

MONITORING ENVIRONMENTAL IMPACTS OF
OFFSHORE WIND FARMS
IN THE BELGIAN PART OF THE NORTH SEA

SIX YEARS OF BELGIAN OFFSHORE WIND FARM ENVIRONMENTAL MONITORING

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LEARNING FROM THE PAST TO OPTIMISE
FUTURE MONITORING

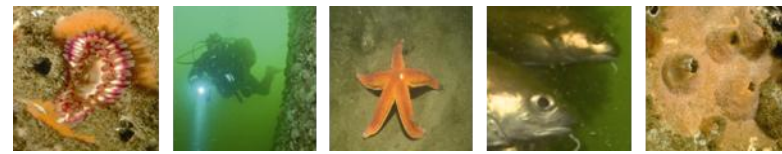


TODAY'S PROGRAMME

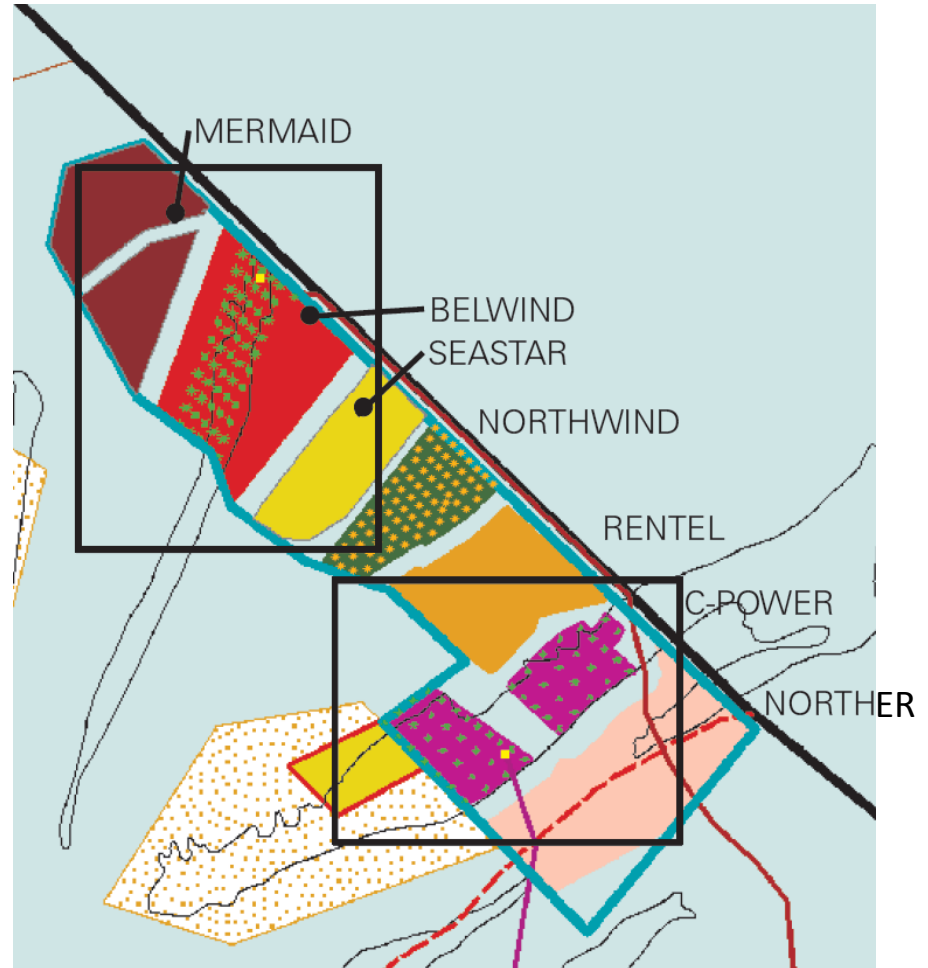
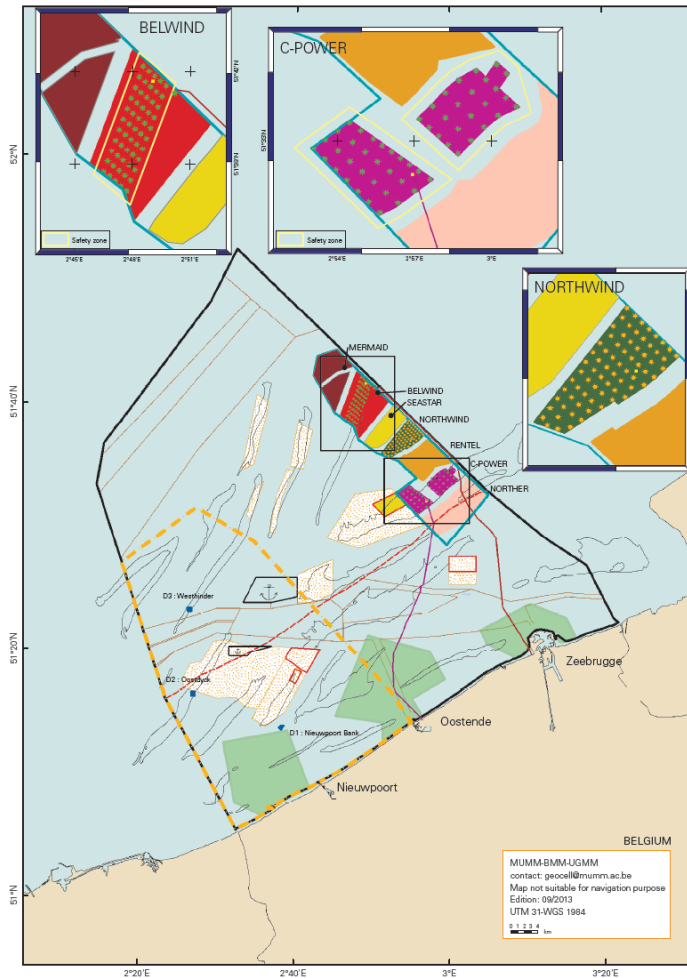
- Belgian monitoring findings
 - Six thematic presentations, overviewing the WinMon.BE 2013 report
 - Reflections on future monitoring
- Viewpoint from external scientific committee members
- Poster session
 - Poster pitch presentations
 - Reception
- Eating with dinosaurs...



BELGIAN MONITORING



THE BELGIAN OFFSHORE WIND FARMS





GUARANTEES FOR ECOSYSTEM INTEGRITY

- Mandatory monitoring programme to ensure...
 - Possible mitigation or halting of activities
 - Understanding of impact processes to support future policy and management
- Environmental issues to consider
 - Underwater noise
 - Hydrodynamics and sedimentology
 - Hard substrate epifouling organisms
 - Hard substrate-associated fish
 - Soft substrate macrobenthos
 - Soft substrate epibenthos and fish
 - Seabirds
 - Marine mammals
 - Social acceptance





THE CHALLENGE: BASIC AND TARGETED MONITORING



Basic monitoring

- Focus on *a posteriori* resultant effect quantification
- Site-specific
- Observing rather than understanding impacts
- Basis for halting activities



Targeted monitoring

- Focus on cause-effect relationships of selected, *a priori* defined impacts
- From observation-driven to hypothesis-driven monitoring
- Understanding rather than observing impacts
- Basis for mitigating activities and future policy

BELGIAN MONITORING



USING THE BEST EXPERTISE AVAILABLE



BELGIAN MONITORING



- Six thematic presentations
 - Setting the scene and public opinion
 - Impacts on soft sediment fauna
 - Impacts on hard substrate fauna
 - Impact on top predators
 - Attraction or production
 - Size matters
- Reflections on future monitoring
- Viewpoint from external scientific committee board

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