



# Pillar IV – Update

*Phil Monbet – March 14th*



# Pillar IV - Reminder

## Framework

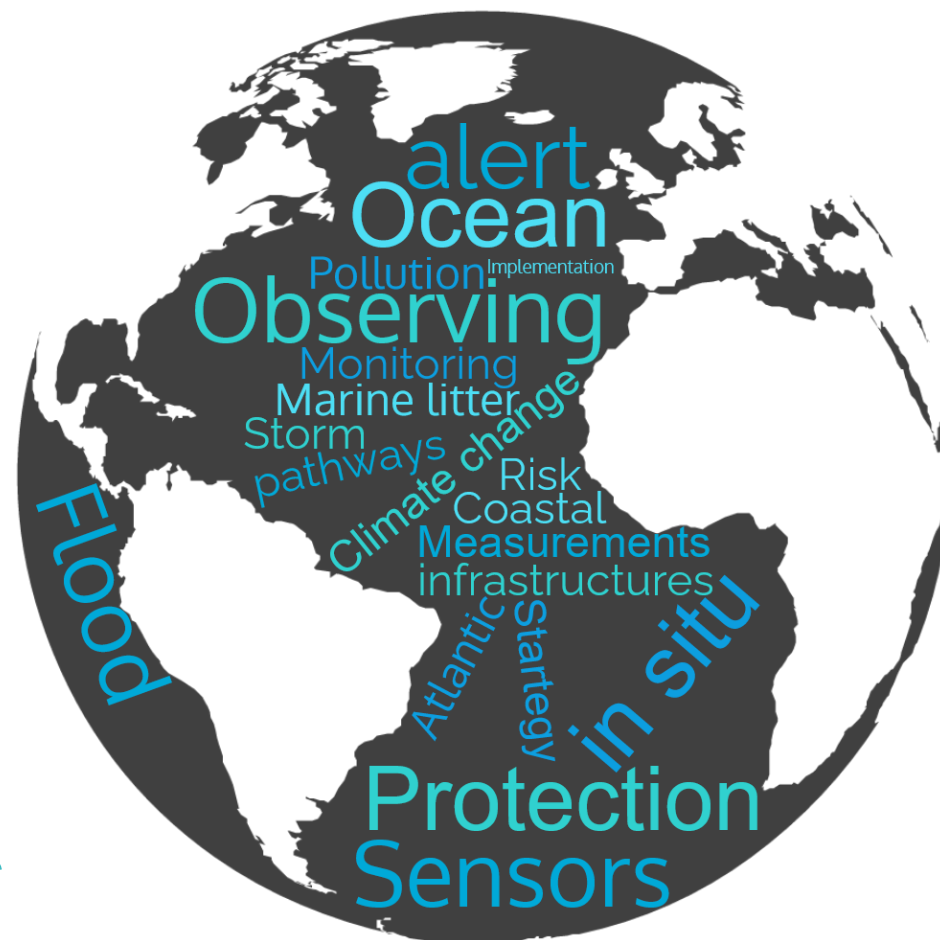


*Ocean Health*

*Coastal resilience*



**#6**  
(selected)  
***actions***



# Pillar IV - Reminder

## Framework

### PILLAR 4

#### Healthy ocean and resilient coasts

##### Coastal resilience

Demonstrate a comprehensive alert and observing system for increased storms and floods due to climate change

Develop synergies between existing EU infrastructures for coastal observation and protection, alert and monitoring and increase the development of in-situ ocean observatories

Compile an inventory of national and regional climate change coastal adaptation strategies and measures, linked to the risk assessments and risk management plans, share best practices

##### Ocean health

Make use of available tools to identify major sources, pathways and hotspots of marine litter, as well as accidental or deliberate pollution

Launch joint actions to promote a public perception of the problem

Promote coordinated and effective implementation of actions against marine litter and underwater noise required under the MSFD for the EU MS

# Pillar IV - What has been done !

- Atlantic Strategy Repository - Pillar IV relevant

<https://docs.google.com/spreadsheets/d/1BRqFYqhHlz9zkVfO61xTuhjQ4EjCmwClwyOx0cccGBY/edit#gid=1163983082>

- Projects (H2020, ERC, INTERREG, ...)

Type of strategy or measure	Funding Instrument	Name	Content	Country related	Dates	Link	Topic(s)
Project	H2020	JERICO-S3	Joint European Research Infrastructure of Coastal Observatories – Science, Service, Sustainability.	EU	2020-2024	<a href="https://www.jerico-ri.eu/projects/jerico-s3/">https://www.jerico-ri.eu/projects/jerico-s3/</a>	2
Project	H2020	JERICO-DS	Joint European Research Infrastructure of Coastal Observatories – Design Study	EU	2020-2023		2
Project	Interreg-POCTEP	RADAR-ON-RAIA	The RADAR ON RAIA project aims to update and extend beyond the Galician border the HF radar network that has been operating since 2011 of the RAIA Observatory of the northwest of the Iberian Peninsula.	SP-PT	2018-07/2022	<a href="http://radaronraia.eu/">http://radaronraia.eu/</a>	2
Project	ERA4CS	ECLISEA	ECLISEA is a project that aims to advance coastal and marine climate science and associated services through developing innovative research of sea surface dynamics. The project is built upon the premise that the outcomes should be applicable throughout Europe. ECLISEA proposes an integral research plan that starts with assessing the needs of specific stakeholders; includes groundbreaking investigation related to mean sea level rise, storm surge, waves, total water level and coastal flooding and erosion methodologies, and ends up with the development of an on-line open prototype of a coastal climate service in Europe.	EU	2017 -04/2021	<a href="https://www.ecliseaproject.eu/">https://www.ecliseaproject.eu/</a>	2
			INSeaPTION is a research project, which aims at addressing these limitations by co-designing and co-developing, together with users, coastal climate services based on state-of-the-art				

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- Initiatives / Programme (30+)

Type of strategy or measure	Name	Content	Link	Country related	Topic
Initiative/programme	Copernicus (including MEMS C3S EMS INSTAC)	European Union's Earth observation programme, looking at our planet and its environment to benefit all European citizens. It offers information services that draw from satellite Earth Observation and in-situ (non-space) data.	<a href="https://www.copernicus.eu">https://www.copernicus.eu</a>	EU	1
Initiative/programme	Argo (including Euro-ARGO ERIC )	The Argo network is a global array of more than 3500 autonomous instruments, deployed over the world ocean, reporting subsurface ocean properties to a wide range of users via satellite transmission links to data centres.	<a href="https://www.euro-argo.eu">https://www.euro-argo.eu</a> <a href="https://argo.ucsd.edu/">https://argo.ucsd.edu/</a>	EU	1
Initiative/programme	GOOS (including EuroGOOS)	The Global Ocean Observing System is a sustained collaborative system of ocean observations, encompassing in situ networks, satellite systems, governments, UN agencies and individual scientists. We are organized around a series of components undertaking requirements assessment, observing implementation, innovation through projects, and a core team.	<a href="https://www.goosocean.org">https://www.goosocean.org</a>	World	1
Initiative/programme	ERIC EMSO (European Multidisciplinary Seafloor and water column Observatory)	Réseau Européen d'observatoires du fond de mer et de la colonne d'eau au point fixe, étudie notamment les processus tectoniques, volcaniques, hydrothermaux et gravitaires et la surveillance des risques naturels associés (séismes, tsunamis, instabilité des pentes) pour les zones côtières à forte densité de population.	<a href="http://emso.eu/">http://emso.eu/</a>	EU	1
Initiative/programme	FixO3 (Fixed point Open Ocean Observatory network).	Seeks to integrate European open ocean fixed point observatories and to improve access to these key installations for the broader community.	<a href="http://www.fixo3.eu/">http://www.fixo3.eu/</a>	EU	1

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- Institutions (30+) from IE, FR, SP and PT

Type of strategy or measure	Name	Content	Link	Country related	Topic
Institution	IOC (Intergovernmental Oceanographic Commission)	This is the United Nations body responsible for supporting global ocean science and services. And it enables its 150 Member States to work together to protect the health of our shared ocean by coordinating programmes in areas such as ocean observations, tsunami warnings and marine spatial planning.	<a href="https://ioc.unesco.org/">https://ioc.unesco.org/</a>	World	1
Institution	EUMETSAT ( European Organisation for the Exploitation of Meteorological Satellites )	This is the the European operational satellite agency for monitoring weather, climate and the environment. And it helps to enhance and safeguard the daily lives of European citizens.	<a href="https://www.eumetsat.int/">https://www.eumetsat.int/</a>	EU	1
Institution	Ifremer (Institut français de recherche pour l'exploitation de la mer)	Institut de recherche intégré en sciences marines, il contribue au système de recherche et d'innovation national, ainsi qu'à l'espace européen de la recherche.	<a href="https://wwz.ifremer.fr/">https://wwz.ifremer.fr/</a>	FR	1
Institution	CEREMA (Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement)	C'est un établissement public tourné vers l'appui aux politiques publiques, placé sous la double tutelle du ministère de la transition écologique et du ministère de la cohésion des territoires et des relations avec les collectivités territoriales. Il gère notamment la mer et le littoral.	<a href="https://www.cerema.fr/fr">https://www.cerema.fr/fr</a>	FR	1
Institution	BRGM (Bureau de recherches géologiques et minières)	C'est le service géologique national, l'établissement public de référence dans les applications des sciences de la Terre pour gérer les ressources et les risques du sol et du sous-sol dans une perspective de développement durable.	<a href="https://www.brgm.fr/fr">https://www.brgm.fr/fr</a>	FR	1

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- Alert & Observing systems (30+) from IE, FR, SP and PT

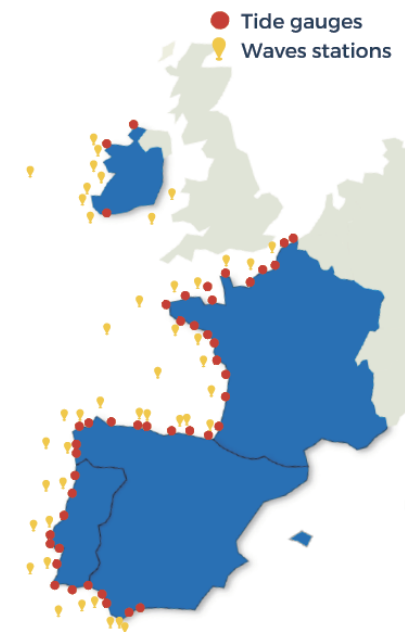
Alert and observing systems for incoming storms and floods in to the EU Atlantic Area									
	Observation network	Infrastructure Type	Data type	Entity in charge	Mission	Link with regulations	Contact	Contribution to International initiative	Link
IRELAND	IMOS (Irish Marine Data Buoy Observation Network)	group of 7 offshore buoys deployed around the Irish coast that monitor weather and oceanographic conditions in real-time.	Wave height, Wave Period, Wave direction. Sea Temperature and salinity.	Marine Institute	To improve weather forecasts and safety at sea around Ireland. The buoy network provides vital data for weather forecasts, shipping bulletins, gale and swell warnings as well as data for general public information and research.		Alan Berry (Team Leader) Rinville, Oranmore, Co. Galway. H91 R673 Phone: (+)353 (0)9 138 7200 Fax (+)353 (0)9 138 7201 Email: institute.mail@marine.ie		<a href="http://www.marine.ie/">http://www.marine.ie/</a>
SPAIN	REDCOS Coastal buoy network	10 stations with Shallow water buoys. A set of buoys anchored at depths of less than 200 metres in the vicinity of harbour areas.	Directional waves and Sea Surface Temperature. 2 multi-parametric stations	Puertos del estado	They therefore provide information on local wave characteristics. This network has a series of more than 20 years of data and is therefore of fundamental importance when defining the average and extreme wave conditions in the coastal environment.				<a href="https://www.puertos.es/">https://www.puertos.es/</a>
PORTUGAL	MONICAN (Nazaré Canyon Observatory)		hourly measurements of waves, meteorological parameters, currents, water temperature and costal sea level.	Instituto Hidrografico	To contribute to the network of coastal ocean observatories gathered under H2020 project JERICO-NEXT				<a href="https://monican.hidro.pt/">https://monican.hidro.pt/</a>
	RAIA (Oceanic observatory for the Iberian shelf)	A cross-border Observatory brings together a large number of entities on the Atlantic coast of the Iberian Peninsula with relevant activity in the field of operational oceanography.			Improve the oceanic observation at the Western Iberian Peninsula in terms of meteorological, oceanographical and water quality data. Improve operational forecasting models, hydrodynamic and biogeochemical. Prepare specific tools to end-users;				
		Distributed multiplatform Real-Time monitoring infrastructure comprising 4 multiparametric buoys located				To provide reliable and useful information on the state of the sea to public administrations, companies and citizens in			Contribution to the

# Pillar IV - What has been done !

- Ongoing mapping exercise

## EU ATLANTIC AREA

### Alert and Observing systems



## ALERT AND OBSERVATION SYSTEMS DIRECTORY.

### IRELAND

Waves stations Tide gauges

#### IMOS

IMOS led by Marine Institute, 5 offshore stations (buoys). Wave height, Wave Period, Wave direction. Sea Temperature and salinity

#### ITGN

ITGN led by Marine Institute, 35-40 stations  
Coastal tide gauges: water Temperature, atmospheric pressure, water level

### FRANCE

#### Coast-HF

Coast-HF led by Ifremer & CNRS, 14 stations  
Wave direction and period, Wind direction and speed, Atmospheric pressure, Current speed.

#### SONEL

SONEL led by French institutes, 88 stations  
Height difference; Water height; Geocentric height; Gravity field strength.

#### CANDHIS

CANDHIS led by CEREMA, 30 stations  
waveforms, acoustic sensors, houlograph buoys (wave height/direction, water temperature)

#### REFMAR

RONIM in the REFMAR network led by SHOM, 50 stations  
Digital coastal tide gauges

#### CENALT

CENALT led by CEA, + 40 stations  
Seismological data from CEA and CNRS-INSU, tide gauge data from SHOM and METEO France

#### RESIF - RENAG

RESIF-RENAG by French research labo, 10 tide gauges  
stations from SONEL network.  
Tide gauge/GNSS co-location: corrected water level measurement

### PORTUGAL

#### MONICAN

MONICAN led by Instituto Hidrografico, 4 stations in the nazaré canyon (2 waveform buoys and 2 tide gauges).  
Measurements of waves, meteorological parameters, currents, water temperature and costal sea level

#### MONIZEE

MONIZEE led by Instituto Hidrografico, 16 buoys, 22 tide gauges.  
waves, water temperature and currents, water level changes

### Cascais and Lagos tide gauges

Cascais and Lagos tide gauges led by DGT  
Measure of water level, water temperature, atmospheric pressure and atmospheric temperature

### SPAIN

#### REDCOS

REDCOS by Puertos del Estado, 10 stations in shallow waters  
Directional waves and Sea Surface Temperature.

#### REDMAR

REDMAR by Puertos del Estado, 39 radar type stations  
Sea level variations considering astronomical and meteorological tide..



# Pillar IV - What has been done !

- Organise our own workshops

# #1

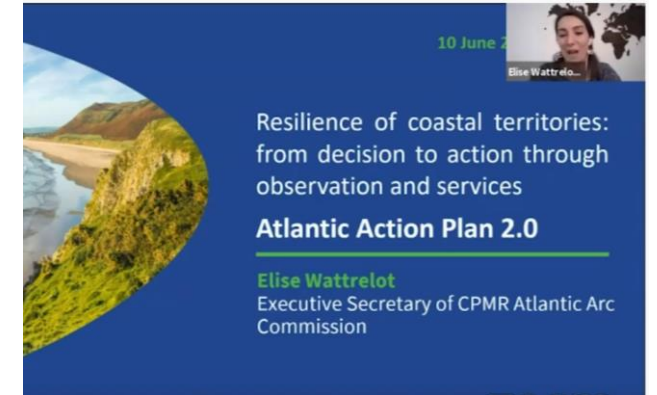


## PILLAR 4 WORKSHOP

Resilience of coastal territories: from decision to action through observation and services

 10 June 2021 | 15:30 CEST

\* Simultaneous interpretation will be available from French to English.



10 June 2021

Elise Wattrelot

Resilience of coastal territories: from decision to action through observation and services

### Atlantic Action Plan 2.0

Elise Wattrelot  
Executive Secretary of CPMR Atlantic Arc Commission

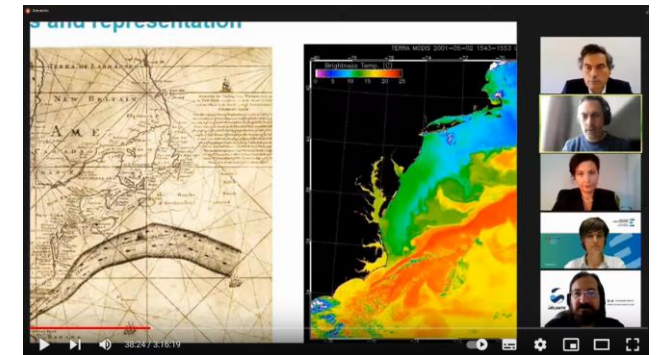
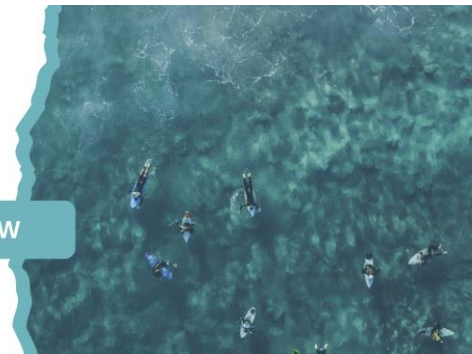
# #2



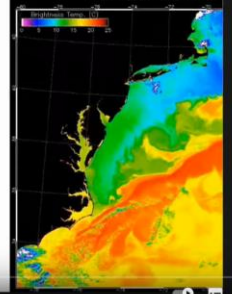

## SECOND PILLAR II and IV WORKSHOP

The Blue Economy and the Digital Transition

3 NOV 2021 | 09:15 GMT+1 | REGISTER NOW



and representation



38:24 / 3:16:19

# Pillar IV - What has been done !

- Promote European Commission initiatives (thanks to National Hubs)

  - Synergies on social media (twitter) (60+ per month on average)





  - Monitoring 'news' to provide inputs to NH

# Pillar IV - What has been done !

- Raise awareness and discussions (workshops / tradeshow) / Contributions



**Improve the capacity of Atlantic territories to monitor, prevent and remove litter**



**Supporting Implementation of Maritime Spatial Planning in the Atlantic**



**Create marine services at regional and subregional scale using the EU Atlantic Waters as case study**



**Maritime spatial planning and Land sea interactions in A**

- **Pillar III: Marine renewable energy**
  - Goal 5: The promotion of carbon neutrality through marine renewable energy
    - Define **best sites for marine renewable energy farms** (including offshore wind) and adjacent ports across the Atlantic, taking into account potential impacts on the marine environment
    - Develop a **specific ocean energy framework** for EU islands in the Atlantic
- **Pillar IV: Healthy ocean and resilient coasts**
  - Goal 6: Stronger coastal resilience
    - Demonstrate a **comprehensive alert and observing system** for increased storms and floods due to climate change
    - Develop **synergies between existing EU infrastructures for coastal observation and protection**, as well as for alert and monitoring and increase the development of in-situ ocean observatories
    - Share **best practices on the application of maritime spatial planning to coastal adaptation**, resilience, and applicable environmental assessments
    - **Map coastal wetlands** for preservation and to monitor their role as carbon sinks



The Atlantic Strategy Committee

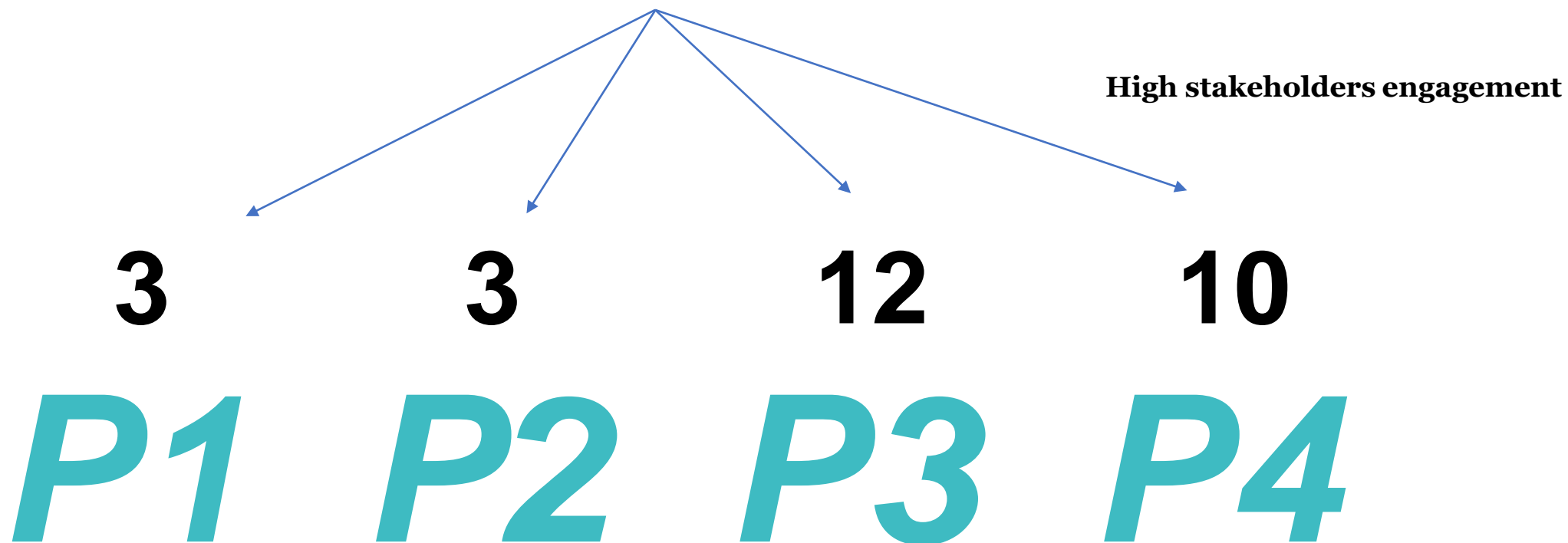
# Pillar IV - What has been done !

- Support innovative projects with our National Hub Support

In 2021, 43 certified projects by



with 28 relevant for the Atlantic Action Plan



# Pillar IV – What we will try to achieve till June!

- One more workshop

**In coordination with pillar III – May 2022**

- Deliverables

*#1 – An inventory/map (nice infographic) of observing systems and key infra on the Atlantic fringe*

**#2 – Small report/review on coastal adaptation strategy and measures**

**#3 – Examples/selection of innovative tools for identifying pollution**

**#4 – Similar synthesis : review of innovative actions/measures against marine litter/noise**



**Merci**  
**Thank you**  
**Obrigado**  
**Gracias**

