

# Expert group on Marine Research Infrastructure

Working session 1 - EOOS detailed identification of gaps and needs

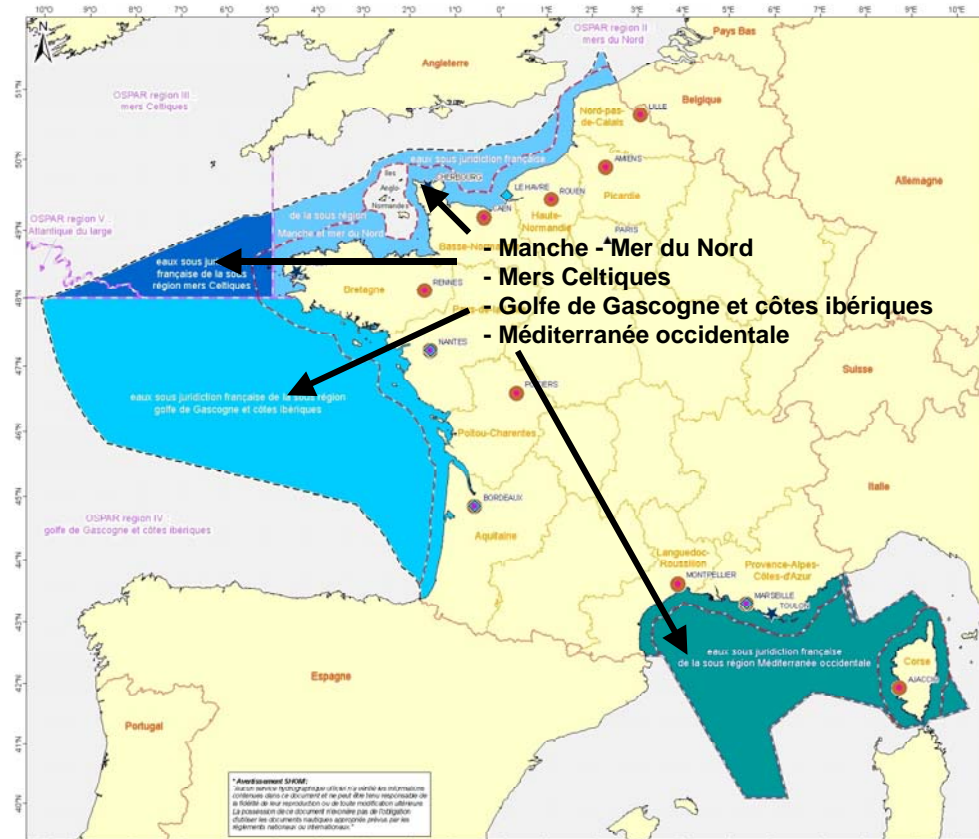
Focus on marine environment - MSFD

Perspective from a Member State – France

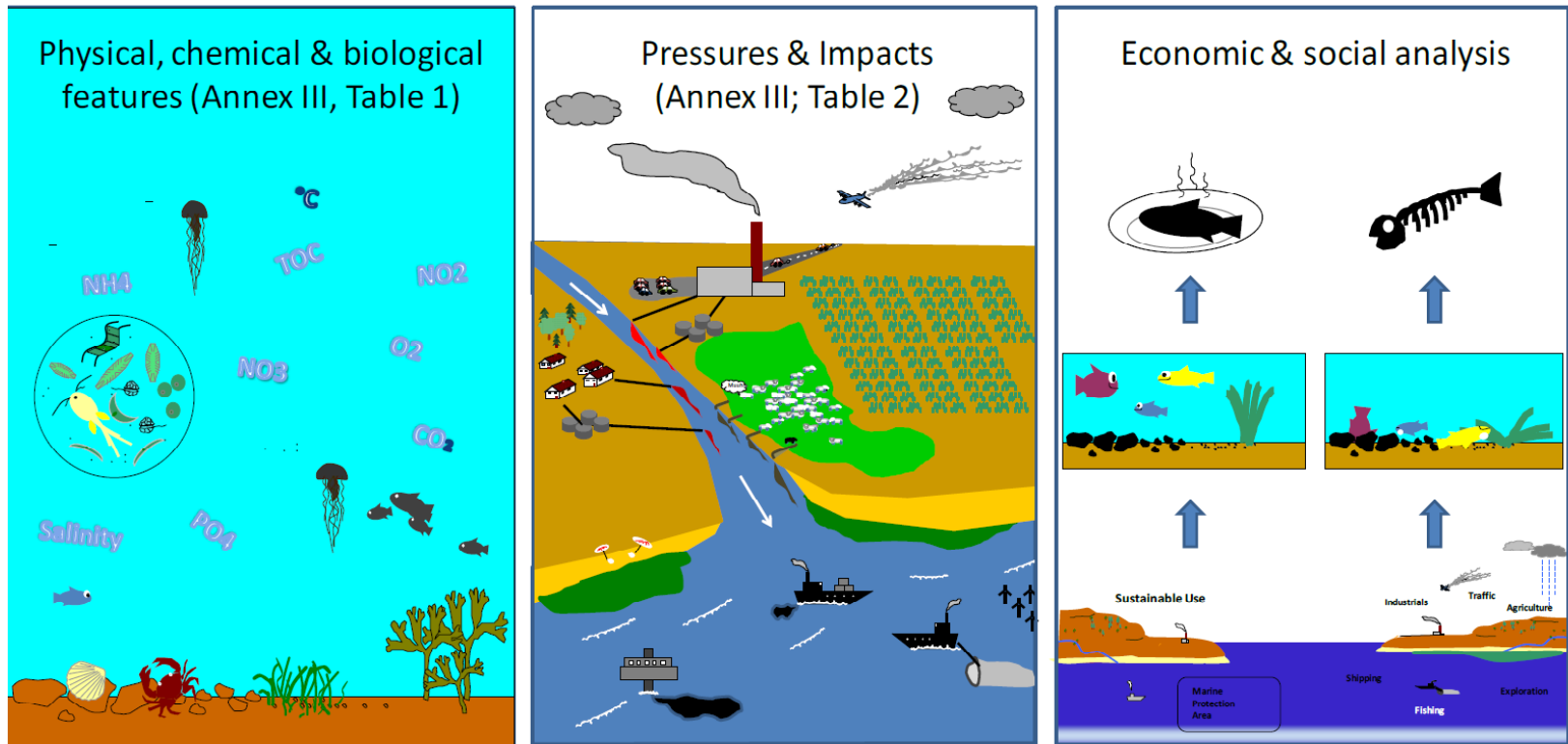
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# introduction

- Exercise is a bit too early regarding the process of implementation of the IA and of the GES in France
- Documents and informations have the french flavor ... but there are open to discussion
- Global approach that exclude data management, standardization and access

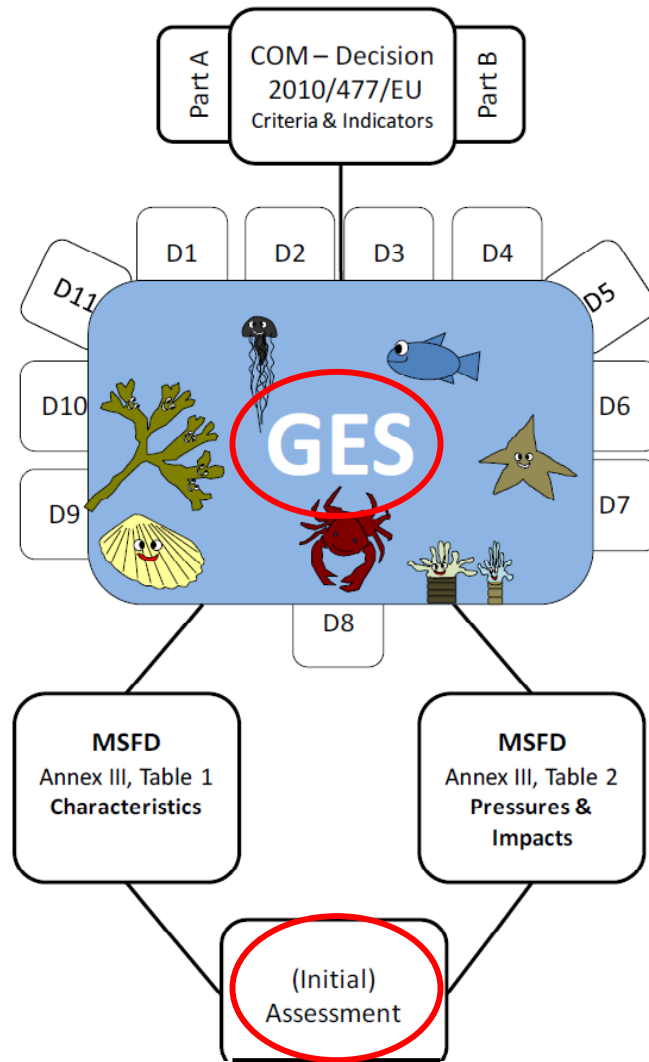


# The Initial Assessment (2012)



40 topics for each part of the I.A. (derived from annex III, table 1 and 2)

# A very comprehensive GES with connexion with the IA



11 Descriptors and  
53 Indicators or meta indicators

# D1 : Biodiversity

# D2 : Alien species

- Gaps on :

Spatial distribution of organisms and habitats (mostly invertebrates including zooplankton, ..) and offshore, high sea ... incomplete and/or inappropriate (scales, trends,...)

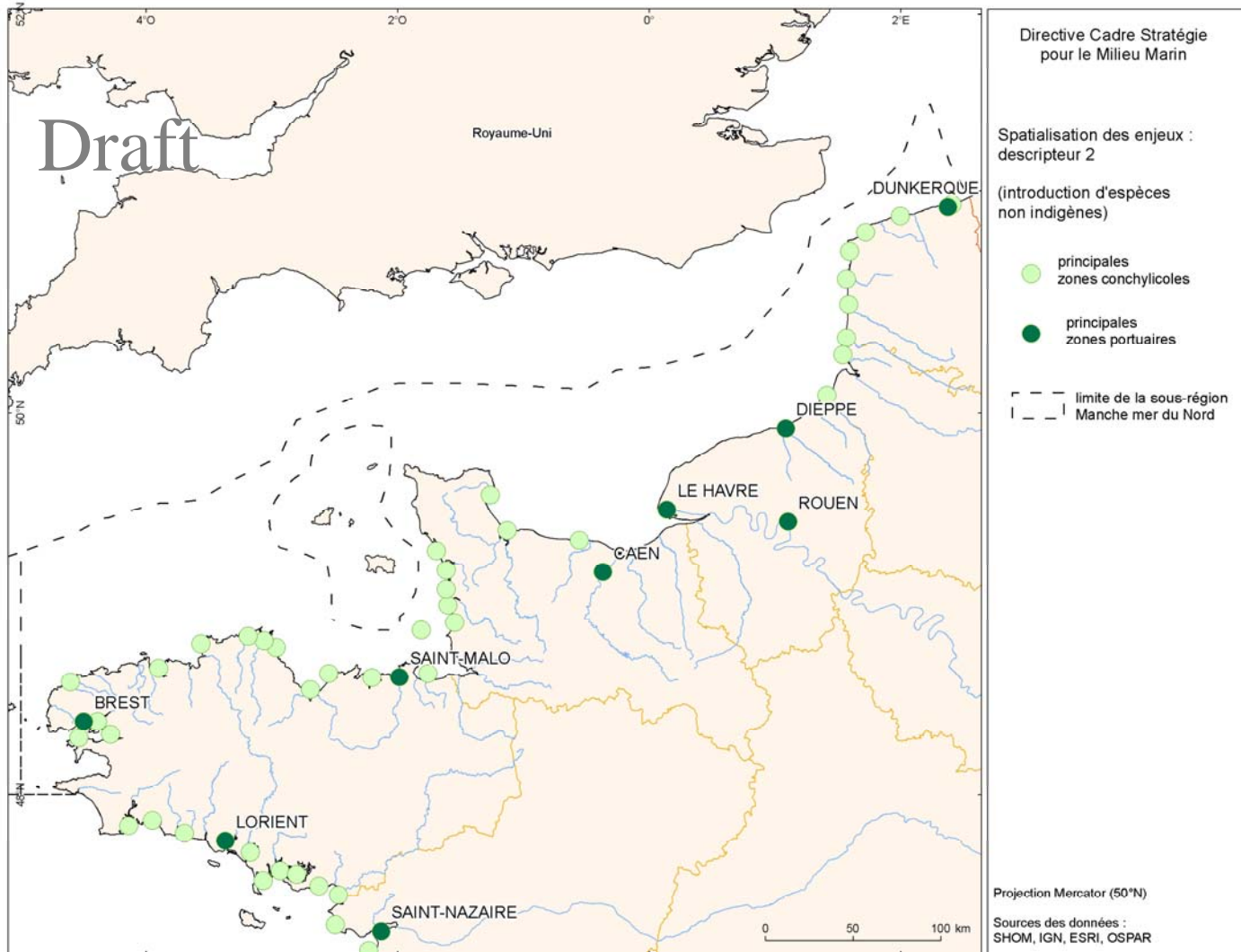
Partial comprehensive understanding of relationships between ecosystem components (connectivity,...)

- Needs for :

Taxonomy, Automatic identification : zoo and phyto plankton, ... Predictive modelling of habitats

Partially covered by FP7 calls and FP8 ?

# D2 : Alien species



Risk areas with identified pressures

# D 6 : Bottom integrity

- Gaps because of :

Strong dependance on D1

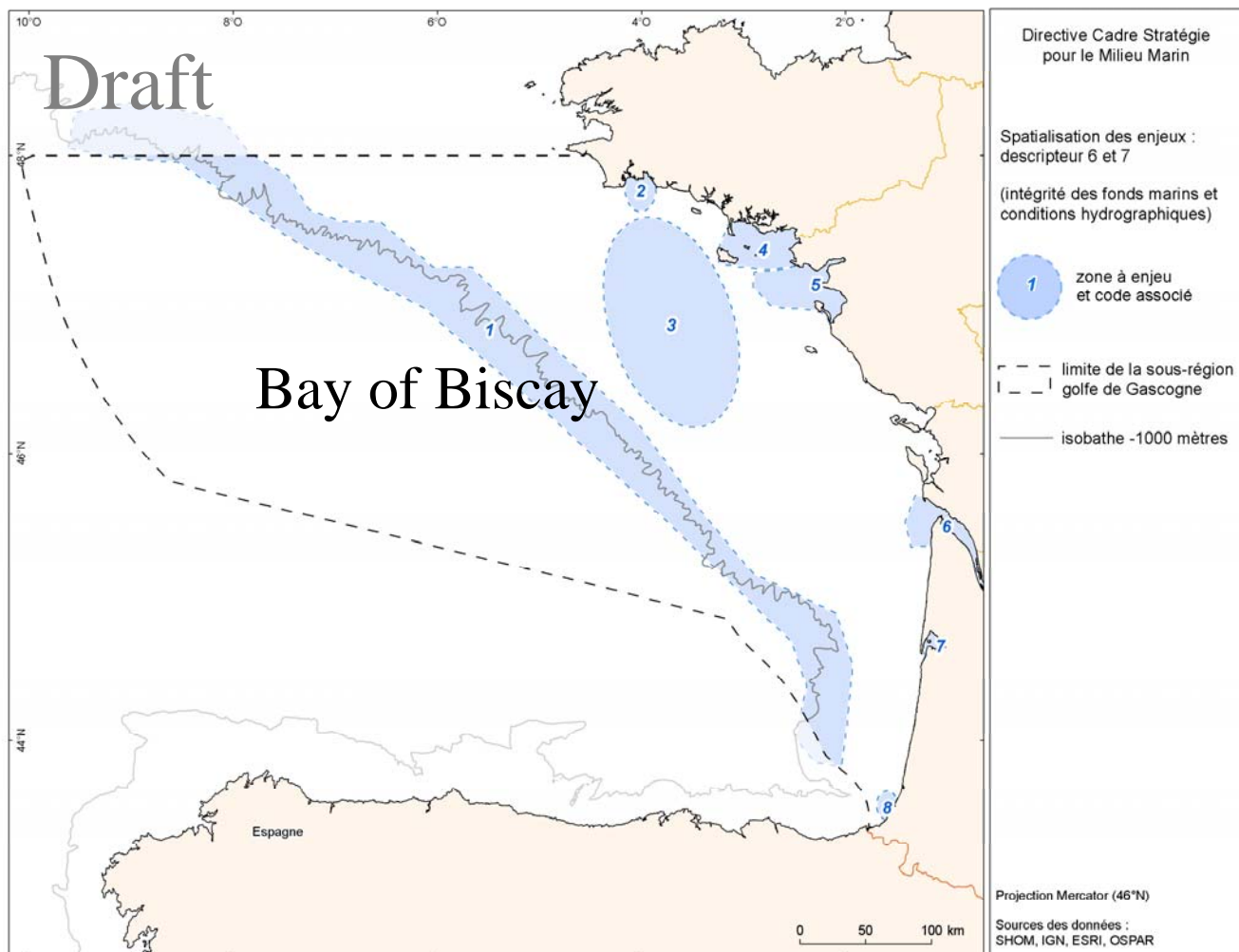
Poor knowledge on pressures, impacts and resilience on sensitive habitats

- Needs for :

Better knowledge on pressures (Access to VMS, ...)

Partially covered by FP7 (environment and climate) 6.2.3 et 6.2.5 : *Processes of physical disturbance and biological impact on sea bottom*

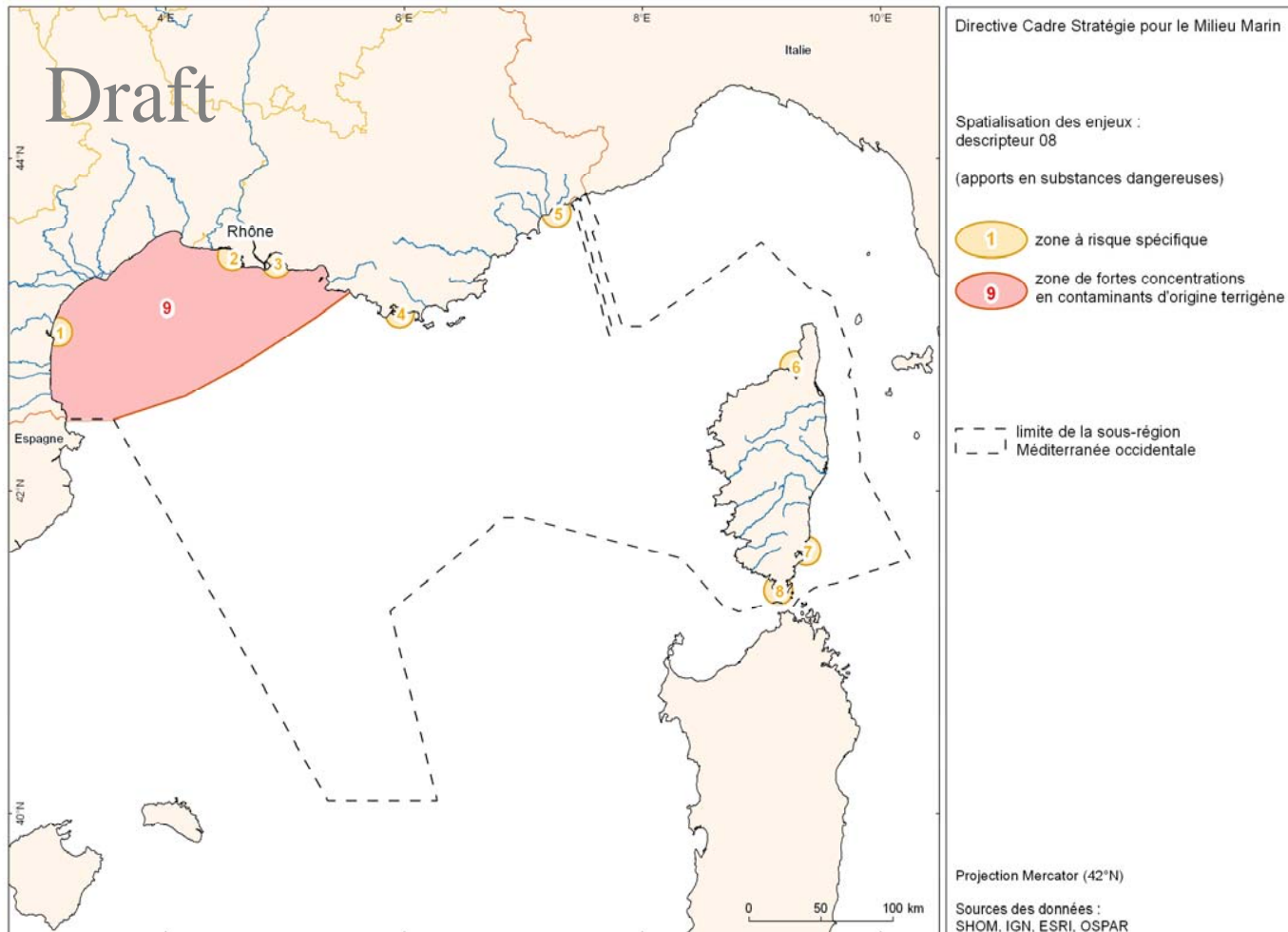
# D 6 : Bottom integrity



Risk areas under significant pressure/impacts



# D8 : Contaminants



Risk areas under significant pressure/impacts

# D8 : Contaminants

In addition to ongoing work in MSFD revolving around D8, the EU has the unique leverage to obtain:

**One comprehensive cruise**

**every ~5/6 years** to areas not yet monitored in order to evaluate the effectiveness of the policies taken,

**Laboratory work** to strengthen the useability of biological effects as an effective measurement of contaminant pressure



## D 10 : Litter

- Gaps on :

Comprehensive network for monitoring of marine litter on coastal and offshore areas: macro and micro plastic particles.

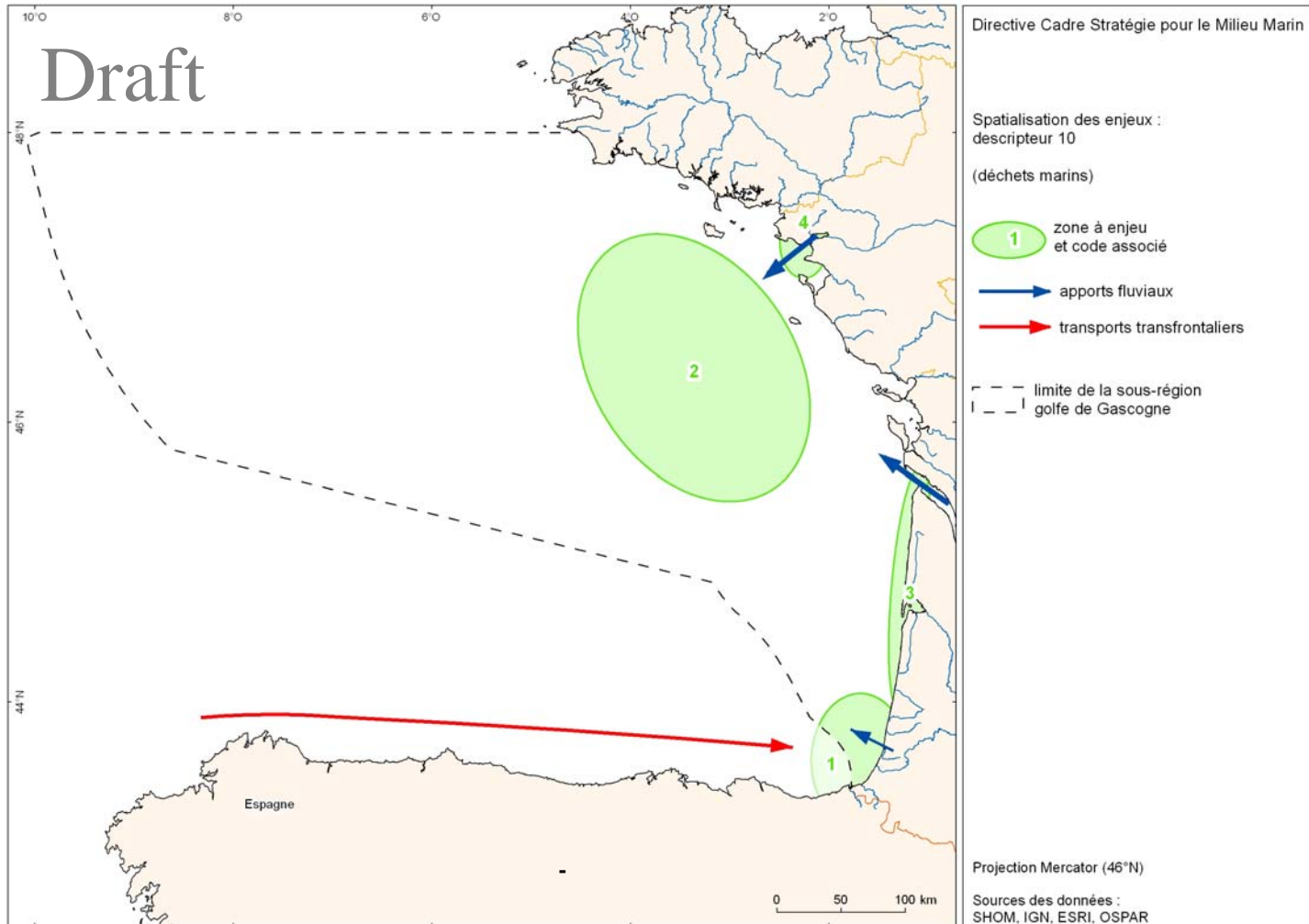
- Needs for :

3D modelling on the circulation of marine litter

Automatic systems to monitor marine litter offshore : acoustics ?

Partially covered by calls : "ocean for tomorrow"

# D 10 : Litter



Risk areas under significant pressure/impacts

# D11 : Noise

- Gaps on :

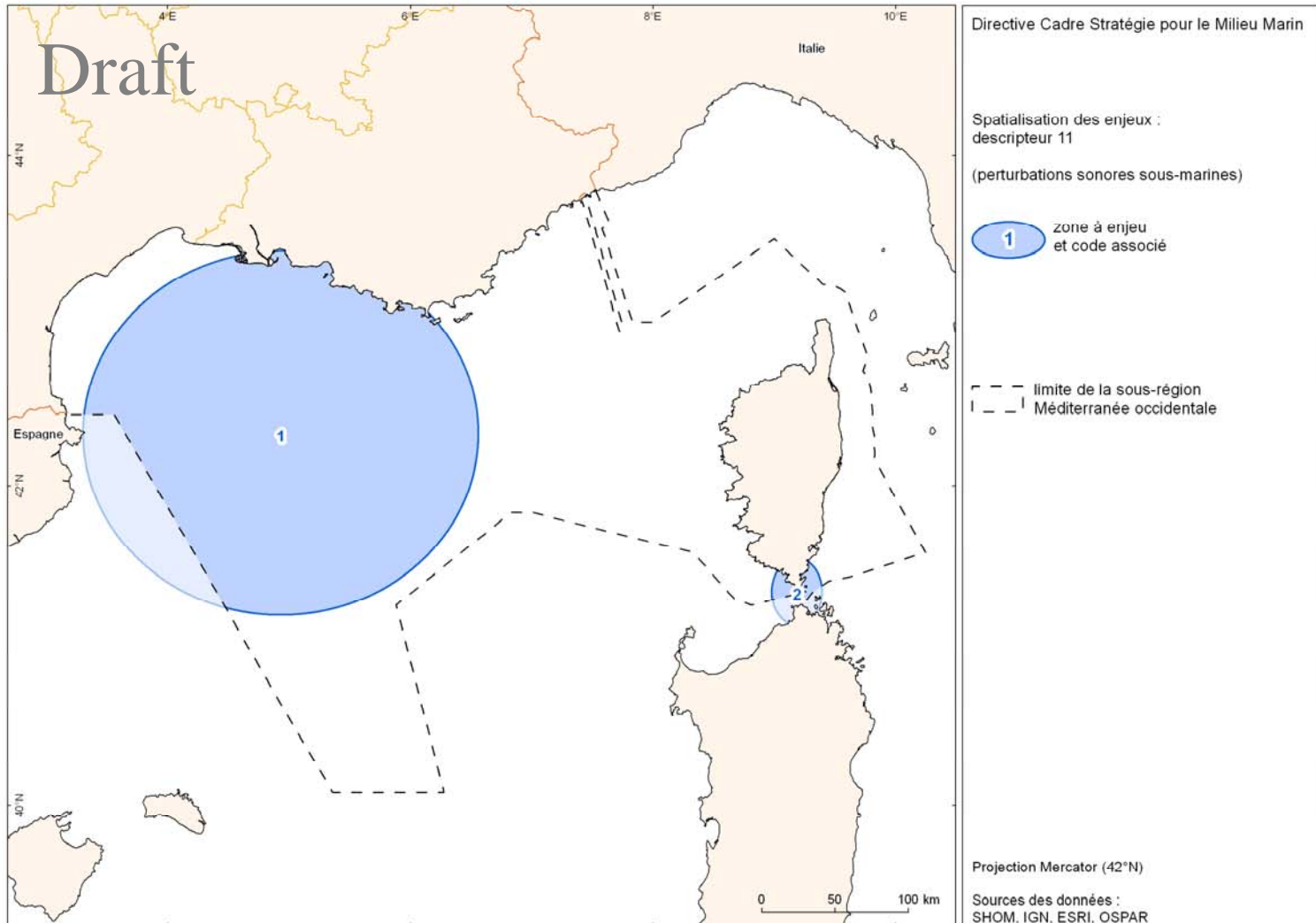
No regular operational observatory for noise in marine sub regions

- Needs for :

Network of "smart buoys" (additional captors) , additional moorings

Modelling using data collected by the network and other sources (maritime traffic,...)

# D11 : Noise



Risk areas under significant pressure/impacts

# A tentative conclusion

- ❖ D1, D2 : Strong needs to increase our knowledge and to create new marine infrastructures...needs for more investigations (cruises, sampling strategy, scales, trends, taxonomy,...)
- ❖ D6 : High subordination with previous D1
- ❖ D8 : High resilience. Need for large overview (cruise every 6 year cycle)
- ❖ D10 : 3D modelling and news tools for monitoring
- ❖ D11 : Additional captors and modelling

❖ General needs for strong harmonisation, cooperation for : data collection, strategies, monitoring, infrastructures between MS ... which are some of the main goals of the MSFD

but strong human inter actions and connections between MS are primordial to make a "success story" of the implementation of the MSFD

*Thank you for your attention*