



Rijkswaterstaat
Ministerie van Verkeer en Waterstaat

Assessing Climate Change in Infrastructure Projects

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Rijkswaterstaat
Centre for Transport and Navigation



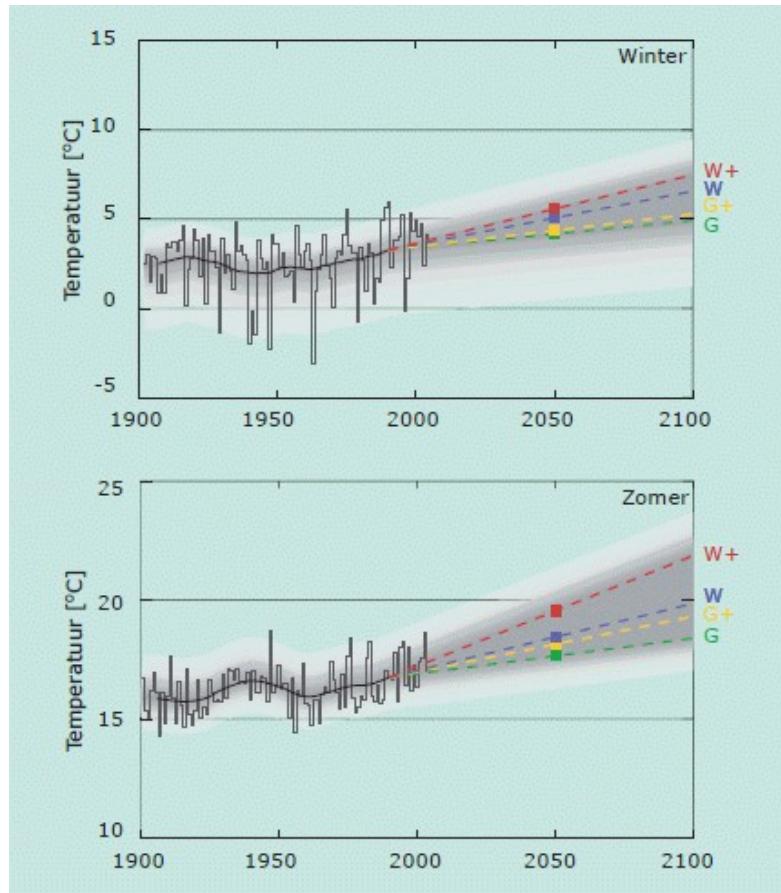


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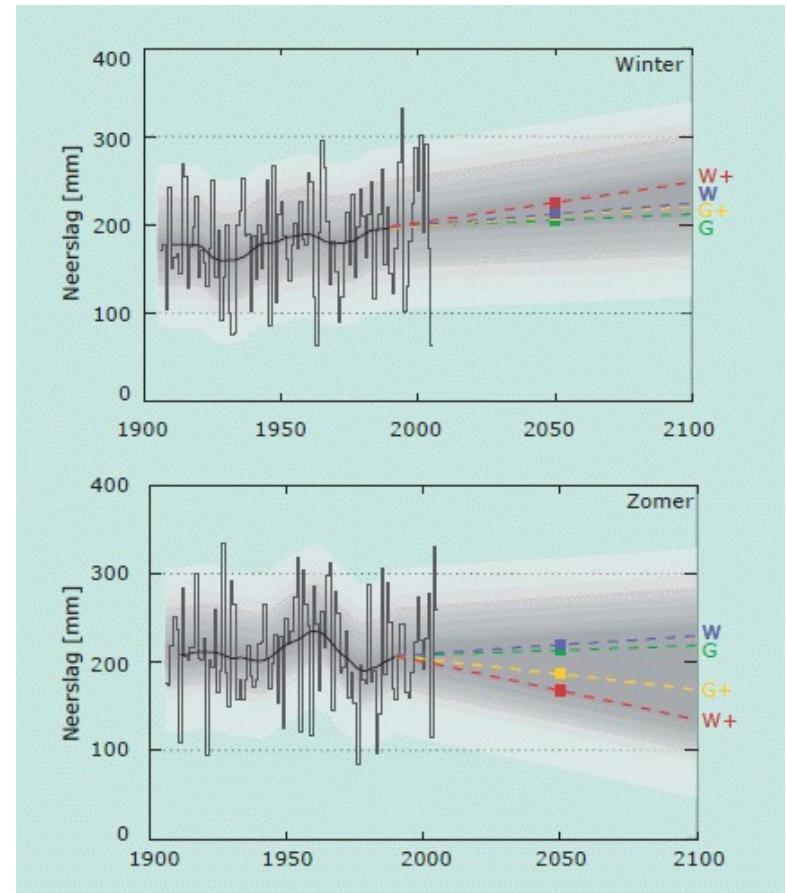
- What
- How
- When



Climate change ...



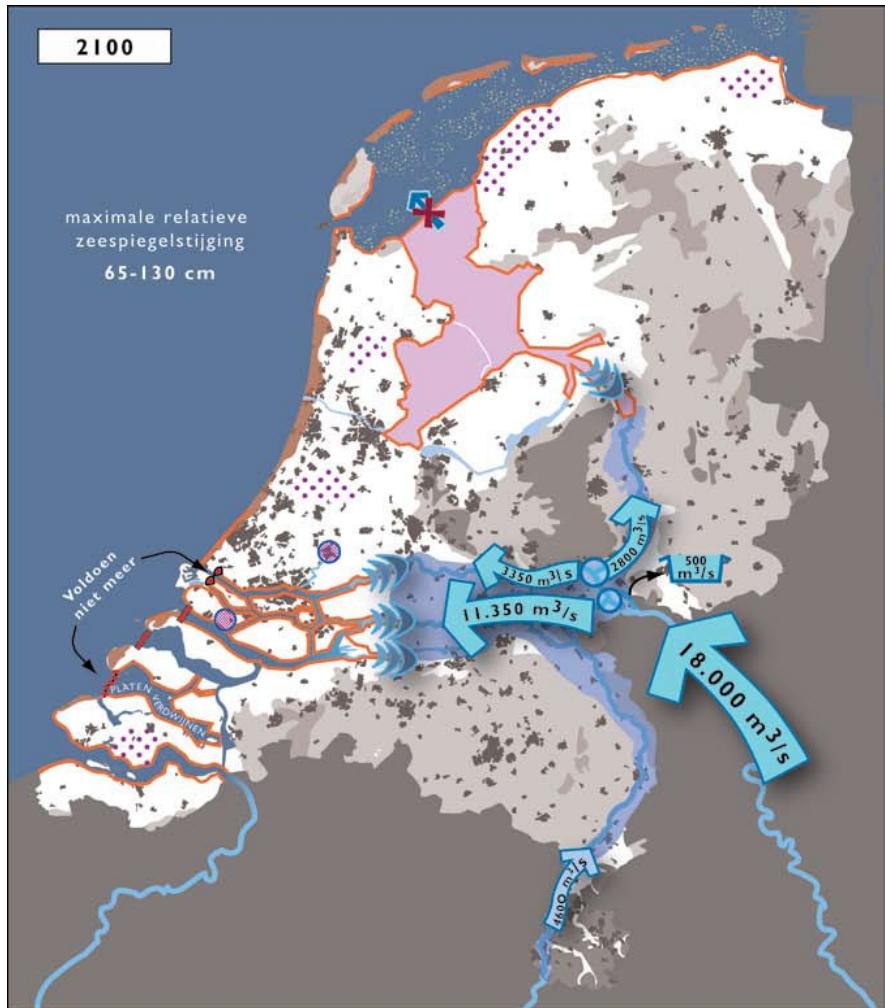
Temperature



Precipitation

...effects ...

Sea levels
River levels
Ground water
Salt / sweet water



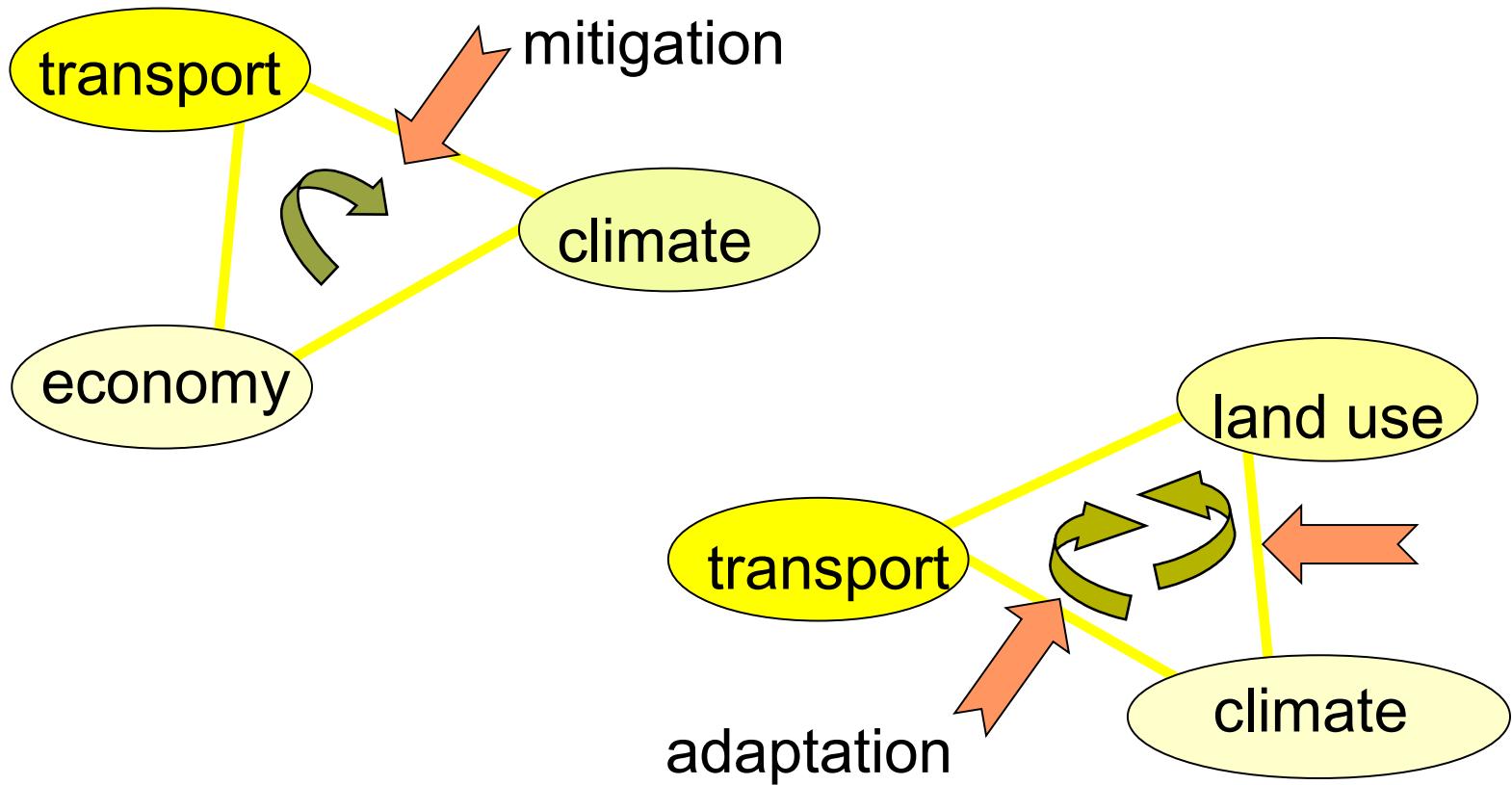


.. on transport infrastructure

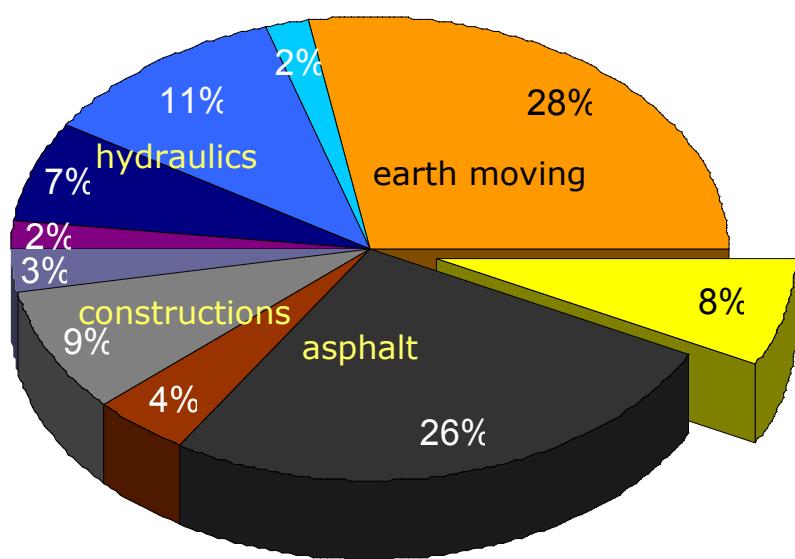
Temperature
Extreme rain
Drought
Flooding
Variable water levels



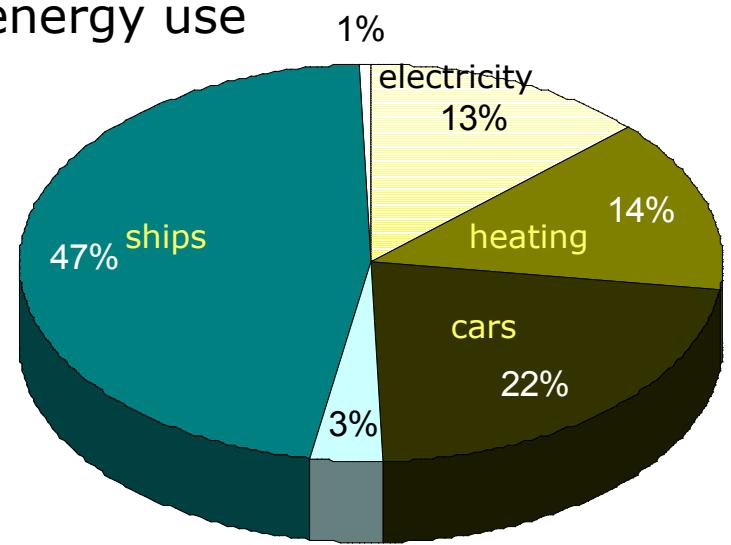
... and vice versa



Data - emissies DWWC

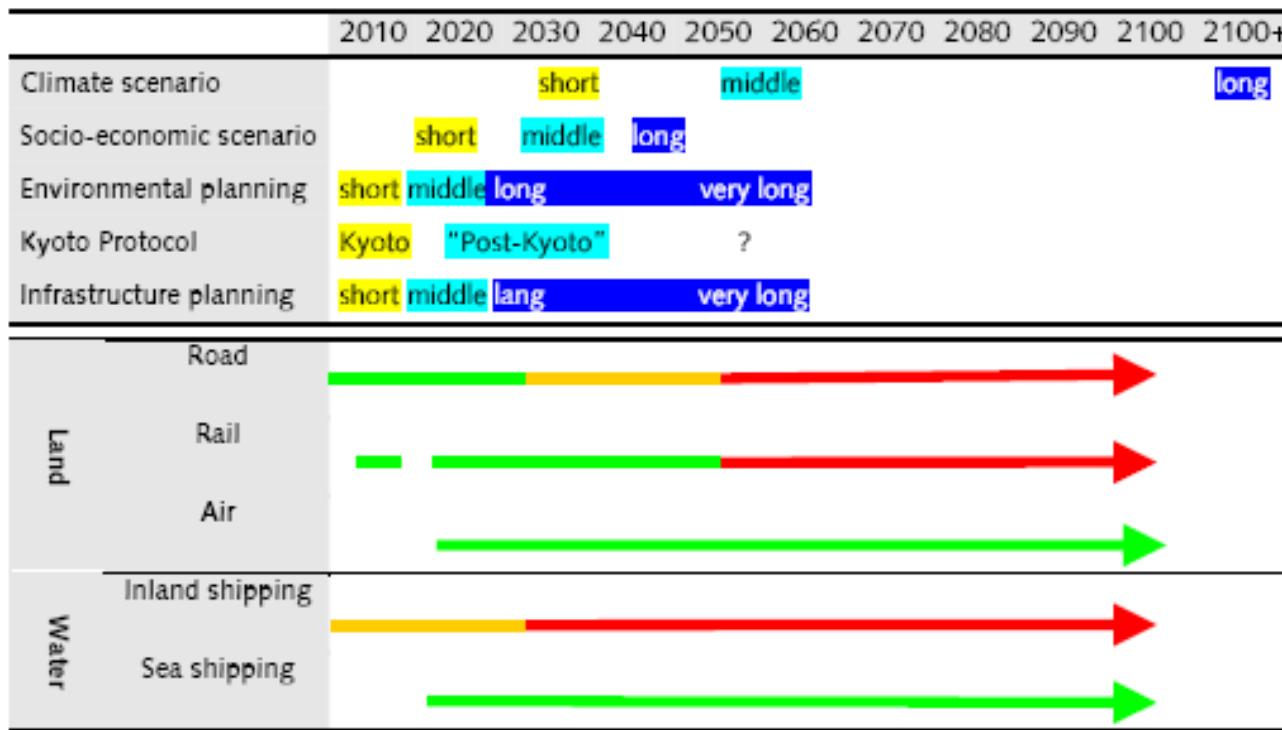
Rijkswaterstaat CO₂ uitstootCO₂ emissionsCO₂ uitstoot energie

energy use





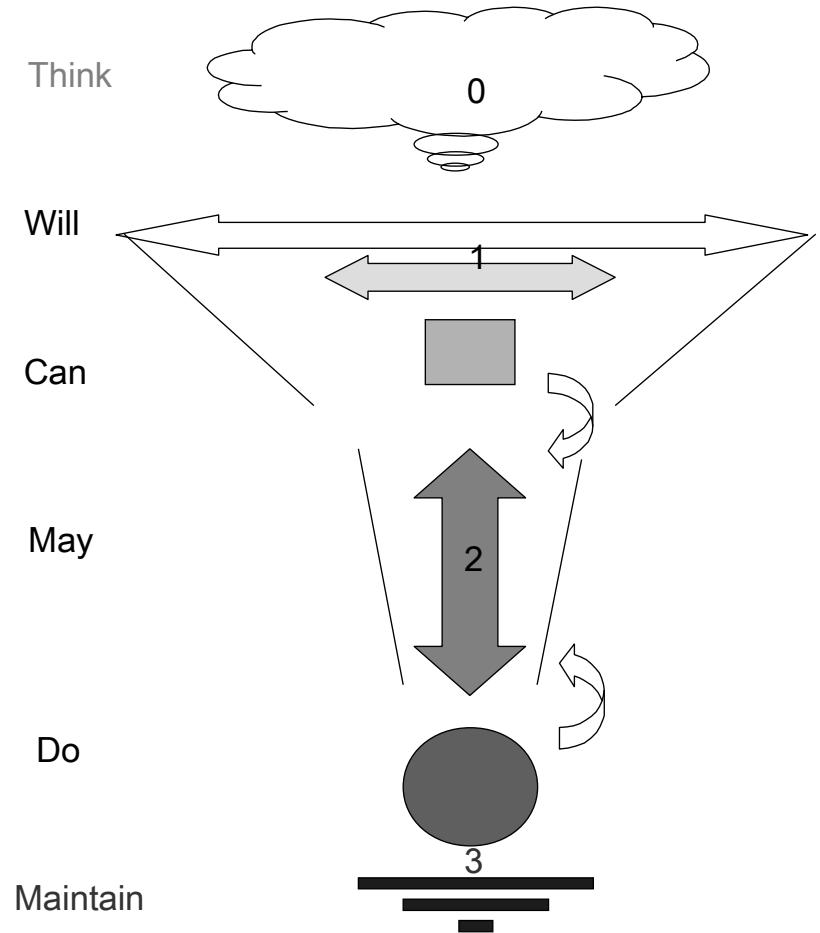
Data: Adaptation Timing





Assessment

Focusing and Streamlining





Assessment 0 - Policy

Water system

Delta Programme

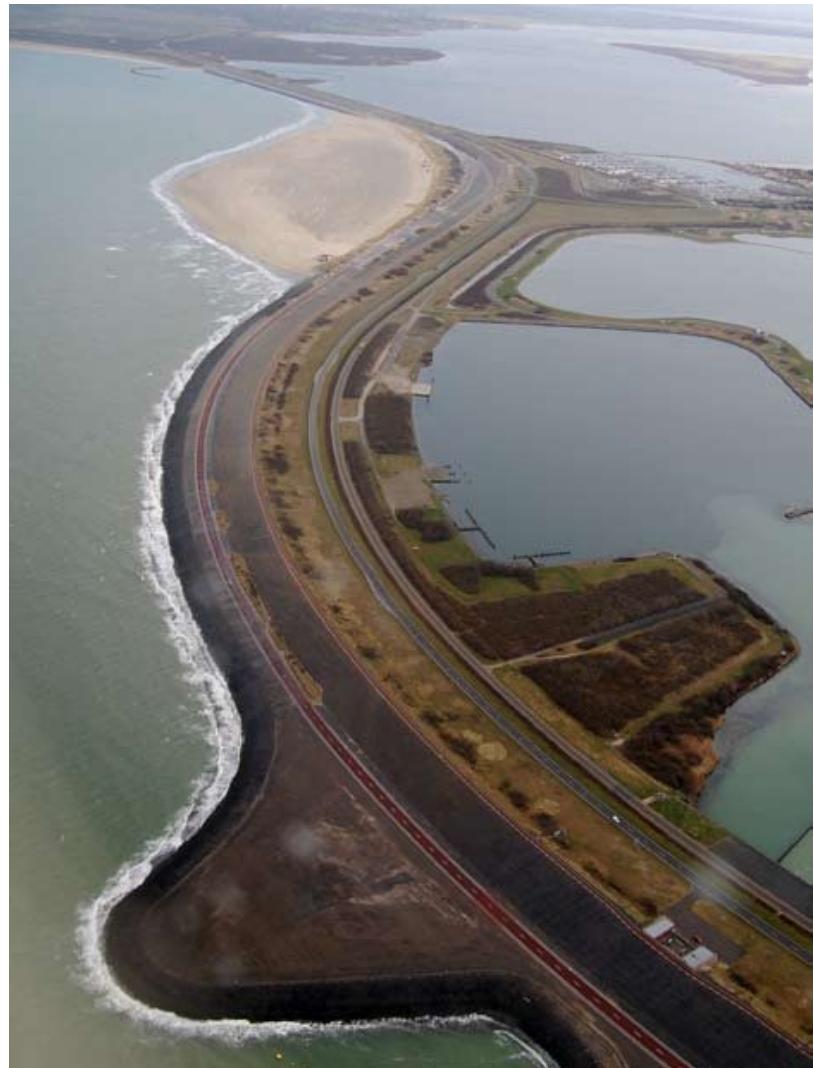




Assessment 1 - SEA

Adaptation

- Risk assessment
- Many unknowns





Assessment 2 - EIA

Mitigation

- CO₂-emissions
- Energy use
- Materials
- Life cycle analysis





Assessment 3 – Monitoring & Follow up

Realisation

Adaptation

- Design parameters

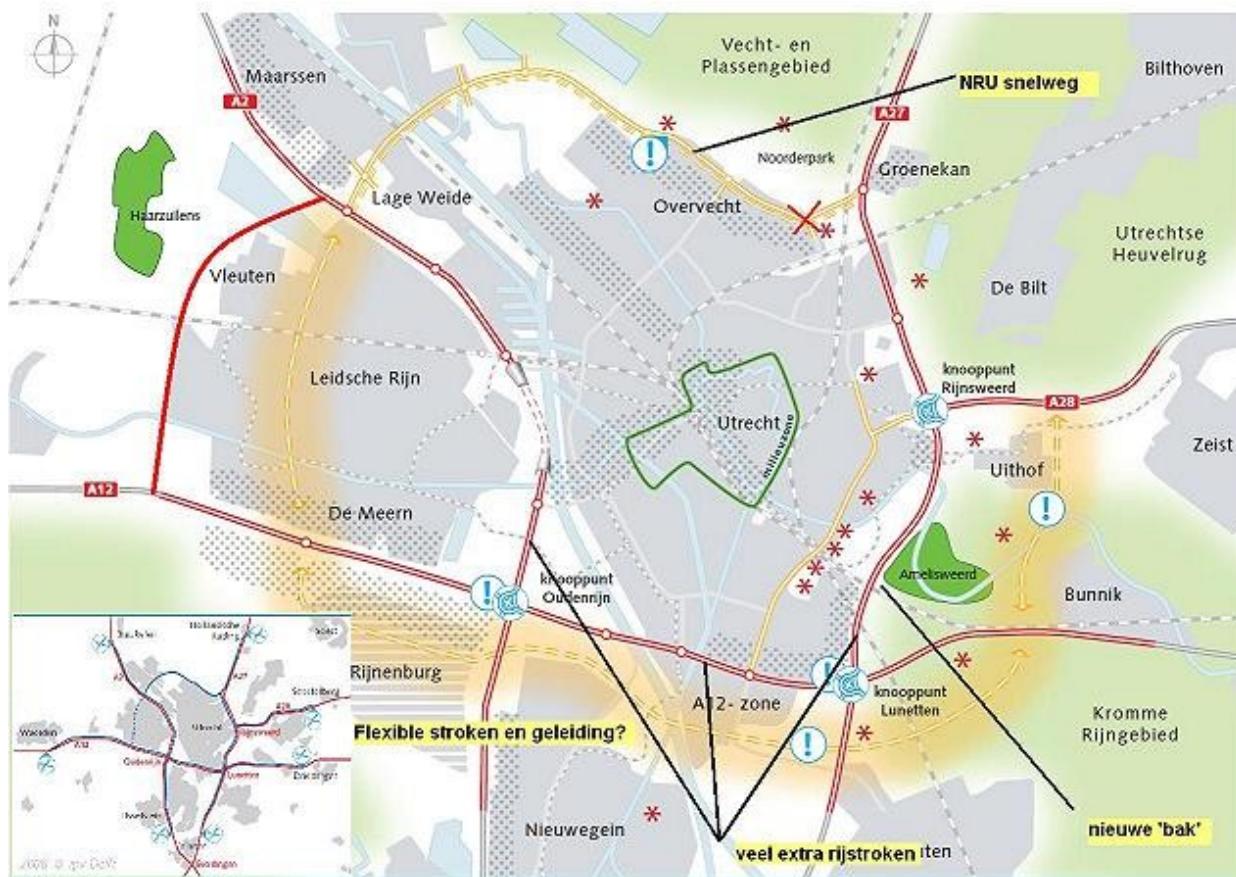
Mitigation

- Green procurement



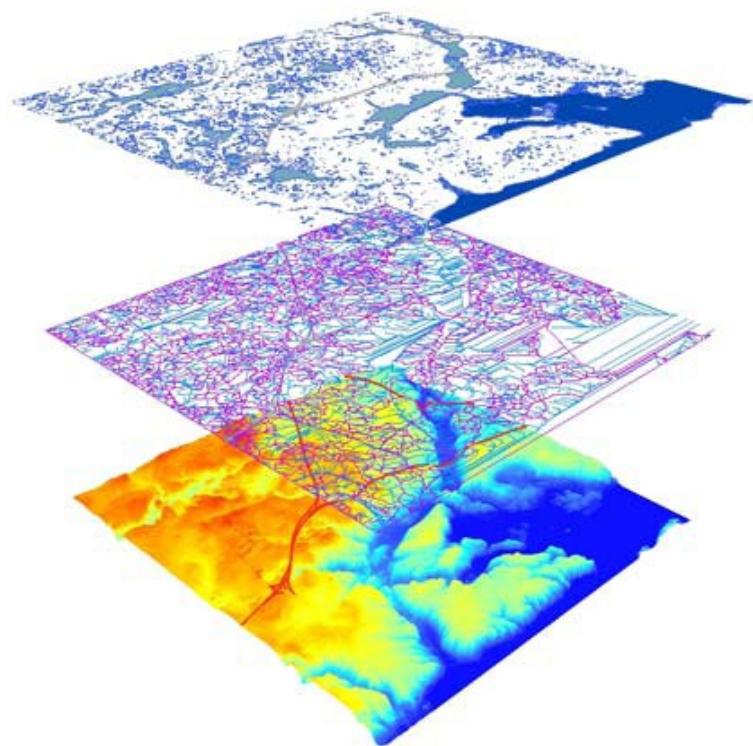


Pilot study – learning by doing





Knowledge development



roadERA.net

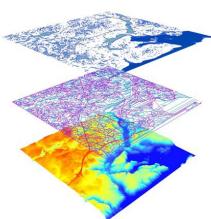




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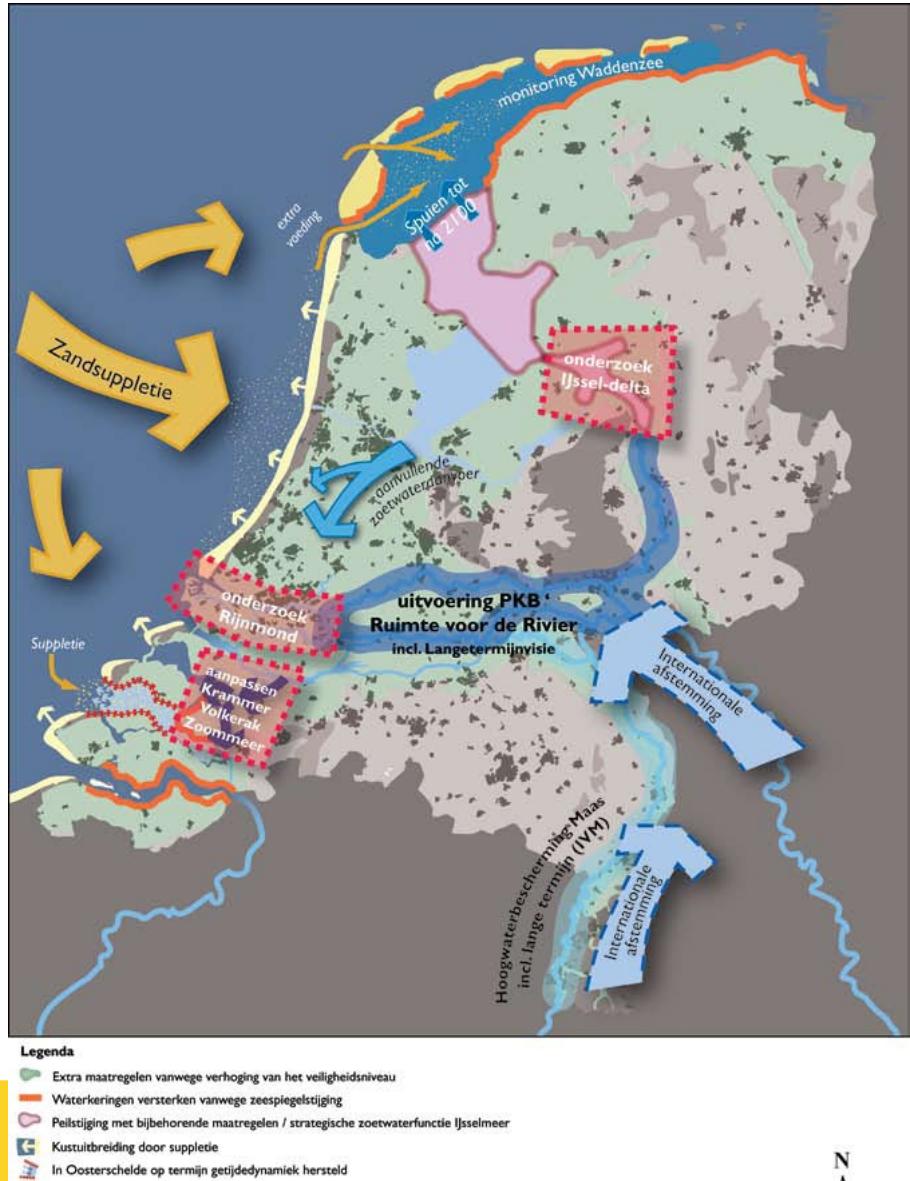
Knowledge development

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Issues

- Risk management
- Tailoring & downsizing:
 - effect atlas
 - risks
 - project relations
- Methodology
 - adaptation
 - mitigation





Questions?

