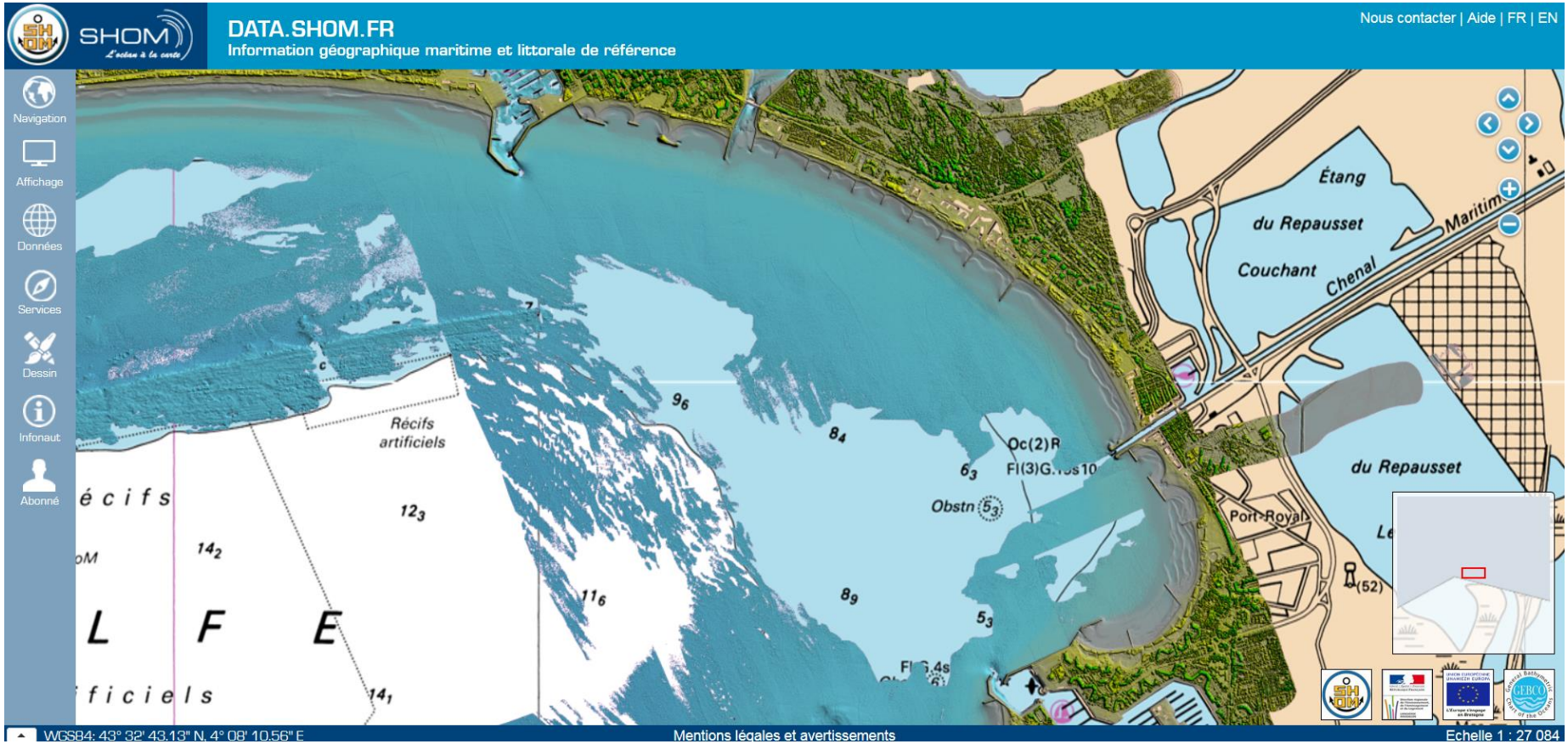

European
Commission
Managing the coastal zone and their risks
Preserving the environment and developping the blue economy

Protection against erosion



Coastal Mapping

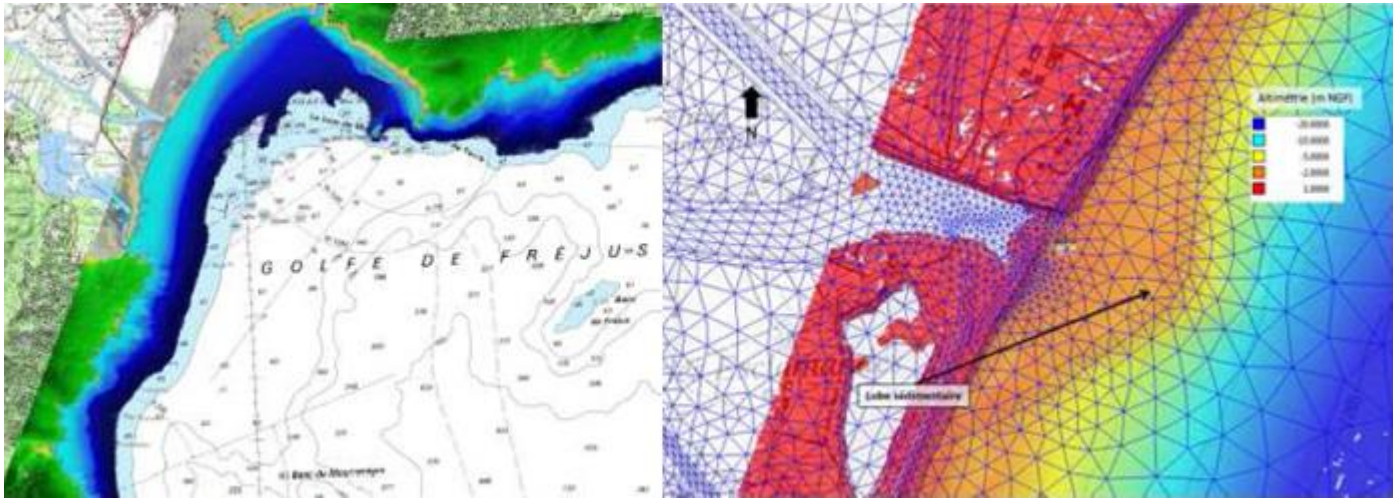
Protection against erosion

Coastal Mapping

Link between different data scales and methods

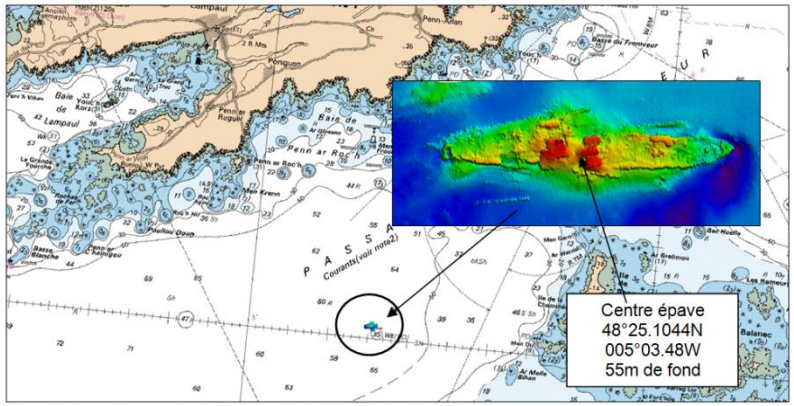
Coastal Mapping

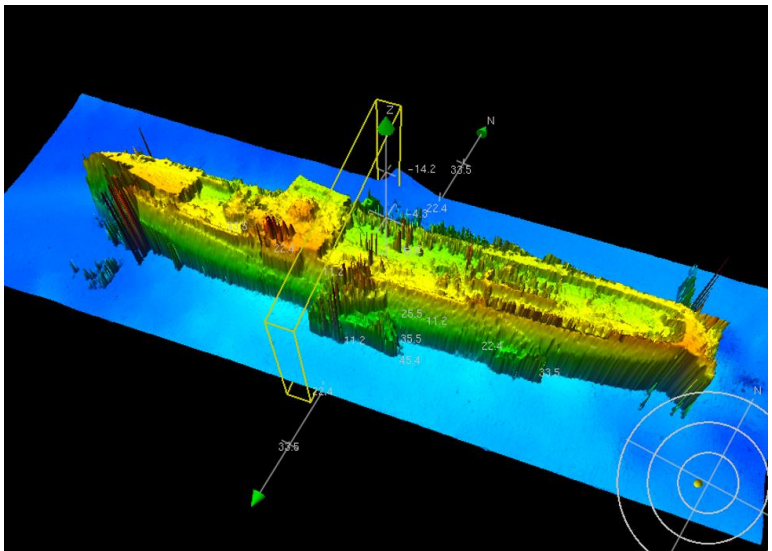
Discovering a submarine dune in an estuary increasing inundation risks

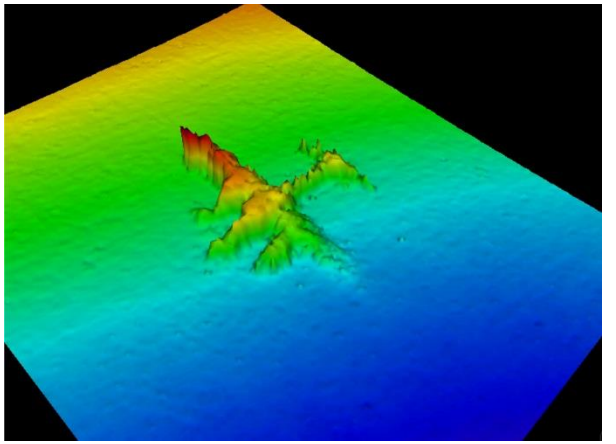


Coastal Mapping

Manage the security of navigation and the marine archeology

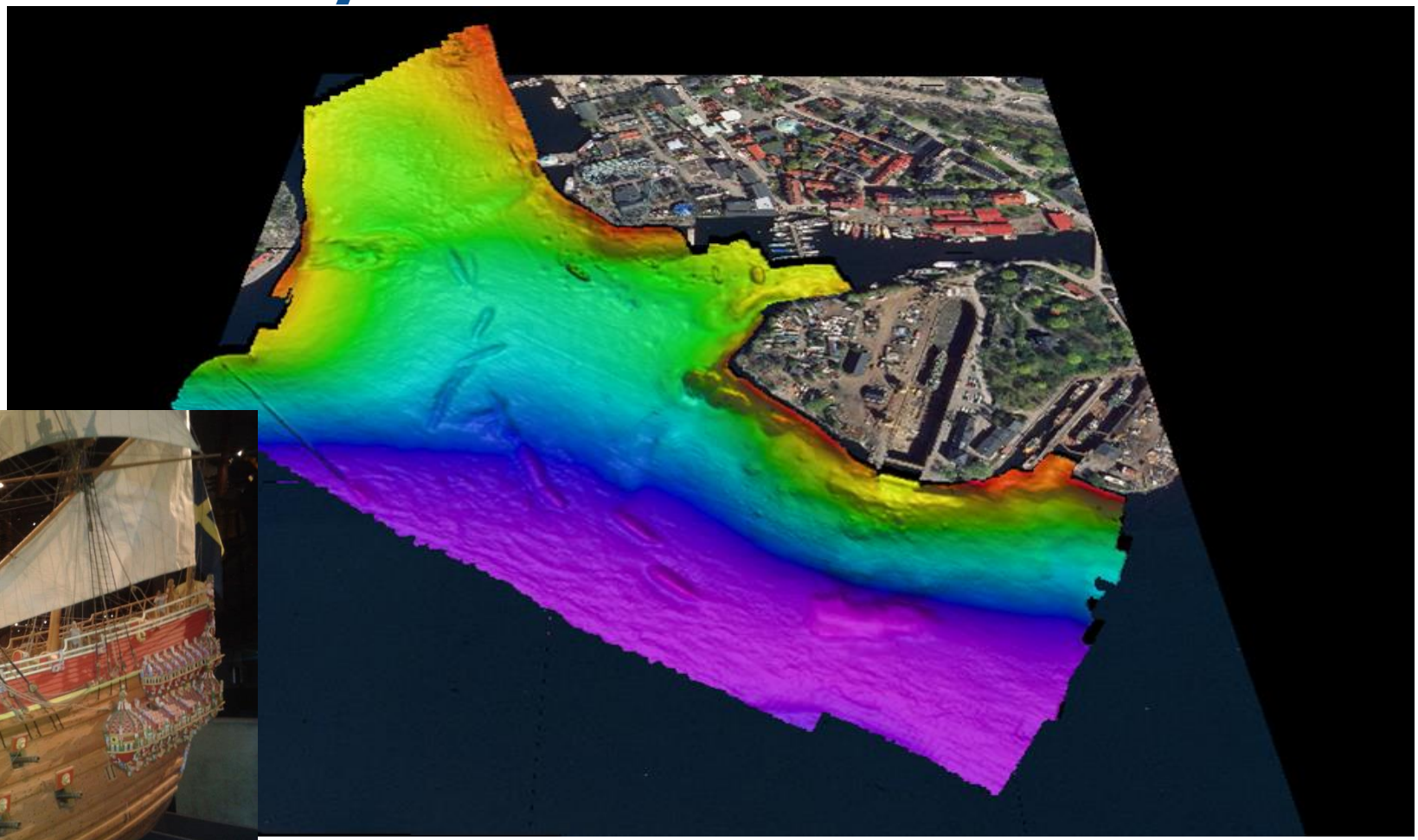






Coastal Mapping

Stockholm coastal management; the Vasa history

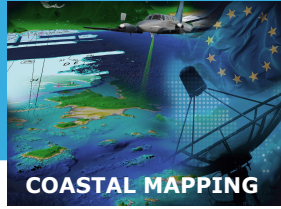


Coastal Mapping

NEED OF EU PICTURE OF SITUATION FOR COASTAL HR BATHYMETRY

COASTAL MAPPING PROJECT

DG MARE 2014/10

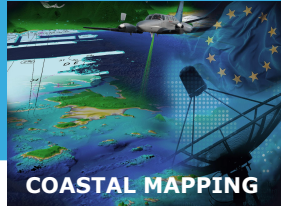


European Legislation

- Maritime Spatial Planning Framework Directive (2014/89/EU)
- Marine Strategy Framework Directive (2008/56/EC)
- Promotion of the use of Energy from Renewable Sources Directive (2009/28/EC)
- Directive on the assessment and management of flood risks (2007/60/EC)
- EU White Paper on Adaptation to Climate Change
- Bologna Charter 2012 (European Regions charter for the promotion of a common framework for strategic actions aimed at the protection and sustainable development of the Mediterranean coastal areas)

NEEDS FOR SUSTAINABLE BLUE GROWTH
EMODNET «GALAXY»
Copernicus Programme
(European system for monitoring the Earth)

FUTURE NEEDS:
- Monitoring of different parameters
- Development a standardized operational EU Earth observation capacity



COASTAL MAPPING PROJECT

Objectives:

- Assess the current availibility of digital coastal maps in the EU and disseminate this information by EMODnet (opening a portal)
- Share experience of coastal mapping in the EU (analysis of the needs and means in Europe for the acquisition of marine data in coastal areas? Analysis of governance, economical models, sources of funds)
- Develop an algorithm for choosing the most appropriate surveying method and standards for best practices
- Propose a future Joint European Coastal Mapping Programme (JECMaP) for marine data acquisition considering also Copernicus

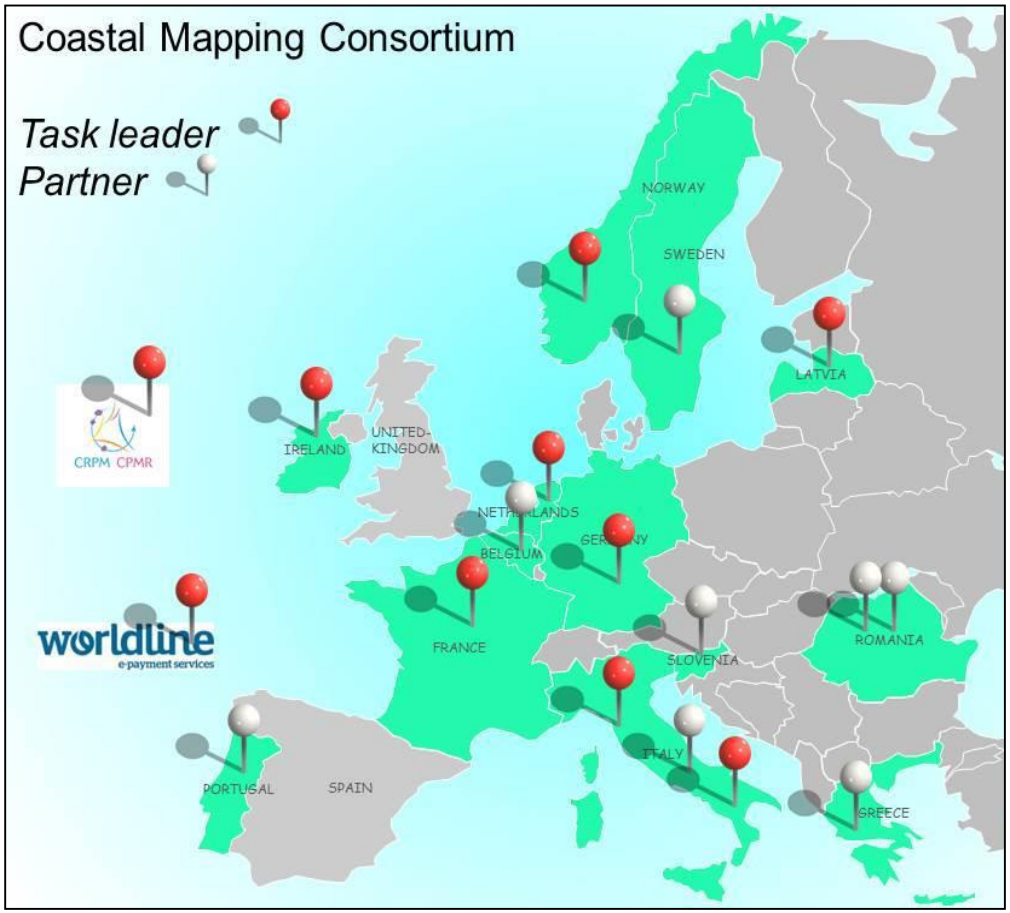
Consortium from 13 EU MS

•*Hydrographic offices :*
FRANCE – BELGIUM – GERMANY – GREECE – IRELAND – ITALY – LATVIA – NORWAY – PORTUGAL – SLOVENIA – SWEDEN

•*Regions :*
CPMR – Regione Lazio

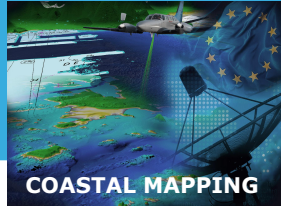
•*Public Bodies :*
ISPRA – RWS - GeoEcomar – DDNI

•*IT company :*
Worldline



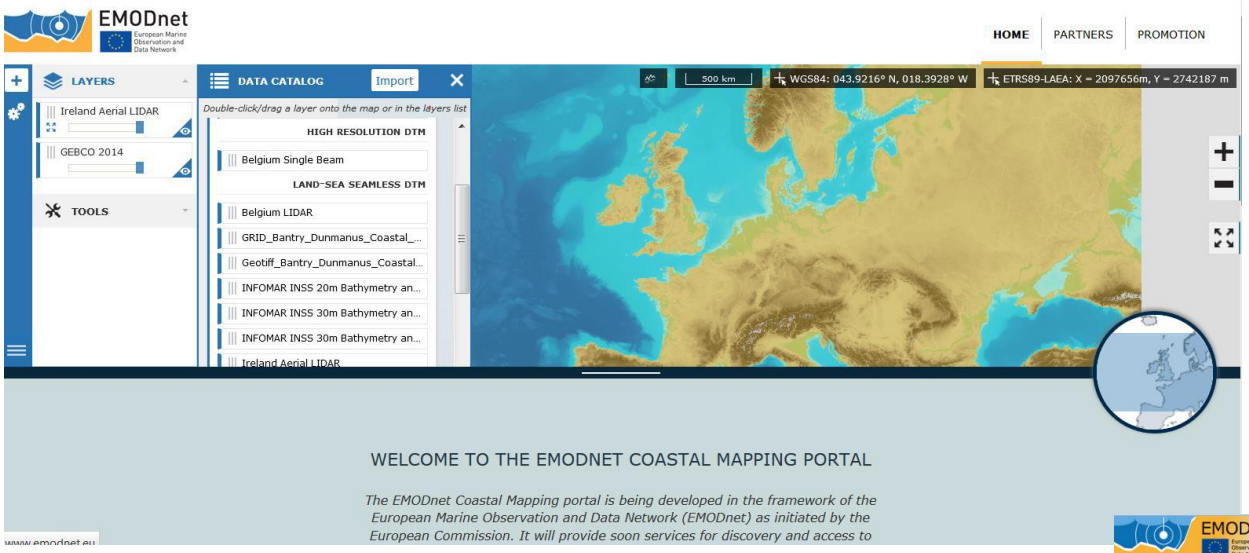
Observers

•*Hydrographic offices :*
UNITED KINGDOM - SPAIN



COASTAL MAPPING PORTAL: on line 23/12/2015

http://coastal-mapping.eu



Internet portal specification

- Emodnet « look and feel » including user registration process
- Incorporation of digital data and indications of most appropriate technique for future mapping
- Facility to download
- Data ingestion – DTM, surveys, GPS points allowing mapping of coastline through crowd-sourcing
- Discussion board and project website

Coastal mapping on EMODnet Central Portal

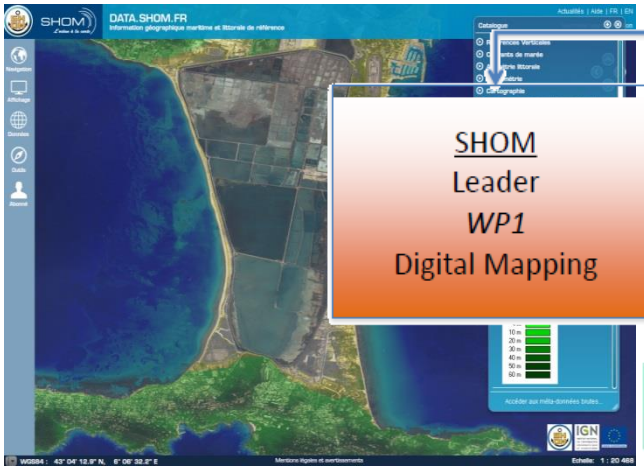
http://www.emodnet.eu/coastal-mapping

Coastal Mapping

Coastal Mapping project

European Commission

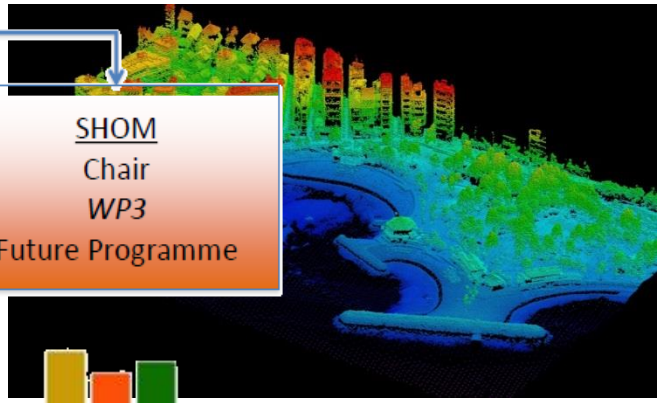
SHOM
Prime Coordinator
WP4
Project Management

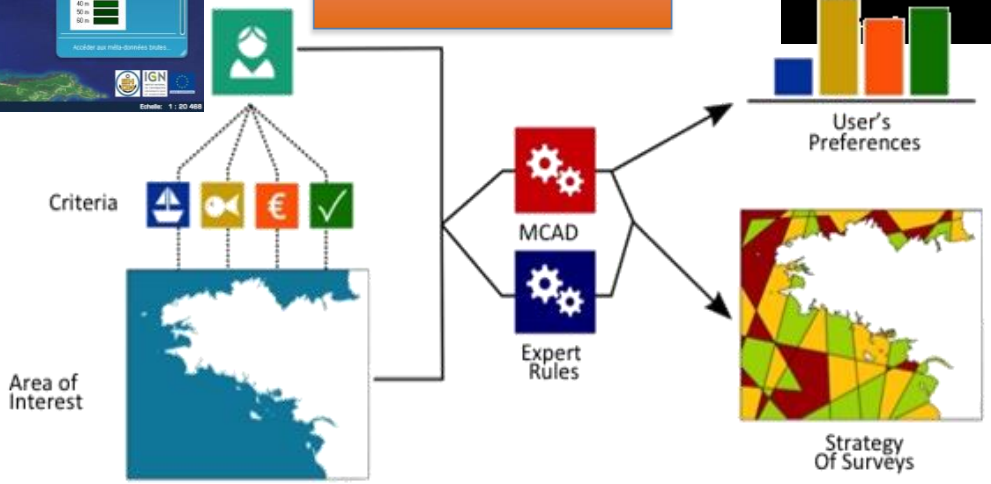


SHOM
Leader
WP1
Digital Mapping

ISPRA
Leader
WP2
Share Experience, Standards & Best Practices

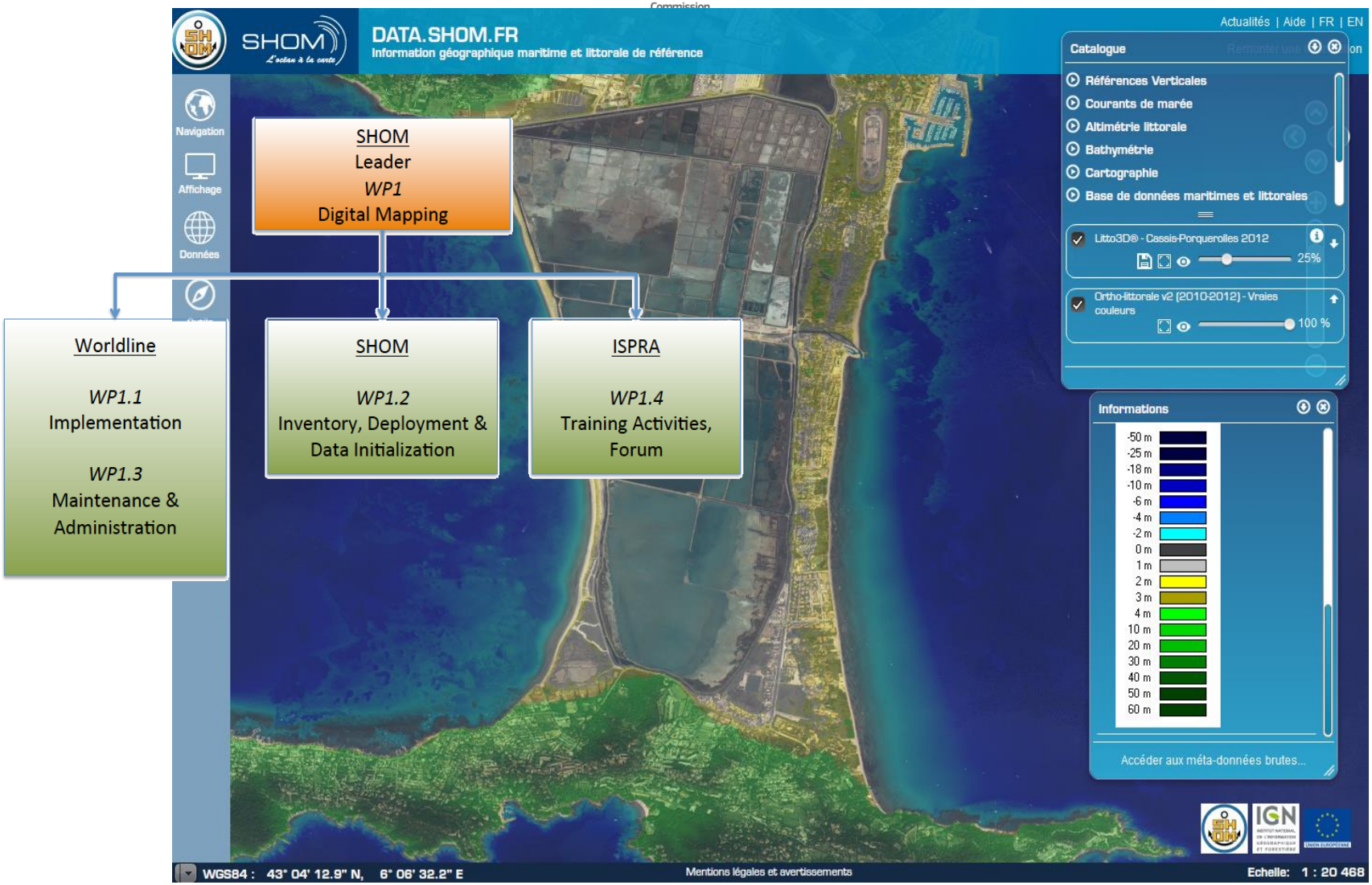
SHOM
Chair
WP3
Future Programme





Coastal Mapping

WP1 « Digital Mapping »



SHOM
Leader
WP1
Digital Mapping

Worldline

WP1.1
Implementation

WP1.3
Maintenance & Administration

SHOM

WP1.2
Inventory, Deployment & Data Initialization

ISPRA

WP1.4
Training Activities, Forum

Coastal Mapping

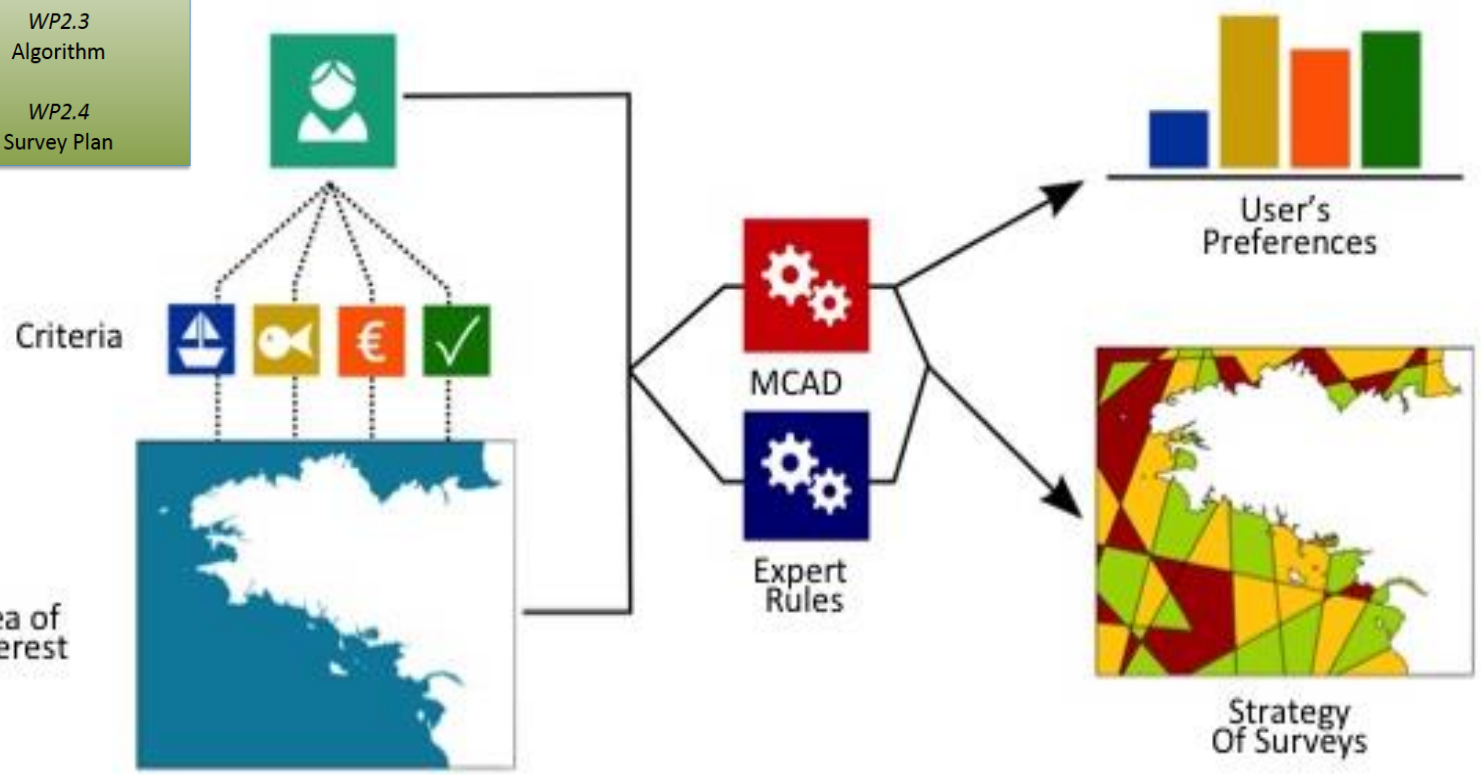
WP2 « Share Experience, Standards and Best Practices »

ISPRA
Leader
WP2
Share Experience, Standards & Best Practices

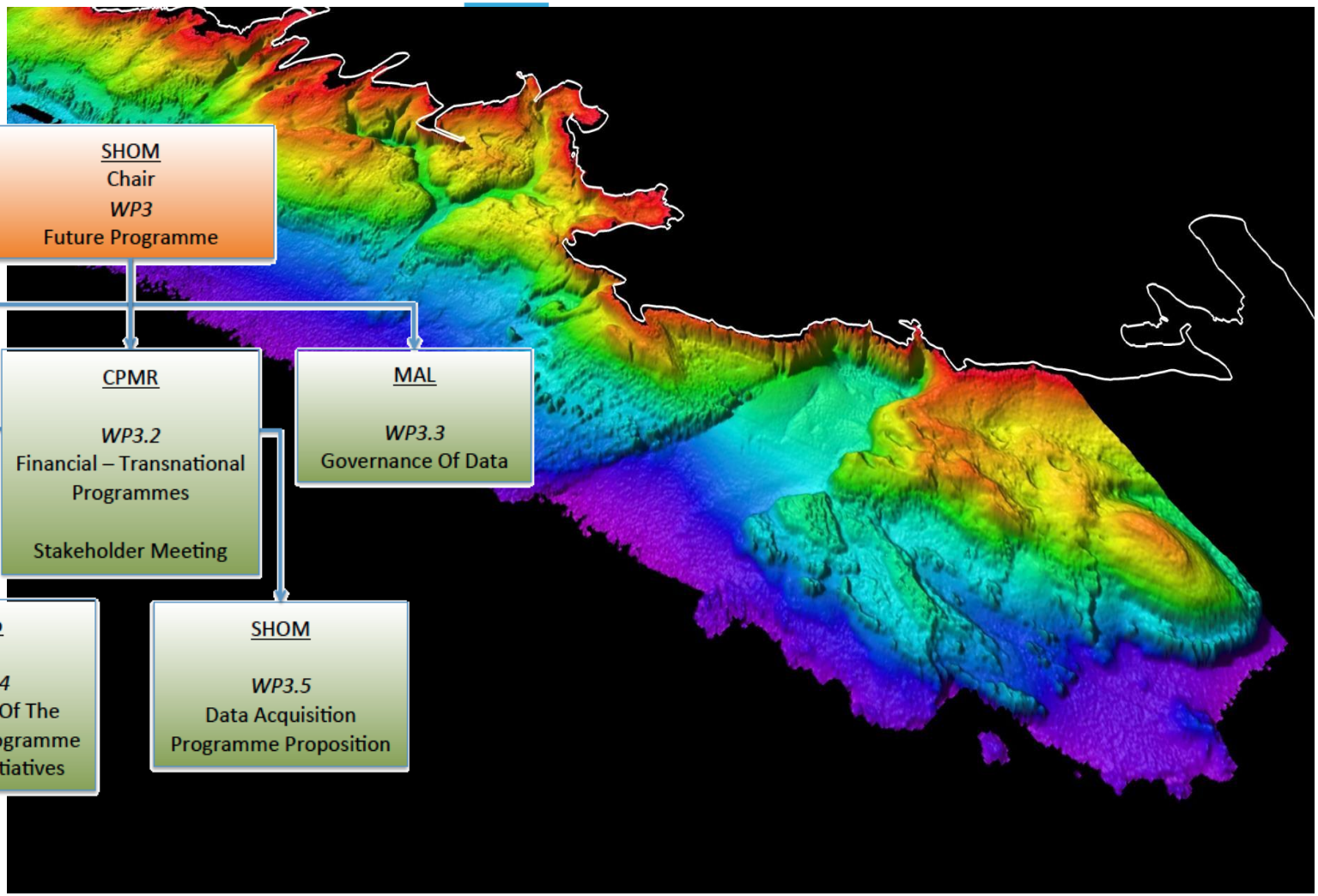
RWS
WP2.1
Vertical Datum Issues

ISPRA
WP2.2
Summarize Past Experience
WP2.3
Algorithm
WP2.4
Survey Plan

NMA
WP2.5
Platforms Sharing



WP3 « Future Programme »



SHOM
Chair
WP3
Future Programme

GSI
WP3.1
Economical Models

CPMR
WP3.2
Financial – Transnational Programmes
Stakeholder Meeting

MAL
WP3.3
Governance Of Data

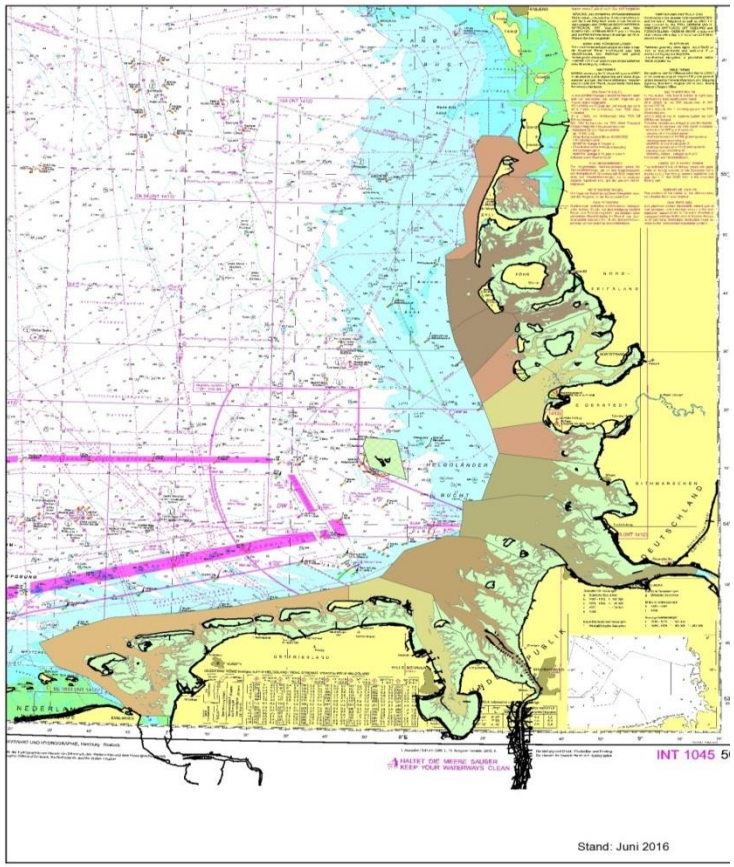
Lazio
WP3.4
Validation Of The Proposed Programme With UE Initiatives

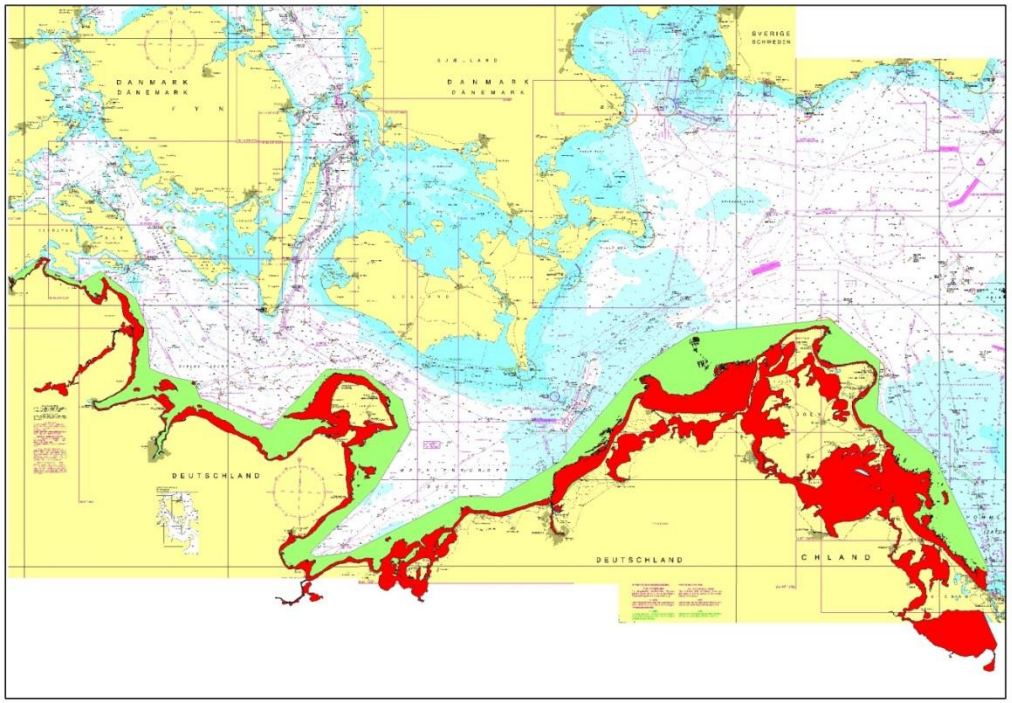
SHOM
WP3.5
Data Acquisition Programme Proposition

Coastal Mapping

Analysis of the needs and means in Europe for the acquisition of bathymetric data in coastal areas

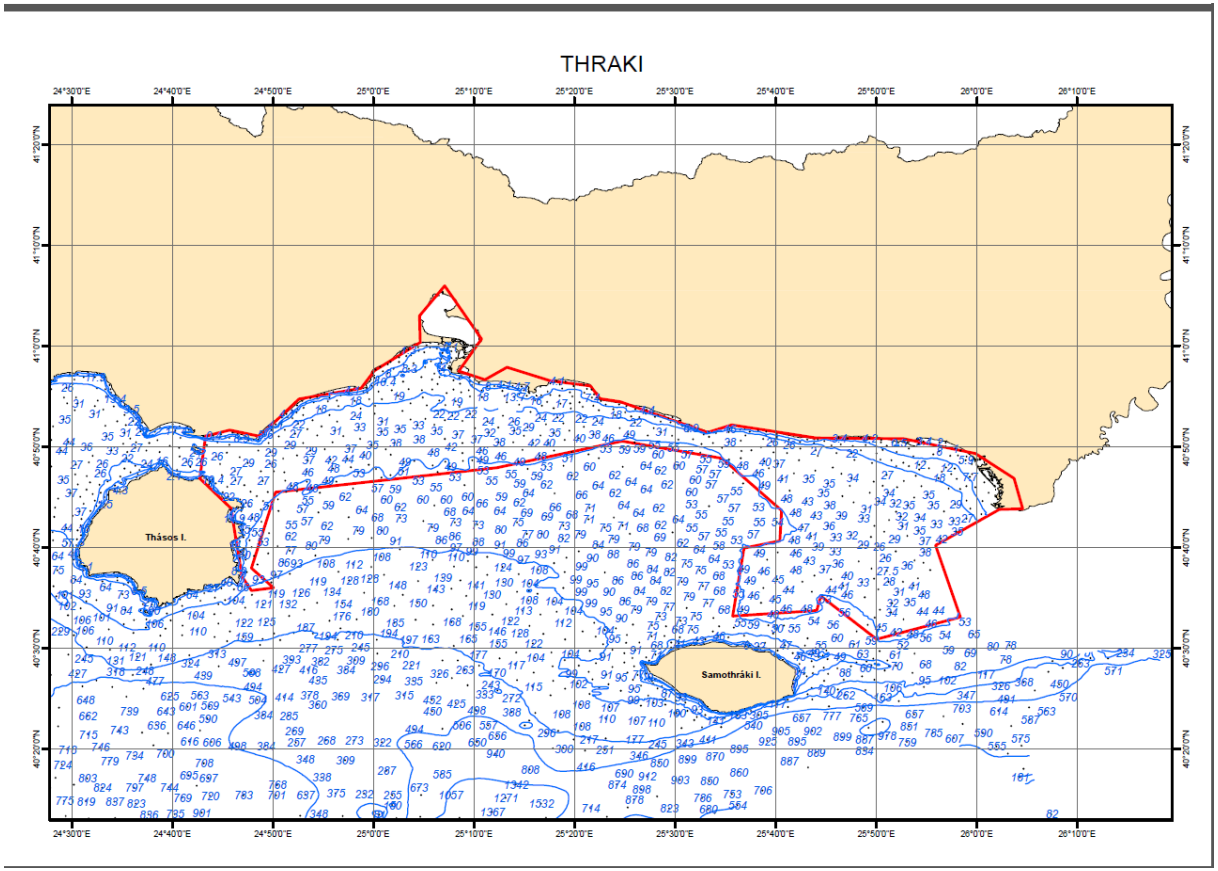
Areas of the German coastal zone North Sea (intertidal zone in light green) Baltic Sea (Bathymetric Lidar in red)





Analysis of the needs and means in Europe for the acquisition of bathymetric data in coastal areas
Example of Greece

Suggested Areas	*Depths*	*Surface(km²)*
Kerkyra	*0 to 50m*	*365*
Preveza	*0 to 50m*	*410*
Thraki	*0 to 50m*	*2200*
Limnos	*0 to 50m*	*625*
Kos	*0 to 50m*	*235*



ACQUISITION OF *HIGH RESOLUTION* COASTAL BATHYMETRIC DATA

TOWARD A EUROPEAN STRATEGY?

The bathymetric data in coastal zones:
A common basis for the coastal
and maritime policies (integrating interface)
A chance for innovation in blue growth

Coastal Mapping

How could a JECMAP be run?

Three axes

- AXIS 1: Set up coordinated programmes for data acquisition at maritime basin scale,

- AXIS 2: Increase the possibilities for bathymetric data acquisition in the framework of the EU operational programmes and funds,

- AXIS 3: Promote the production of usable bathymetric data for maritime policies by different categories of coastal users and from multiple sources; “the community sourcing”