



Innovation Site Borssele  
*-duopresentation TKI /RVO-*

Bob Meijer  
5 April 2016

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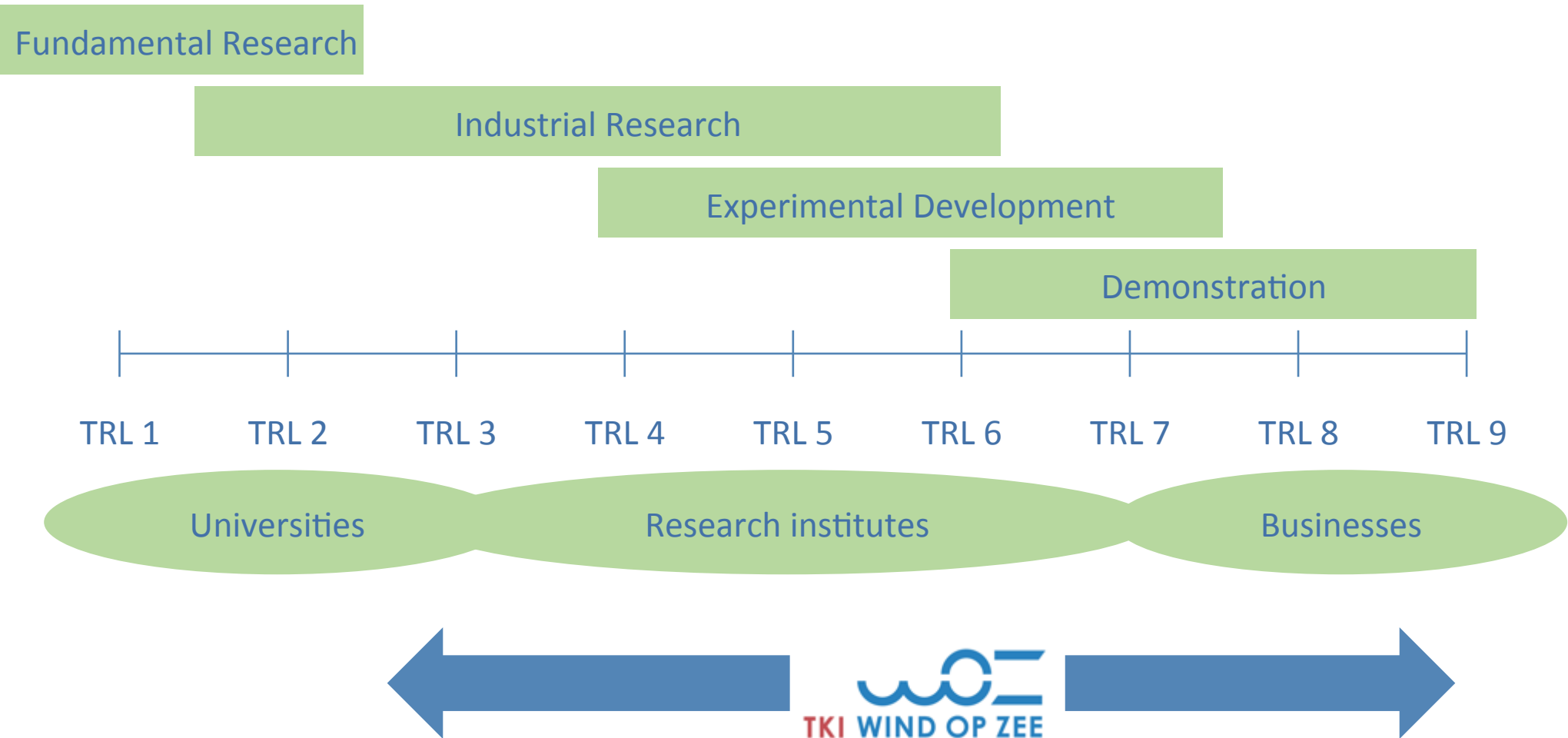
Ministerie van Economische Zaken

# Innovation Site Borssele

April 5th, 2016

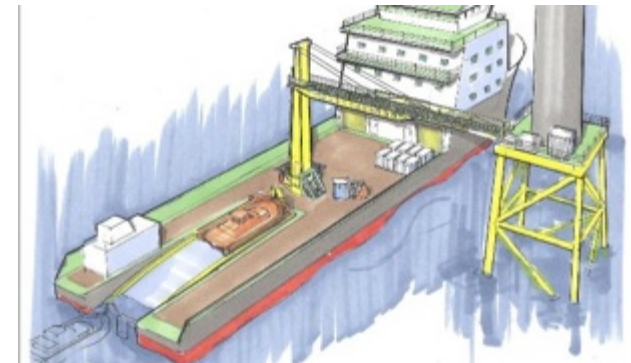
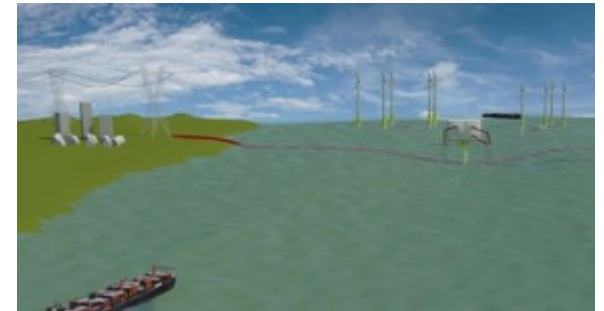
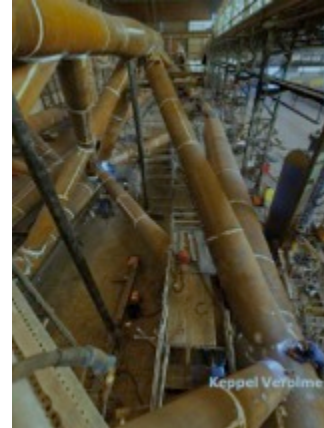
André de Boer  
Netherlands Enterprise Agency

# R&D and innovation landscape



# Research & Innovation areas

1. Offshore Foundation technology
2. Wind turbines and wind farm optimisation
3. Electrical network and grid connection
4. Transport, Installation and Logistics
5. Operations and Maintenance



# Cost reduction options

## Cost Reduction (areas and examples)

### Technology

R&D and Innovation Programme  
5 R&D Program lines  
TRL from 2 to 8

### Supply Chain

Economies of Scale & Learning by doing  
Increased competition and Vertical Integration  
Contract structures

### Financing

Risk / Cost of Capital  
Financing structures  
Insurance

### Policy

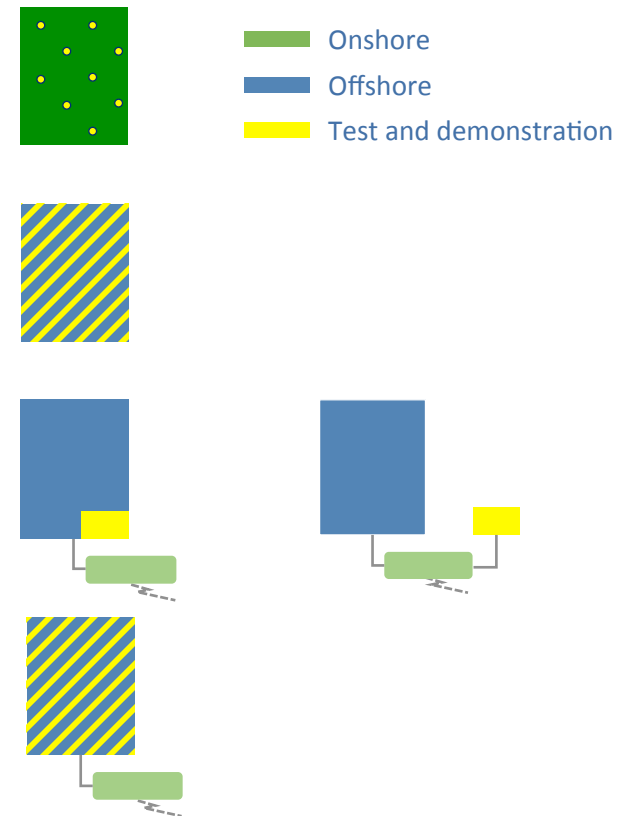
Permitting  
Financial support system  
R&D and Innovation policy

Demonstration

# Where to demonstrate?

## Test and demonstration facilities for various requirements

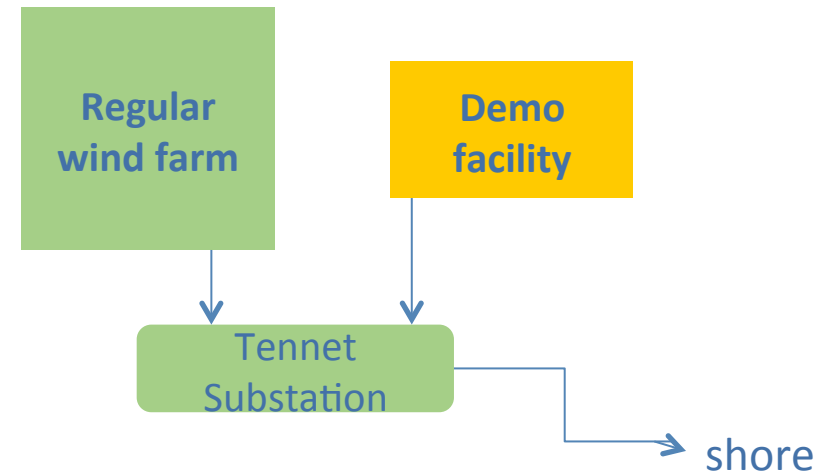
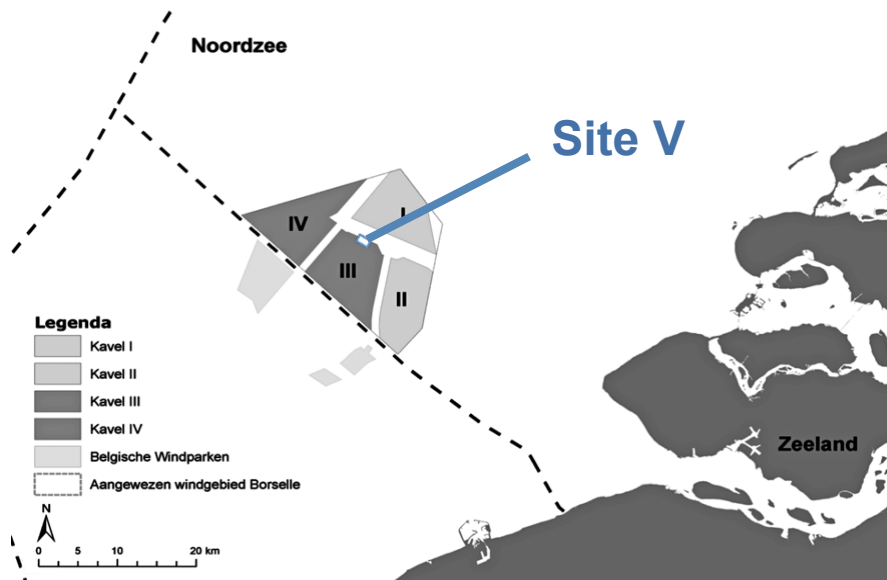
- Onshore
  - Research Facilities
  - Wind Turbine Test sites
- Offshore Off Grid
- Offshore Co-Location
  - Existing OWFs
  - Dedicated Site
- Offshore Embedded



# Co-location model

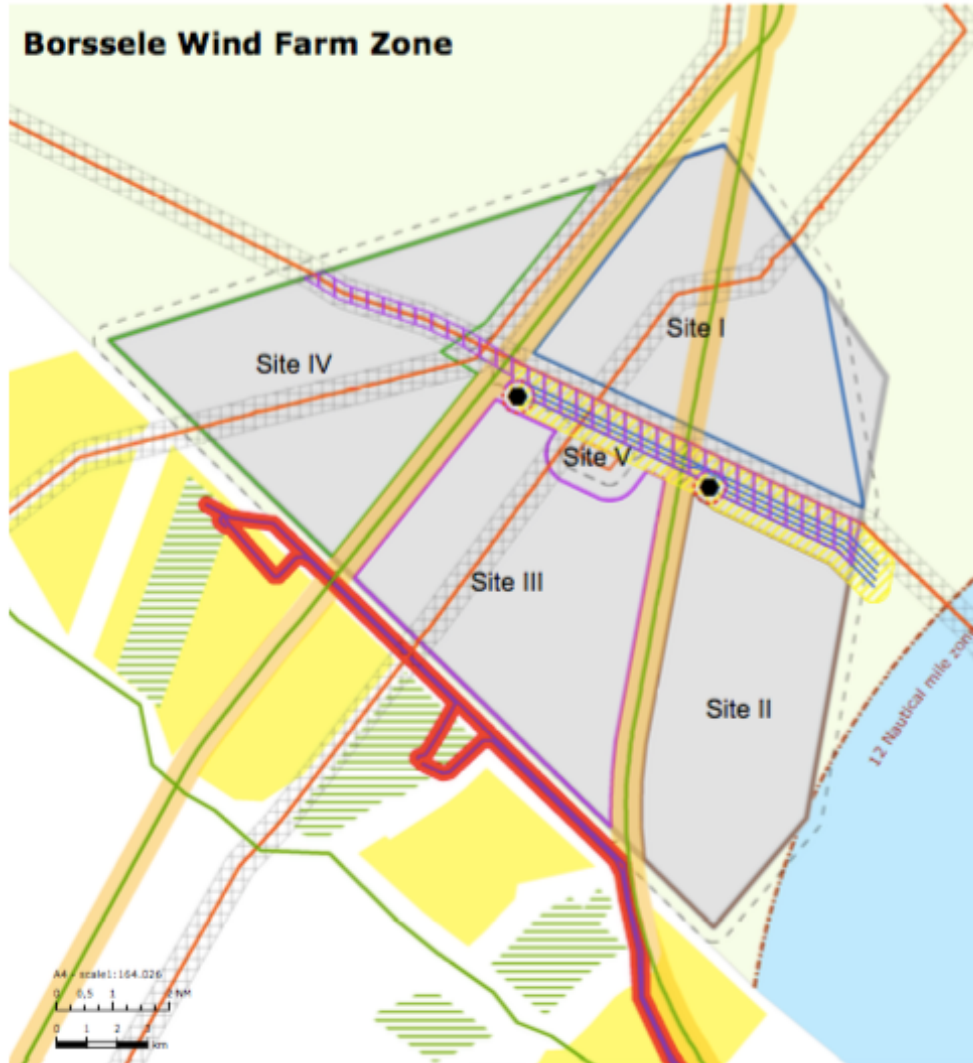
Site physically and contractually separated from regular wind farm: co-location model

No interference with regular wind farms



Connection to Tennet substation Beta, operational August 2020

# Innovation Site



Site V is located in the area that was investigated as site III

Further information:

[offshorewind.rvo.nl](http://offshorewind.rvo.nl)

- Site investigations
- EIA
- Project & Site Description (to be published)

Bureau Energieprojecten:

- Draft Site Decision





# Objectives

- Demonstrate new technologies at high TRL levels (TRL8)
- Enabling cost reduction
- Enhancing the market and export potential
- Increasing knowledge by combining demonstration and (small) R&D

By realisation of the Borssele Innovation Site (Site V) where can be tendered for the best innovation to be demonstrated



## Difference innovative tender and regular tenders wind energy

### **Innovation site**

- Beauty contest
- Right to operate + permits
- SDE+-subsidy
- Investment subsidy for innovation

### **Regular site**

- Lowest price wins
- Right to operate + permits
- SDE+ subsidy



## Who can apply?

(Consortia of) :

- Turbine- and/or foundation supplier(s)
- Utility/project developer(s)
- Complemented with other parties who want to demonstrate an innovation

TKI Offshore Wind facilitates building of consortias



## What are the tendercriteria (I)?

Tendercriteria are 'under construction':

- EZ/RVO/TKIWoZ come with proposal (early spring 2016)
- Market consultation (March 2016)
- (Re)defining criteria.
- Publication in Staatscourant / Government Gazette



## Criteria for tendering (I)

- (Higher) impact on cost reduction (LCOE)
- (Higher) contribution to Dutch economy
- (Higher) level of innovation and (higher) impact in increase of Dutch knowledge level
- (Higher) quality of the proposal



## Criteria for tendering (II)

NOT a criterium is:

- Requested SDE (in €/MWh). limits apply.
- Contribution to decreased ecological impact (hidden in criterium 'cost reduction')



## What happens parallel to this?

### Consortia building

- Important role of TKI WoZ (presentation Bob Meijer)
- Matchmaking starts second half 2016



## Timing and planning

- Innovation Site (Borssele #5) will be tendered after Borssele #3/#4
- Start of operation of Platform Beta: August 31<sup>st</sup> , 2020
- Assuming 27 months between financial close and additional 6 months between granting and financial close....
- Granting/decision of Innovation Tender not later than April30th, 2018
- Tender open: 10/2017, tender closure 1/2018





## Time schedule for Site 5

[illegible]

# Planning (under development)

Innovation Site (V) will be tendered after Borssele III & IV

Start of operation of Platform Beta: August 31<sup>st</sup>, 2020

Tender open: 10/2017, tender closure 1/2018



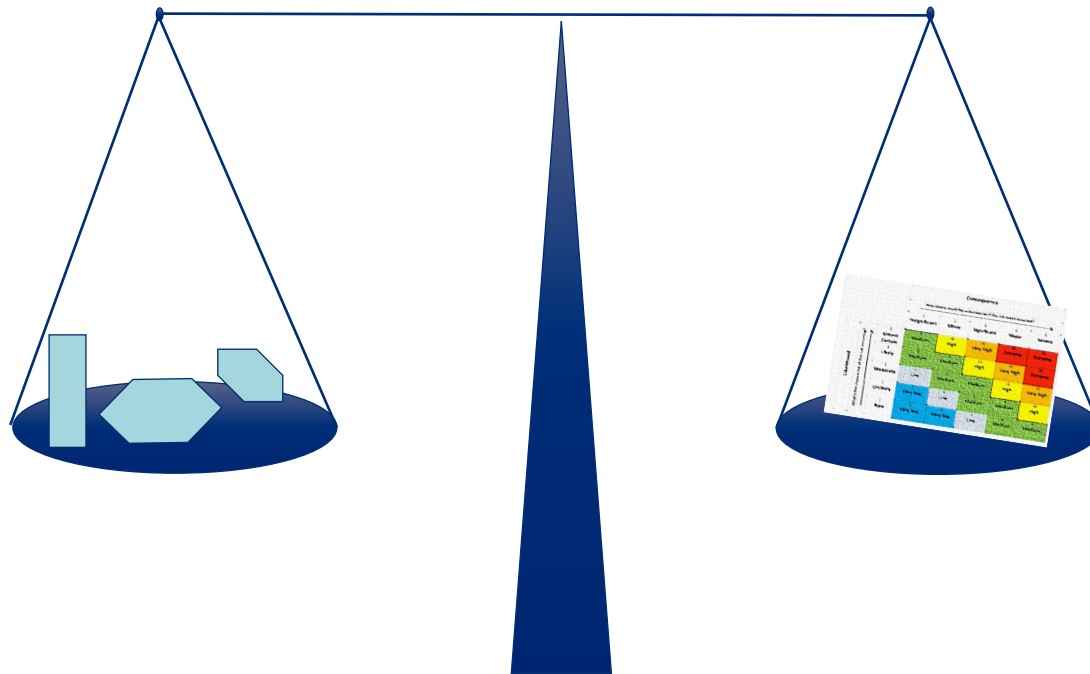
# Match Making programme

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- Facilitate consortium organisation
  - Technology
  - Engineering & Construction
  - Operations
- Expression of Interest procedure
  - Match making workshops
  - Facilitate SME contributions
  - Increase the innovative content (tender criteria)
  - Limit the risks
- R&D programme
  - Involve scientific contributions
  - Knowledge institutes and universities

# A winning team

Tender Criteria: innovation!



Tender Criteria: feasibility!

# Further Information

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- <http://offshorewind.rvo.nl>
- Draft version of tender regulation will be made available for comments by stakeholders
- Research reports (geological, ecological studies etc.)
- Project Site Description (PSD) will be published when all information is available
- Contact:

Email: [woz@rvo.nl](mailto:woz@rvo.nl) (general)

Email: [secretariaat@tki-windopzee.nl](mailto:secretariaat@tki-windopzee.nl) (match making)

Web: <http://offshorewind.rvo.nl/>... (FAQs about Innovation Site)