

**Interreg**  
North Sea Region  
**Jomopans**

European Regional Development Fund



EUROPEAN UNION

# JOMOPANS

JOINT MONITORING PROGRAMME FOR AMBIENT NOISE IN THE NORTH SEA

Welcome

Photo: Denise Risch, Scottish Association for Marine Science  
COMPASS INTERREG VA



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# JOMOPANS

JOINT MONITORING PROGRAMME FOR AMBIENT NOISE IN THE NORTH SEA

Niels Kinneging



Rijkswaterstaat  
Ministerie van Infrastructuur en Waterstaat

# Programme Tuesday

- ▶ 14:00 – 14.20 Welcome by Niels Kinneging, Rijkswaterstaat
- ▶ 14:20 – 14:35 Official opening by Dr. Roeland Allewijn, director Rijkswaterstaat
- ▶ 14:35 – 15:15 Key Note by Mark Tasker, JNCC and TG Noise
- ▶ 15:15 Group photo
- ▶ 15:20 – 15.45 Coffee/Tea break
- ▶ 15:45 – 17:05 Project content, chaired by Nathan Merchant, Cefas
  - ▶ Measurements and data management (Jens Fischer, BSH)
  - ▶ Modelling (Christ de Jong, TNO)
  - ▶ Management tools (Jakob Tougaard, UA)
- ▶ 17.15 Closure by Niels Kinneging
- ▶ 19:00 – 22:00 Dinner hosted by Rijkswaterstaat

# Programme Wednesday

- ▶ 09:00 – 10:30 Joint Secretariat  
(Axel Kristiansen, Programme Officer Interreg NSR)
- ▶ 10:30 – 14:00 Work session on Management Plan
- ▶ 14:00 – 14:30 Wrap up
- ▶ 14:30 – 16:00 Communication activities
- ▶ 16:00 – 16:30 Any other business

# JOMOPANS – Project Presentation

- ▶ Funding: EU - Interreg North Sea Region

- ▶ Priority 3  Sustainable North Sea Region: Protecting against climate change and preserving the environment

- ▶ Duration: Jan 2018 – Dec 2020

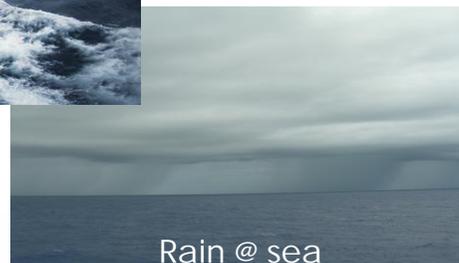
- ▶ Budget: € 3.5 Million

- ▶ Consortium: 11 partners

- ▶ Project Coordinator:  
Rijkswaterstaat, The Netherlands

# Natural sound sources

- ▶ Wind
- ▶ Rain
- ▶ Large amount of energy in individual lightning strikes
- ▶ Other natural sources in the North Sea are underwater fauna (mammals, fish, crustaceans, etc.), precipitation other than rain, surf waves, gravel noise, ...



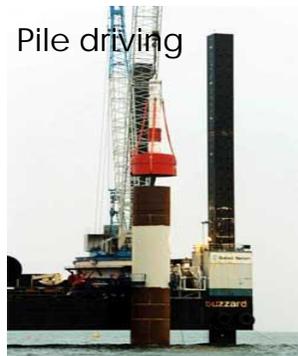
# Anthropogenic sound sources

- ▶ Two categories of human sound:
  - ▶ intentional sources
  - ▶ unintentional sources
- ▶ Sound production is essential for intentional sources, e.g. airguns, sonar, acoustic deterrents, mine sweeping, acoustic comms, ...
- ▶ Sound production is undesirable by-product for unintentional sources, e.g. shipping, pile driving, underwater explosions, offshore industry, wind farms, pipe/cable laying, decommissioning, ...

Seismic survey



Pile driving



Shipping



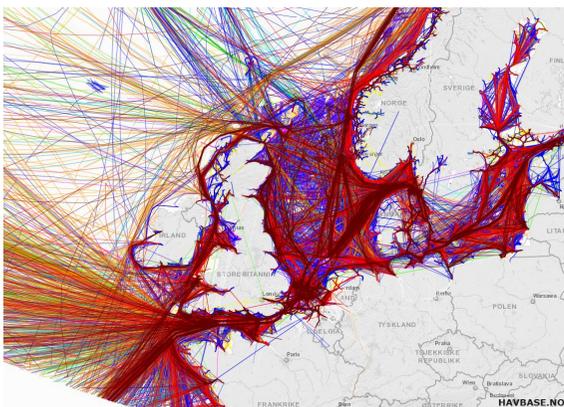
# Project Objectives & outputs

- ▶ Aim: to develop a framework for a fully operational joint monitoring programme for ambient noise in the North Sea
- ▶ Outputs: tools for managers, planners and other stakeholders
  - ▶ assessment of effects of ambient noise the environmental status of the North Sea
  - ▶ evaluation of measures

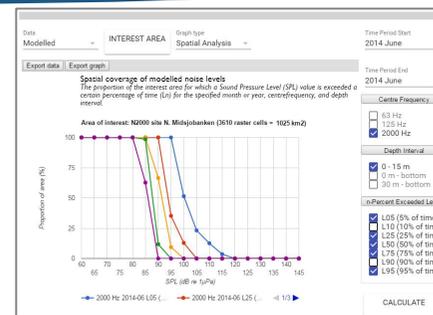
# Elements of Jomopans



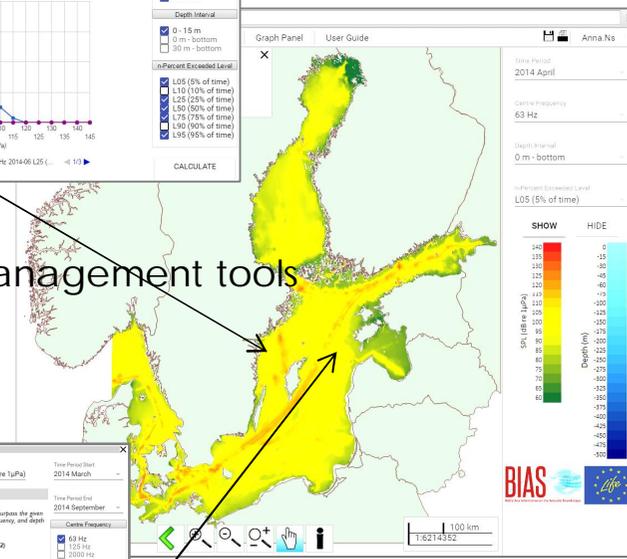
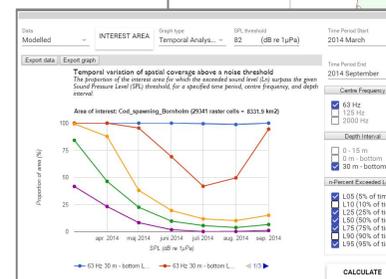
measurements



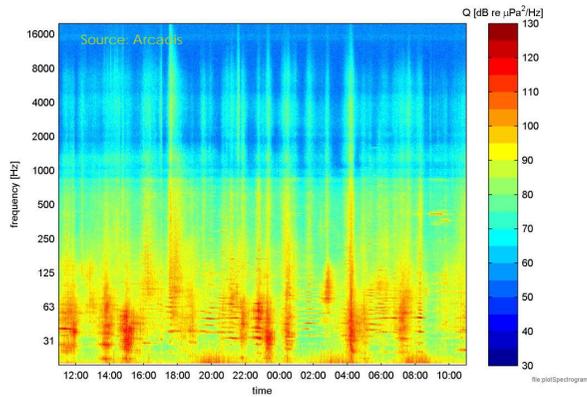
modelling



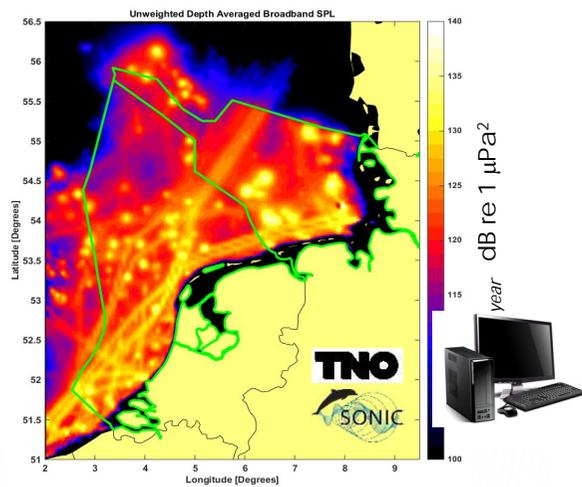
management tools



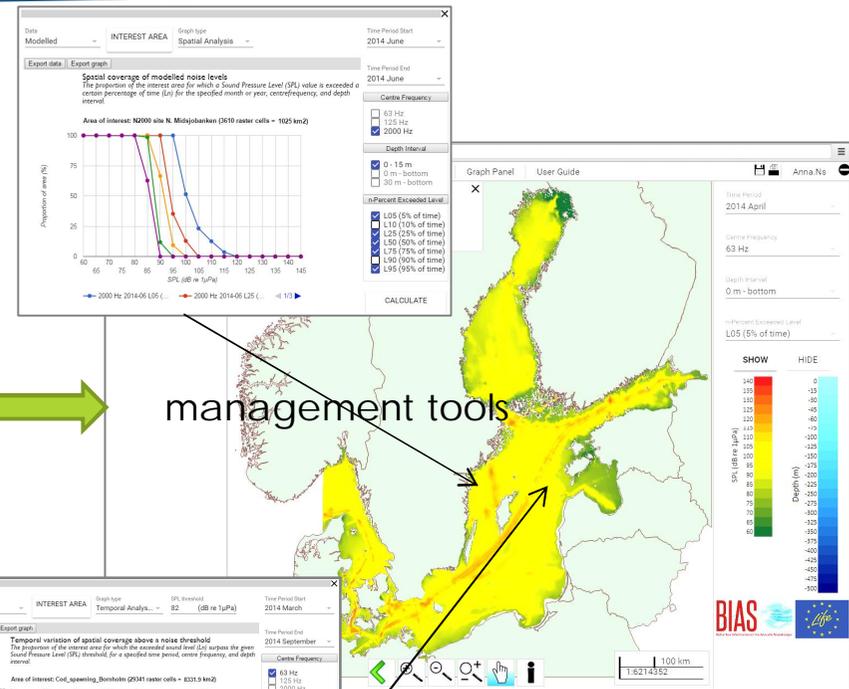
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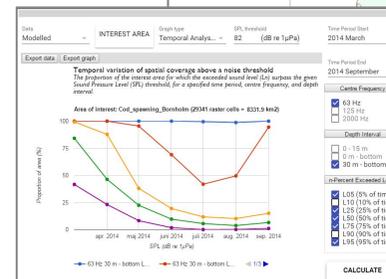
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modelling



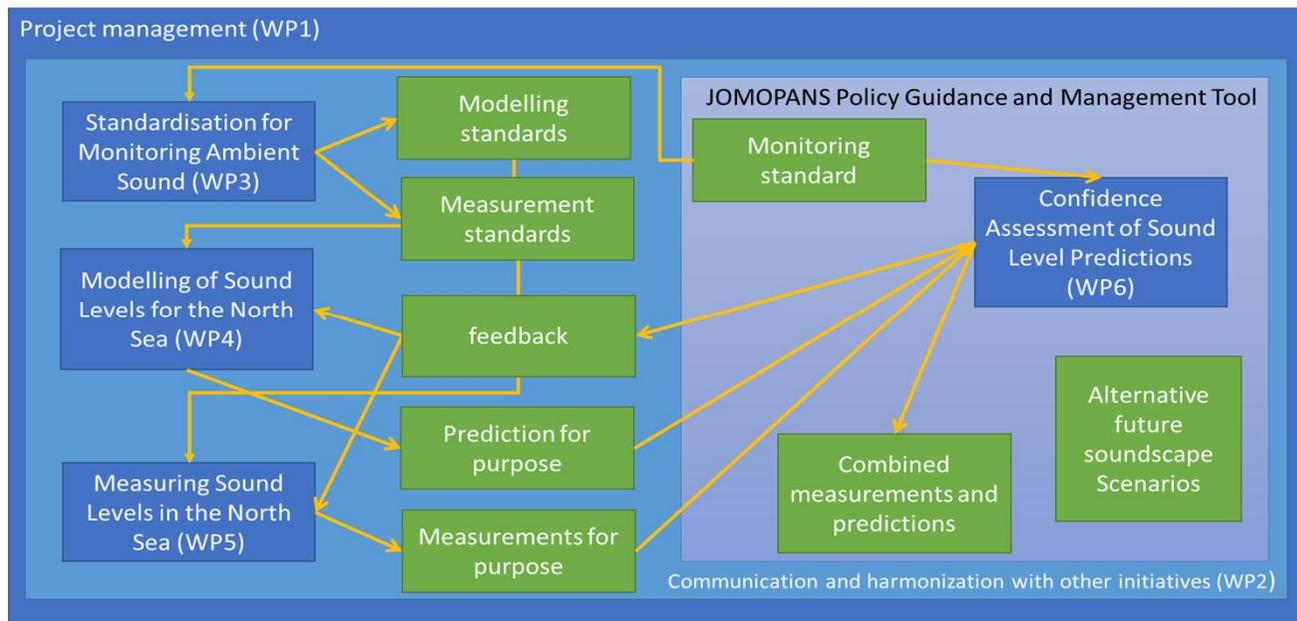
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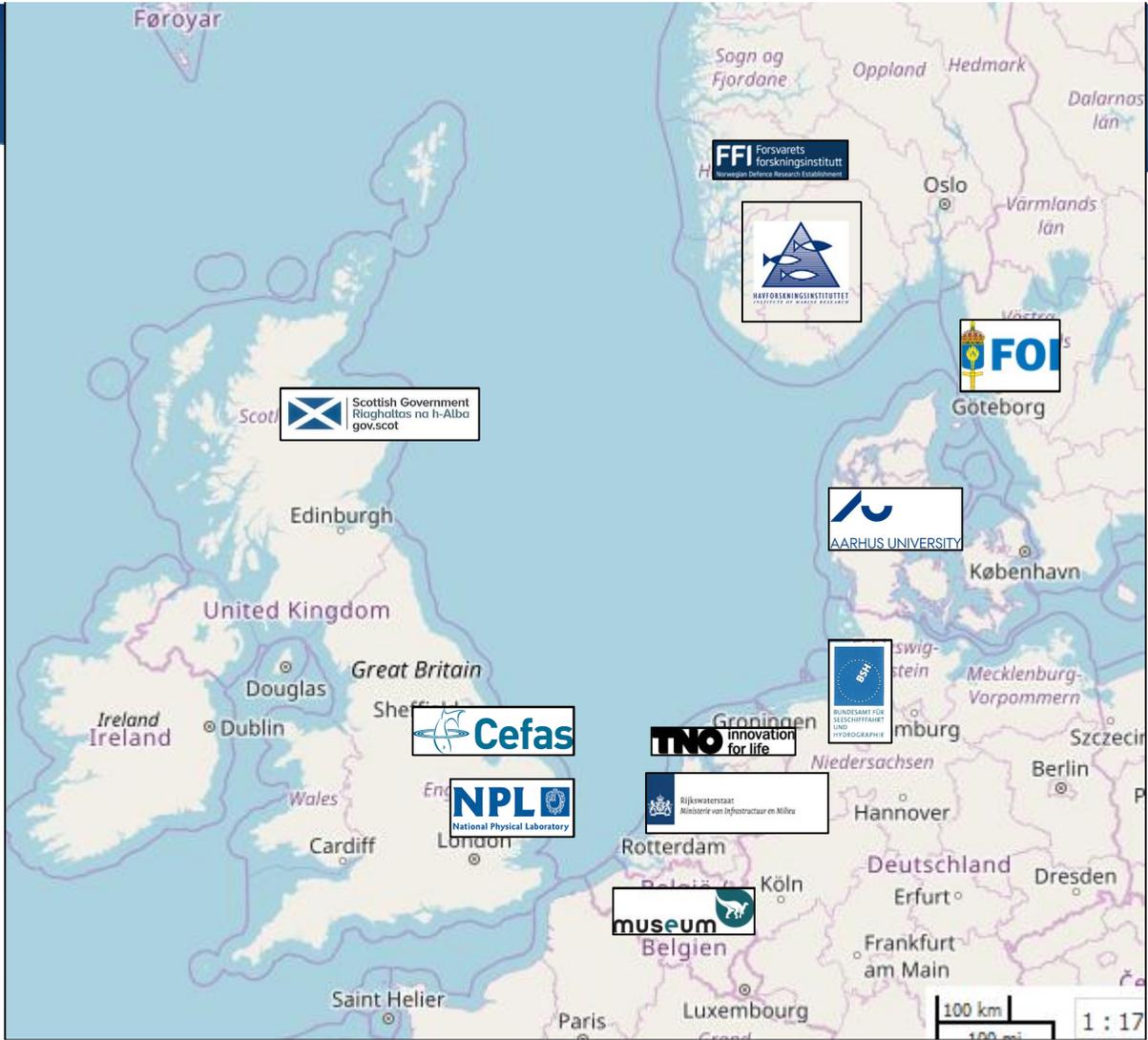


# Workpackages

- ▶ WP1 Project management (RWS)
- ▶ WP2 Communication & harmonization (FOI)
- ▶ WP3 Standardization (NPL)
- ▶ WP4 Modelling (TNO)
- ▶ WP5 Measurements (BSH)
- ▶ WP6 Combination M&M (CEFAS)
- ▶ WP7 GES management tools (AU)

# Project Set-up

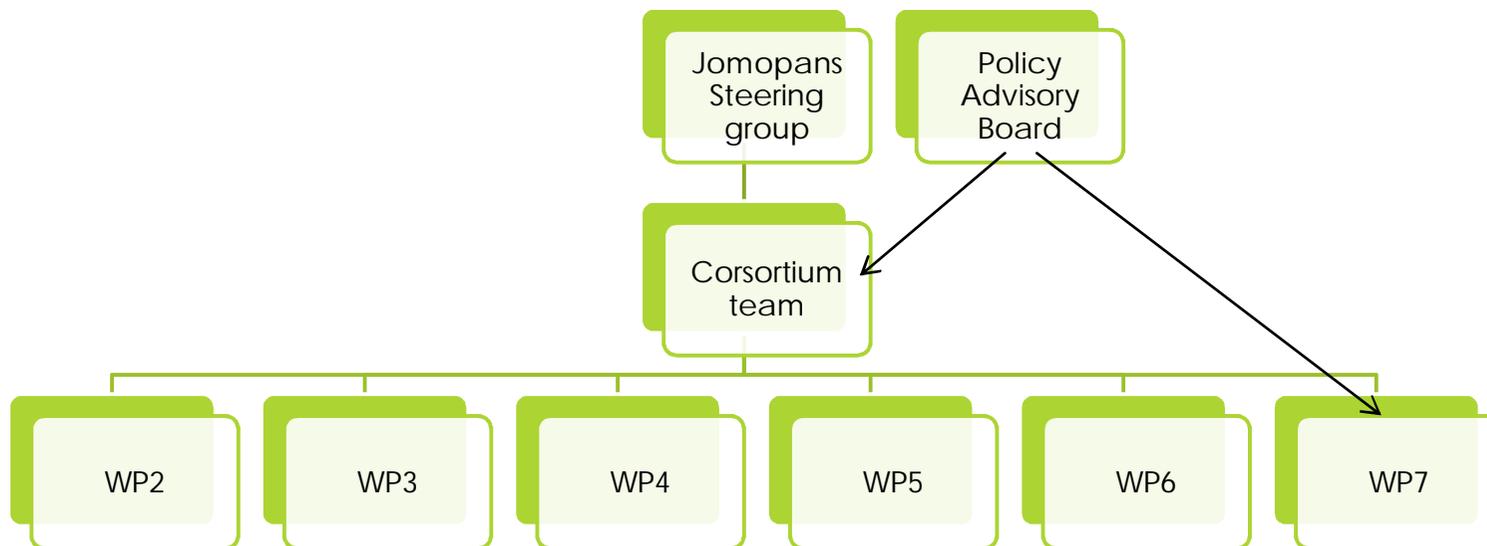




# PARTNERS

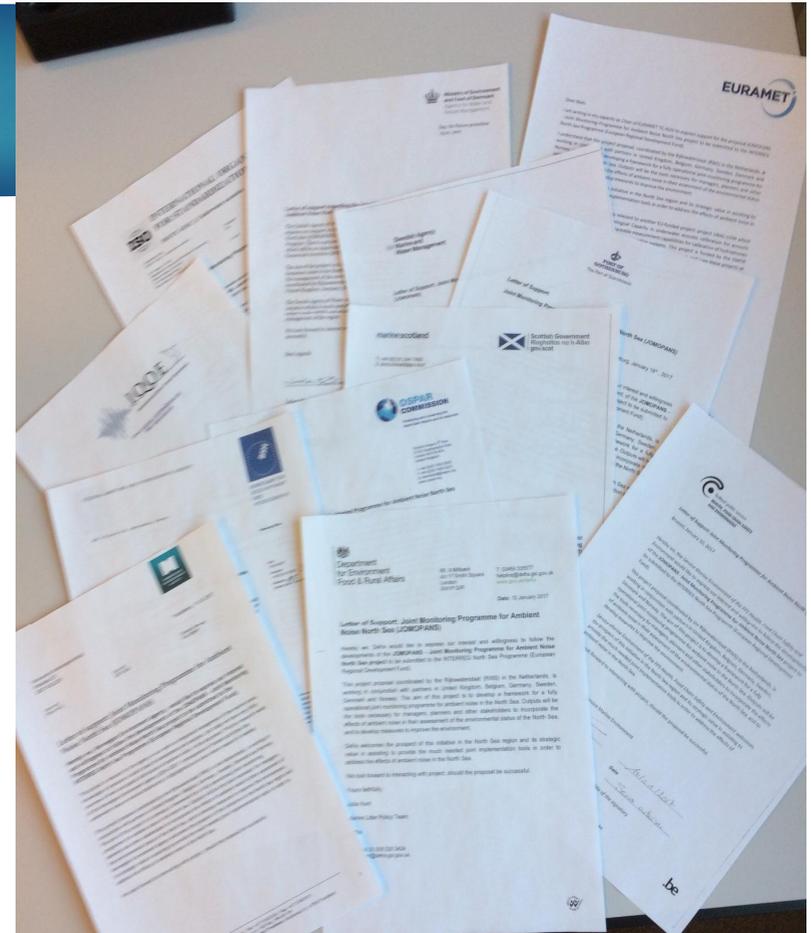
-  ► Rijkswaterstaat - NL(lead)
-  ► Centre for Environment, Fisheries & Aquaculture Science (Cefas)– UK
-  ► Federal Maritime and Hydrographic Agency – DE
-  ► TNO – NL
-  ► Aarhus University – DK
-  ► Swedish Defence Research Agency – SE
-  ► Royal Belgian Institute for Natural Sciences – BE
-  ► Marine Scotland – UK
-  ► Norwegian Defence Research Establishment - NO
-  ► National Physical Laboratory – UK
-  ► Institute of Marine Research - NO

# Structure

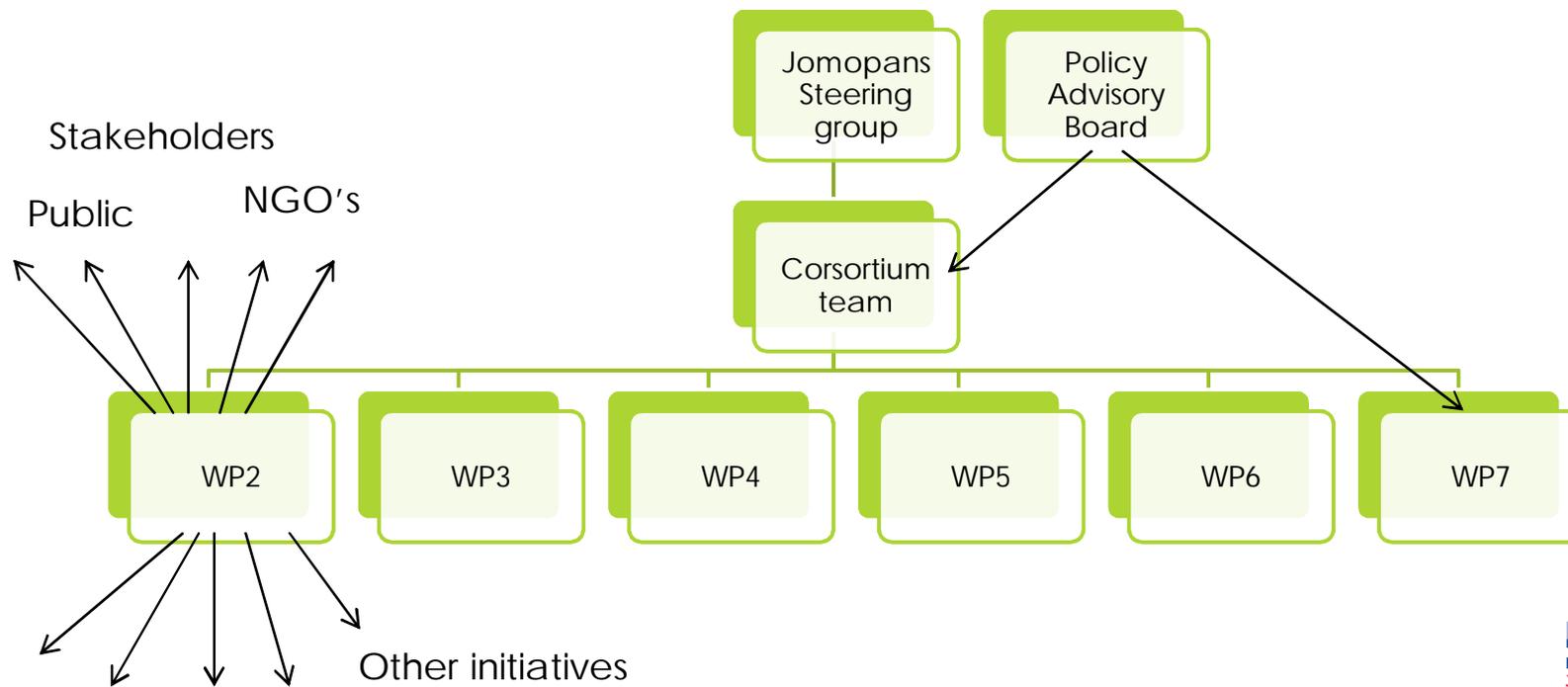


# Policy Advisory Board

- ▶ Support letters for Jomopans
- ▶ Policy makers, marine management
- ▶ International organisations
- ▶ Advise on implementation/follow up



# Structure



# Programme Tuesday

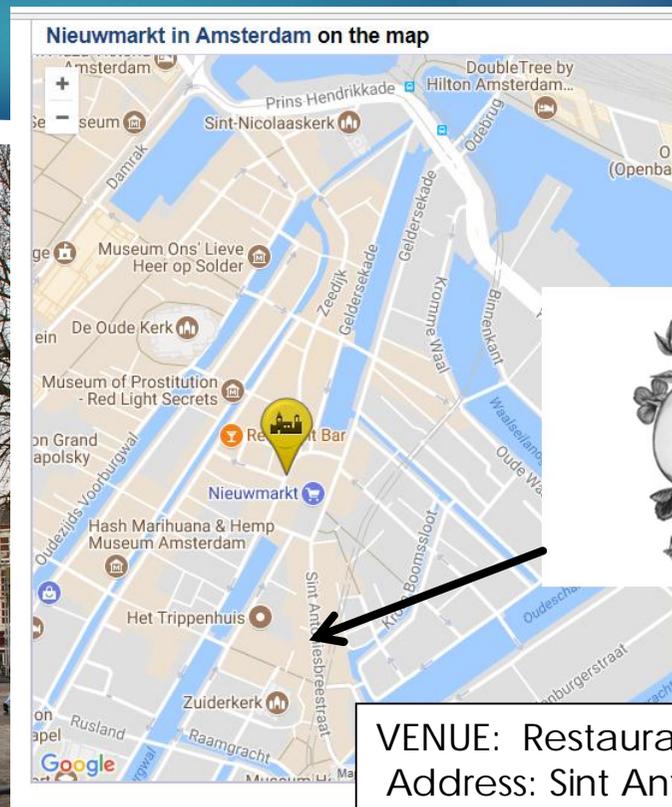
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# Amsterdam Centraal Station



18:15 hrs

# Dinner



19:00 hrs



VENUE: Restaurant De Witte Zwaan  
Address: Sint Antoniesbreestraat 46