



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري
Arab Academy for Science, Technology & Maritime Transport

MRCC



International Maritime Transport and logistics Conference Toward Smart Ports



13-15 March 2016 Hilton Green Plaza – Alexandria - Egypt

**Sustainable extension Port of Rotterdam,
crucial impacts and choices
Prof. Rien van Zetten, The Netherlands**

Content presentation

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2 How to get there

3 What to build there

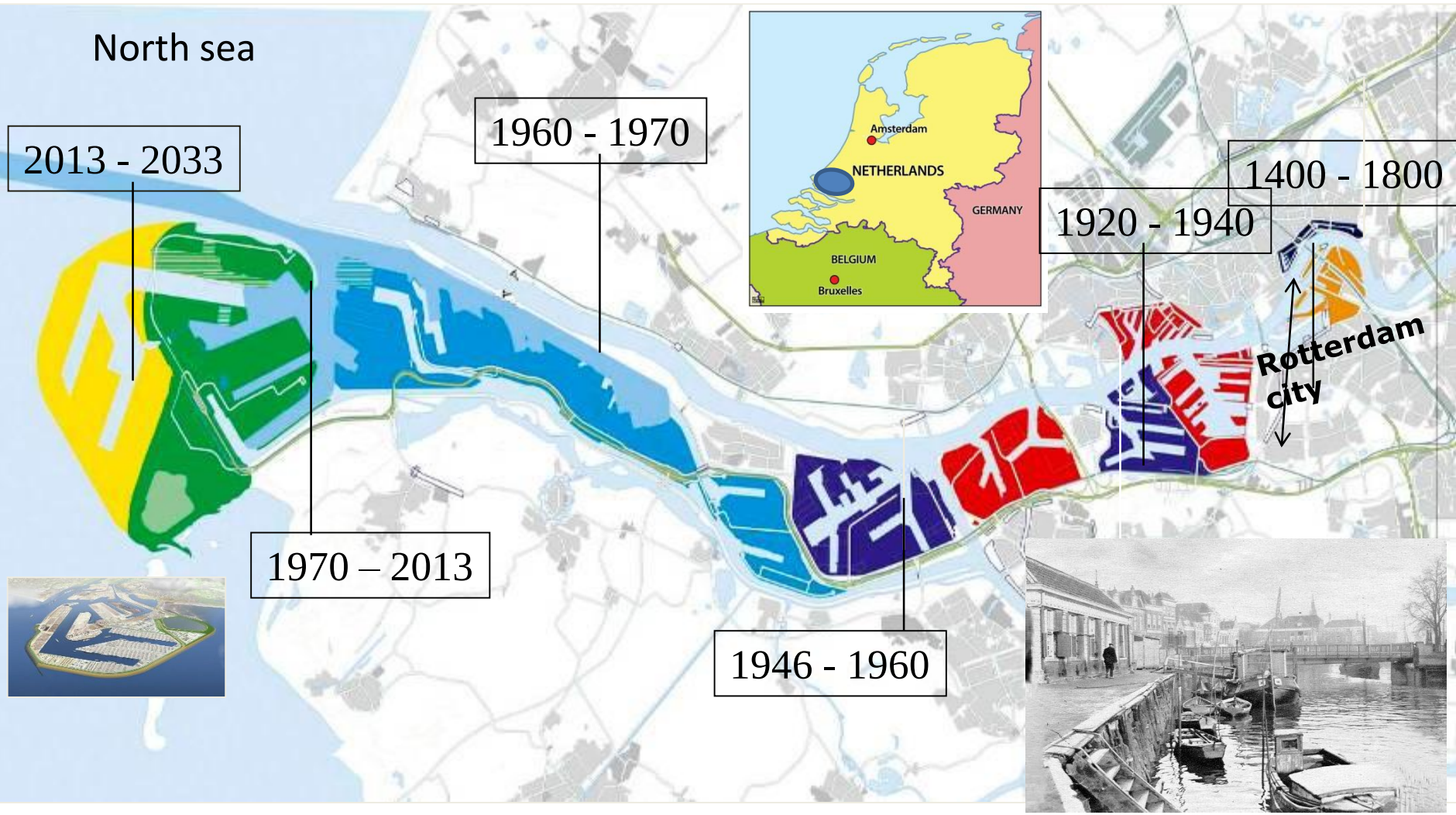
4 Aim, overview project PMR

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6 Timeline

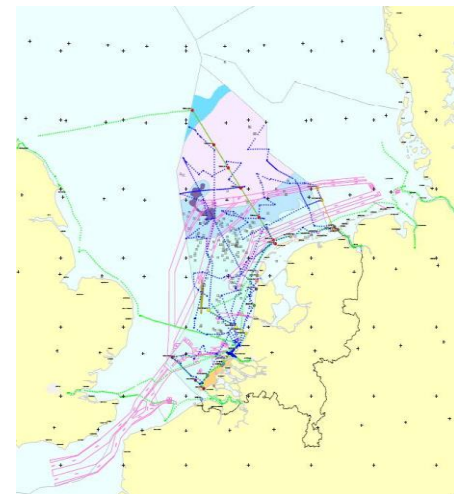


1. Timeline development of the Port of Rotterdam

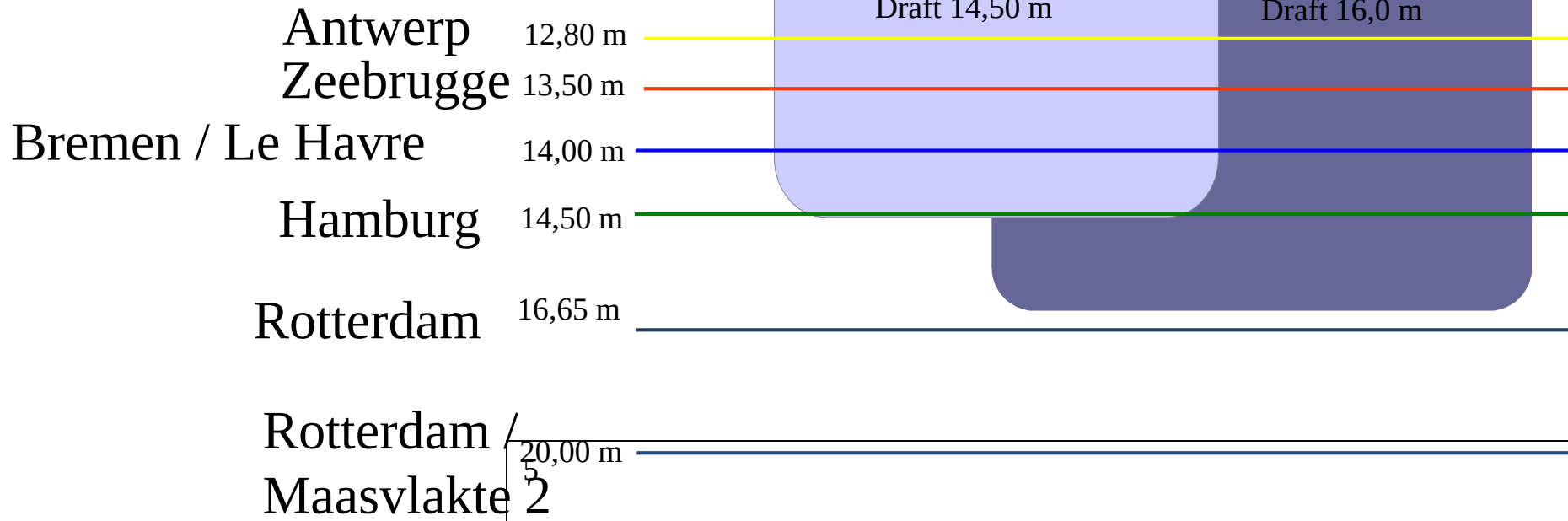
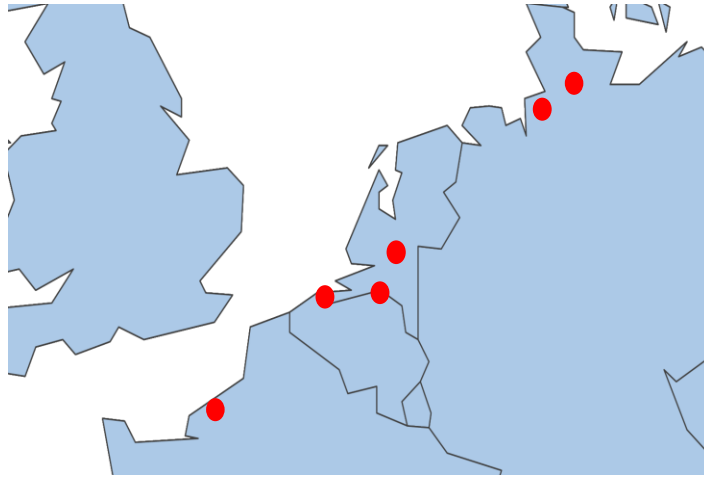




2. HOW TO GET THERE?



Rotterdam has unrivalled nautical accessibility

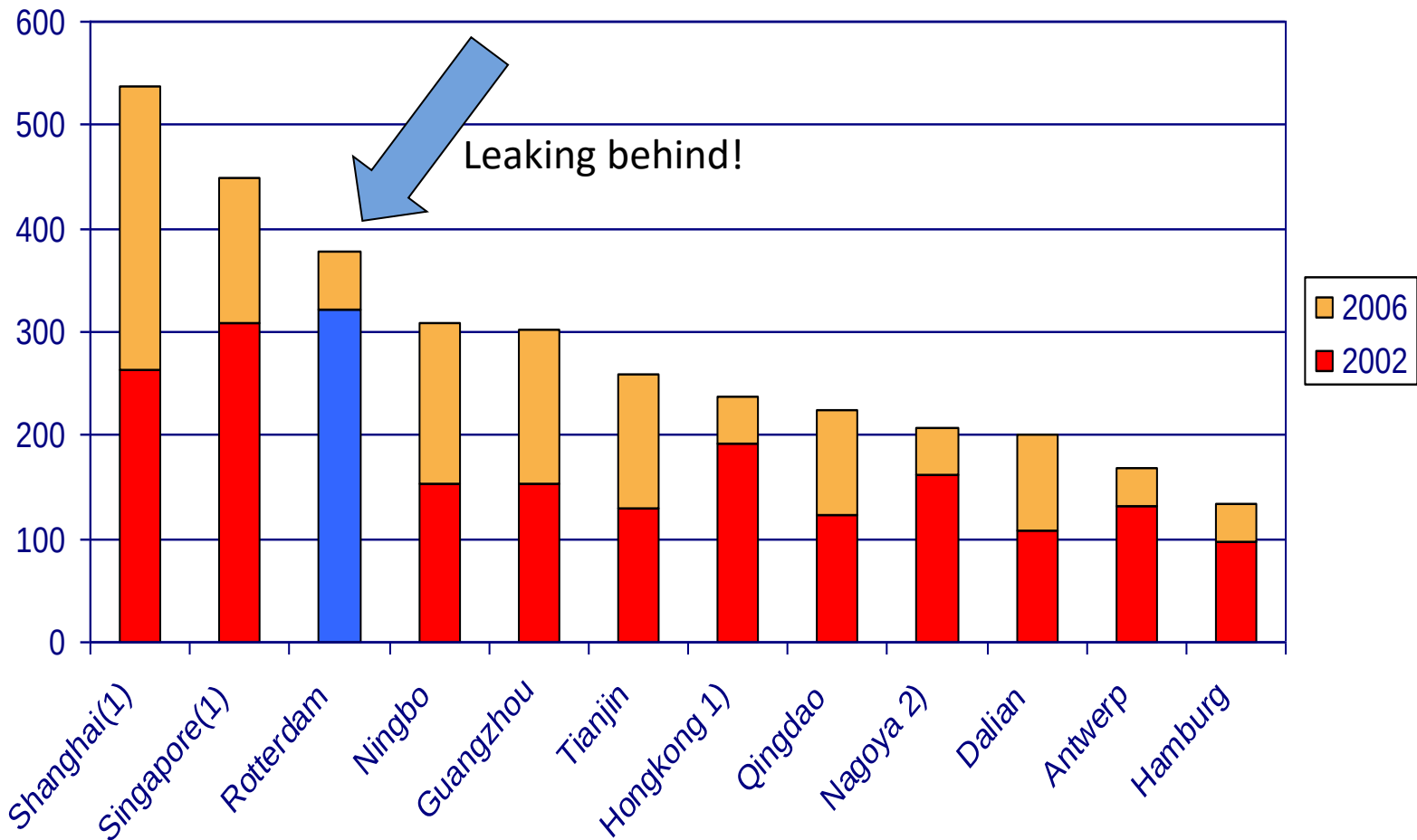


.....Wants unrivalled routes by train, car,
inland schipping



3. WHAT TO BUILD THERE?

Growth figures overall tonnage, world's major ports (2002 – 2006)



Unit: Gross weight x 1 million metric tons

1) Including river trade 2) Freight tons (1 freight ton = 0,92 metric ton)

Conclusion:

- 1. build area for containers
- 2. create area for distribution



- 3. energymarket is very volatile, be prepared



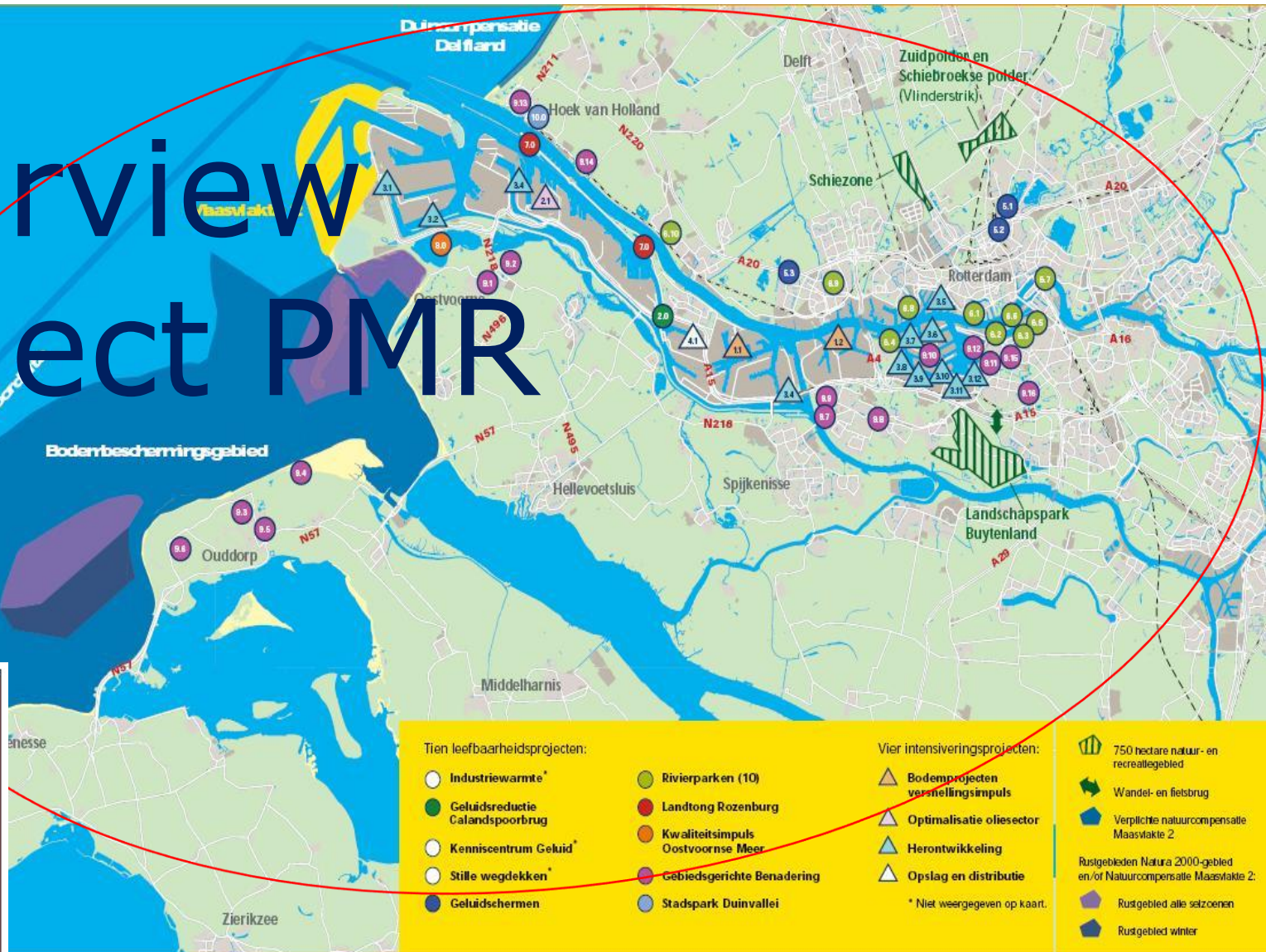
4. Aim, overview Project Mainportontwikkeling Rotterdam (PMR)

Two goals,
three projects



- strengthening mainport Rotterdam
- improving quality living-environment

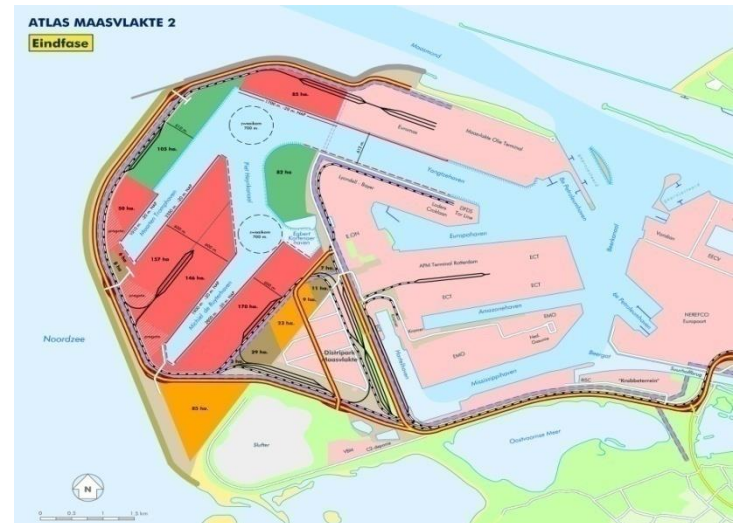
Overview project PMR



Characteristics of Maasvlakte 2

- Access via the Yangtzehaven with a width of 600 m and depth of 20 m
- Gross area 2,000 ha
Net area 1,000 ha (20% more than current port!)
- Use of area for economic activities:

Containers	620 ha
Distribution	170 ha
Chemicals	210 ha
- Project costs: € 2.9 billion
2006 prices)



IMPACTS

What to research??

ENVIRONMENT, NATURE, ABIOTICS, SAFETY,
NAUTICAL ASPECTS, CONSTRUCTION MATERIAL,
SAND MINING, COMPENSATION, RECREATIONAL
USE, NOISE, SUSTAINABILITY.

BUILD UP MONITORING SEQUENCES.

Development of the project; Reference design 2001



Reference design 1

referentieontwerp 1



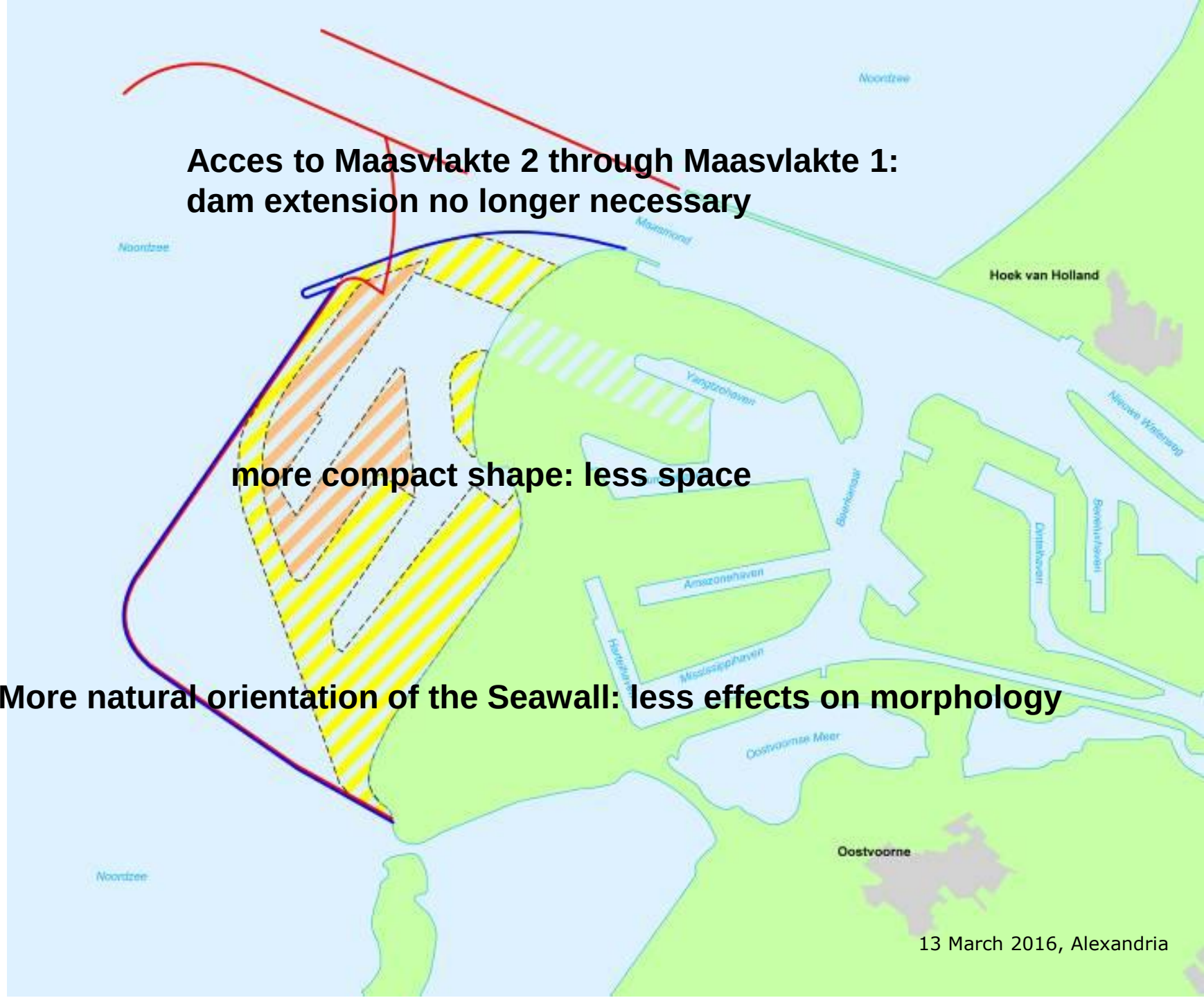
Reference design 2

referentieontwerp 2

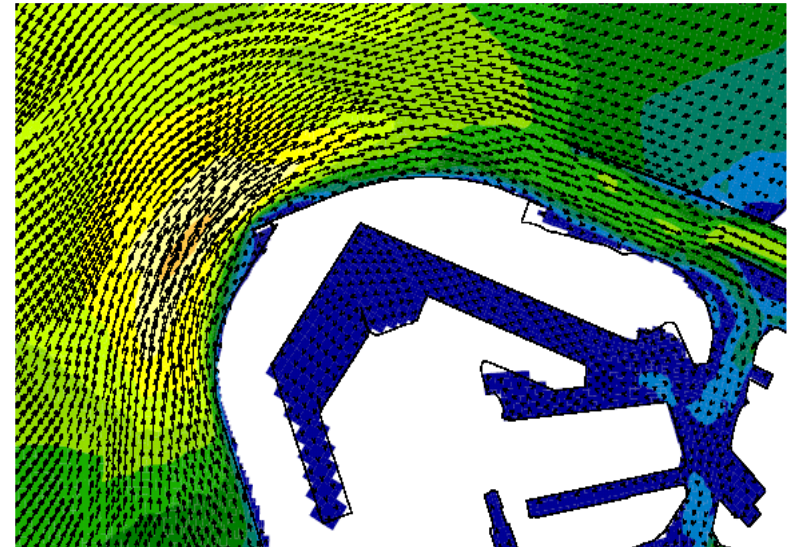
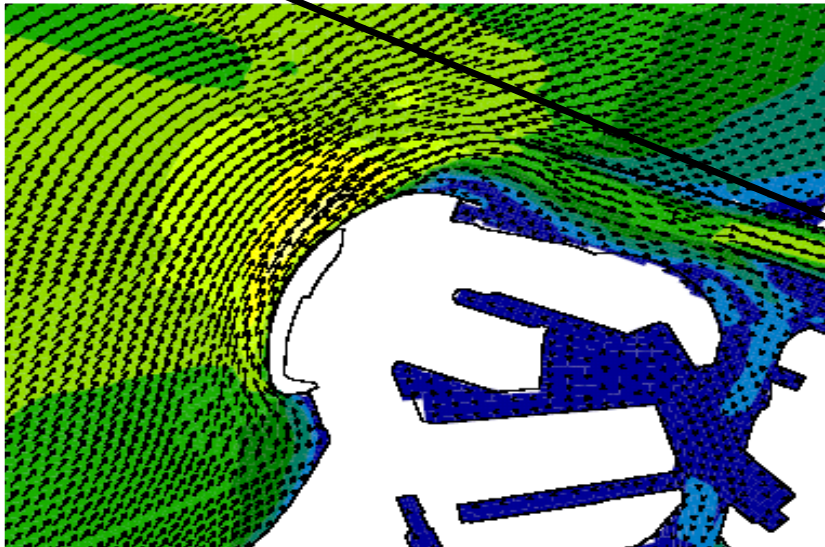
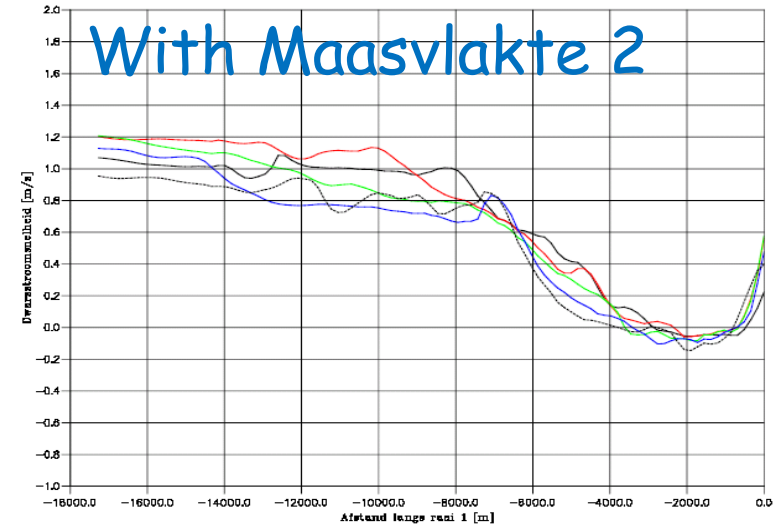
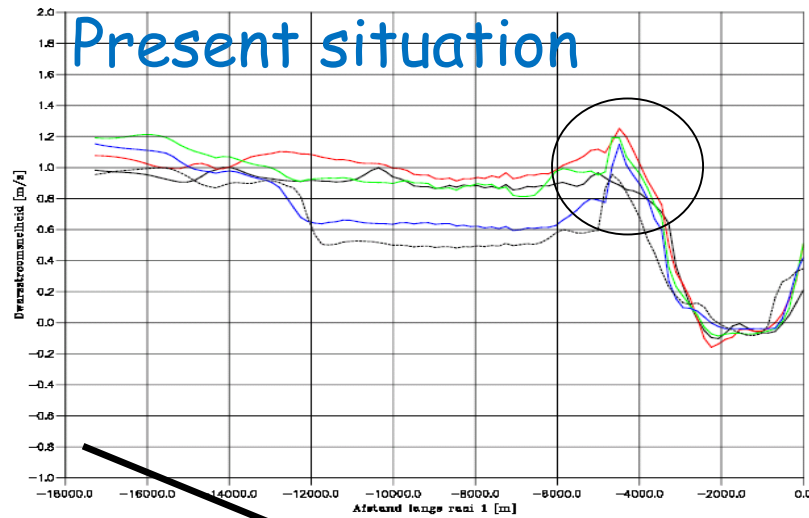
**Access to Maasvlakte 2 through Maasvlakte 1:
dam extension no longer necessary**

more compact shape: less space

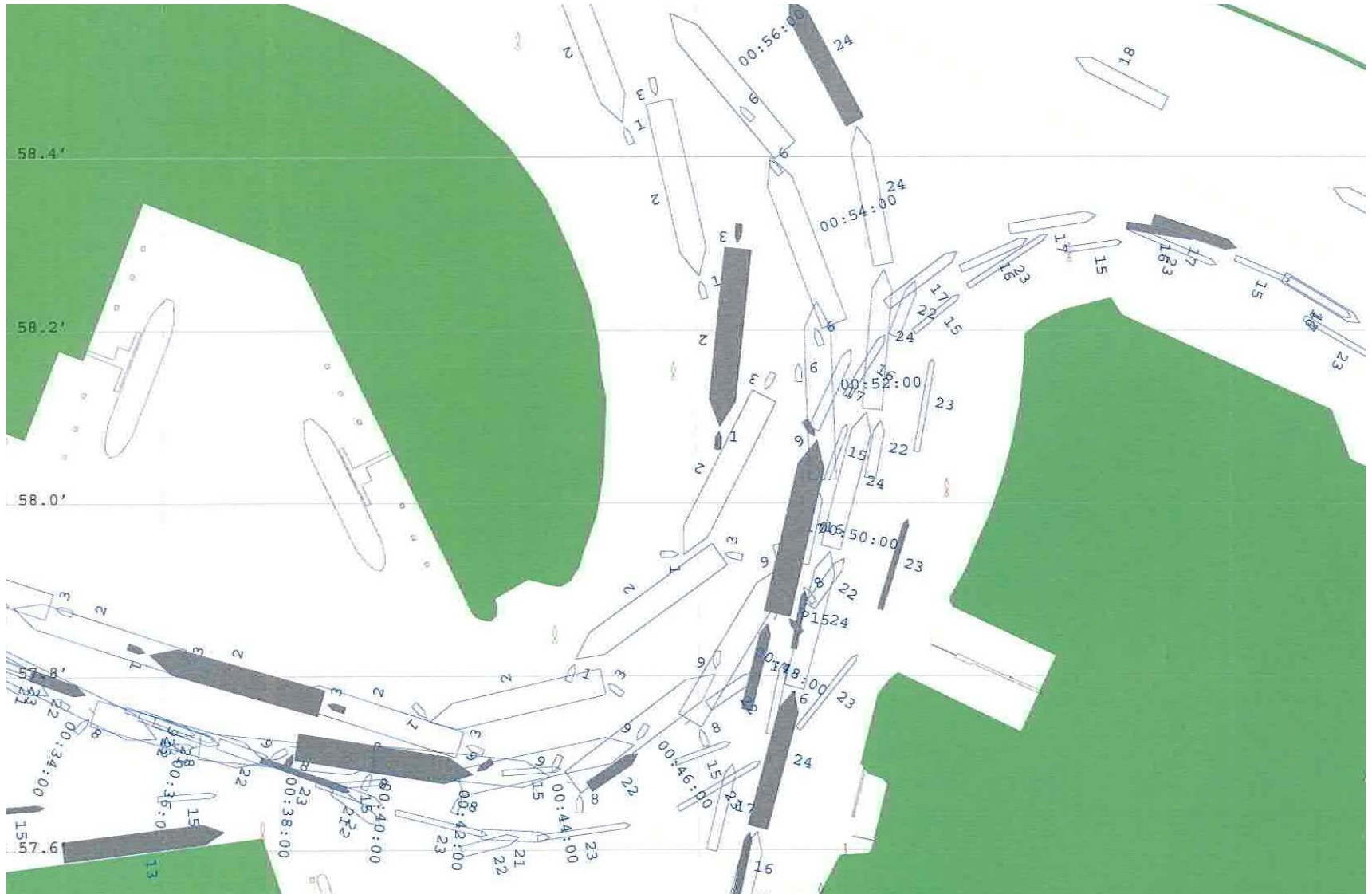
More natural orientation of the Seawall: less effects on morphology



Accessibility Port of Rotterdam



Manoeuvring simulator studies



Environmental Impact Assessment Maasvlakte 2



The (EIA)

**Environmental
Impact
Assessment**

~ 6000 pages

**Main report &
Appendices**

**Special studies
not included**

5. HOW TO CARE THERE?

Customer selection

How to judge the bids:

40 % financial

25 % marketing and strategy

20 % sustainability

15 % terminal concept



Announcement concerning company sites at Maasvlakte 2

Create your own future

Market parties who are interested in starting deep sea container operations at the new Maasvlakte 2 area in the port of Rotterdam are kindly invited to contact the Commercial Division of the Port of Rotterdam.

The Port of Rotterdam will use an open assessment procedure to select suitable candidates. Any party interested in the possibility of a company site at Maasvlakte 2 AND who controlled more than 2 million TEU in deep sea shipping or handling throughout the world in 2004 can register or obtain further information on the open assessment procedure by contacting:

Mr Frank Tazelaar
General Manager Business Development Logistics
Havenbedrijf Rotterdam N.V.
PO Box 6622, 3002 AP Rotterdam, The Netherlands
Tel.: +31 (0) 10 252 16 25, fax: +31 (0) 10 252 40 87
mobile: +31 (0) 6 539 497 36, e-mail: f.tazelaar@portofrotterdam.com

Your written application must be received by us no later than 15 June 2005.

Maasvlakte 2: new European top location
The Maasvlakte 2 extension to the port of Rotterdam offers companies a new top location in the heart of the European market. The reclaimed land to the west of the port includes 1000 hectares (net) of new industrial sites. The area is intended mainly for deep sea related container handling, storage and distribution, chemical processing and new process industries. www.maasvlakte2.com

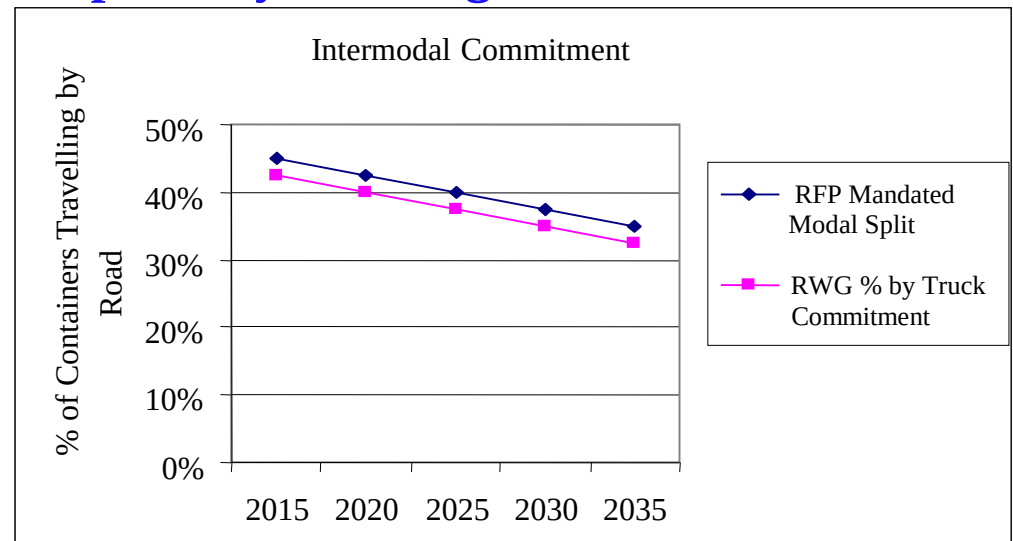


Port of Rotterdam

Projectorganisation Maasvlakte 2

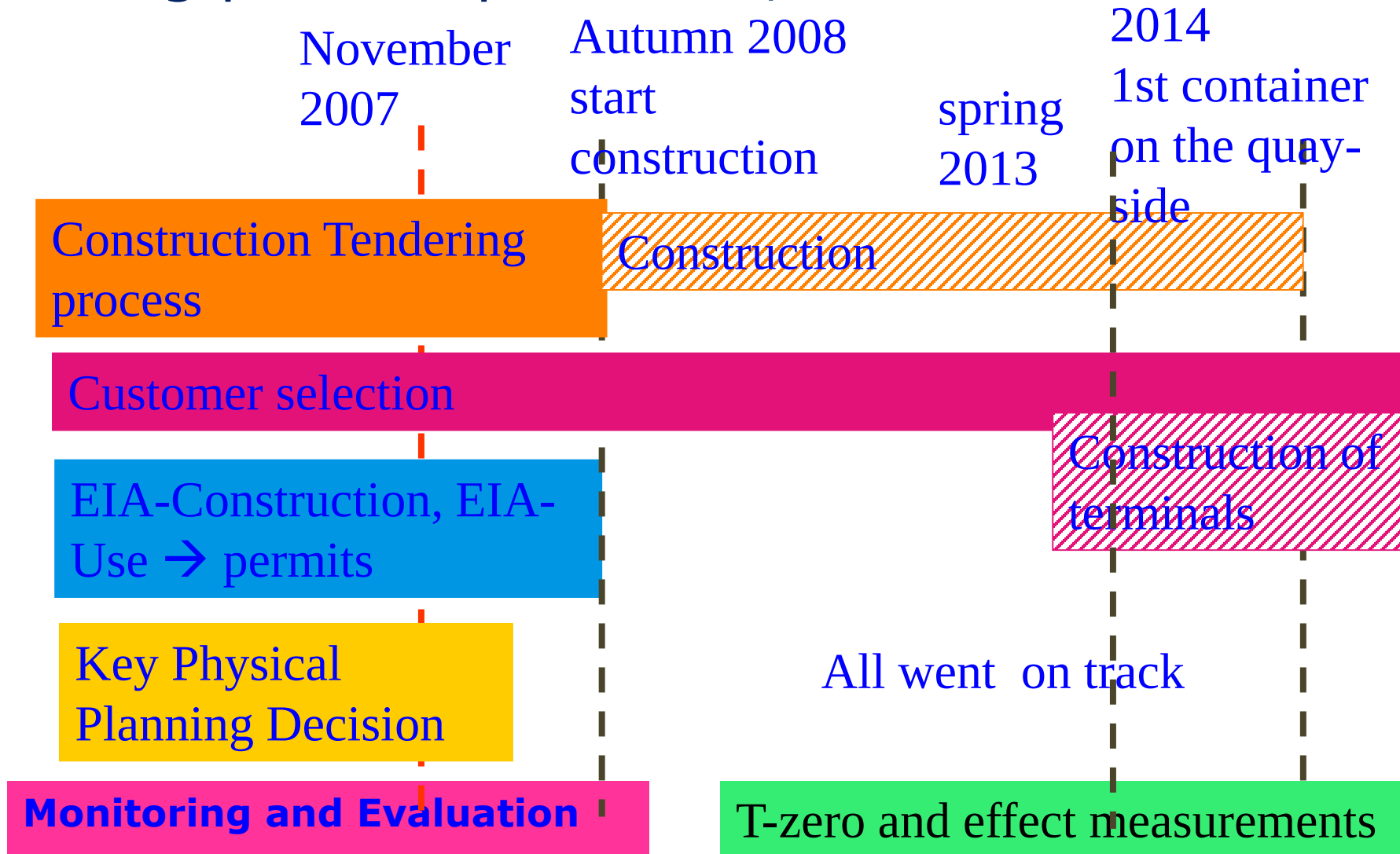
RWG Key sustainability strategies

- ▶ Selection of the cleanest available operating mode
- ▶ Major reduction of main emissions (NO_x, PM₁₀) compared to current levels with targets of more than 50% by 2020 and more than 80% by 2035
- ▶ Fully automated operating system using the latest ‘green’ technology
- ▶ Use of hybrid diesel technology
- ▶ Electrical Automated Stacking Cranes in the yard
- ▶ Net zero energy consumption buildings
- ▶ Influencing the environmental impact beyond the gate
- ▶ Modal split commitment



6. TIMELINE

Planning parallel processes, to save time



Thank you



very much