

COASTAL SEAS UNDER PRESSURE

NEAR-SHORE IMPACTS



Morpho-dynamics: Coastal-, shelf- and offshore interaction

SAFETY OF SEAWAYS AND COASTAL POPULATION AT RISK

Coastal zones are subject to a wide range of often conflicting uses such as sea transportation, exploitation of living and non-living resources or the protection of specific marine areas.

Climate change in the coastal zone will result in an increase in frequency and intensity of storm events and surge heights imposing a threat to human lives and economic growth.

RESEARCH NEEDS

- ▶ to understand near-shore sediment budgets on variable time scales in order to better assess future coastal evolution
- ▶ to analyze controls such as changing currents, wind and sea-level rise
- ▶ to investigate and mitigate disturbance of coastal and off-shore infrastructure and sea transportation routes



Need for adaptation of human activities

Expected change of surge heights in a business-as-usual scenario of CO₂-emissions

