

Introduction to The Sand Motor



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Sand Motor in short

- 20 Million m³ sand
- Dimension (1-5 km)

Photo courtesy of
Rijkswaterstaat
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Why the Sand Motor ?

Pilot project to explore new sandy strategies for coastal maintenance.

- Long term coastal safety
- Recreation
- Nature
- Knowledge development

What is expected from the sand motor?

- Mega *feeder*-nourishment
- 20 million m³ of sand spreads in 20 years
- 33 ha of extra dune area
- ...



Research at the Sand Motor

- Interdisciplinary research effort
 - NEMO (3 PhD and 3 Postdoc)
 - Naturecoast (12 PhD and 3 Postdoc)
 - EFRO (monitoring)





2011



2012



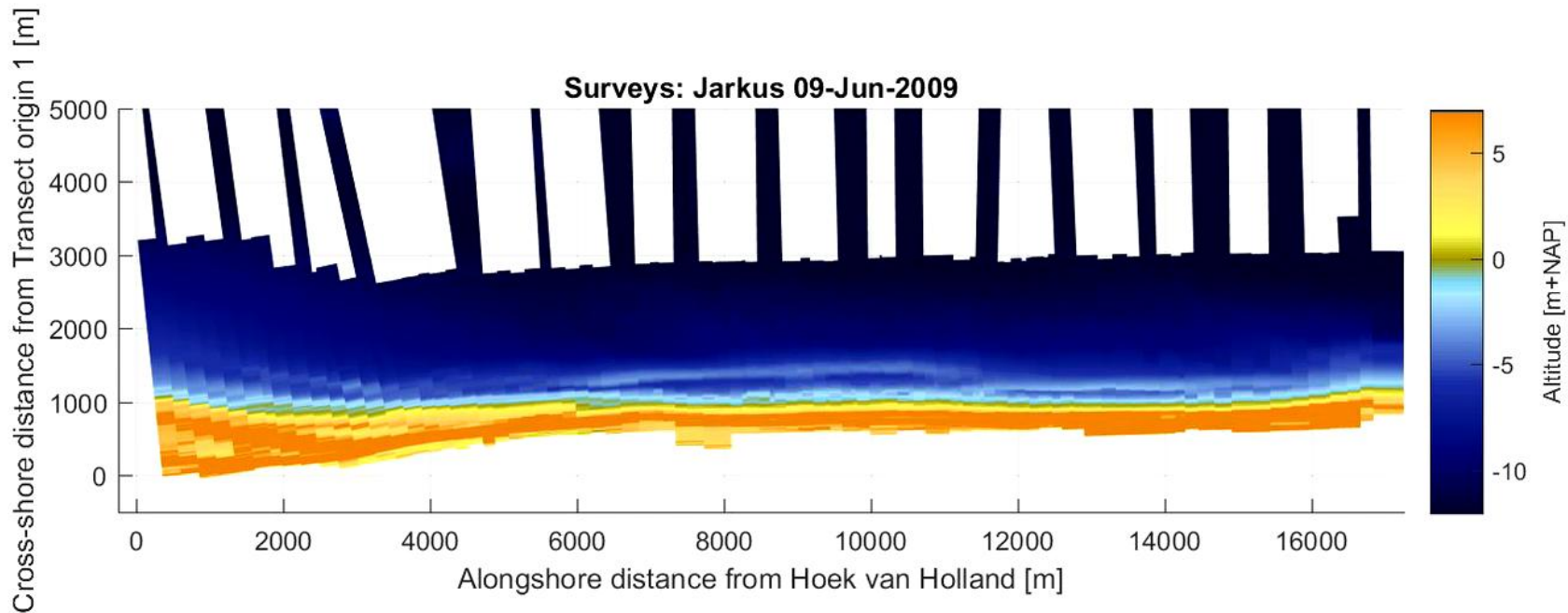
2013



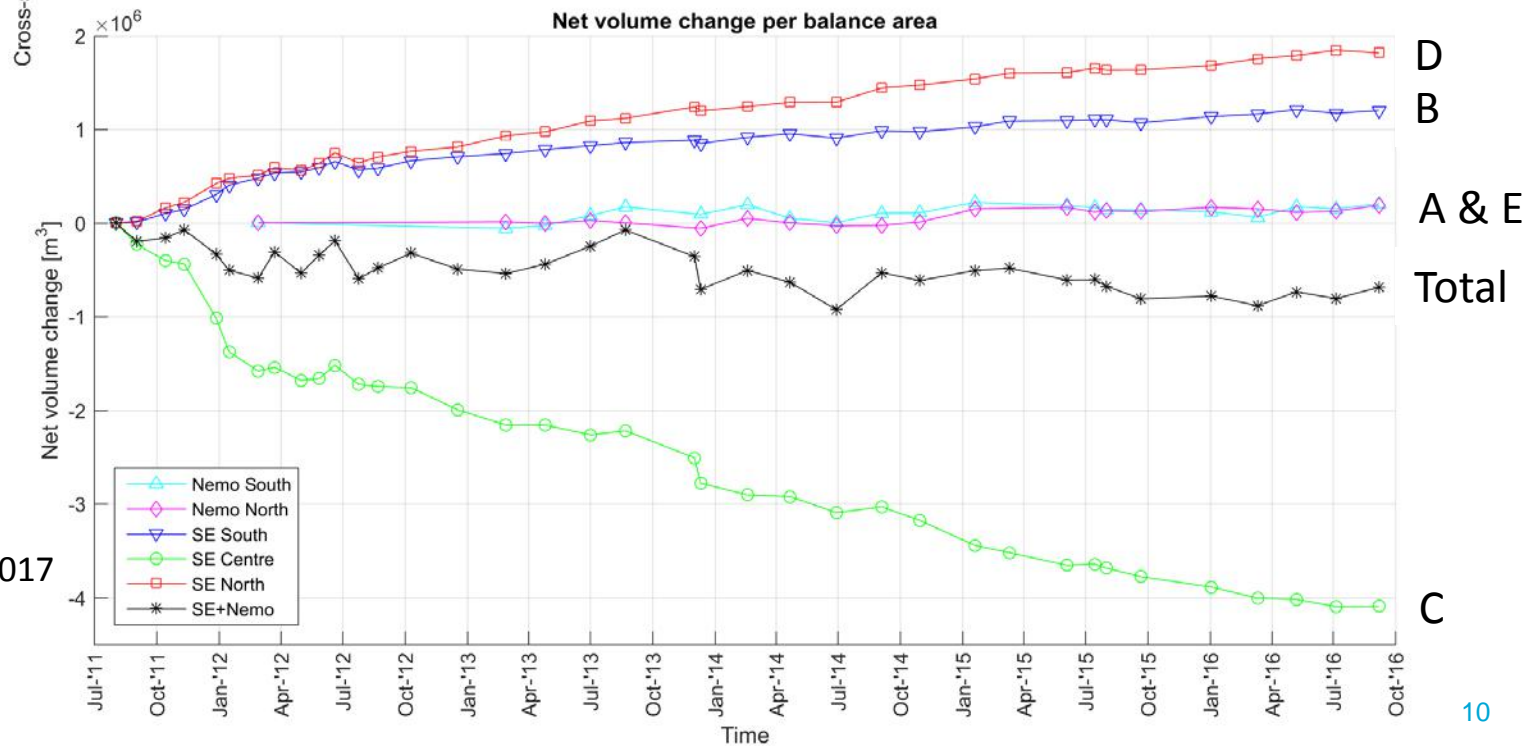
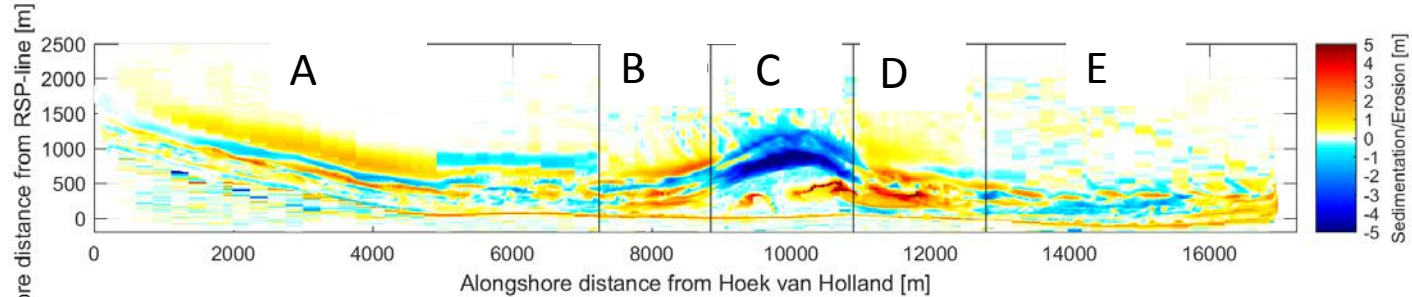
2016

Sediment spreading in the Delfland coastal cell





Courtesy of Bart Roest 2017



Courtesy of Bart Roest 2017



First appraisal of the Sand Engine

- Spreading of sediment occurs
 - Alongshore spreading 5.8 km (initial 2.5 km)
 - Lifetime is probably longer than 20 years
- *The sand engine works well...*