



Netherlands Enterprise Agency

Roadmap towards  
4,500 MW  
offshore wind power

# Wind Farm Zone Borssele

Ruud de Bruijne

Workshop 5 April 2016



## Latest deliverables BWFZ

- Geotechnical site investigations
  - All sites: Technical Note use of cyclic test data in sandy soils (published 05 April)
  - Mainly BWFS III and IV: report on thermal conductivity (desk study, lab tests and TenneT data)
  - BWFS III and IV: Final lab test report to be published 06 April (superseeds draft previously published)
- Archaeological analysis all found objects
- Metocean campaign continues untill Q3



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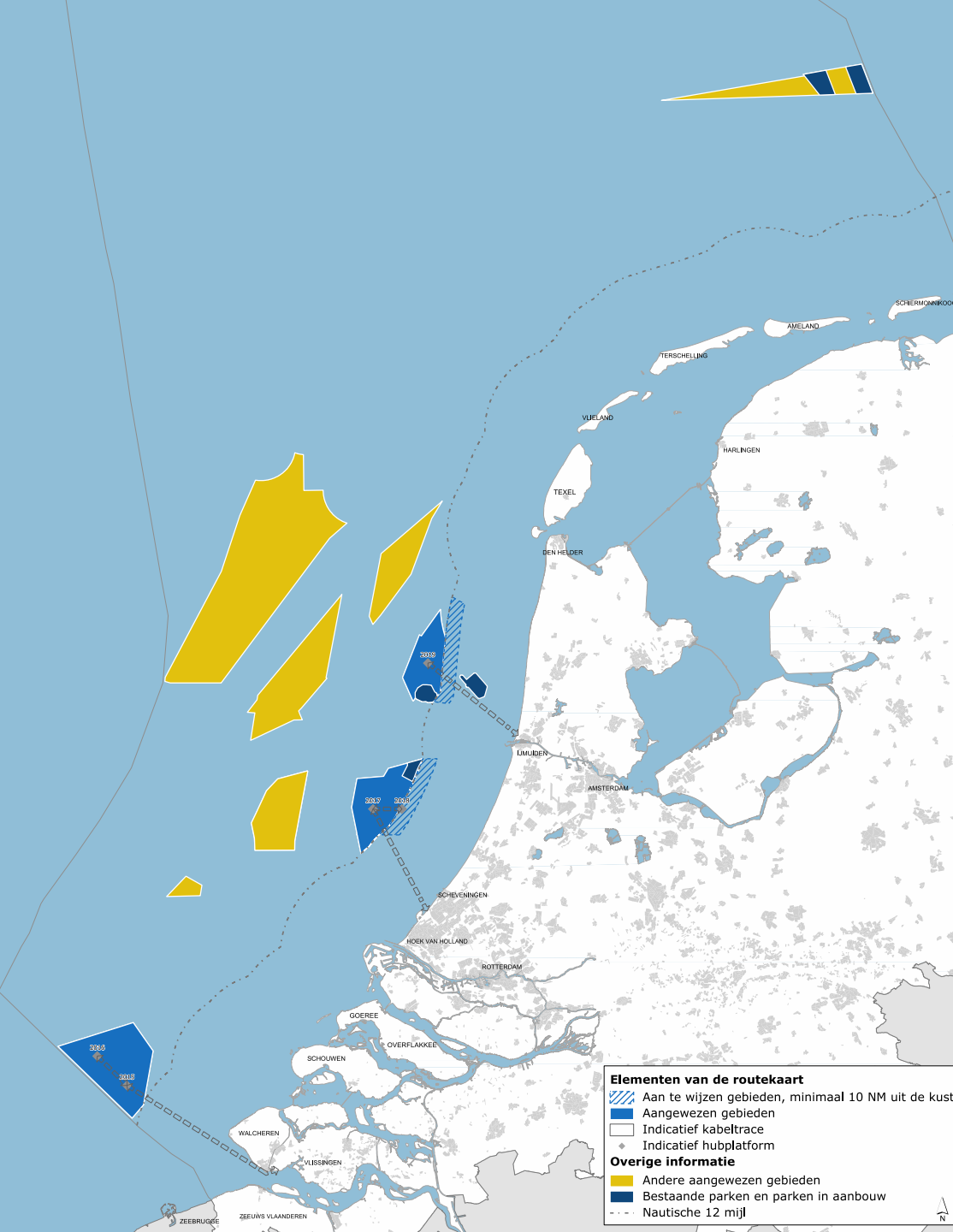
# Roadmap towards 4,500 MW offshore wind power

## Wind farm Zone Hollandse Kust (zuid)

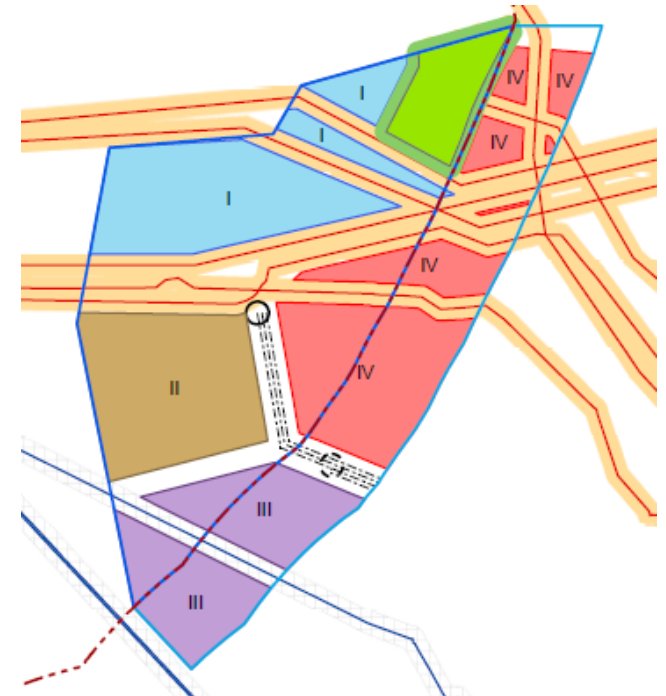
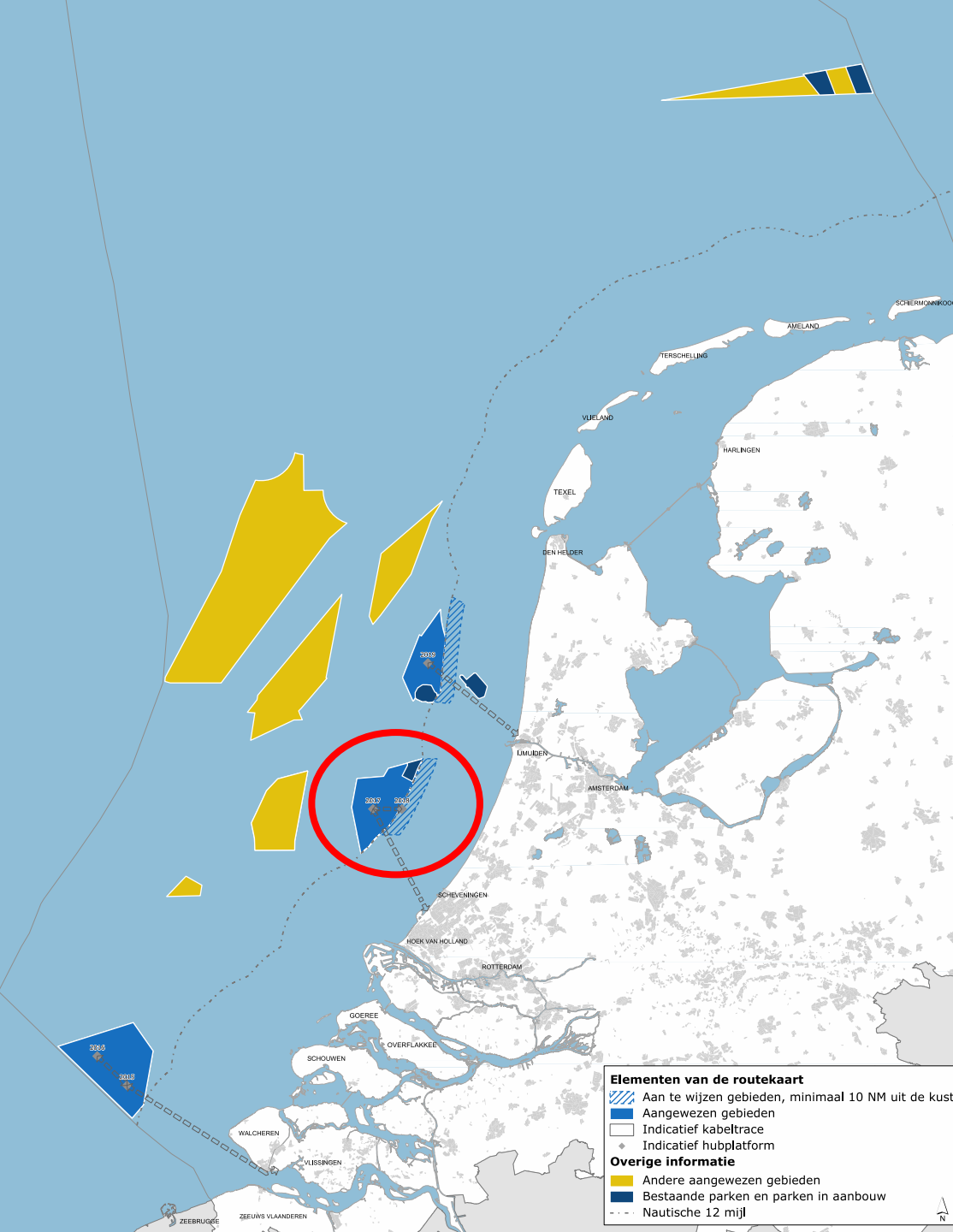
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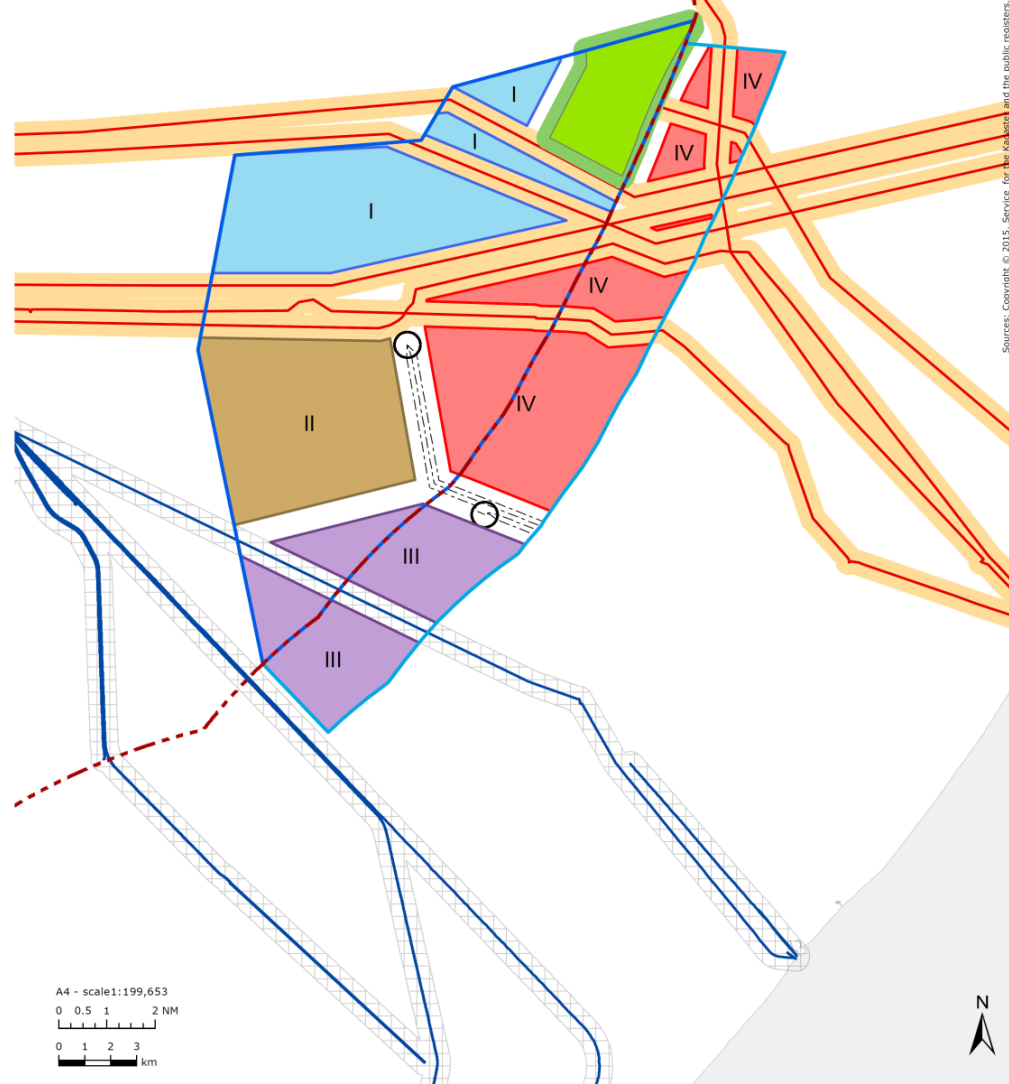
# Wind Farm Zones



# Wind Farm Zone Hollandse Kust (zuid)



# Hollandse Kust Zuid Wind Farm Zone



- Nautical 12 mile
- Designated windfarm zone
- Additional zone
- Wind farm sites**
  - I
  - II
  - III
  - IV
- Platform
- Wind farm Luchterduinen
- Wind farm safety zone
- Export cable
- Cables
- Pipelines
- Pipeline maintenance zone (500m)
- Cable maintenance zone (500m)



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This geographical information is based on the data available on December 2nd 2015.  
Updates will be made available on [www.rvo.nl](http://www.rvo.nl)

Consultant:  
date: 2015-12-02 mapnr: 20151202RH

Sources: Copyright © 2015. Service for the Register and the public registers, Apeldoorn  
Geometrische Bijkanteling en/of Registratie, Apeldoorn, NL. The contents are not distributed from this

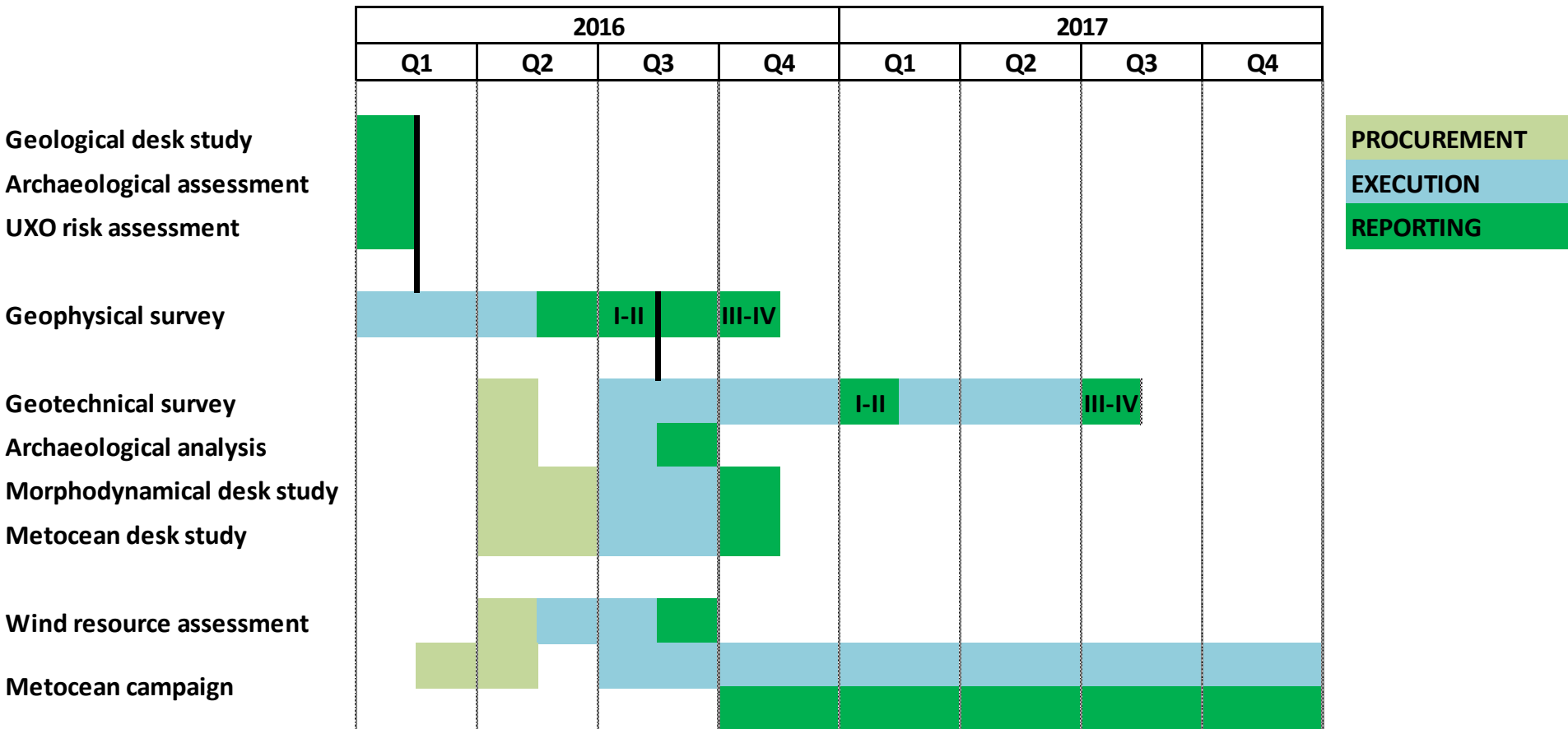


## Site investigations - team

- Project management & communications:  
RVO.nl with support of
  - BLIX (project management)
  - Cultural Heritage Agency (archaeology)
  - Reynolds (geophysical expert)
  - Windsupport (geotechnical expert)
  - RPS Energy and PeriPlus (geophysical and geotechnical experts; client REP's)
  - Carbon Trust; ECN; DNV GL; Ecofys (floating Lidar experts)
  - DNV GL (SoC's)



# Site Investigations - planning







## Site investigations – SoW's (compared to BWFZ)

- Geological desk study:  
Focus: SoW for geophysical survey
- Archaeological desk study:  
+ post survey analysis to identify archaeological objects
- UXO risk assessment:  
No changes



## Site investigations – SoW's (compared to BWFZ)

- Geophysical survey  
Whole WFZ, dedicated seismic SoW / methods
- Geotechnical survey  
+ Thermal conductivity
- Morphodynamical desk study  
Post survey (using recent bathymetry)



## Site investigations – SoW's (compared to BWFZ)

- Metocean desk study  
Database instead of 4 reference points; more details (waves and swell) and spatial resolution
- Wind resource assessment  
Aligned to metocean desk study
- Metocean campaign  
Two buoys to create redundancy; contract focussed on availability

All info on website  
offshorewind.rvo.nl

Including:

- revision log
- Q&A log

woz@rvo.nl





## Next steps

- Designation 10-12 NM: publication around summer 2016
- Publication of draft Wind farm Site Decisions I and II: around summer 2016
- PSD HKZ I-II (version 1) directly after publication of WFSD I and II
- Site investigations WFS I and II finished Q1 2017
- Subsidy and permit tender sites I and II: Q3 2017.



**FUGRO**

**FUGRO PIONEER**