



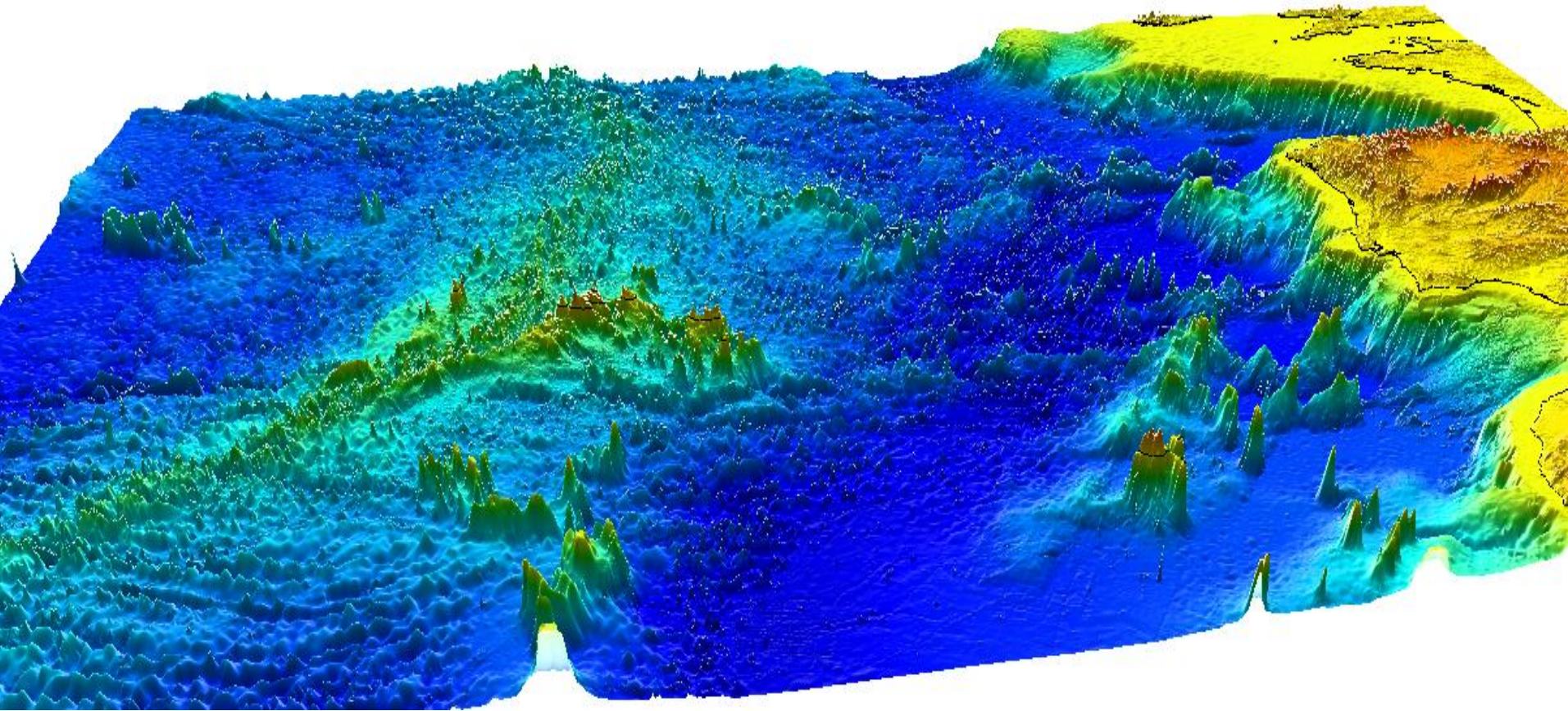
The BIOMETORE project

Antonina dos Santos

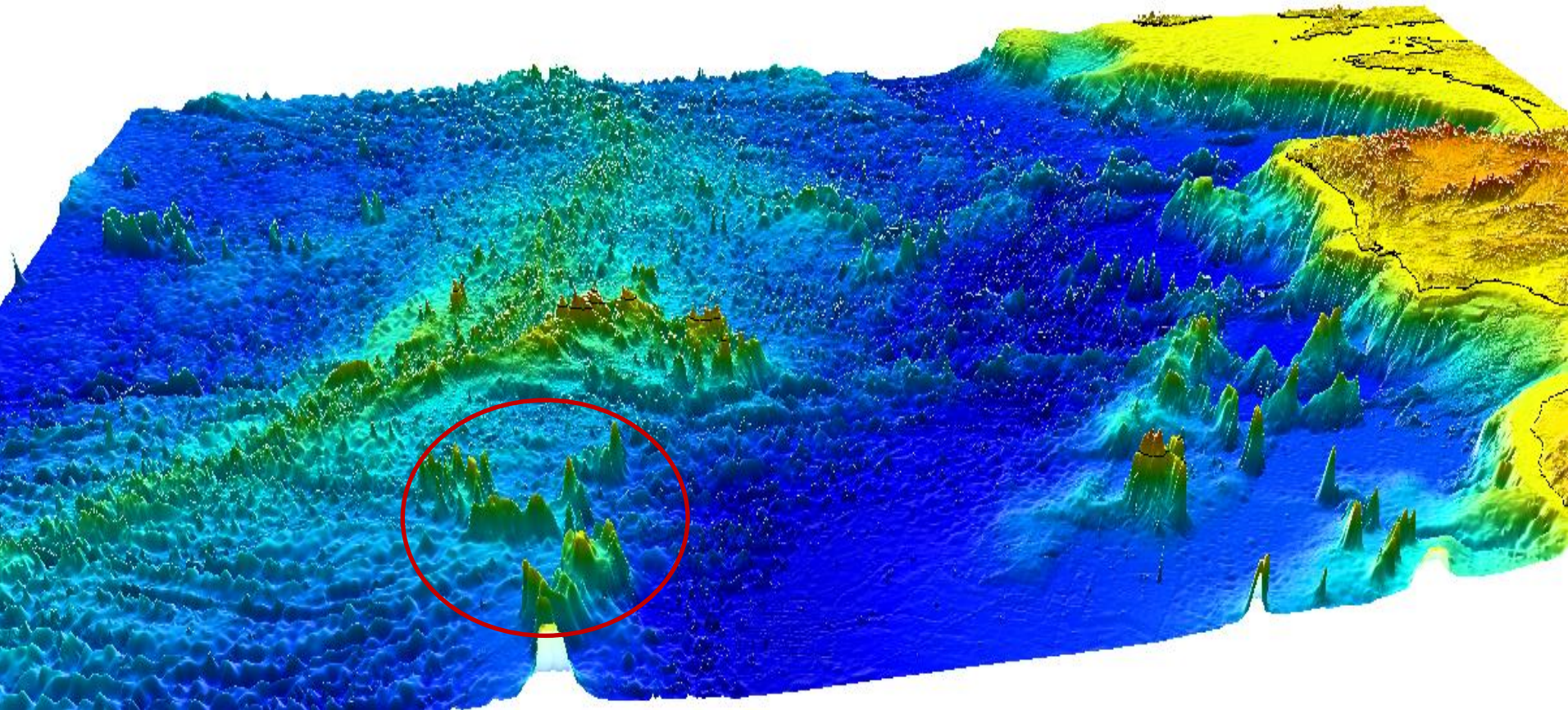


28th of April, 2017

The study area

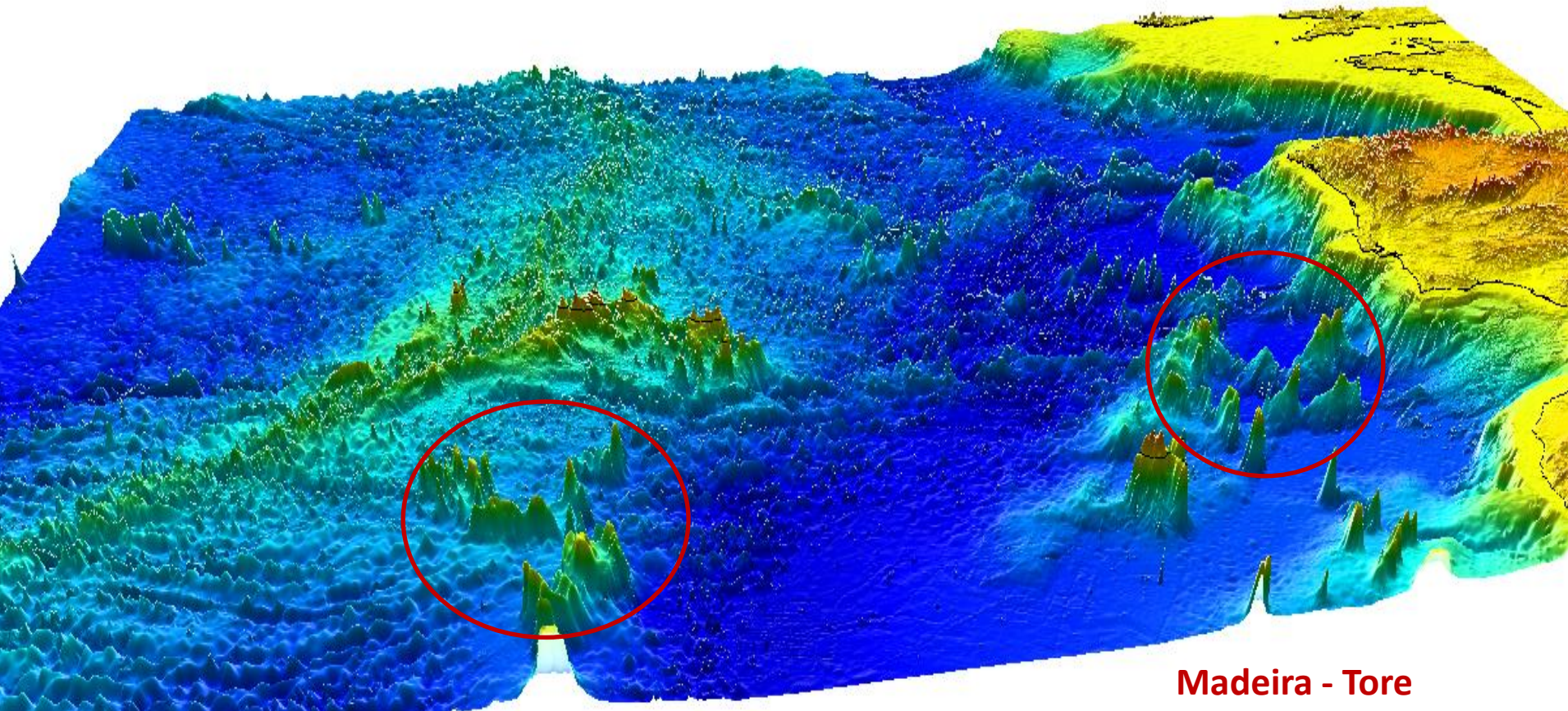


The study area



Great Meteor

The study area

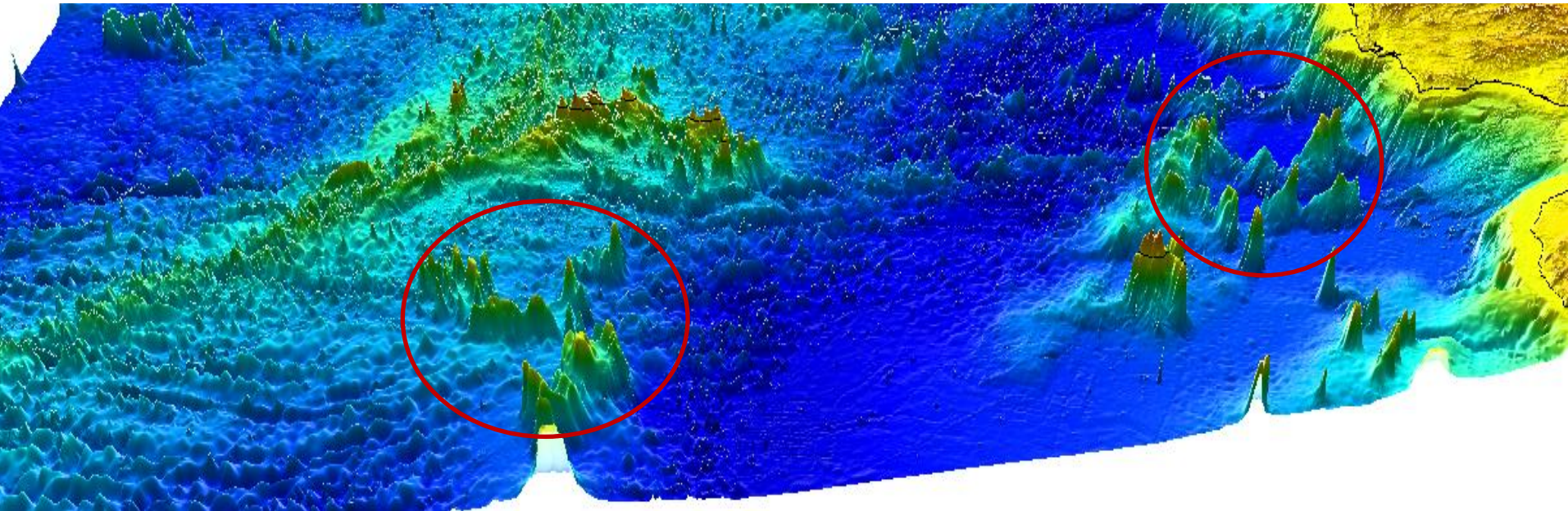


Great Meteor

Madeira - Tore

The objectives

Sampling surveys encompassing **seamounts** in the **Madeira-Tore** and **Great Meteor** geological complexes to acquire knowledge on **deep-sea ecosystems, biodiversity** and **anthropogenic pressures**



The consortium



Coordinator

The consortium



Coordinator



Direção Regional dos Assuntos do Mar



Partners

The consortium



Coordinator



Direção Regional dos Assuntos do Mar



Collaborators



The plan

WP7. Scientific coordination and meetings organization



WP1. Surveys and Data Management



WP2. Benthic habitat characterization

WP3. Pelagic habitat characterization

WP4. Identification and characterization of anthropogenic pressures



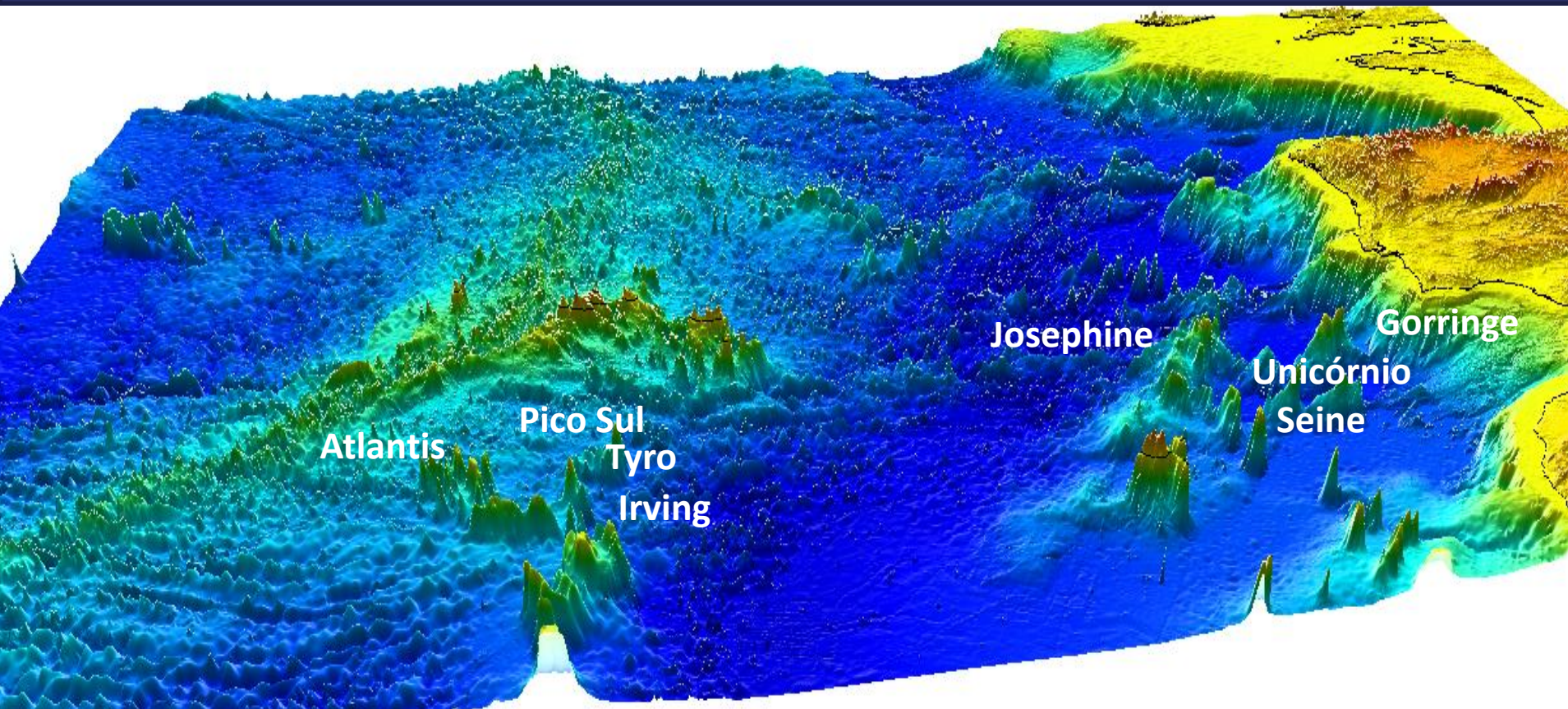
WP5. Sustainability plan

WP6. Outreach

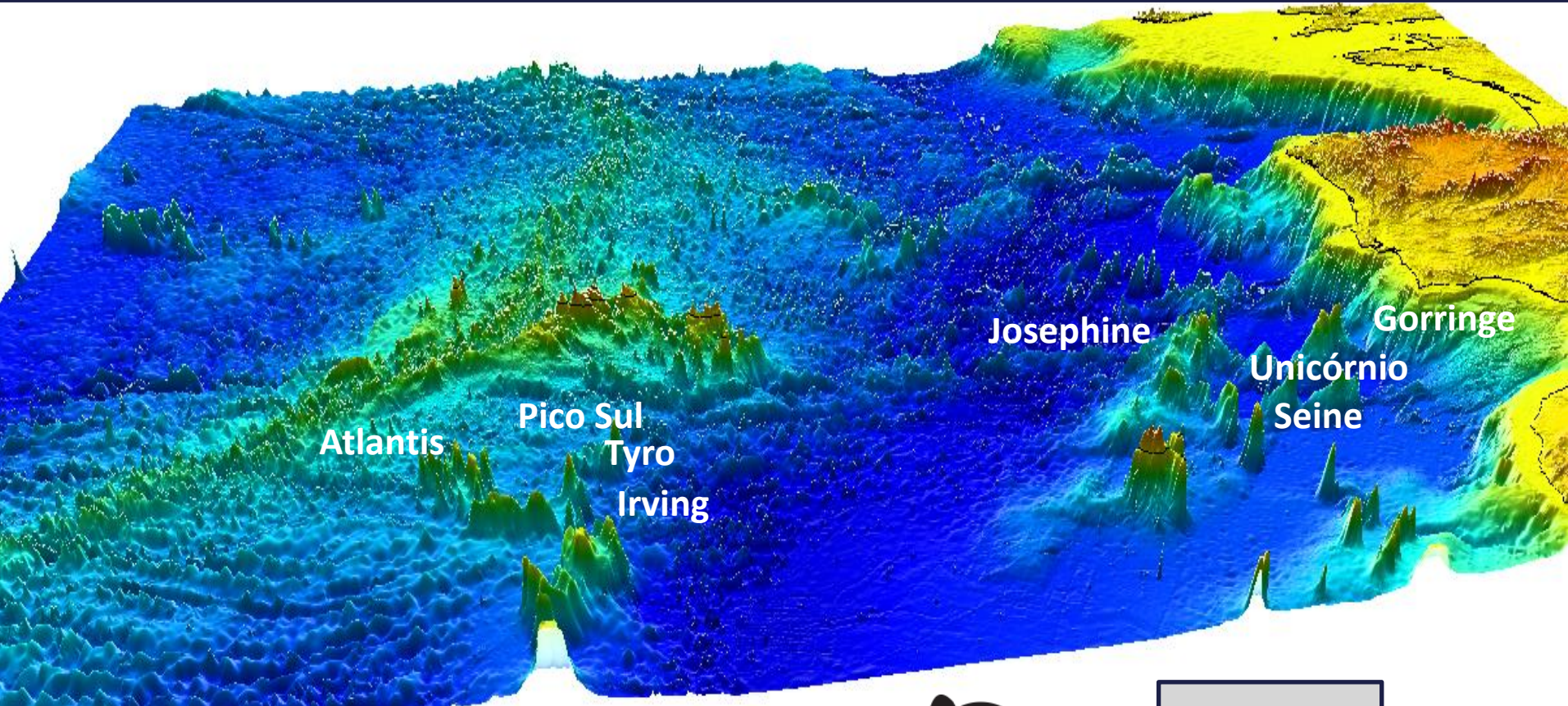


WORK-PACKAGE 1

SURVEYS AND DATA MANAGEMENT



7 Surveys



Reference Biological Collection at



FIELD

Data acquisition
Recording on digital support

LABORATORY

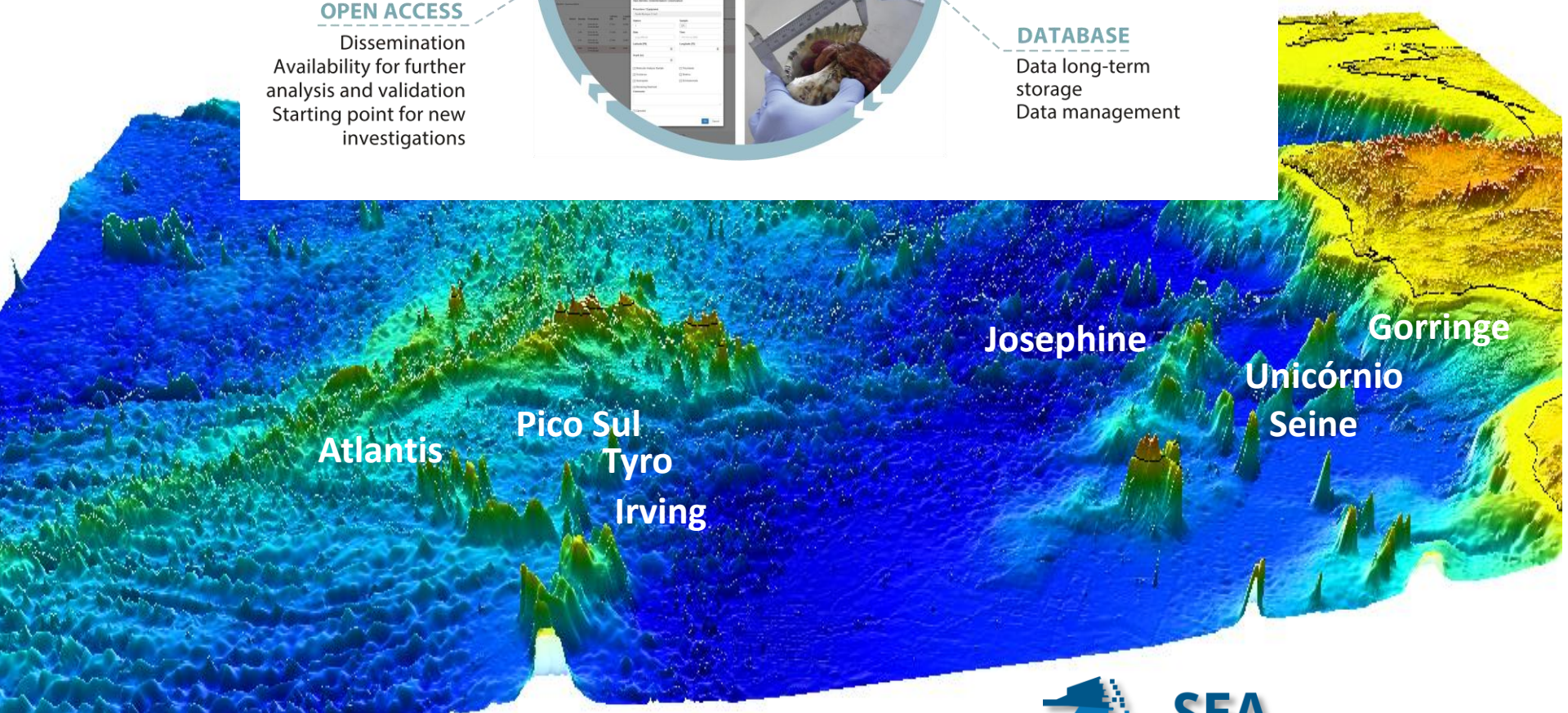
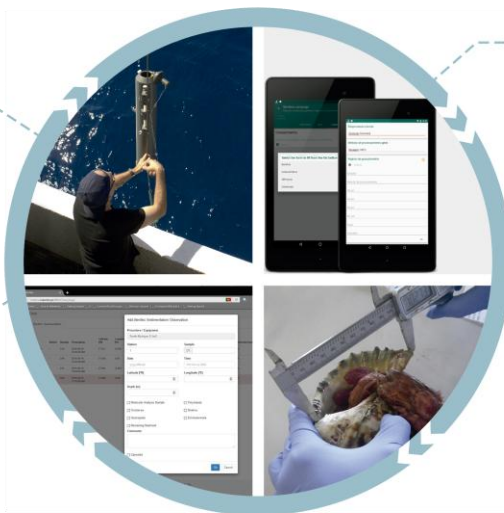
Data acquisition
Data analysis and validation
Recording on digital support

OPEN ACCESS

Dissemination
Availability for further
analysis and validation
Starting point for new
investigations

DATABASE

Data long-term
storage
Data management



Database by SeaBioData



SEA
BIO
DATA





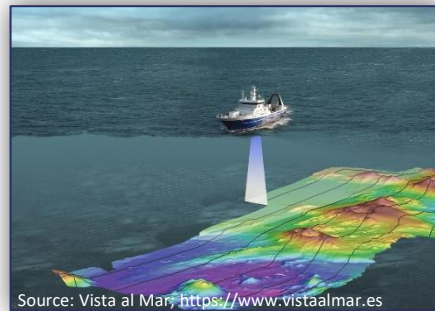
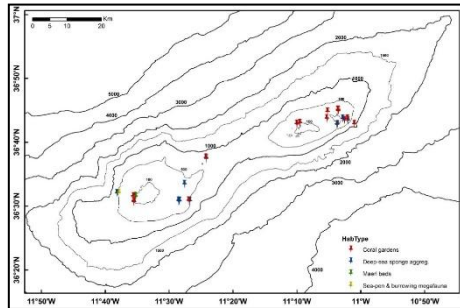
WORK-PACKAGE 2

BENTHIC HABITATS CHARACTERIZATION

OBJECTIVES

Data collection for:

- Classifying seabed habitats and producing large-scale maps



Source: Vista al Mar, <https://www.vistaalmar.es>

- Characterizing benthopelagic fish species composition and assemblage structure
- Providing voucher specimens for museum collections

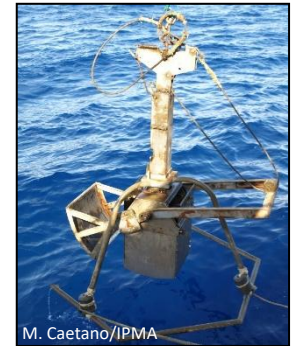


- Testing the proof of concept of seamounts endemism and their role as “stepping stones”

- Addressing trophic interactions



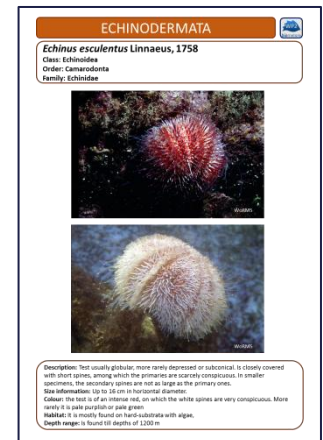
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M. Caetano/IPMA

- Developing VME distribution suitability models

- Improving biodiversity knowledge





WORK-PACKAGE 3

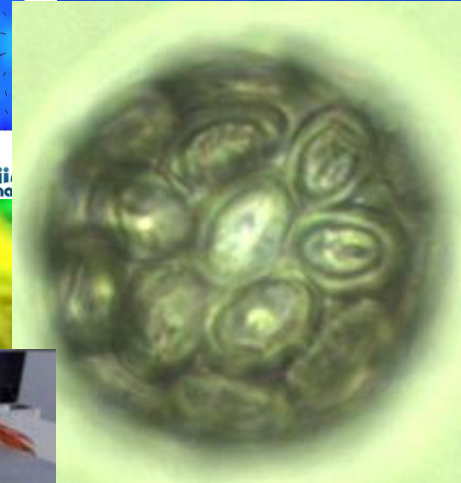
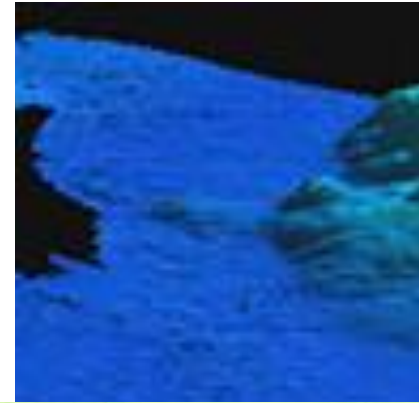
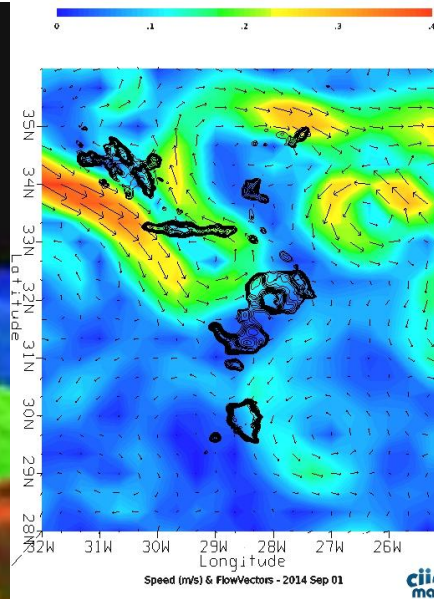
PELAGIC HABITATS CHARACTERIZATION

✓ Oceanographic processes

✓ Planktonic communities

✓ Nektonic communities

✓ Marine vertebrate communities





WORK-PACKAGE 4

IDENTIFICATION OF ANTHROPOGENIC PRESSURES

Estimation of anthropogenic pressures

Estimation of fisheries catch and bycatch in offshore seamounts

Impacts of bottom fishing on VMEs and litter distribution in offshore seamounts



The figure presents the AIS information on ships passages for the period 01/01/2012 to 31/12/, which includes the fishing vessels.



WORK-PACKAGE 5

SUSTAINABILITY PLAN

- 
- ✓ Two large MPAs are planned
- ✓ BIOMETORE Project includes this WP for the design and outline of its Sustainability Plan
- ✓ This Plan take into account all human activities, as well as their impact on marine species and their habitats
- ✓ It is proposed a technical structure for evaluation and monitoring that should be agile with adequate operational capacity



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WORK-PACKAGE 6

OUTREACH

- ✓ Scientific communications
- ✓ Press releases and conferences
- ✓ Website www.biometore.pt
- ✓ Documentary on oceanographic survey
- ✓ Documentation of all scientific activities with photo and video
- ✓ Promote Ocean Literacy for children and schools

IPMA promove investigação oceanográfica entre a Madeira e o Continente

Montes submarinos são alvo de estudo científico

MAR

Lúcia M. Silva

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O navio "Noruega" sairá do porto do Funchal rumo a Lisboa no âmbito de uma nova campanha de investigação oceanográfica.



Antonina Santos explicou aos jornalistas como irá desenvolver-se o projeto.

Entre hoje e amanhã, o navio "Noruega", do Instituto Português do Mar e da Atmosfera (IPMA), vai partir do porto do Funchal rumo a Lisboa no âmbito de uma nova campanha de investigação oceanográfica.

Ontem, em conferência de imprensa realizada a bordo do navio, Antonina Santos, investigadora do IPMA e responsável pela

em oito campanhas de investigação no total.

O projeto é financiado pelo programa europeu EEA Grants e conta com um orçamento de 2,5 milhões de euros.

A campanha da Madeira a Lisboa será liderada pelo investigador e diretor do Observatório Oceânico da Madeira (OOM), Rui Caldeira, e vai prolongar-se por 20 dias. A equipa será formada

“

O projeto pretende estudar os montes submarinos que existem entre

montes do Complexo Madeira-Tore.

De salientar que, ainda nesta conferência de imprensa, Antonina Torres lembrou que, apesar do requerimento estar pendente (desde 2009) nas Nações Unidas, Portugal continua com a ambição de ver aumentada a extensão da plataforma continental. As Zonas Económicas Exclusivas de Portugal continental, da Madeira e dos Açores ficariam li-



Agenda Open Day

9h30 Opening session

- Prof. Dr. Miguel Miranda (IPMA's President) and guests
- The BIOMETORE project (Antonina dos Santos, IPMA)

9h50 Coffe break

10h10 WP1- "Surveys and Data Management"

- BIOMETORE surveys in the Great Meteor and Madeira-Tore seamounts complexes (Eva Giacomello, IMAR)
- Natural history collections - why are they important? (Alexandra Cartaxana, MUHNAC)

Discussion / Questions

10h40 WP2 - "Benthic habitats characterization"

- Benthic habitats of the Madeira-Tore and Great-Meteor seamount complexes (Miriam Tuaty Guerra, IPMA)
- Deep-sea benthic megafaunal communities at the Great Meteor seamount complex (IMAR Açores, presented by M Tuaty Guerra)
- Planning and conducting video based habitat mapping - the IMR contribution to BIOMETORE (Lene Buhl-Mortensen, IMR)
- Marine habitats and biodiversity in the Gorringe bank (Jorge Gonçalves, CCMAR)
- Quantitative and qualitative studies of meiobenthos at Irving Seamount (Marcos García, CIIMAR)
- Autonomous submarine vehicles to map and collect data from the water column (João Tasso, FEUP)

Discussion / Question

11h40 WP3 - "Pelagic habitats characterization" (Part I)

- Oceanographic aspects of the NE Atlantic seamount regions: Great-Meteor and Madeira-Tore (Rui Caldeira, ARDITI)
- Circulation and Eddies in the Azores - Current zone: interactions with topography (Álvaro Peliz, FCUL)
- Metagenomic assessment of the BIOMETORE samples (José Pereira - Leal, IGC)

- Zooplankton as an indicator of good environmental health (Sérgio Leandro, IPL)

12h10 Lunch break

14h00 WP3 - "Pelagic habitats characterization" (Part II)

- Fish diversity of the Great Meteor, Seine and Unicorn Seamounts, North Atlantic Ocean (Manuel Biscoito, ARDITI)
- Cetacean usage of seamounts of the Great Meteor and Madeira - Tore geological complexes (Mónica Silva, IMAR)

Discussion / Questions

14h30 WP4 - "Identification and characterization of anthropogenic pressures"

- Fishing pressures in critical areas of the Madeira - Tore and Great Meteor (Aida Campos, IPMA)
- Details on the fishing activity of the Madeira fleet in the Madeira - Tore and Great Meteor seamounts (2012 - 2014) (João Delgado, ARDITI)

Discussion / Questions

15h10 WP5 - "Sustainability Plan"

- Protected Marine Areas, Azores case (Filipe Porteiro, DRAM)
- Protected Marine Areas, Madeira case (Ara Oliveira, DROTA)
- Sustainability plan - the way forward (António Teixeira, DGRM)

Discussion / Questions

15h50 Coffee break

16h10 WP6 - "Outreach"

- Didactic tools about seamounts (Carla Dâmaso, OMA)
- The movie - "On board the Noruega" (Aurora Ribeiro, OMA)

Discussion / Questions

16h50 Closing session



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