



*2<sup>nd</sup> Marine Board Forum on marine observatories  
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# European Marine Research Infrastructure – EC perspectives

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# Structure of the presentation

1. The policy context
2. Relating Marine Research Infrastructure with policy / societal needs
3. Issues to be addressed and direction to take
4. Conclusion



# Policy context

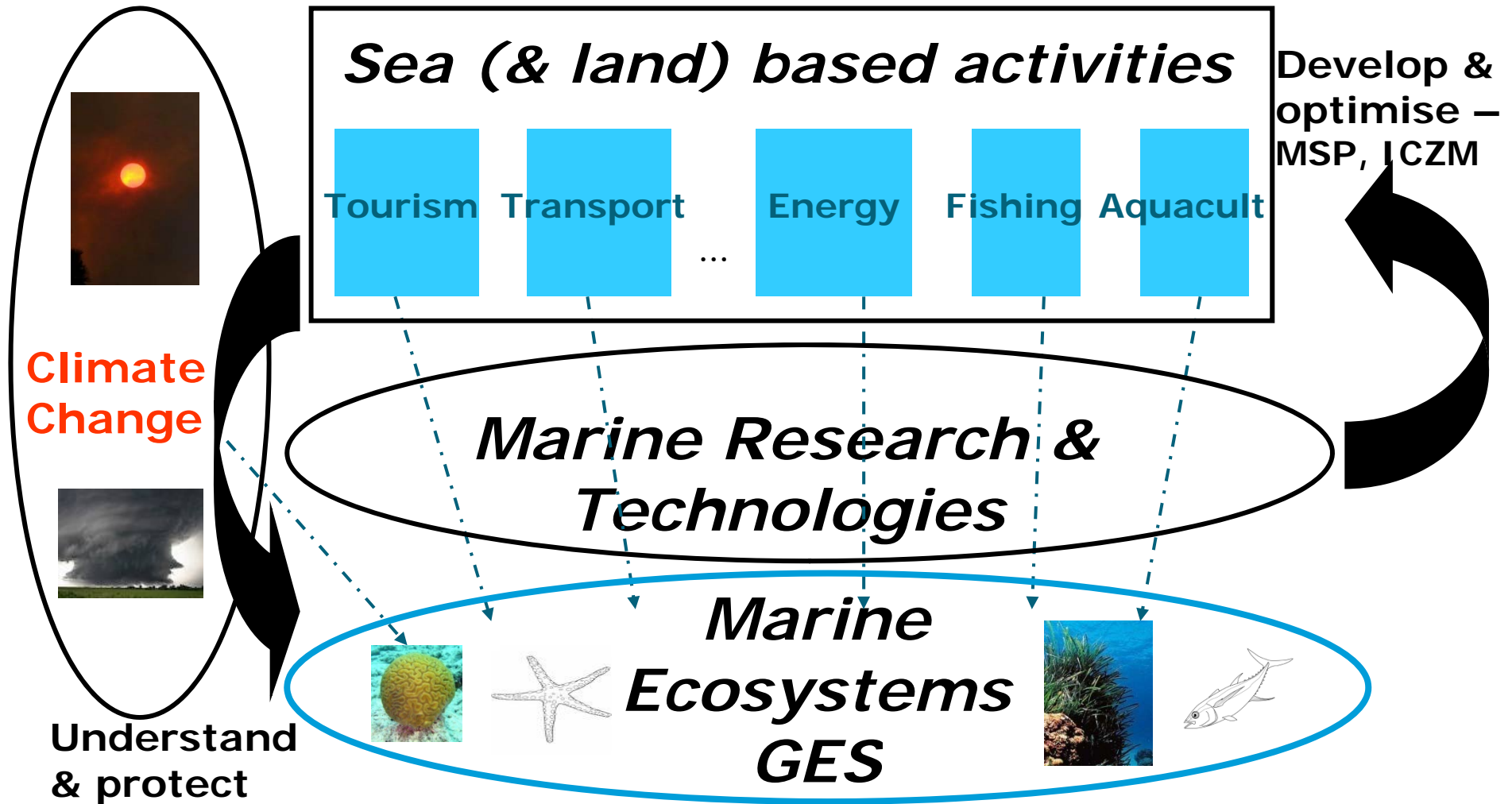
- The EU Maritime Policy and its environmental pillar, the Marine Strategy Framework Directive (MSFD)
- The EU Strategy for Marine and Maritime Research (MMRS) seeks to support the objectives of the IMP / MSFD...
- ... in a landscape with already:
  - Major EU research infrastructure initiatives (ESFRI in particular)
  - EU (participation) in major global observation initiatives (GEOSS/GOOS, GMES...)
- And now the economic crisis  $\leftrightarrow$  Agenda 2020 / smart and green economy  $\leftrightarrow$  Innovation Union



## The drivers for the IMP / MMRS

1. The maritime economy is of crucial importance and we need to further develop it
2. There is an increasing environmental pressure from human activities and climate change, together with increasing competition for marine space
3. There is a need to better predict (and mitigate) impact of climate change through marine science

# The vision of the Maritime Policy



# We need research on:

## **The Marine System**

- Understand impact of human activities on marine environment  $\leftrightarrow$  GES  $\leftrightarrow$  MSFD
- Understand impact of climate change on marine environment
- Understand climate / ocean interactions to better predict climate change and its impacts
- Tools to support MSP/ ICZM

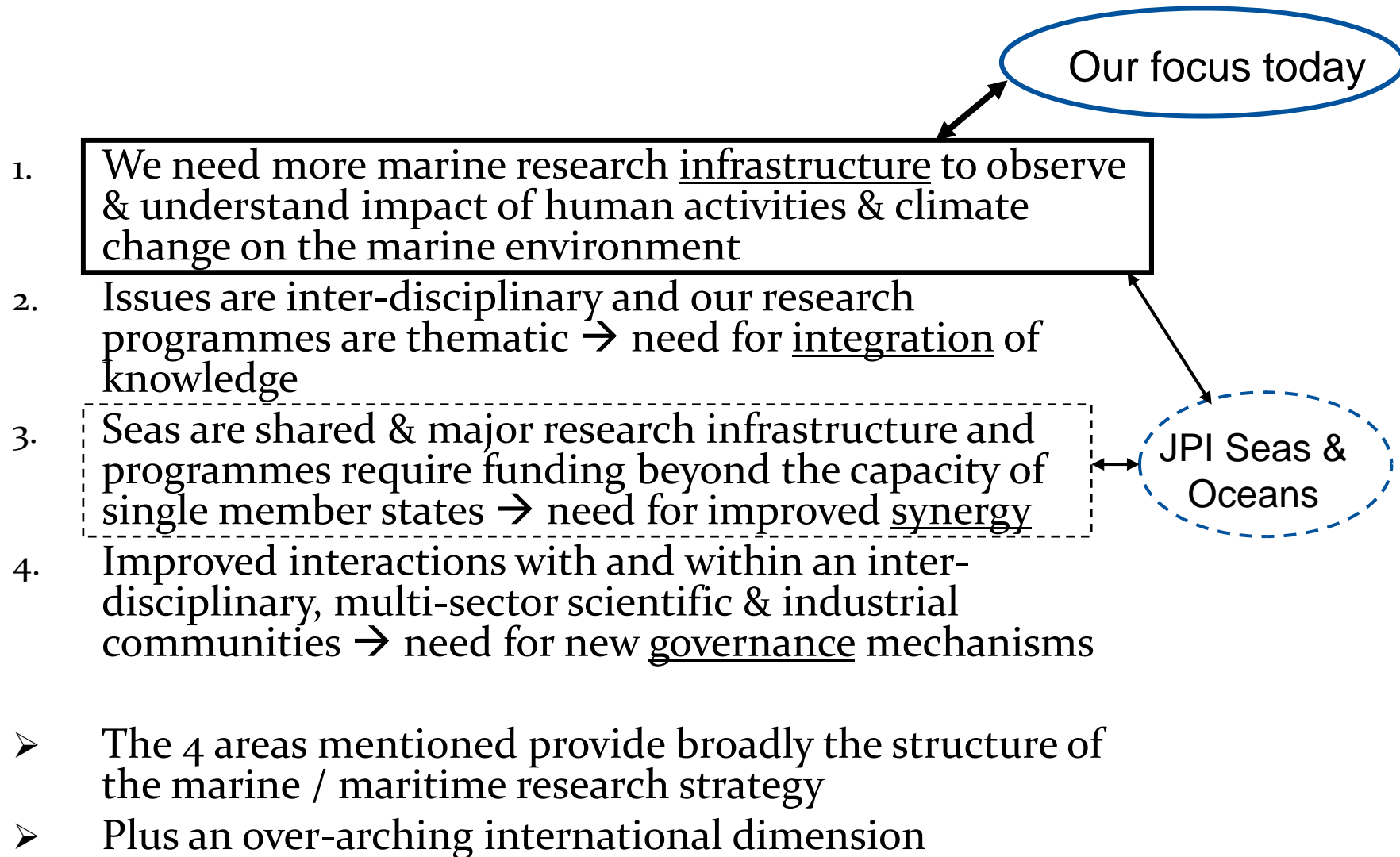
## **Marine resources and maritime economy**

- Develop potential of new sea-based activities  $\leftrightarrow$  marine bio-economy, renewable energy...
- Mitigate impact of "traditional" activities on marine envt  $\leftrightarrow$  green technologies, MSP...

but Agenda 2020 also requires this

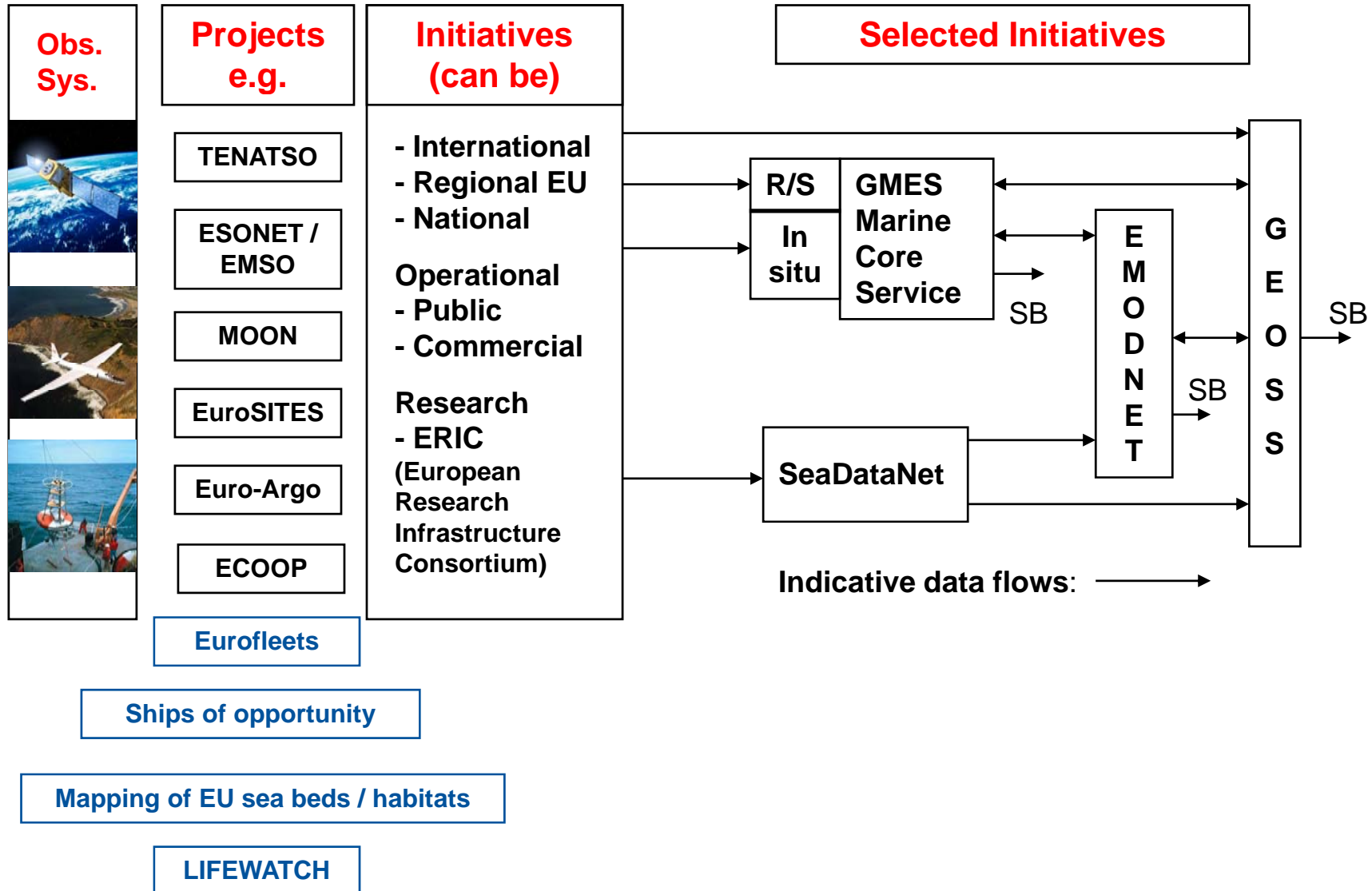
Our focus today

# How far are we from our vision?



# MRI Projects and Initiatives

(borrowed from A. Edwards)





# MRI – starting with the needs

Policy / Societal needs e.g.		Projects/Initiatives e.g.
Marine Strategy Framework Directive	<ol style="list-style-type: none"> <li>1. Biodiversity, alien species, fish stocks, food webs, seabed integrity / habitats</li> <li>2. Eutrophication</li> <li>3. Hydrographical conditions</li> <li>4. Contaminants</li> <li>5. Litter – 6. Noise / Energy</li> </ol>	<ul style="list-style-type: none"> <li>• LIFEWATCH?</li> <li>• EMSO, EUROSITES?</li> <li>• Ships of opportunity?</li> <li>• Mapping of Seabeds / habitats?</li> <li>• EUROFLEETS?...</li> </ul>
Ocean / Climate interactions	<ol style="list-style-type: none"> <li>1. Ocean circulation system, ocean / atmosphere interactions</li> <li>2. Impact of climate change on marine environment</li> <li>3. Impact of climate ch. on coastal areas</li> </ol>	<ul style="list-style-type: none"> <li>• EURO-ARGO?</li> <li>• RAPID-ARRAY?</li> <li>• PIRATA?</li> <li>• TENATSO?</li> <li>• GLOSS-ESEAS?...</li> </ul>
Operational Oceanography	<ol style="list-style-type: none"> <li>1. Marine safety</li> <li>2. Marine and coastal environment</li> <li>3. Weather / climate &amp; seasonal forecasting</li> <li>4. Marine resources</li> </ol>	<ul style="list-style-type: none"> <li>• GMES marine r/s?</li> <li>• GMES in situ                             <ul style="list-style-type: none"> <li>• EURO-ARGO</li> <li>• EMSO</li> <li>• LIFEWATCH?</li> </ul> </li> </ul>

# MRI – Starting with the needs – 2

- Facilitate mapping of a complex situation for decision makers / non-specialists...
- ... but also for marine scientists
- Facilitate perception / approach of socio-economic value of MRI
- Visualise multi-use impact of some MRI projects / platforms → optimise investments
- ... Knowing that it is impossible to identify all interactions between MRI projects / initiatives

# MRI – some key issues

- How do we move from a project based approach to ocean observation to a permanent observation?
- Where does the funding come from to implement the sustained observing capacity and EMODNET?
- How do we ensure that a set of European marine observation initiatives converge to respond better to policy / societal needs?
- Can we have an overview and better coordinate EU contribution to global projects (e.g. ARGO) and initiatives (GMES - GEOSS / GOOS)?

An initiative at European level to help address these challenges?

# The Joint Programming Initiative on "Healthy and Productive Seas and Oceans"

## Structure of the preliminary document

- ✓ Pillar 1: The marine system
- ✓ Pillar 2: The marine resources
- ✓ Pillar 3: Support to policy

## Indicative timetable

- ✓ Recommendation from Commission to Council on JPI « Oceans » in 2011
- ✓ Vision document in 2011? Followed by SRA in 2012 (coordinated with SEASERA)?

# The Joint Programming Initiative on "Healthy and Productive Seas and Oceans" - 2

## Distinctive characteristics of JPIs

- ✓ A flexible political commitment, which can make use of any community instrument
- ✓ Long term perspective (10 years +)
- ✓ Can potentially align member states and EU funding

JPI « Oceans" makes a clear reference to the need to sustain and optimise MRI at EU level

An adapted framework to move towards coordinated and sustained EU marine observation





# Conclusion

- Need for shift from project based observation to long term – long time series sustained observations
- Need to ensure full and open exchange of data (EMODNET)
- Need for a better coordination of projects / initiatives to ensure that they converge better towards policy / societal needs...
- ... maximise impacts of investments in MRI
- ... and optimise EU contribution to global initiatives
- JPI « Oceans » provides an excellent framework for an EU initiative addressing previous needs