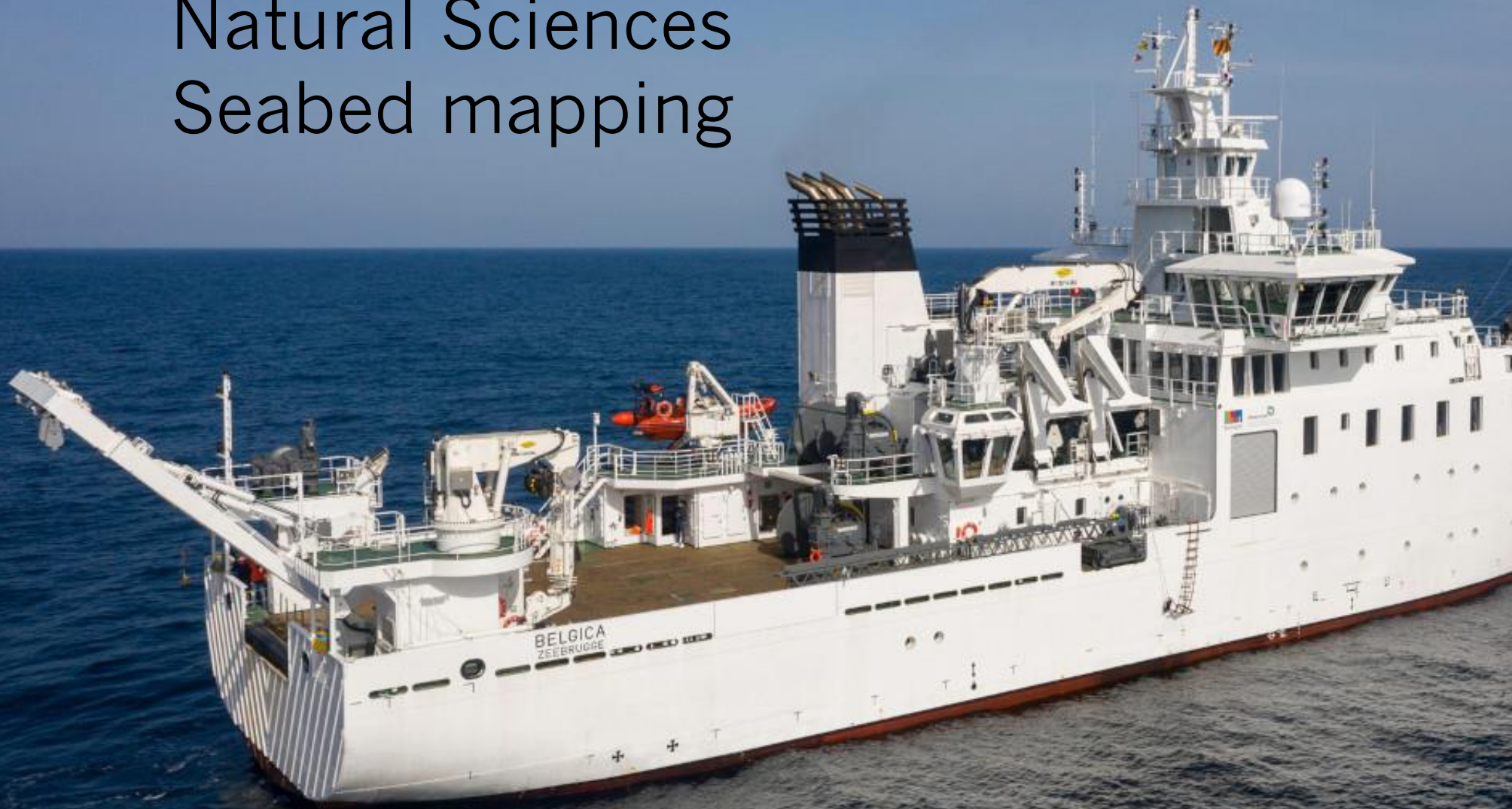


Royal Belgian Institute of Natural Sciences Seabed mapping



Suspended and Seabed Monitoring and Mode

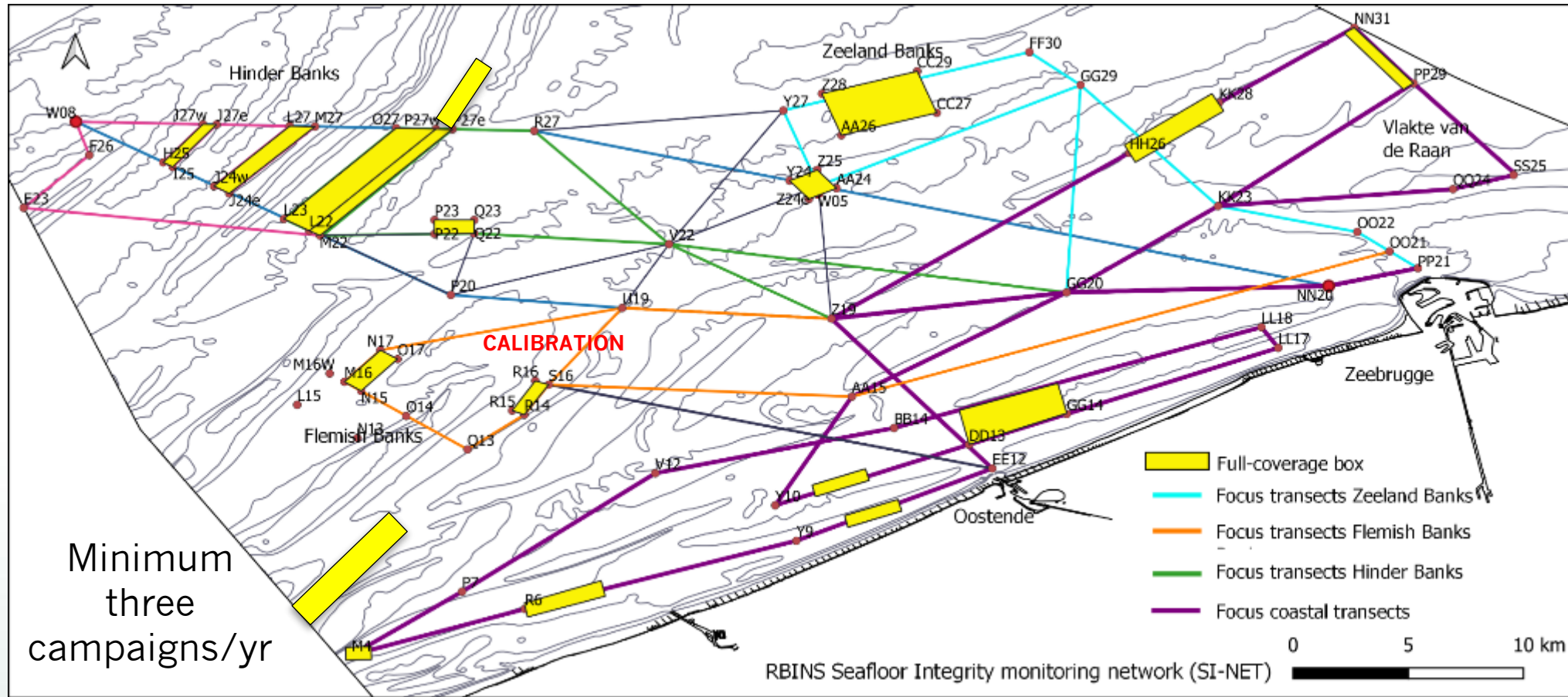
Mapping Goals

- Monitoring of Good Environmental Status of marine waters (EU Marine Strategy Framework Directive, MSFD)
SUMO responsible for:
 - Mapping of **broad-scale habitat types (BHT)**, BCP-wide
(*mud, sand, coarse sediments, mixed sediments, and gravel*)
 - Monitoring of **physical loss and disturbance**, BCP-wide
- Monitoring physical effects of marine aggregate extraction (ZAGRI/MOZ4)
- Finding and characterizing alternative sand sources (VLAIO SUSANA)

MBES EM2040D
Depth & Backscatter
+TOPAS PS18 SBB

2022
2023

- MBES/SBB along Transects + full-coverage box approach
- Ground truthing using boxcoring, hamon grabs, video



- **Risk-based mapping of changes in BHT types (mud, sand, coarse sediment, gravel)**
 >> Mapping at different spatial scales, and assessing long-term changes
- Complementary to biological monitoring of hard substrata (RBINS MARECO)
- Experience 2022: RV Belgica and Coastal zone surveying suboptimal

New cSBO VLAIO project SUSANA **Sustainable use of sand in nature-based solutions**

Alternative sediment sourcing

- Suitability of sediments of S1 disposal ground
- Characterizing zones of persistent sedimentation between Ostend and Zeebrugge

>> MBES/SBB for the planning of vibrocores

