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MAGPIE
SMART GREEN PORTS

# GREENHOUSE GAS TOOL

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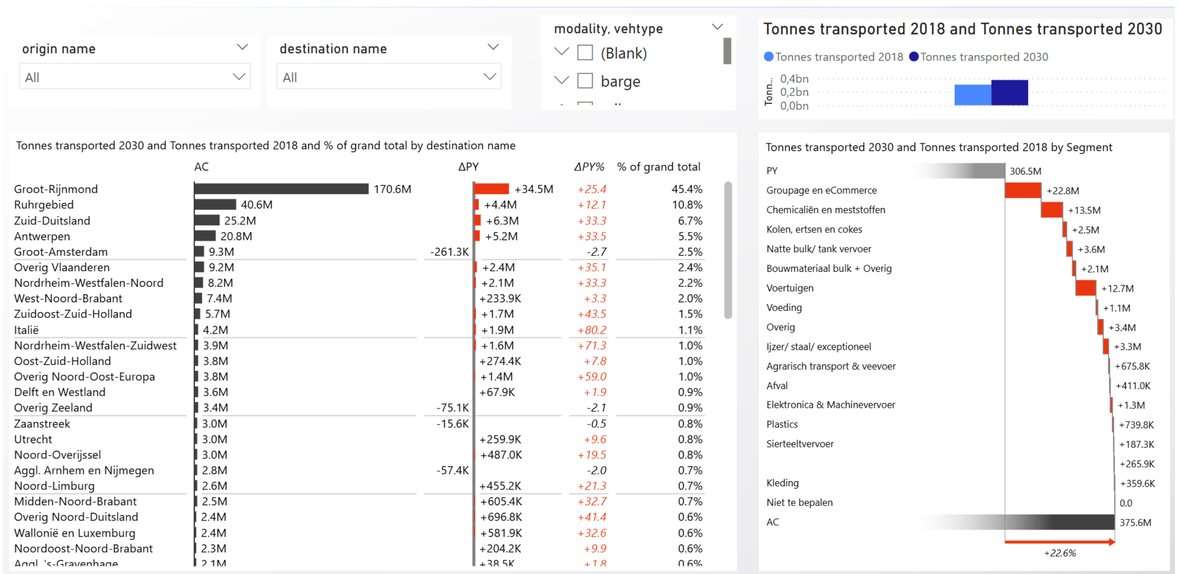
## Introduction

- **Aim of demo –** Based on real-world data, this tool implements modelling and prediction capabilities to estimate GHG emissions and the impact of reduction measures both for the level of a port and on different transport corridors to and from the port.
- **Value proposition -** This tool will enable users to calculate the GHG emissions of logistics supply chains in compliance with ISO standard 14083 and identify the effects of emission reduction measures. Ports and other stakeholders can use this tool for emission reporting purposes and strategic decision-making to comply with future emission legislation.

## KPIs

### GHG emissions

The tool's scope includes all elements of the logistics chains linked to the port of Rotterdam, such as different transport modes and types of goods. GHG reduction measures like alternative energy carriers, efficiency improvements, and logistics measures are included in the tool. The model's output will be the GHG emissions levels for the current situation and forecast scenarios up until 2050.

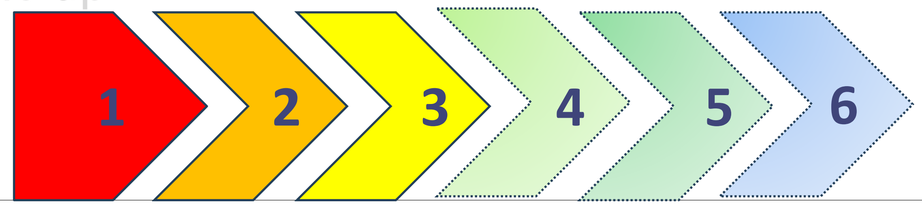



## Lessons Learned

- **Barriers –** Data availability, data consistency between different sources
- **Scalability –** The initial model is targeted to the port of Rotterdam. Using the same datasets, it can be transferred to other Dutch maritime ports. The methodology can also be transferred to other European ports. This would require (local or national) data on hinterland transport of the ports and requires changes in the model to adapt to such data.

## Current Progress Status

1. Launch of demonstrator; 2. Elaboration of KPIs, Operation characterization and modelling, and ongoing studies; 3. Testing phase in lab and data collection; 4. simulations and testing phase in pilot area; 5. results and commercially available; 6. ready to scale up

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