Average sea Levels:
Now versus the (near?) future.
Possible projections, a lot of uncertainty

[Graph showing possible projections for sea-level rise with a lot of uncertainty, including data for RCP8.5 and RCP4.5, and measured data.]

Paul V. heinrich - CC BY 3.0, https://commons.wikimedia.org/w/index.php?curid=3706282
Coastal erosion mitigation
Current strategy

Feed the most active part of the coast with sediments.

These sediments mitigate local erosion and are allowed to spread so that the whole coast can grow with sea level.
Bring sand from offshore
Deeper than closure depth
Bring sand from offshore
Deeper than closure depth
Bring sand from offshore
Deeper than closure depth
Spatial Planning

Beleidsnota Noordzee
2016-2021
Current insight between 1B and 1.5B m³ sand available and reserved for long term use:

- Coastal Maintenance
- Building Infrastructure

- No real competition between Sand Extraction and Windfarms (no overlap)
- Land cables are, if possible, planned such that competition with Sand Extraction is low
Is there enough sand?

• Certainly for the coming decades
• Long term future depending on:
  – Sea Level Rise
  – Possible changes in wave climates (average and extreme)
  – Societal demands and resulting coastal policy
  – Spatial planning of the North Sea
  – etc.
Spatial Planning

• Larger reservation area’s needed?
• Deeper extraction?
• Interaction with other functions?
While I have your attention:

We need gradual plans, we do not need large scale infraplan plans like:
Examples of questions for the national government are:

- What are possible cumulative effects of all current and future activities in the North Sea?

- How do we minimize negative effects of use of the North Sea?

- How do we make sure enough sediments remains (economically) available for coastal maintenance and infrastructure development on land?

Part of our NCK tasks is to make sure the most up to date scientific insights are available when policy decisions are made.
Quote for today

“Whether it today becomes red or blue, may some integrated NCK North Sea Research come through”
Contact information

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