

A first phase in the habitat classification for the Zeeschelde: Bed form classification.



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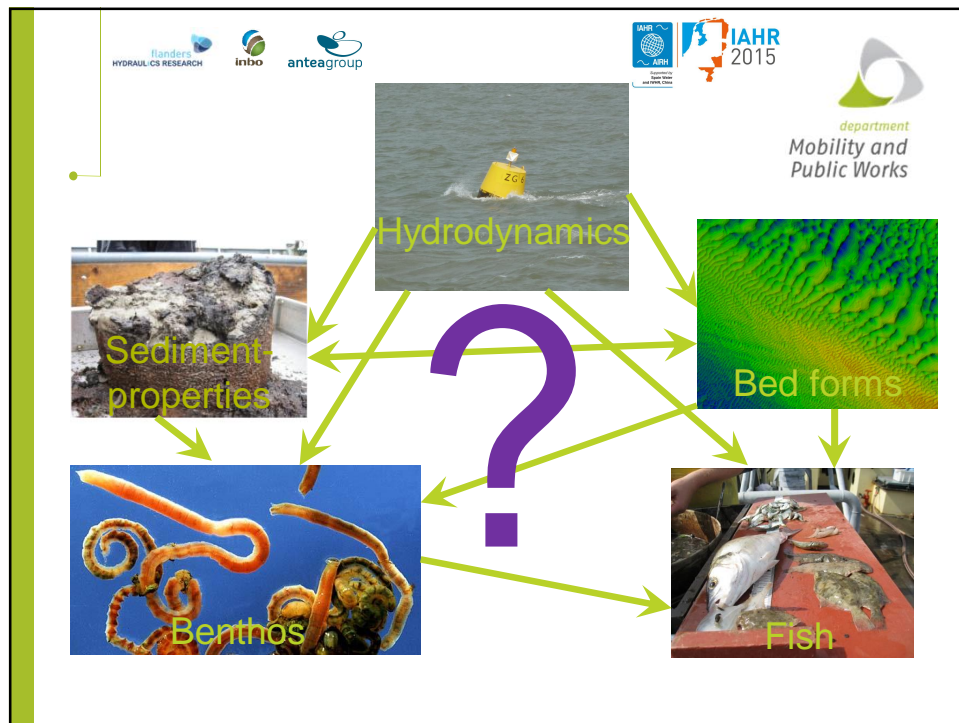




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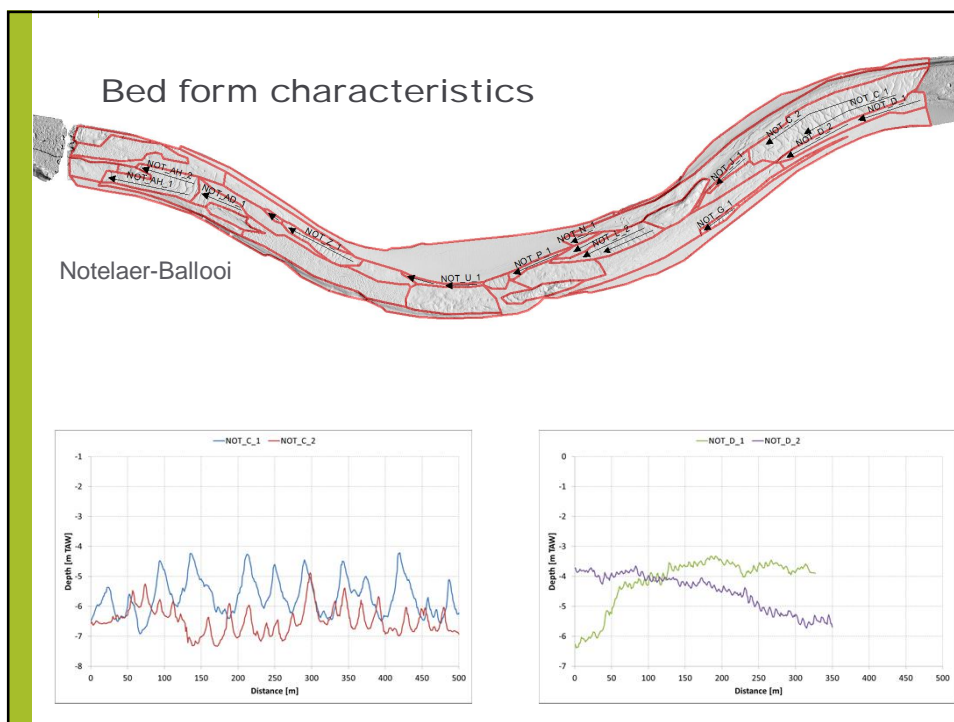
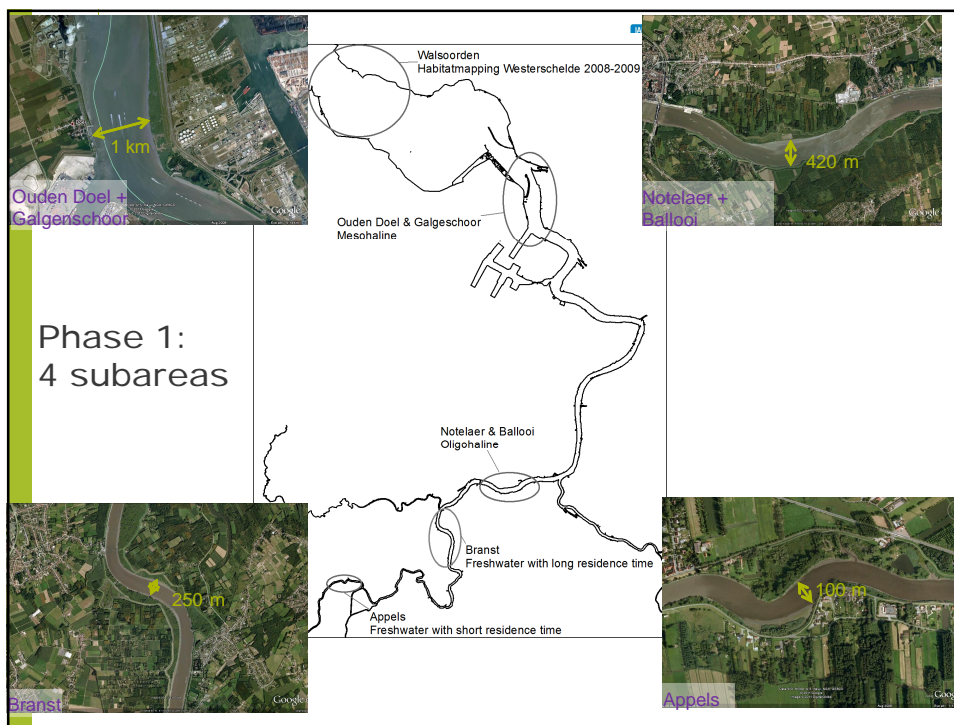
Research questions

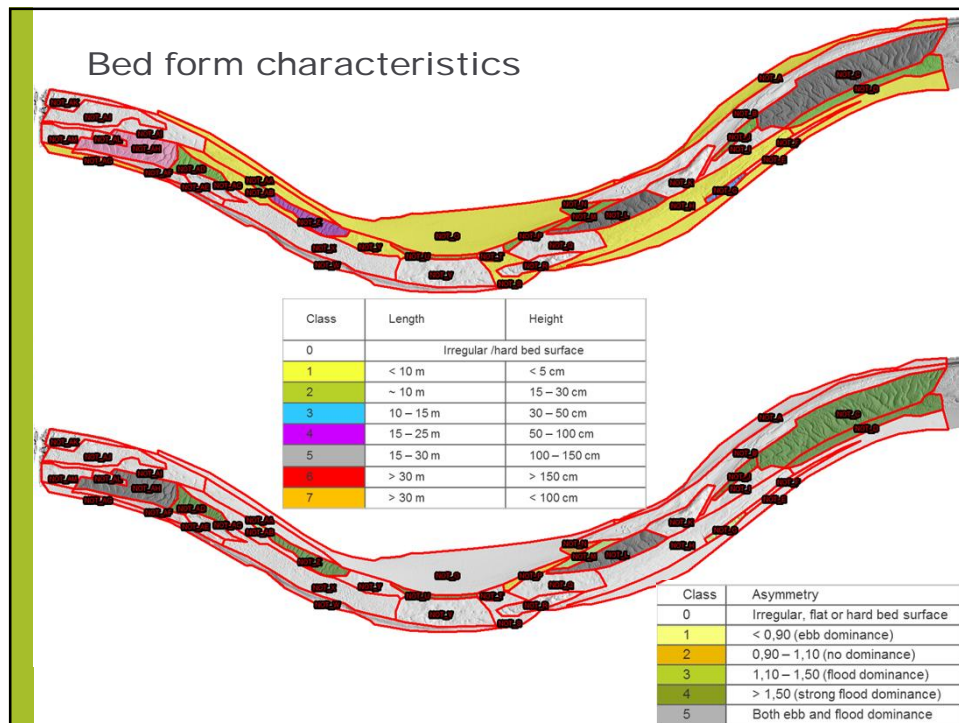
- LTV Schelde estuary: low dynamic intertidal and shallow water areas = high ecological value
- Relationships between physical, sedimentological and ecological characteristics in the Zeeschelde
- Goal = ecological classification of the subtidal shallow water area
- 2 phases:
 - Detailed analysis of 5 subareas (1 per salinity zone)
 - Expansion to total Zeeschelde



Research Strategy

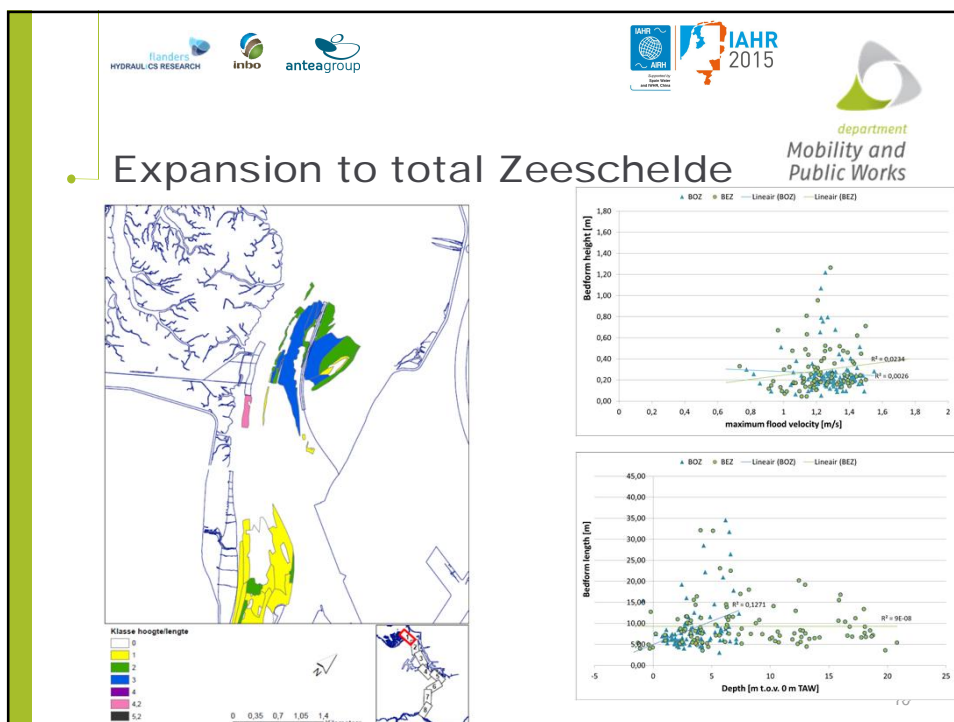
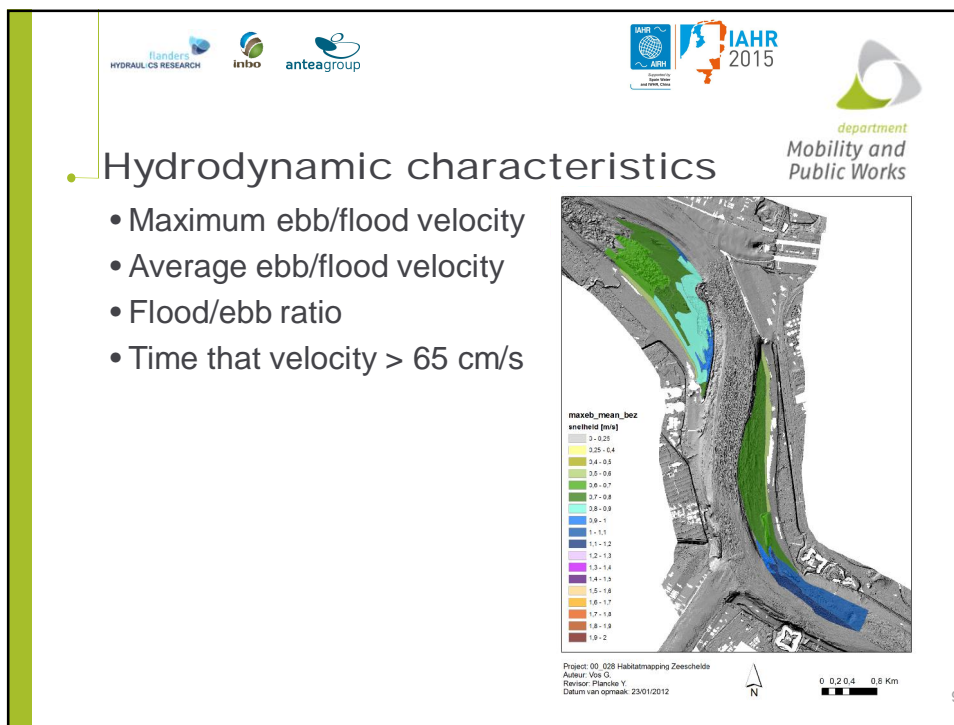
- Analysis topo-bathymetric data → bed forms
- Hydrodynamic characteristics
- Characteristics sediment transport
- Find relationships bed forms – hydrodynamics – sed. transport
=> FYSIOTOPES
- Determine sediment characteristics
- Determine macrobenthos / shrimp and fish occurrence
- Research relationships bedforms – hydrodynamics – sediment – benthos – fish
=> ECOTOPES





Hydrodynamics

- Refinement (3x3) of NEVLA (D3D)-model with downstream boundary at Walsoorden
- Cell size ca. 30 m



Conclusions

- Bedforms:
 - **Broad scala of bedform sizes, but overall smaller bedforms than in the Westerschelde**
 - **Mostly flood dominated**
- Hydrodynamics:
 - **Peak and mean velocity proportional to depth**
 - **Alternating flood and ebb dominance**
- No clear relationship bed forms – hydrodynamics
- Ongoing research: link abiotic parameters - ecology

Questions?



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