc-portugal.pt>

NODC-PT

DATA ACCESS

ABOUT

DATA THEMES

REFERENCES

MEMBERS

USEFUL LINKS

PT



Marine Data Management

NODC aims to establish and promote standardized and best practices in marine data management.

Read More



COMITÉ PORTUGUÊS PARA A COI
PORTUGUESE COMMITTEE FOR THE IOC
COMITÉ PORTUGAIS POUR LA COI



Co-funding:



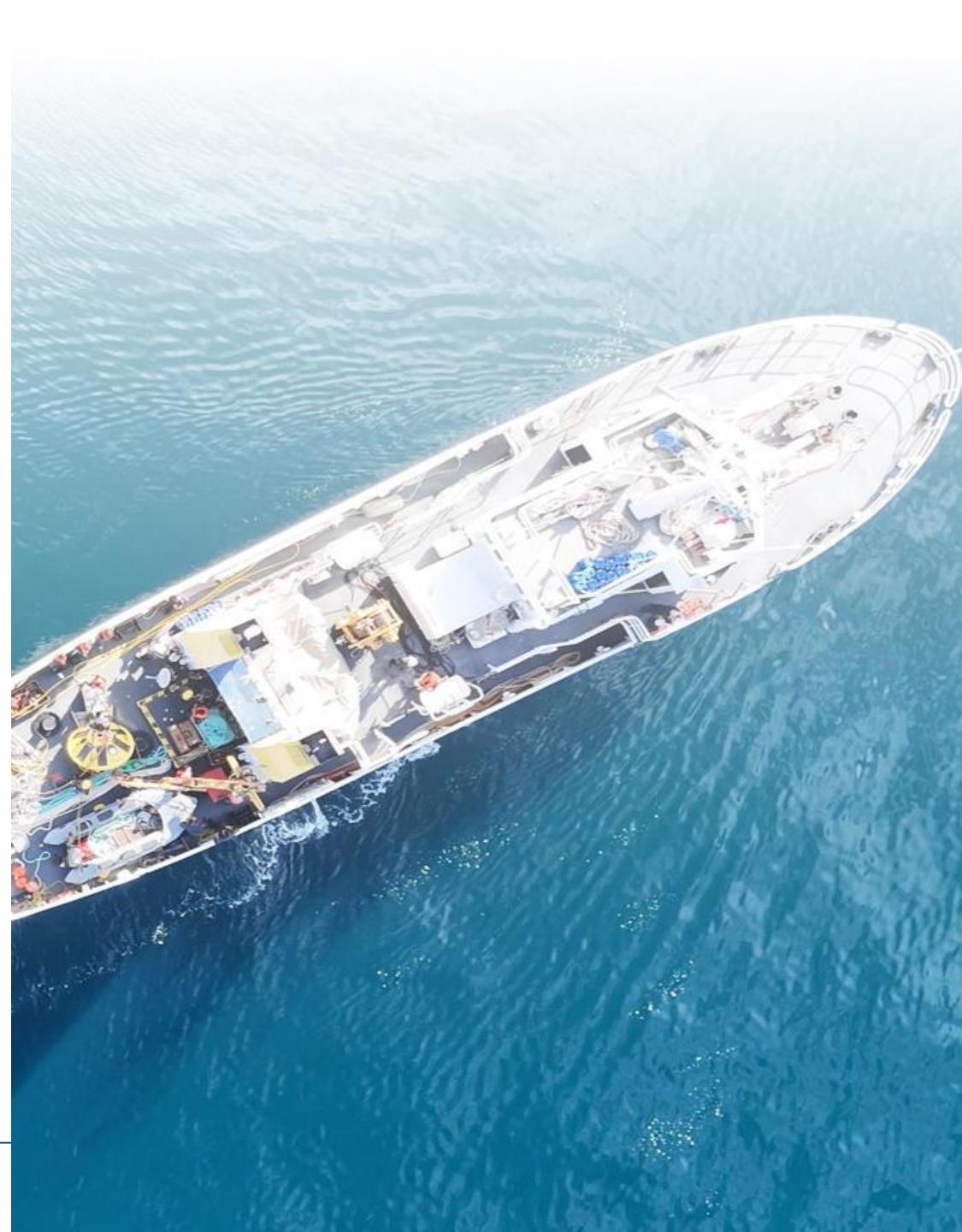
2. Reflection on the NFP's role

THE EXPERIENCE GATHERED DURING THE
1st GOOS/EOOS MEETING
SHOWED THE STRONG INTEREST AND IMPACT OF THIS
INITIATIVE AMONG THE NATIONAL COMMUNITY
INVOLVED IN OCEAN OBSERVATION

FUTURE EDITIONS OF THE GOOS/EOOS MEETING WILL:

- EXPAND THE COMMUNITY UNDERSTANDING ABOUT NATIONAL CAPACITIES AND INFRASTRUCTURES
- IDENTIFY AND ARTICULATE NATIONAL PRIORITIES
- BRIDGE THE NATIONAL COMMUNITY WITH GOOS AND EOOS
- IDENTIFY AND IMPLEMENT SPECIFIC MECHANISMS TO BOOST NATIONAL ARTICULATION

***NFPs ACTION WILL BE KEY TO FULFILL THESE
OBJECTIVES***



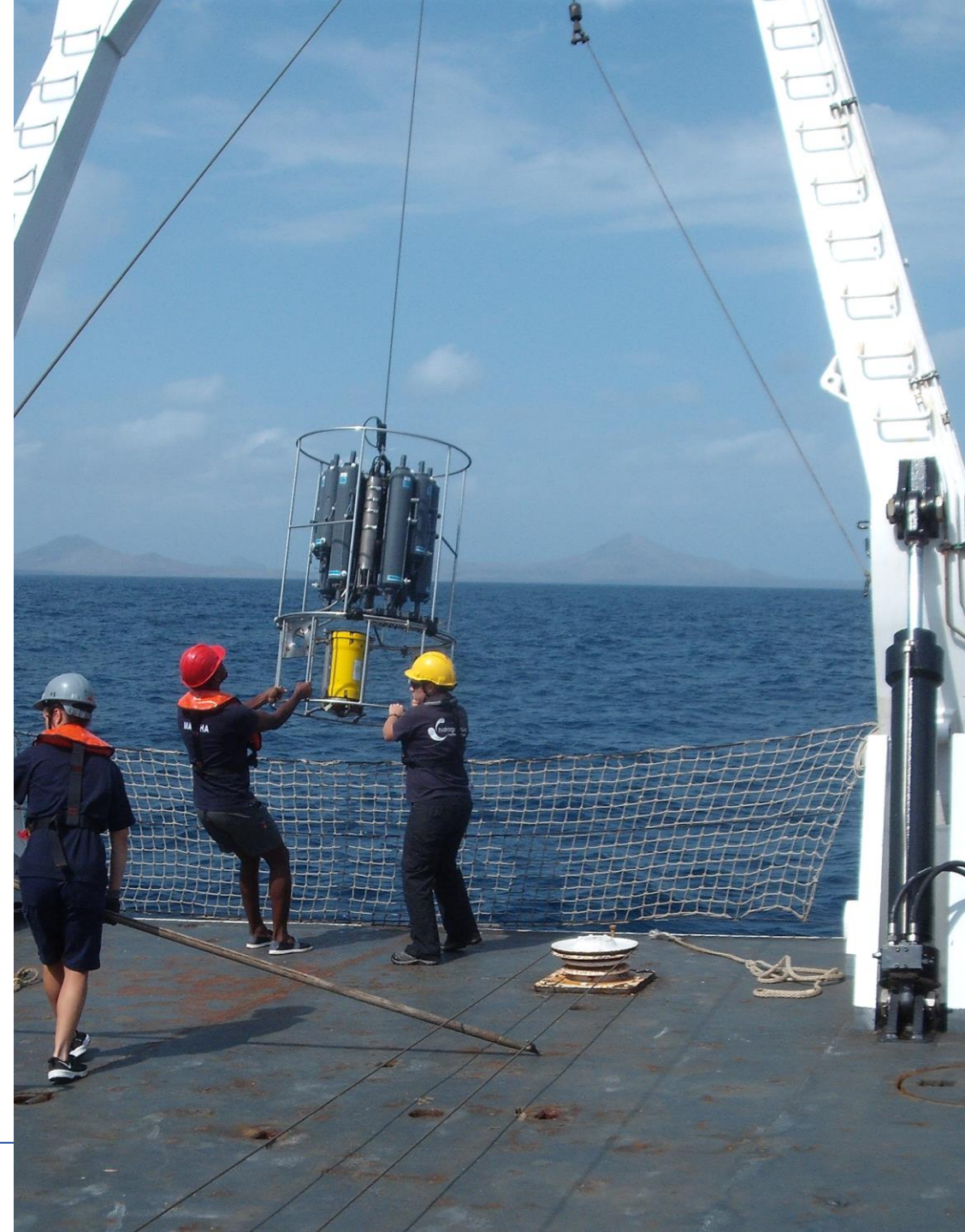
3. Support Needed

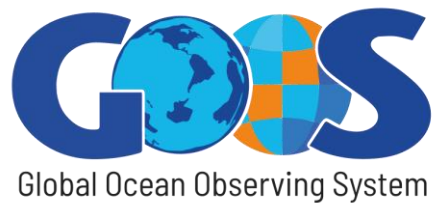
FROM GOOS SECRETARIAT:

- COMMUNICATION MATERIAL ABOUT GOOS TO BE DISSEMINATED DURING THE GOOS/EOOS MEETINGS
- SUPPORT IN TRANSLATION TO PORTUGUESE OF COMMUNICATION MATERIAL SPECIFICALLY ADDRESSED TO USERS AND STAKEHOLDERS

EVENTUALLY, FROM OTHER NFPs:

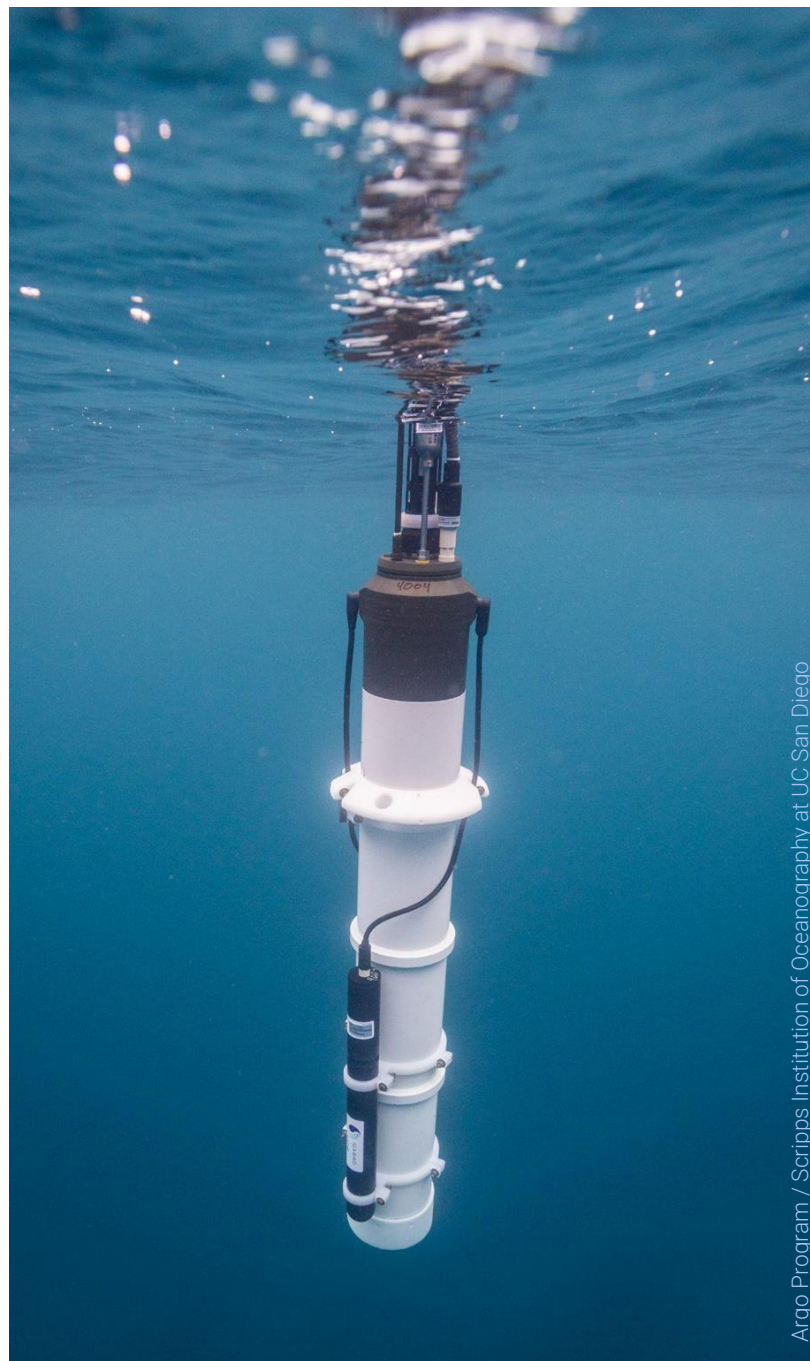
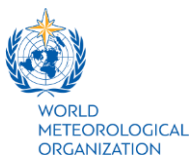
- MATERIAL FOCUSSED ON HOW SPECIFIC AREAS IN OCEAN OBSERVATIONS ARE BEING ADDRESSED BY OTHER NATIONS





Thank you

goosocean.org



Argo Program / Scripps Institution of Oceanography at UC San Diego

