



The IHPT Marine Spatial Data infrastructure and its contribution to the INSPIRE Directive

INSPIRE - GWF 2015 - Coastal & Marine session
Lisbon Congress Center, Portugal - Thursday, 28 May 2015

Summary

- Instituto Hidrográfico - Capabilities

- Activity
- Unique capabilities at national level

- Systems Integration

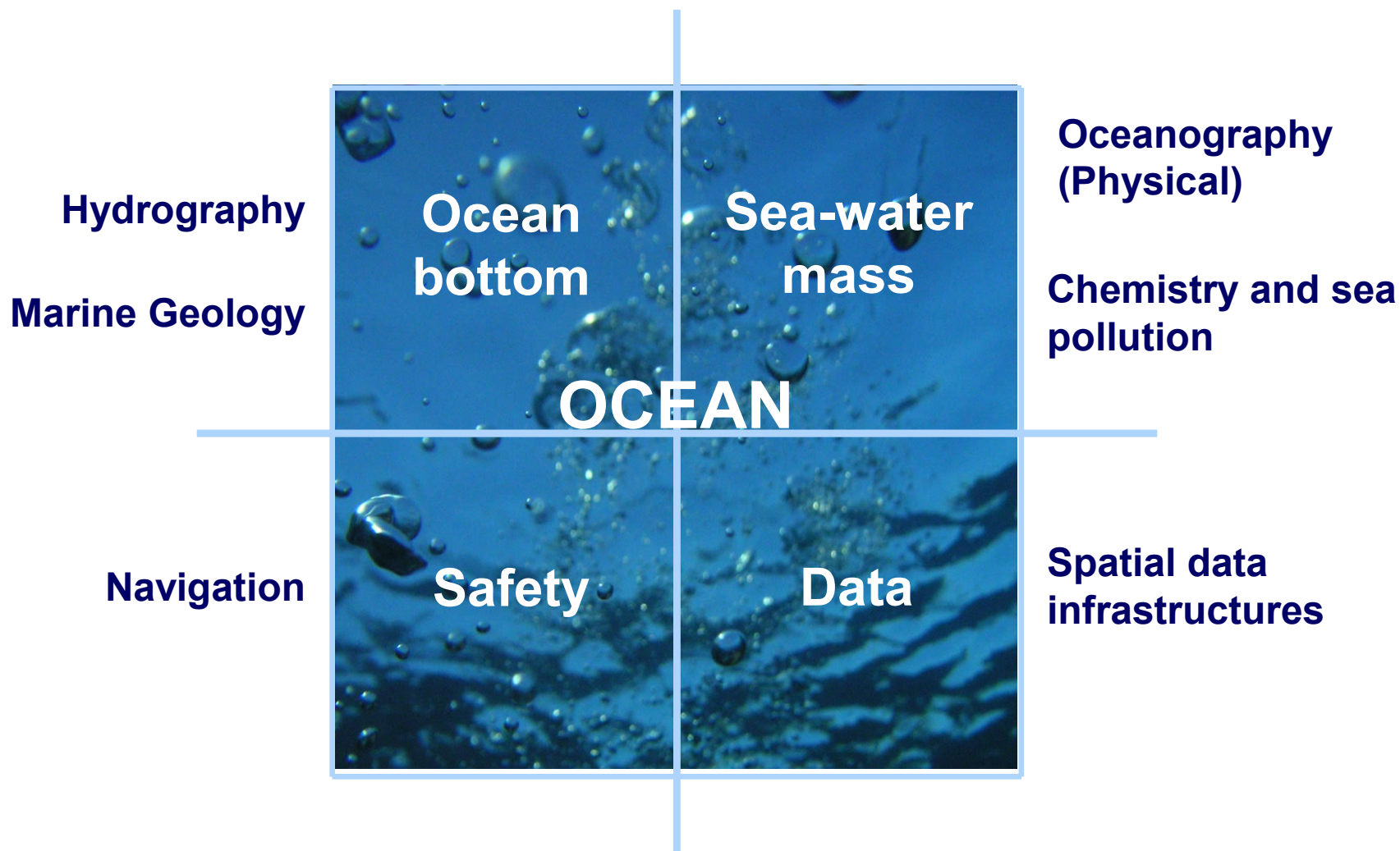
- Hydrography/Cartography, Marine Geology, Safety of Navigation, Oceanography, sea water Chemistry

- The Inspire directive annexes

- The selection and suitability of the layers

- Data dissemination

- Delivering the Directive
- The existent online services
- Data access



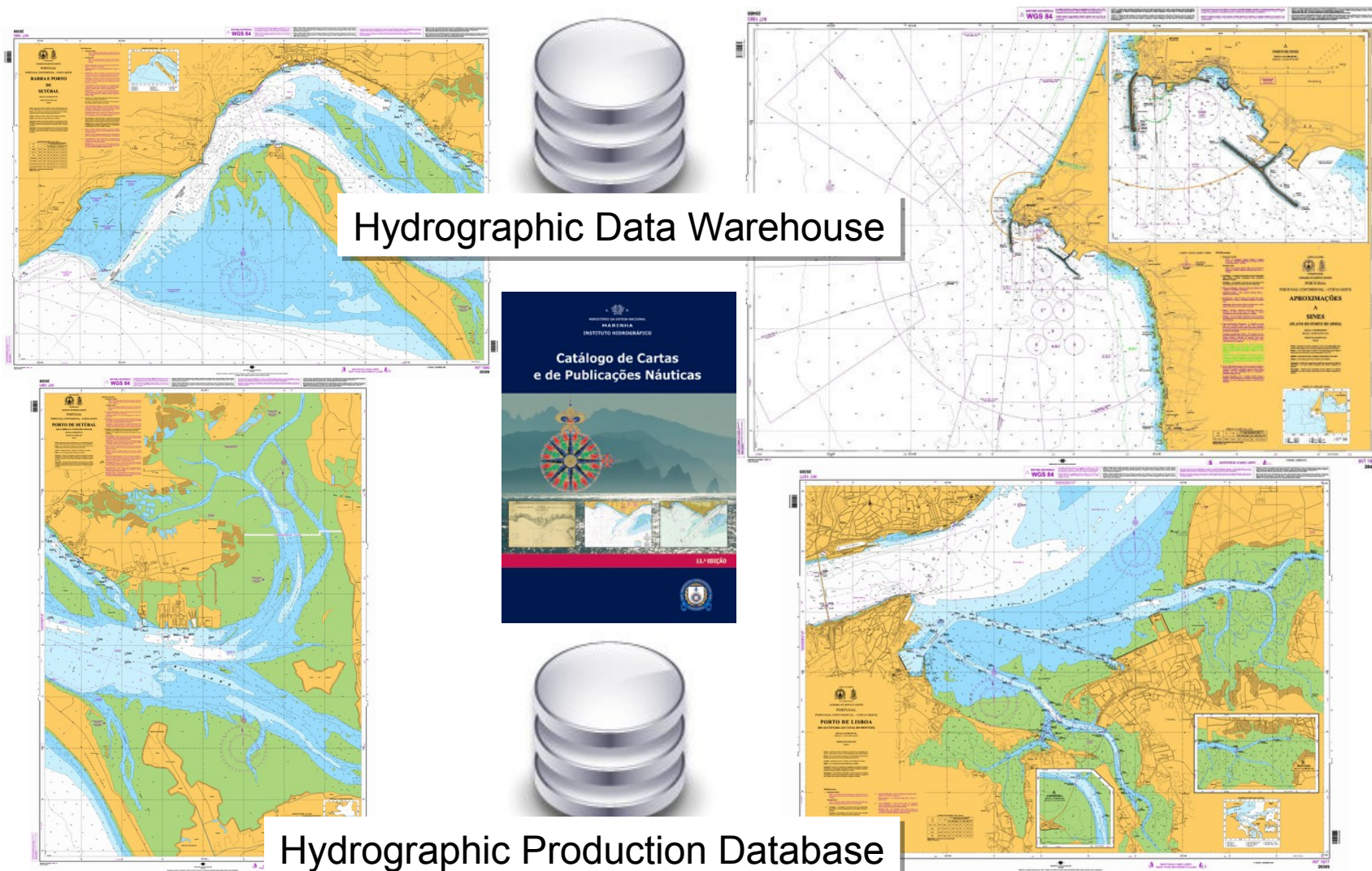
Hydrographic Surveys

Oceanic



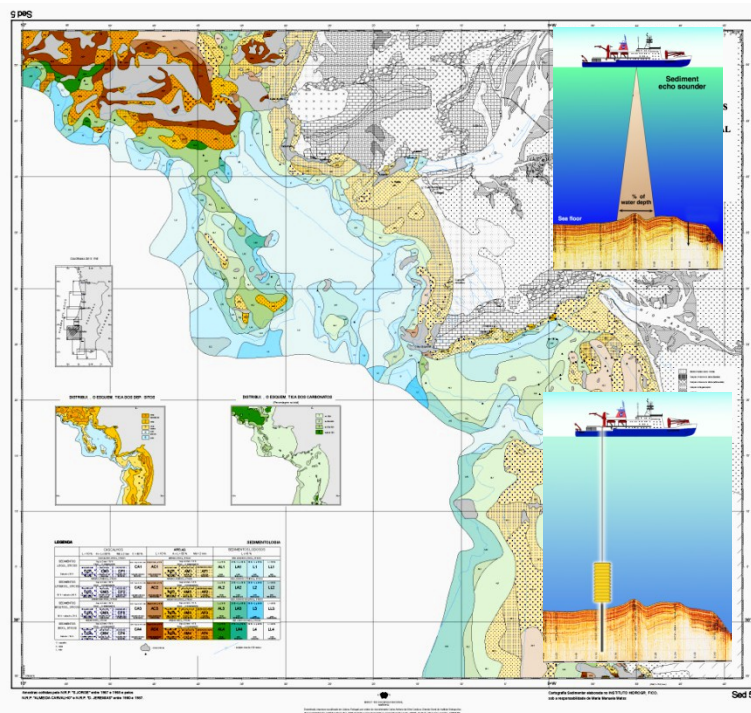
Costal

Harbours



Environmental characterization

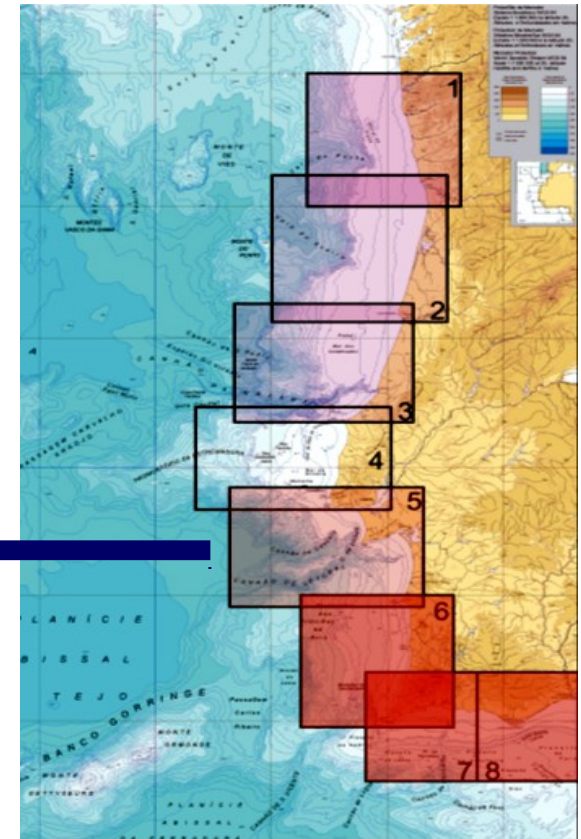
Surface-sediment charts



Side scan sonars

Seismic recorders

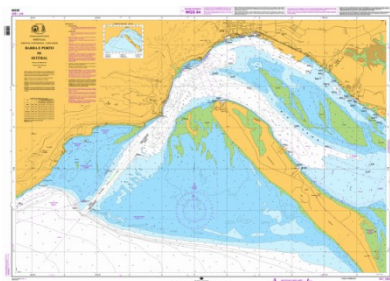
Gravity corers



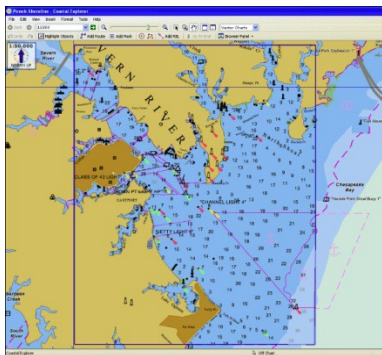
Hydrography

Hydrographic survey

Official Cartography



paper Charts



Electronic Navigational Charts

Safety of Navigation

Notice to mariners

Nautical Publications



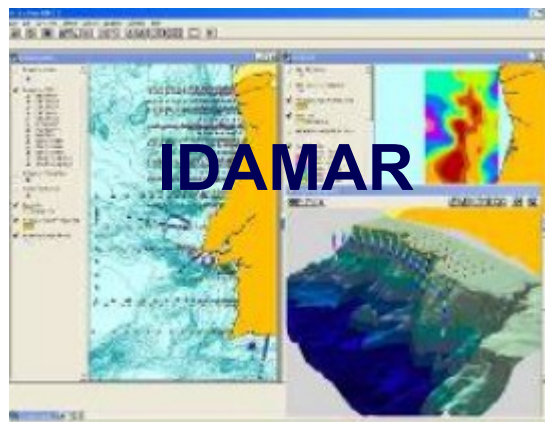
Physical Oceanography, Marine Chemistry and Geology

- Environmental characterization
- Environmental Monitoring
- Operational forecast
- Applied Scientific Research



Data Center

- Technical-scientific databases
- Spatial data services
- Support to navy operations and scientific R&D projects



Marine Environment SDI

Permanent observation networks

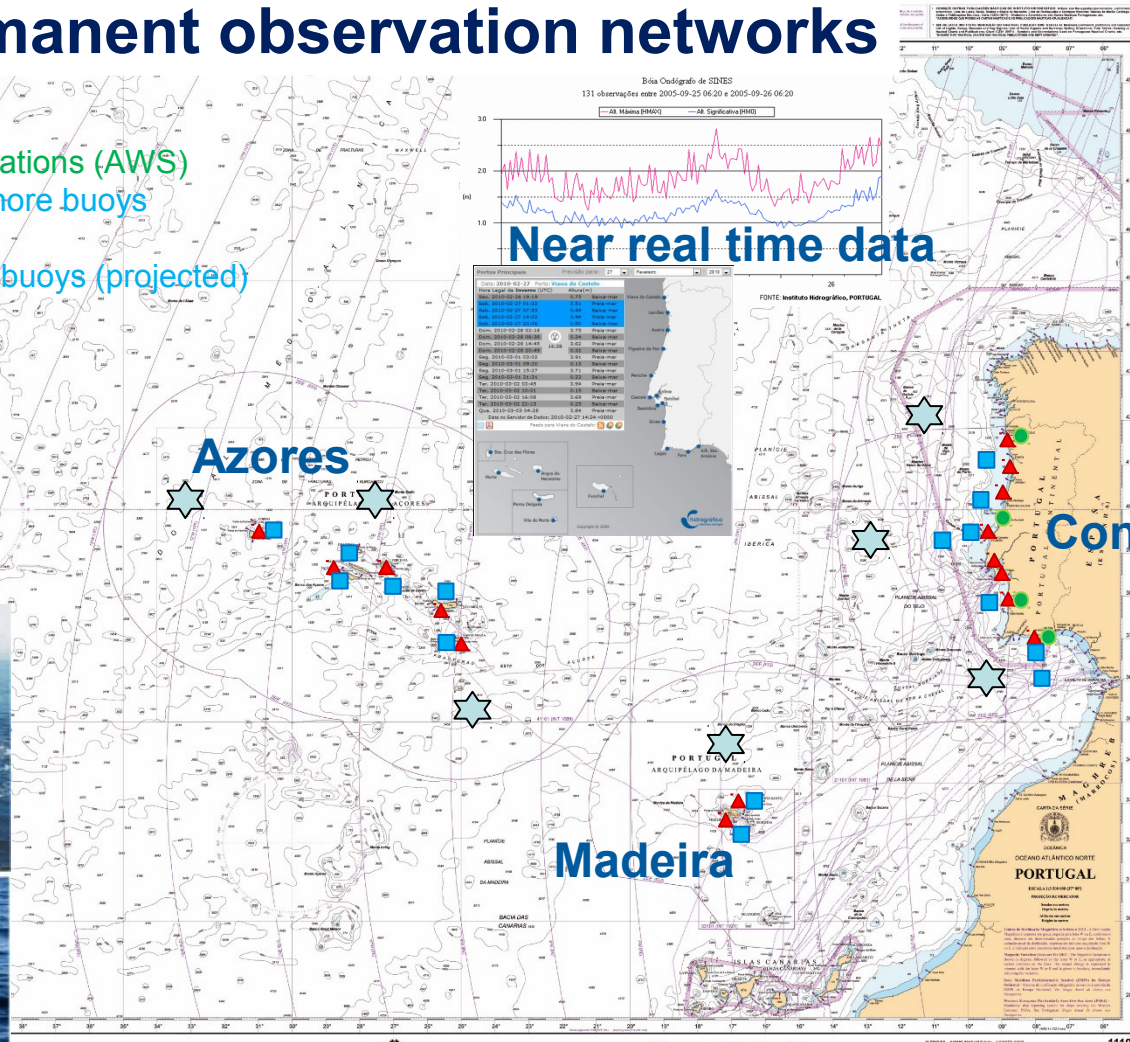
- ▲ Tide Gauge
- Meteorological stations (AWS)
- Coastal and offshore buoys
- ★ Multi-parameter buoys (projected)

Near real time data

Azores

Continent

Madeira





Operational forecast

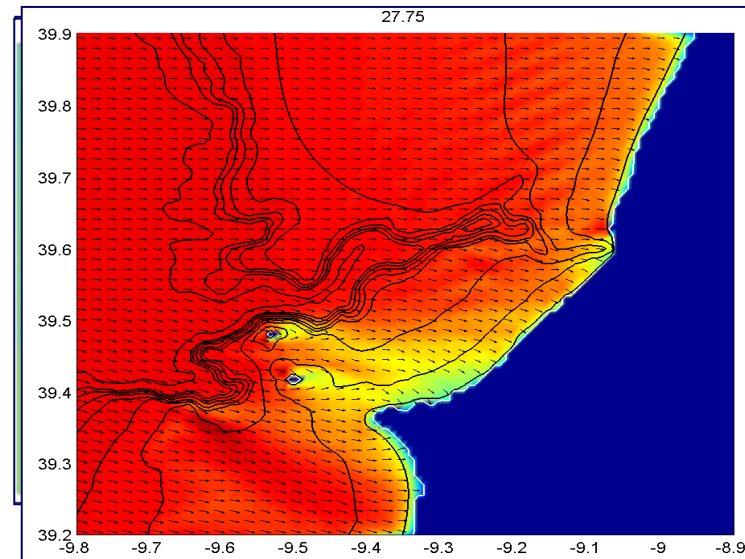
Continental margin
circulation

North Atlantic tide

Surface drifting

Shoreline movements

Sea wave climate



Daily in the Internet

Previsão Operacional



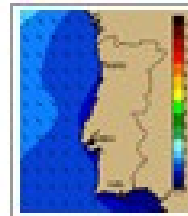
Previsões disponíveis



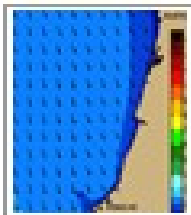
Atlântico Norte
+ Ver Mais



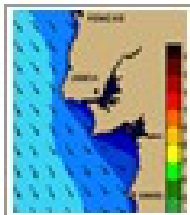
Atlântico Sul
+ Ver Mais



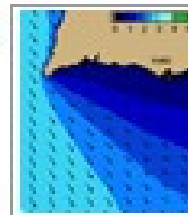
Portugal Continental
+ Ver Mais



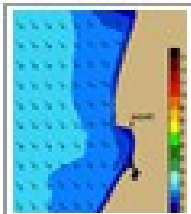
Costa Oeste - Zona Norte
+ Ver Mais



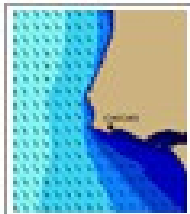
Costa Oeste - Zona Sul
+ Ver Mais



Costa Sul
+ Ver Mais



Praia da Nazaré
+ Ver Mais

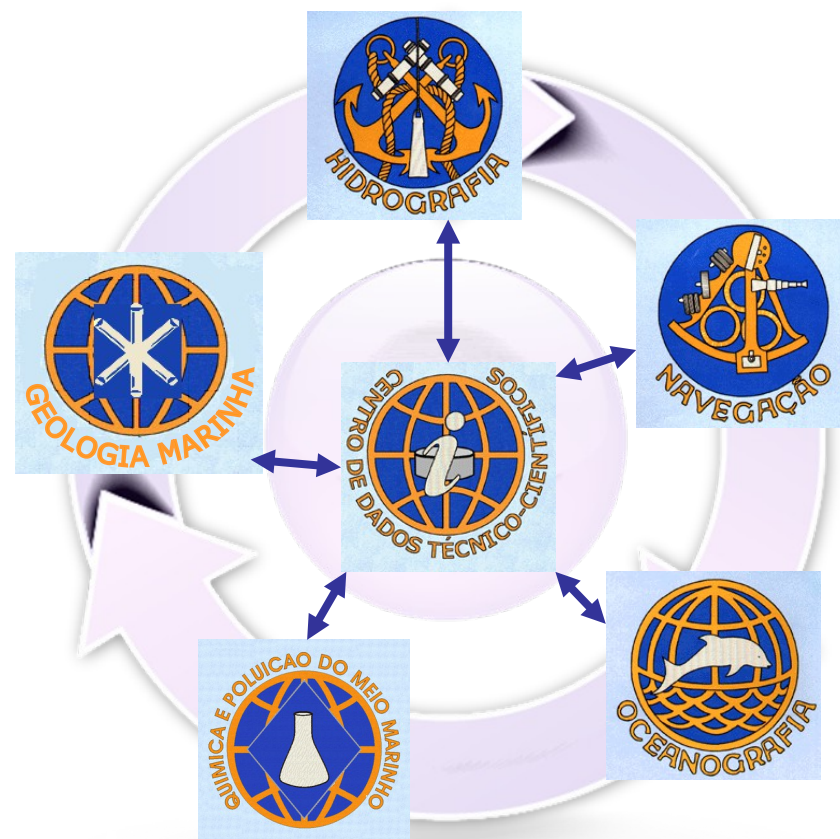
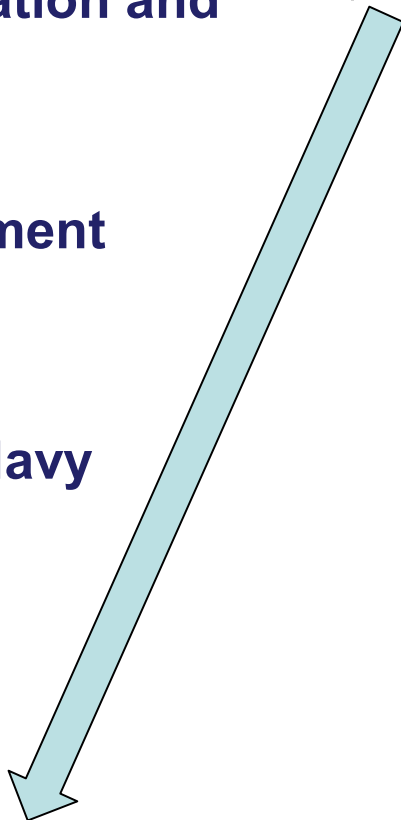


Baía de Cascais
+ Ver Mais



Arquipélago da Madeira
+ Ver Mais

- **Safety of Navigation and Life at Sea**
- **Marine environment protection**
- **Support to PT Navy activities**



Contribute to increase the Knowledge of the Ocean

How to harmonize the Mission and Activities with the Inspire Directive?

Legislation

The Directive... establishing an **Infrastructure for Spatial Information** in the European Community (INSPIRE) was published in the official Journal on the 25th April 2007.

Mission to accomplish

To ensure that the spatial data infrastructures of the Member States are **compatible and usable** in a Community and on a **transboundary context**, the Directive requires that **common Implementing Rules** are adopted in a number of specific areas (**Metadata, Data Specifications, Network Services, Data and Service Sharing** and Monitoring and Reporting)

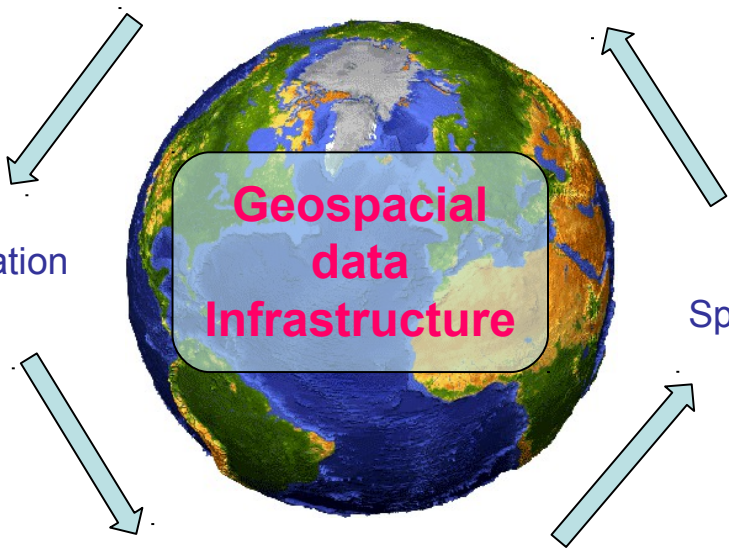
INSPIRE Directive – Geographical Data

1 - Awareness

Institutional framework

2 - Analysis

Technical implementation



4 - Action





Spatial Data Services

The core datasets

3 - Decision

Inspire – Themes of the Annexes



ANNEX 1

 Addresses	 Geographical names
 Administrative units	 Hydrography
 Cadastral parcels	 Protected sites
 Coordinate reference systems	 Transport networks
 Geographical grid systems	

ANNEX 2

 Elevation
 Geology
 Land cover
 Orthoimagery

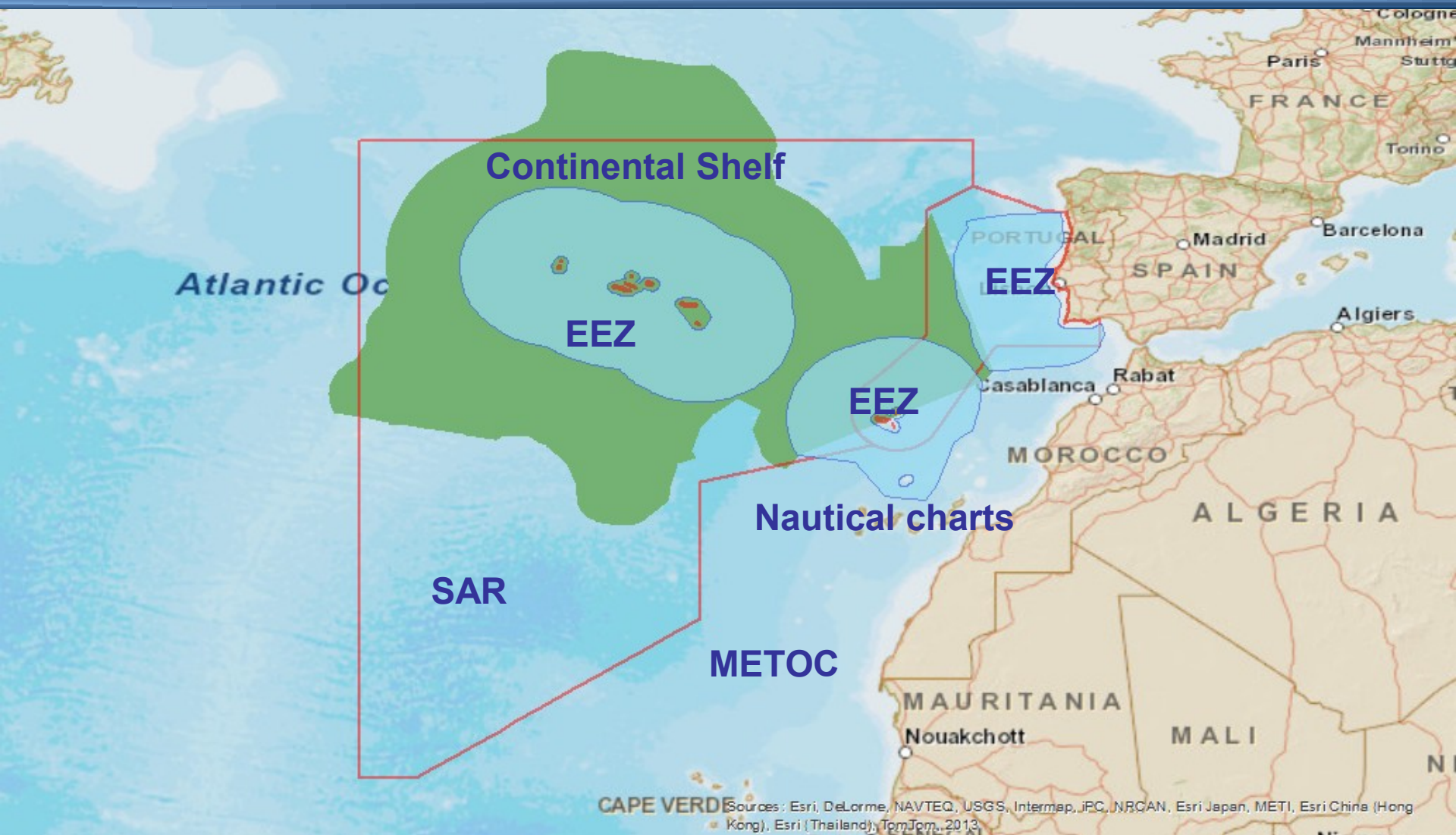
ANNEX 3

 Agricultural and aquaculture facilities	 Habitats and biotopes	 Population distribution and demography
 Area management / restriction / regulation zones & reporting units	 Human health and safety	 Production and industrial facilities
 Atmospheric conditions	 Land use	 Sea regions
 Bio-geographical regions	 Meteorological geographical features	 Soil
 Buildings	 Mineral Resources	 Species distribution
 Energy Resources	 Natural risk zones	 Statistical units
 Environmental monitoring Facilities	 Oceanographic geographical features	 Utility and governmental services

The Selected INSPIRE themes



The Selected INSPIRE themes extension



Inspire/GN (MapServer)

View In: [ArcMap](#) [ArcGIS Explorer](#) [ArcGIS JavaScript](#) [Google Earth](#) [£](#)

View Footprint In: [Google Earth](#)

Service Description:

Map Name: Layers

[Legend](#)

[All Layers and Tables](#)

Layers:

- [EasternAtlantic](#) (0)
 - [SeabedTerrainFeatures](#) (1)
 - [IBCEA](#) (2)
 - [IBCEA-Sheet-1.01](#) (3)
 - [IBCEA-Sheet-1.03](#) (4)

Tables:

Description:

Copyright Text:

Spatial Reference:

Single Fused Map Cache: false

[Home](#) > [Inspire](#)

Folder: Inspire

Current Version: 10.03

View Footprints In: [Google Earth](#)

Services:

- [Inspire/AU](#) (MapServer)
- [Inspire/EE](#) (MapServer)
- [Inspire/EL](#) (MapServer)
- [Inspire/GEO](#) (MapServer)
- [Inspire/GN](#) (MapServer)

Supported Interfaces: [REST](#) [SOAP](#) [Sitemap](#) [Geo Sitemap](#)

<http://gis.hidrografico.pt/maps/rest/services/Inspire>

Data: Free download vs. manual request

4. Unidades administrativas (Administrative units)

Nacional



 **Linha de Costa**
Download (2995kb)

Internacional



1. Altitude (Elevation)





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