

Technical and administrative support for the joint implementation of the Marine Strategy Framework Directive (MSFD) in Bulgaria and Romania

Under Framework contract for services related to coordination between the different marine regions in implementing the ecosystem approach.



Imagine the result

CBE Varna /ICES
16-17 April 2014 Varna

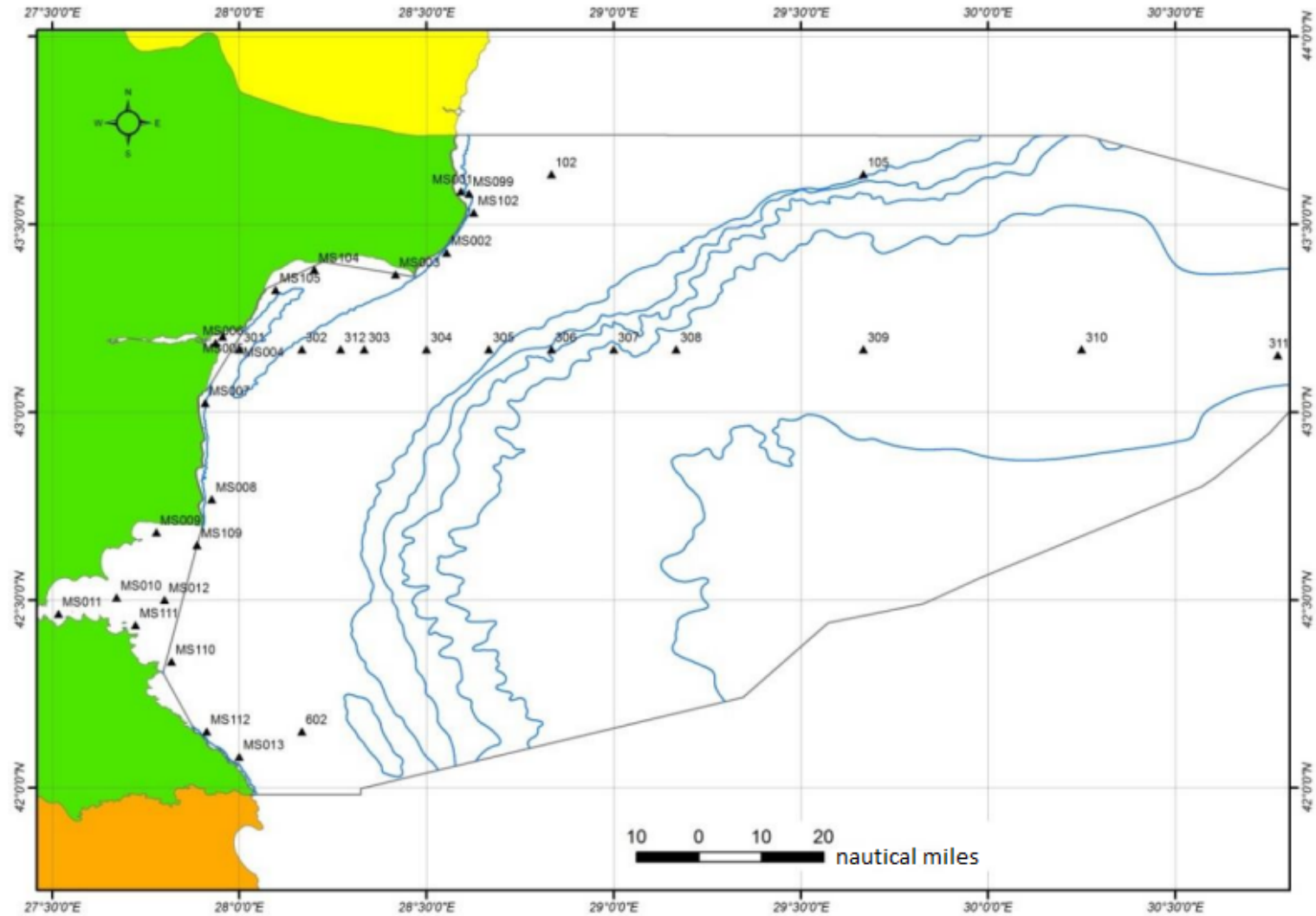


COWI

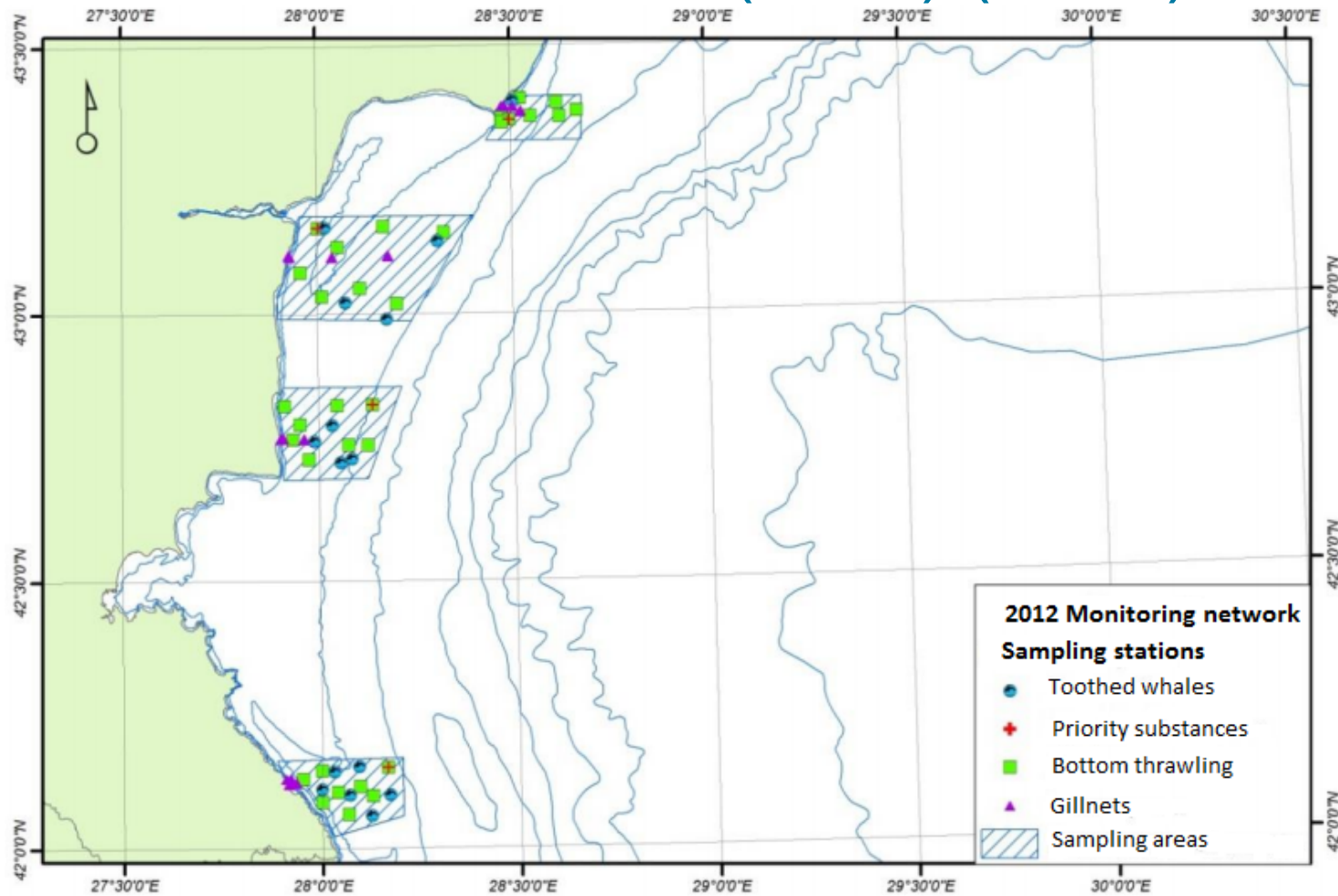


PART 1: MONITORING PROGRAMME

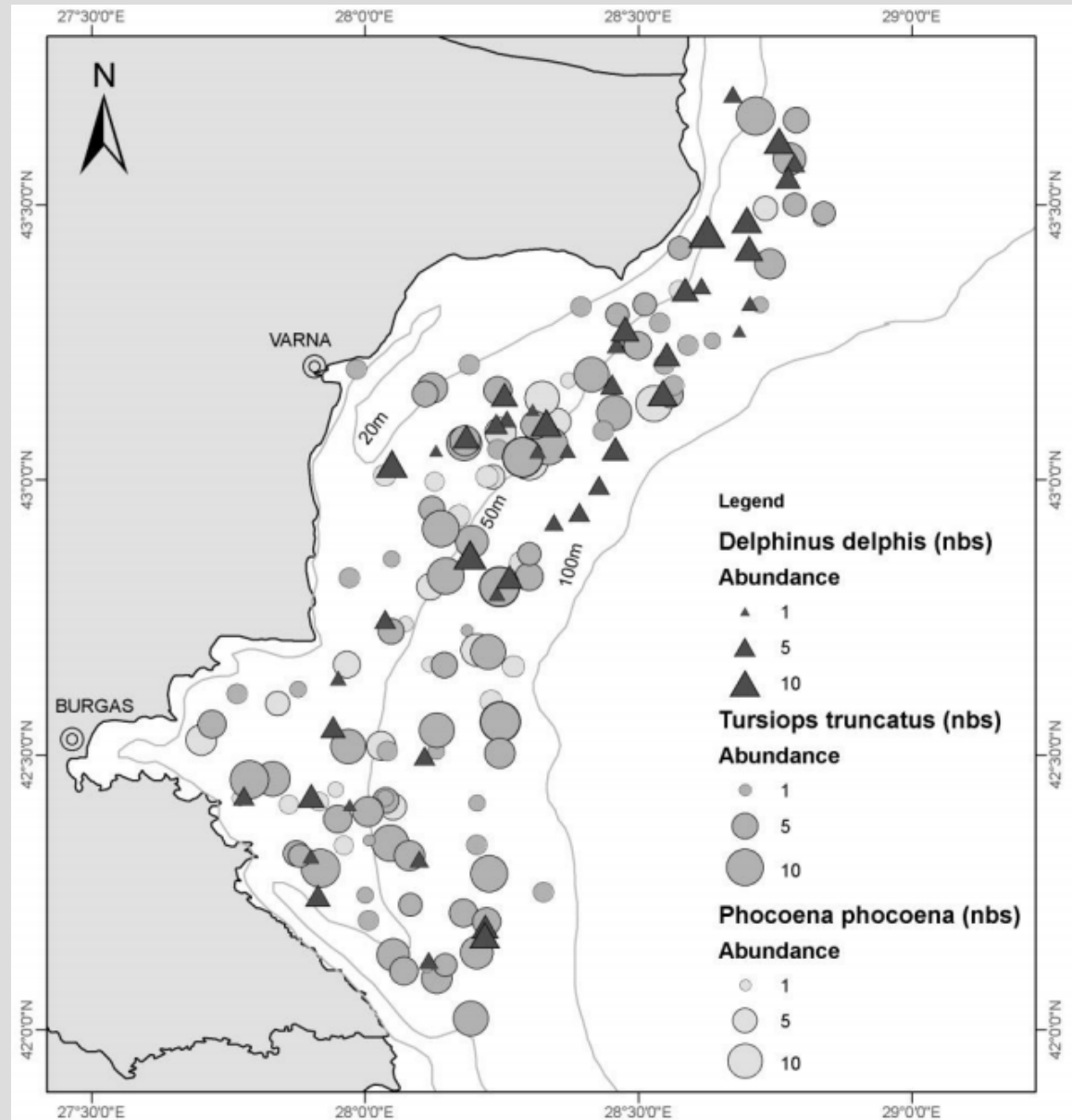
2012 MONITORING STATIONS



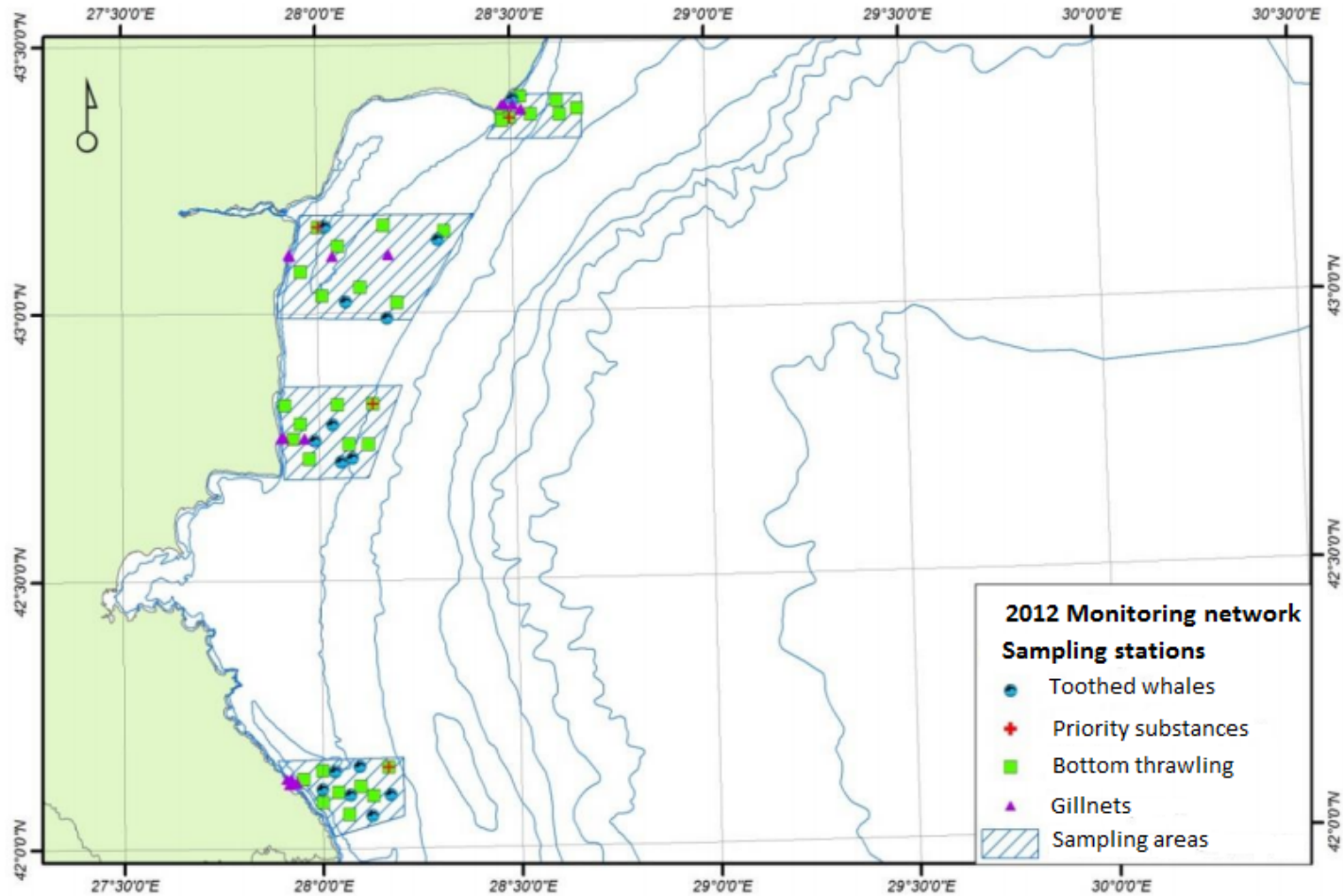
Monitoring of non-commercial fish (D1, 4) and mammals (D1,4) (2012)



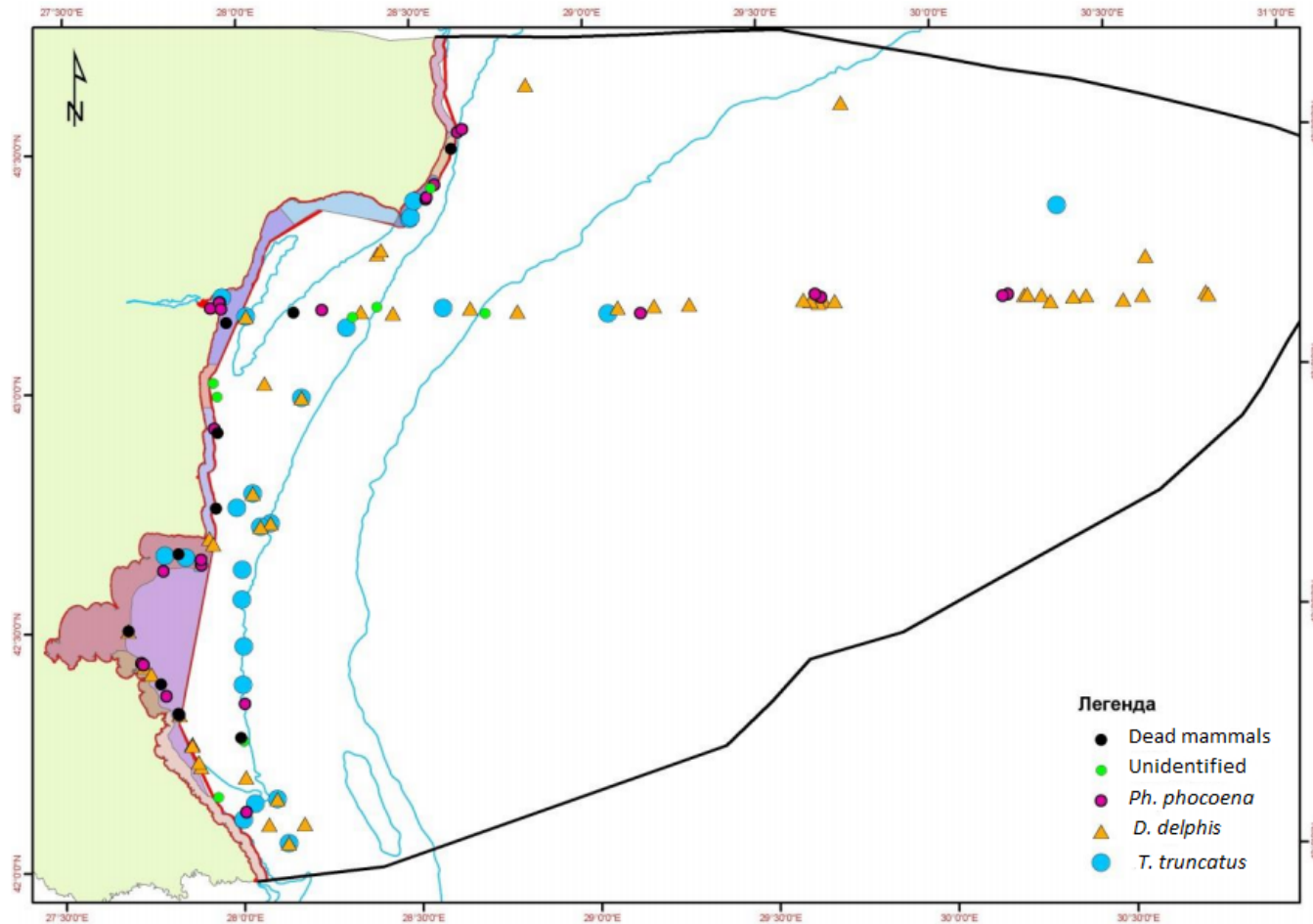
Monitoring marine mammals (2006-2011)



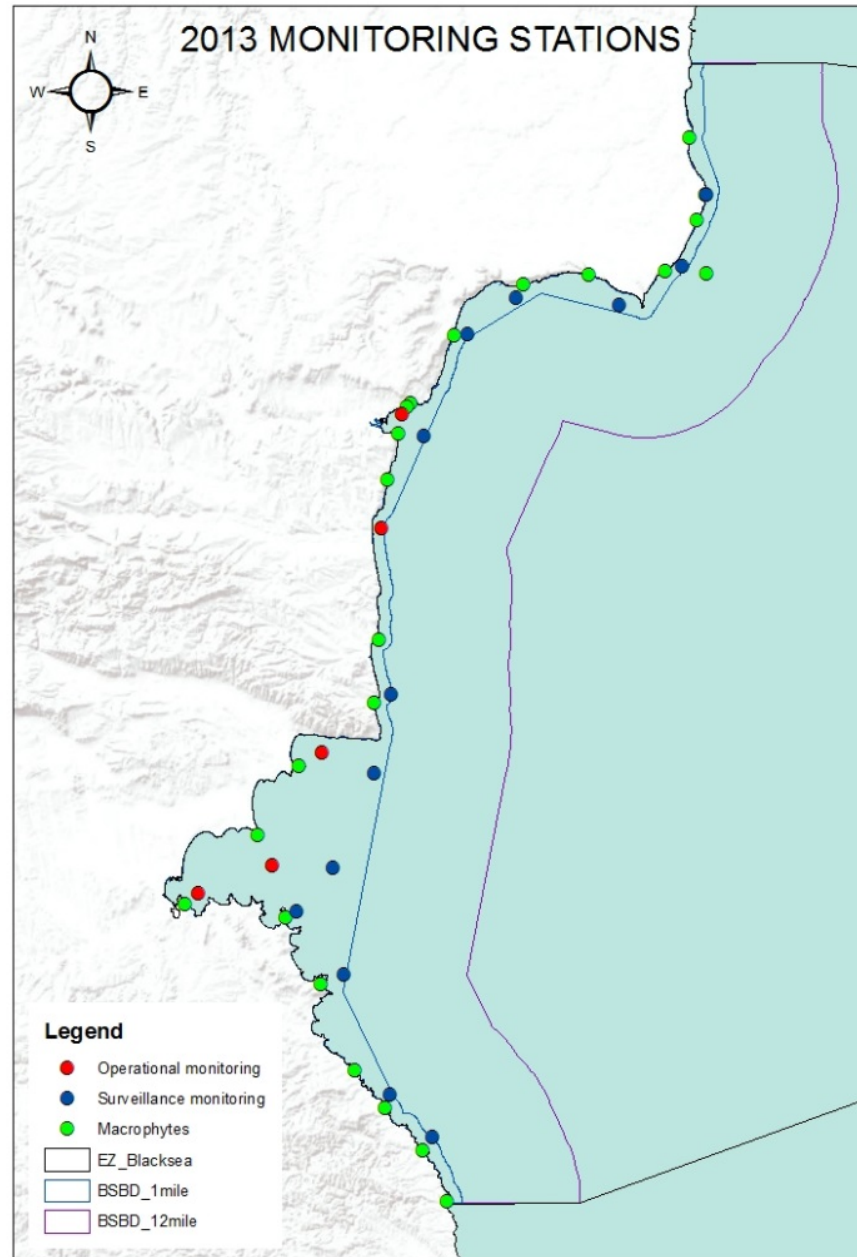
Monitoring of marine mammals (toothed whales), 2006-2011



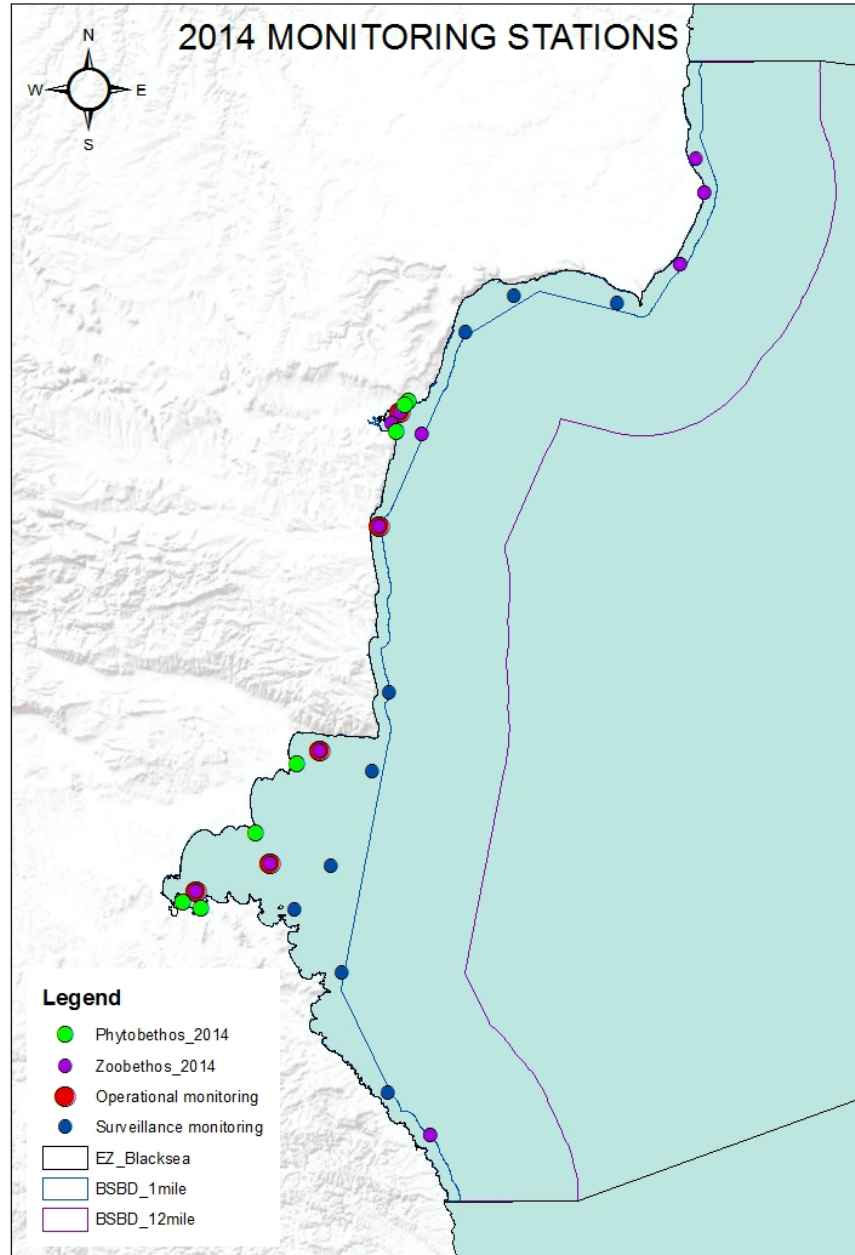
2012 marine mammals – distance sampling



2013

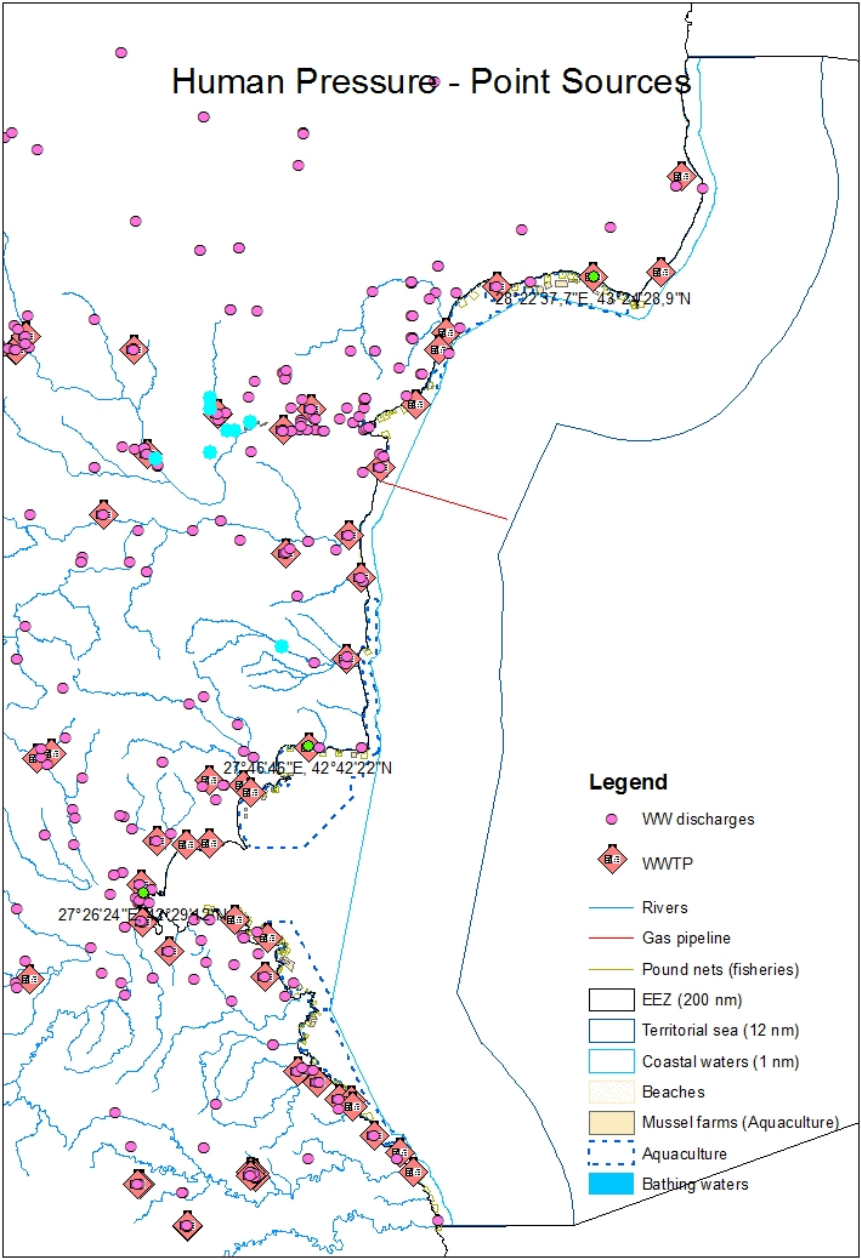


2014

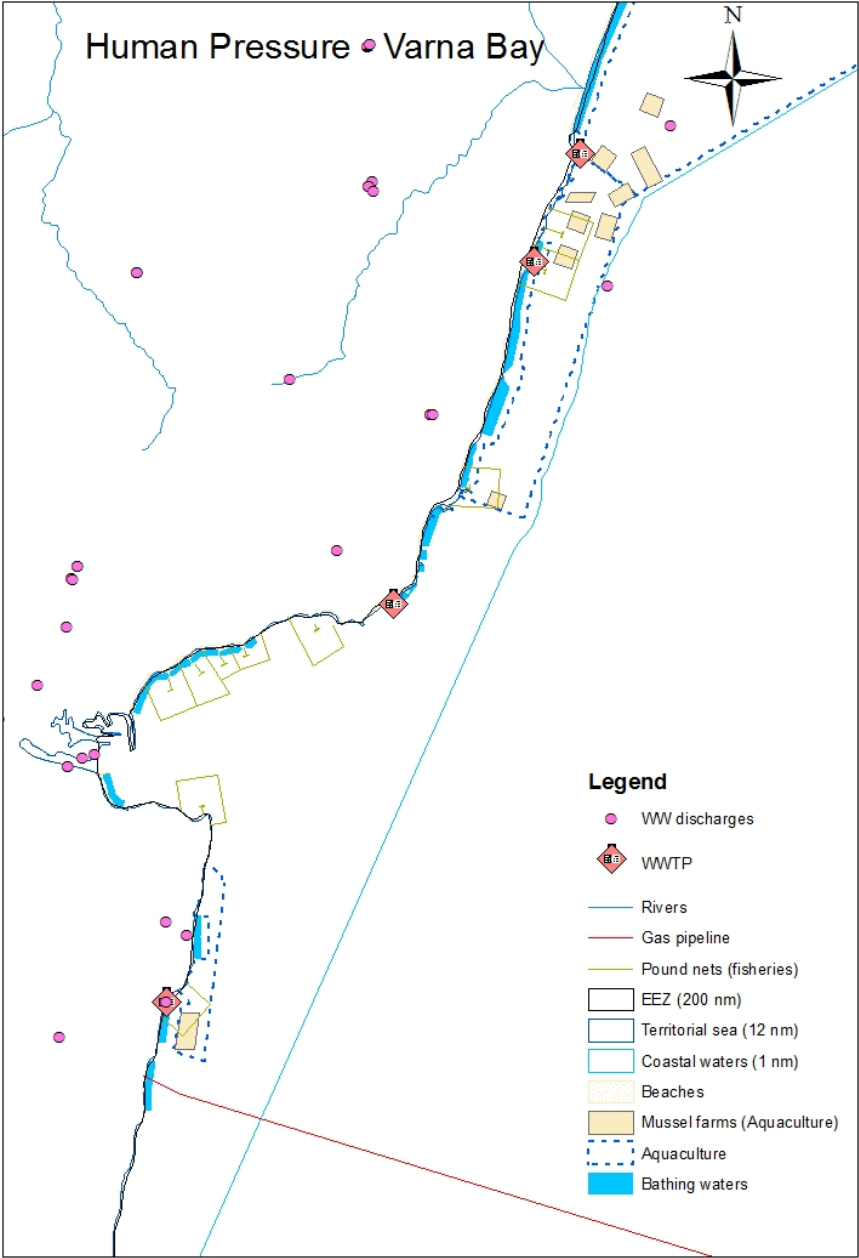


**PART 2: MONITORING - HUMAN
PRESSURE ON WATERS**
Black Sea Basin Directorate, BSBD

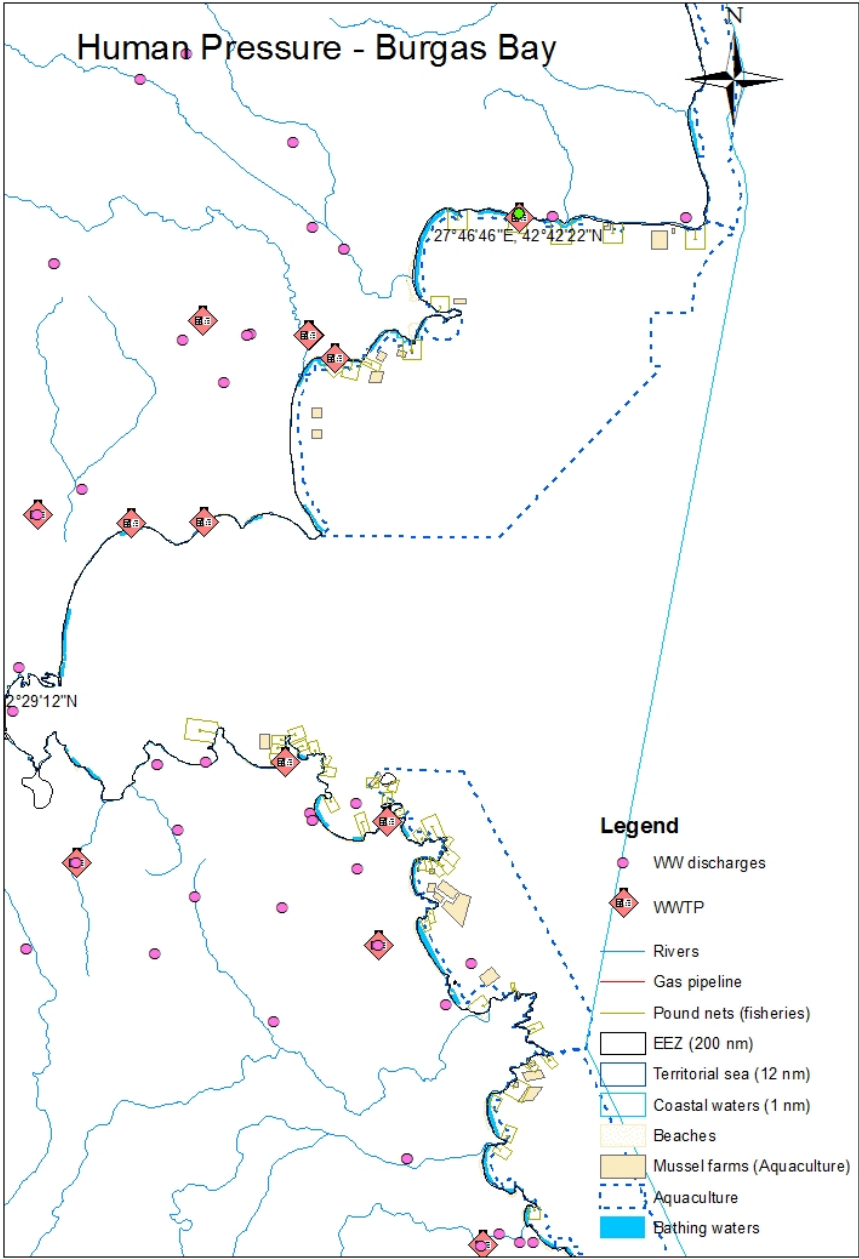
Human pressure Art. 8b, MSFD Data provided by polluters



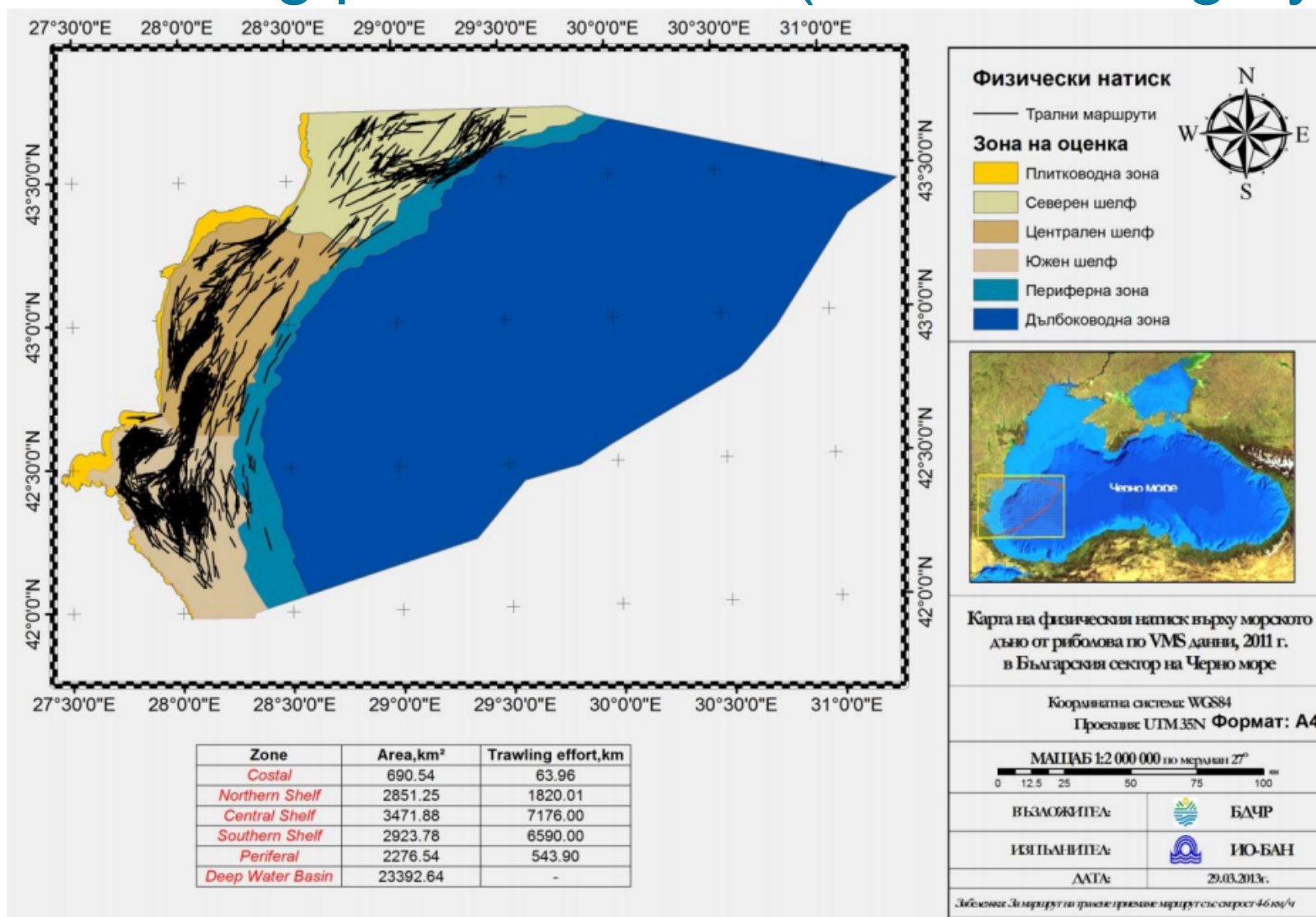
Human pressure Art. 8b, MSFD



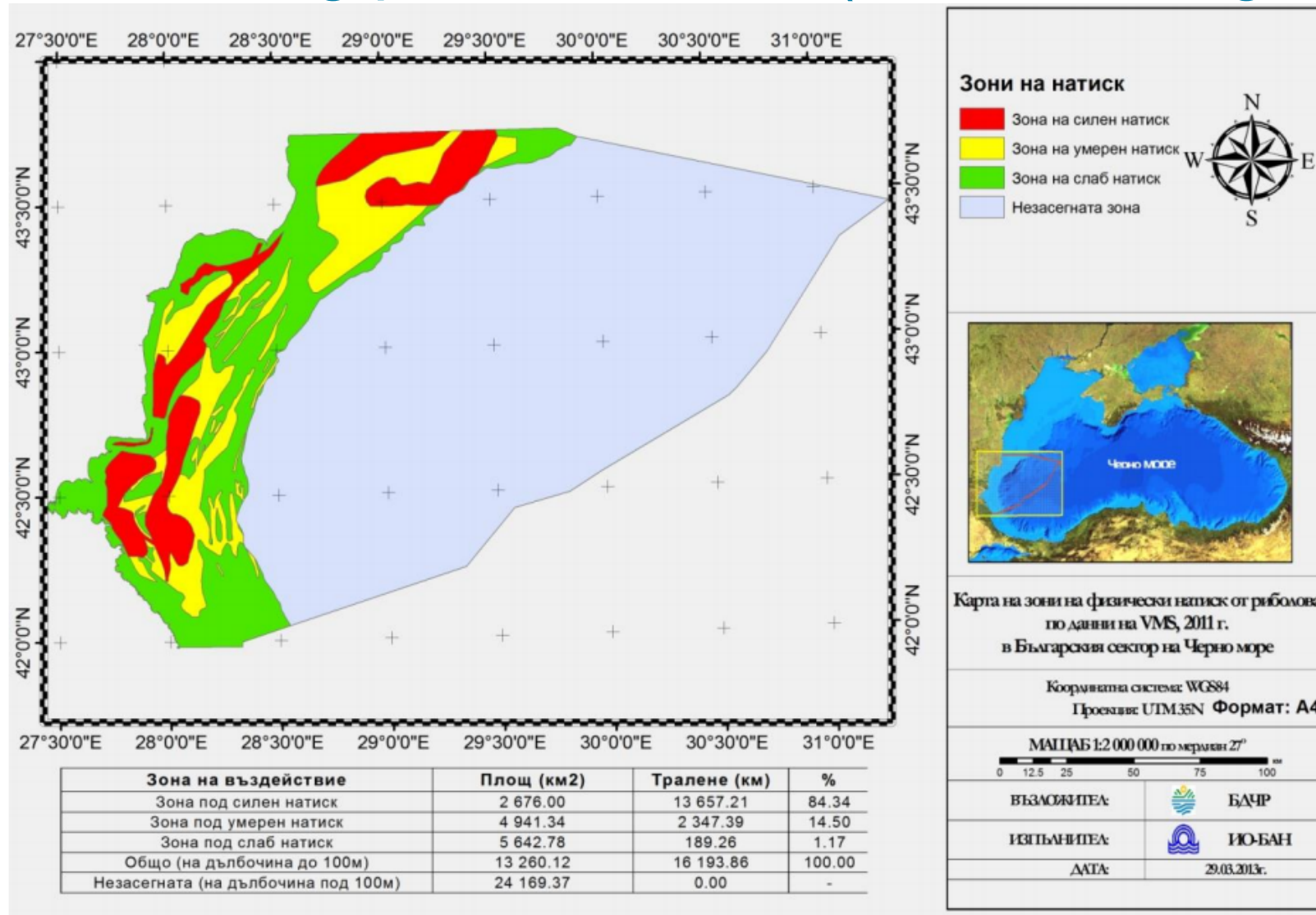
Human pressure Art. 8b, MSFD



Thrawling pressure – D6 (Seabed integrity)

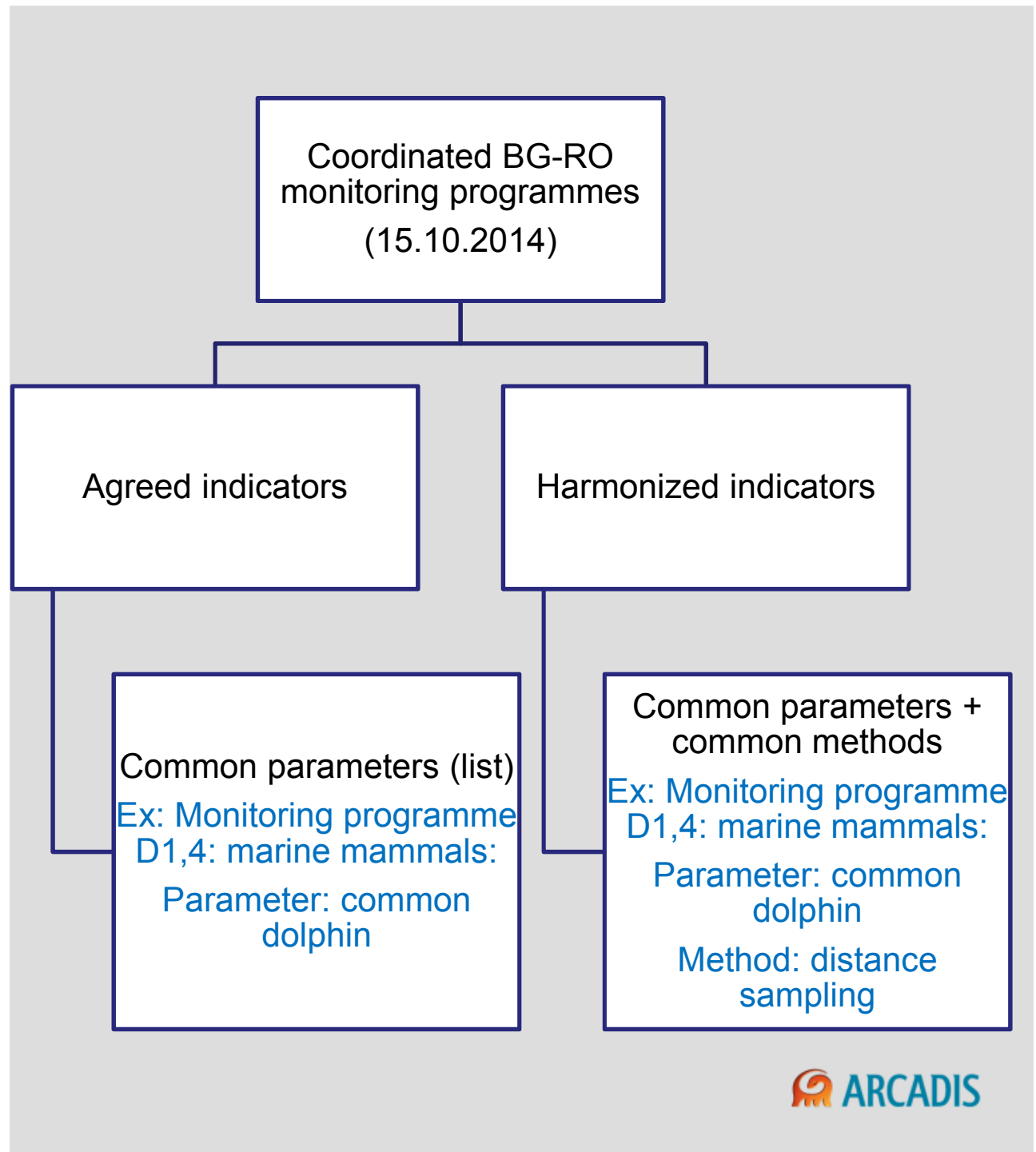


Thrawling pressure – D6 (Seabed integrity)

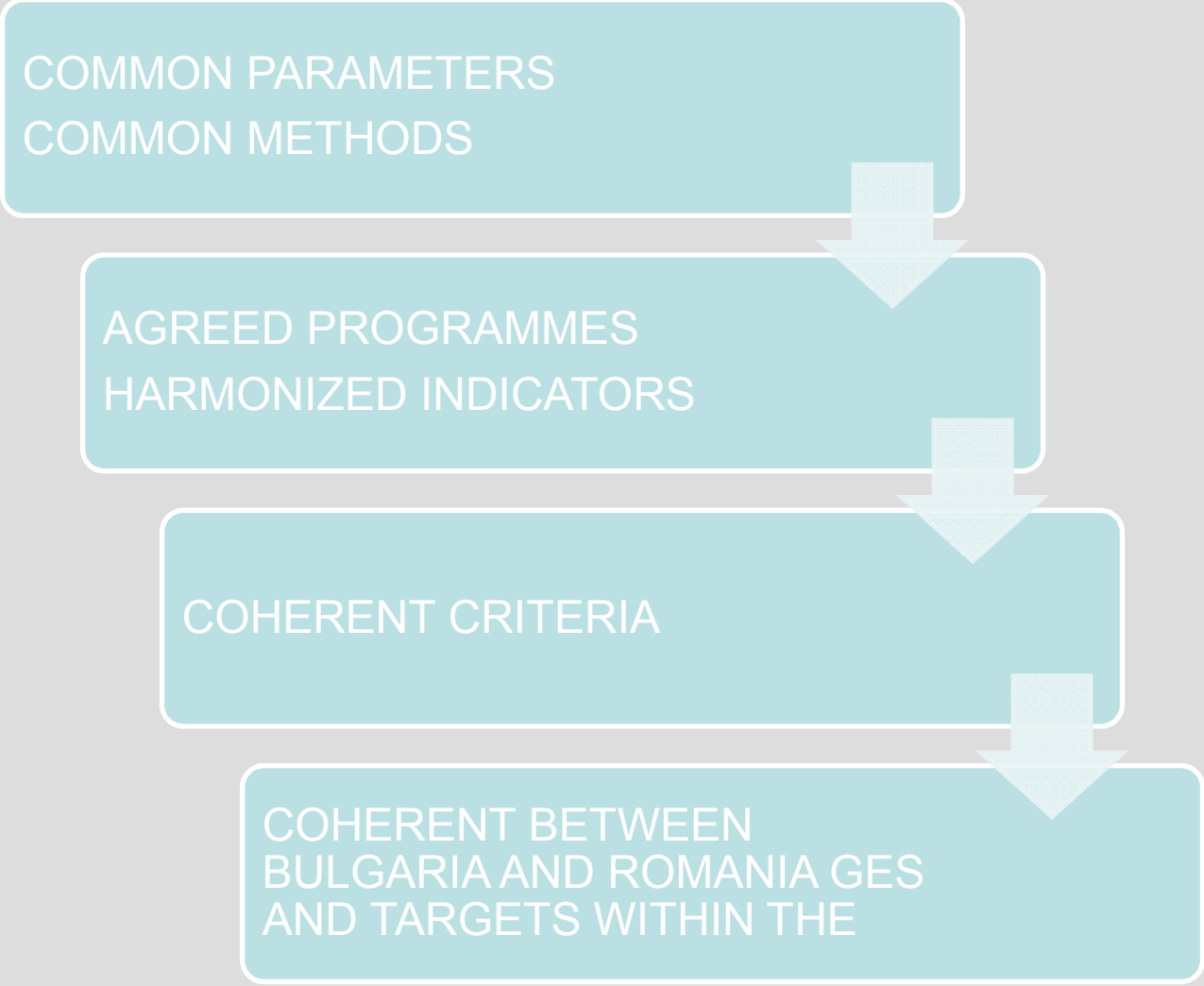


PART 3: COORDINATED MONITORING PROGRAMMES (art. 11, MSFD)

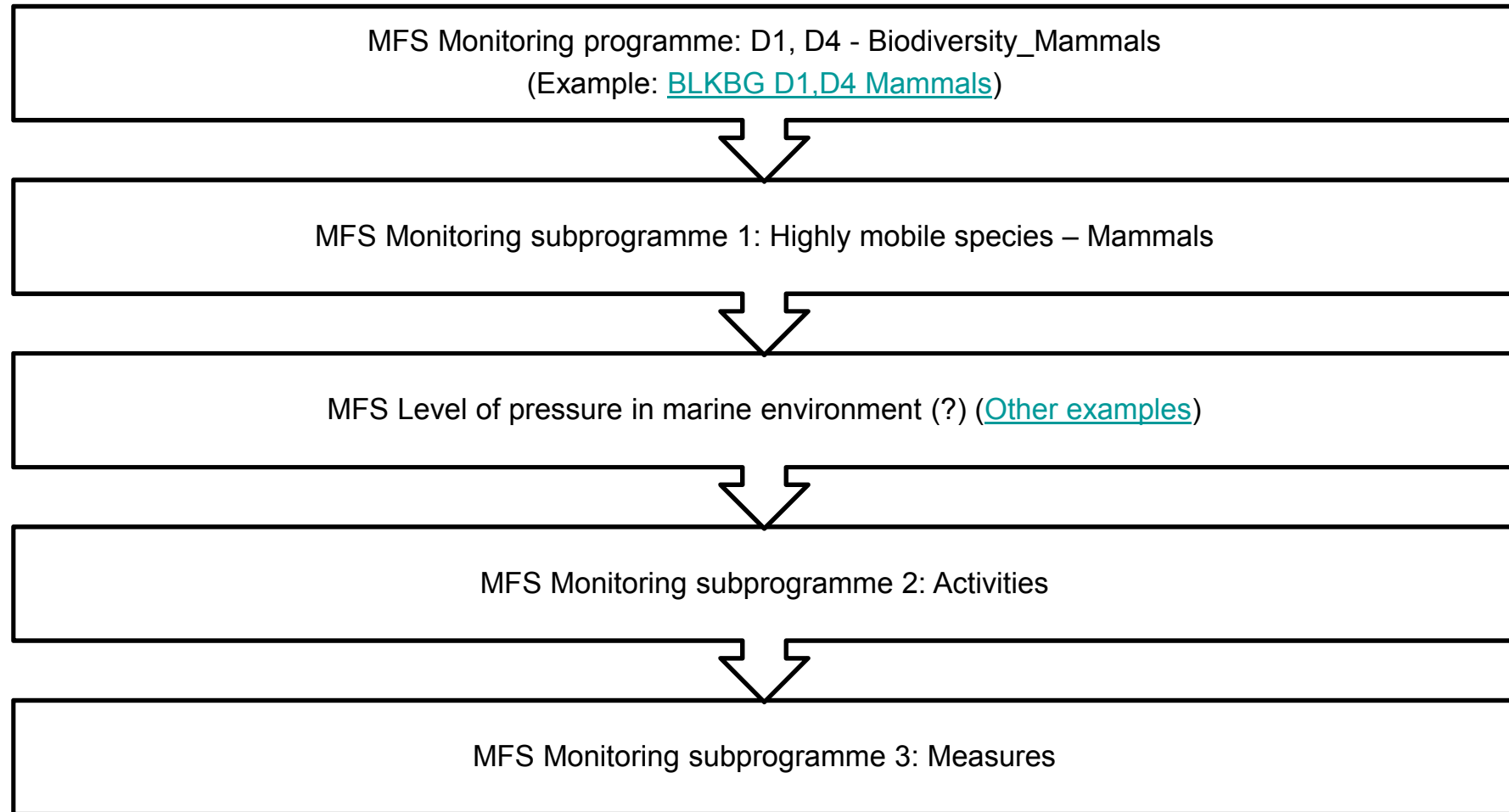
MAJOR CHALLENGE



WORKFLOW



Approach – monitoring fact sheets (MFS)



Current challenges

- Assessing the **level of pressure** on highly mobile species (ex.: shipping on dolphins)
- Addressing the **pressure-impact** relationship – impact from land-based sources on the biodiversity (local pressure – local impact).
- How to determine the most appropriate sampling stations if not having enough data (littoral habitats)?
- How to determine the **spatial resolution** in the water column habitats (e.g. by using the gradient change in the chlorophyll-a concentration)?
- **Estimate the cost** of the monitoring programme?
- **Monitoring on seabirds** – not conducted in the current monitoring programme

Imagine the result