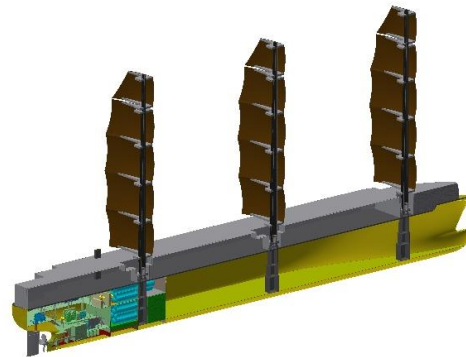


M^oSES

Virtual Workshops (Focus Groups)
on user requirements

Innovative Feeder Vessel



Gerco Hagesteijn, MARIN

Innovative Feeder Design

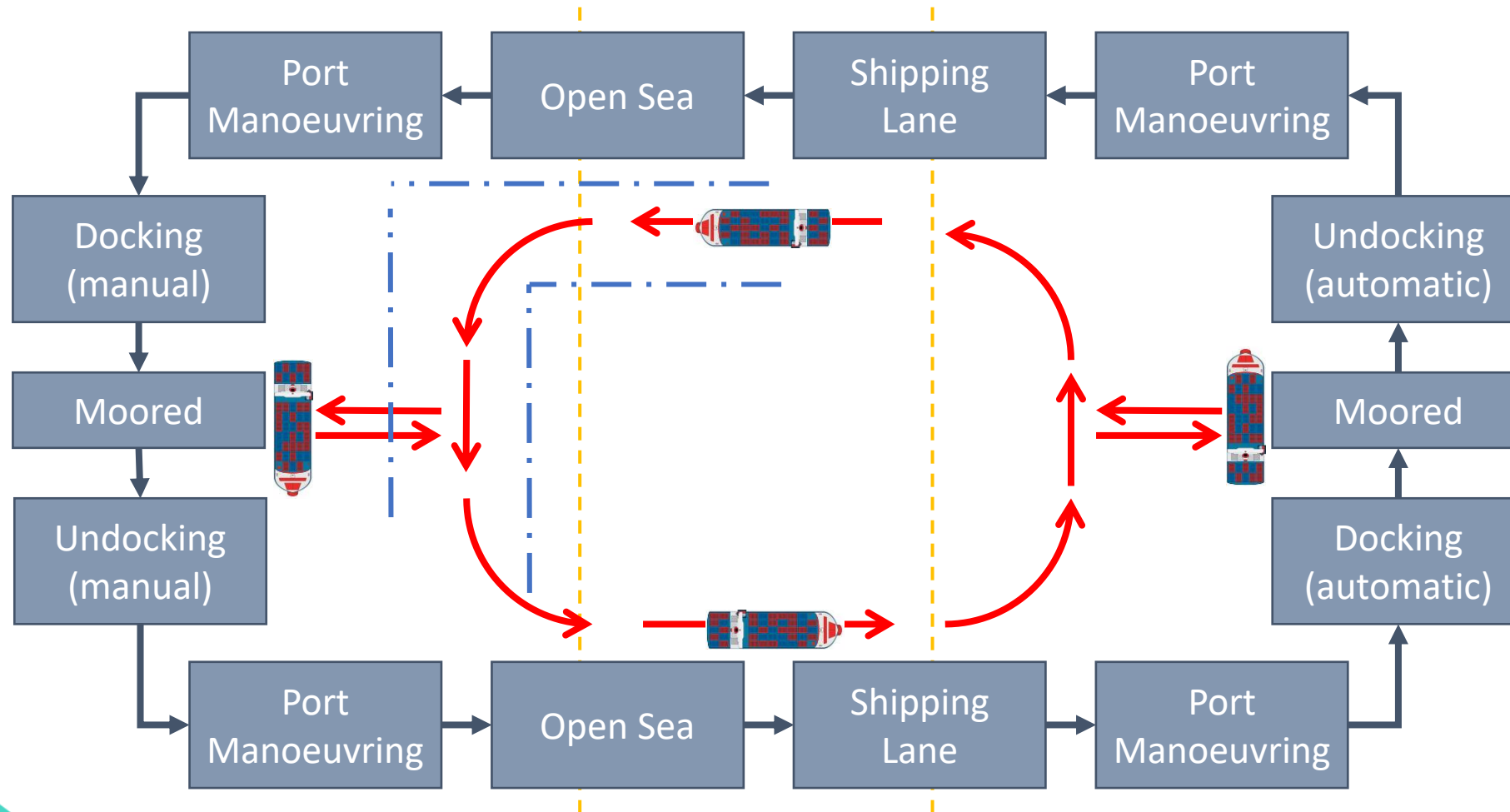
1. Innovative Feeder Vessel design

- Design alternatives
- Zero-emission investigation, including wind assisted propulsion

2. Feeder Vessel simulation and autonomy

- Time-domain simulation model
- Vessel autonomy, including shore control station

Mission Execution - Scenario Development



Pilot Demonstration

- Seakeeping and Manoeuvring Basin (SMB)
- Free sailing model of selected Feeder Vessel design
 - Propulsion
 - Seakeeping and added resistance
 - Autonomous operation
- Demonstration Day for Visitors



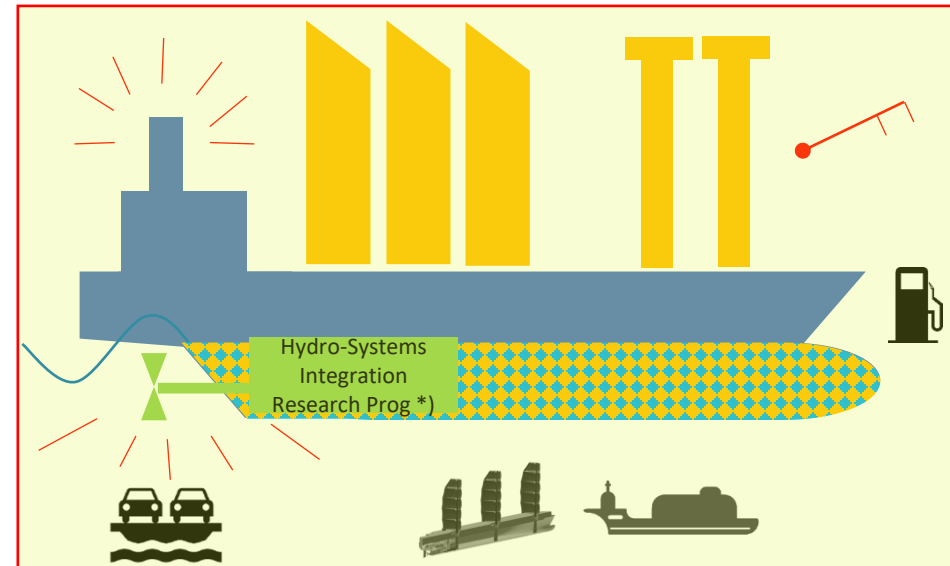
Innovative Feeder Vessel Design

Design alternatives

- Early innovative concepts/ideas for 3 different vessels
- Wind assisted alternative for 1 feeder design concept
- Basic hull form development for 3 feeder design concepts



Example of WA-design - Ecoliner from DNA

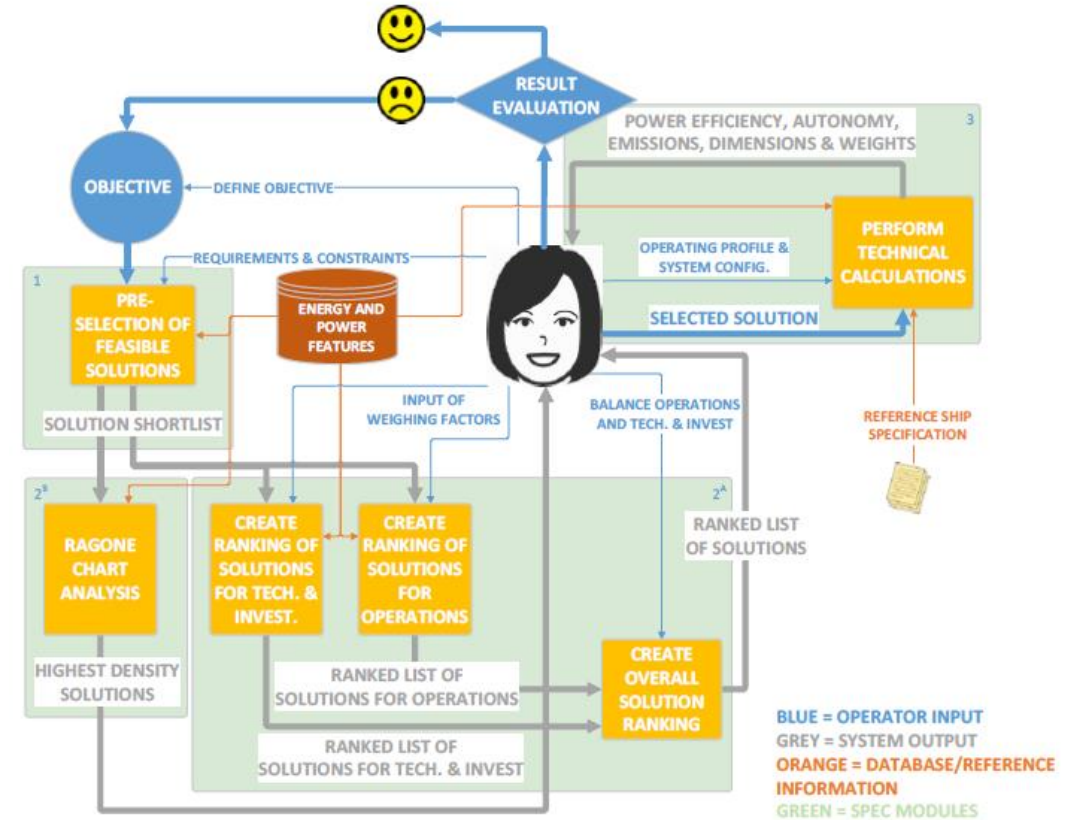
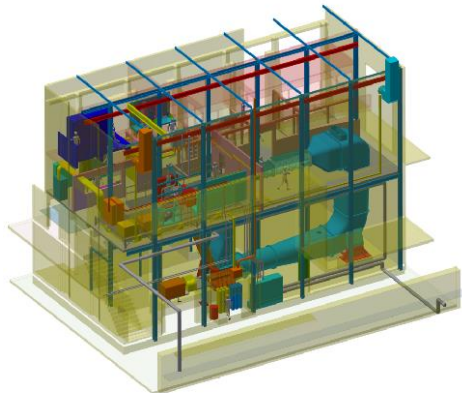


Innovative Feeder Vessel Design

Question: What is the emission level that is expected to design for in the year 2030?

EU targets in the Green Deal

- At least 40% cuts in **greenhouse gas emissions**
- At least 32% share for **renewable energy**
- At least 32.5% improvement in **energy efficiency**



Zero-emission investigation, including wind assisted propulsion



MOSES

Thank you for your attention!



Gerco Hagesteijn, MARIN

g.hagesteijn@marin.nl

 www.moses-h2020.eu

 MOSES project2020

 @mosesproject20

 MOSES Project



This project has received funding from the European Union's horizon 2020 research and innovation programme under grant agreement No. 861678.