



# MAGPIE

SMART GREEN PORTS

## DEMO 9 GREEN CONNECTED TRUCKING

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### Introduction

- **Aim of demo** - To demonstrate electric driving with heavy duty electric trucks for a longer period in regular logistics operation and to demonstrate an electric automated truck for a short period in mixed traffic with hands-free charging. With these demonstrations, these technological innovations and logistical concepts will be tested, evaluated and improved.
- **Value proposition** - With this demo it is shown how these innovations can be applied in the best possible way to reduce emissions and to improve efficiency and reliability of freight transport by road.



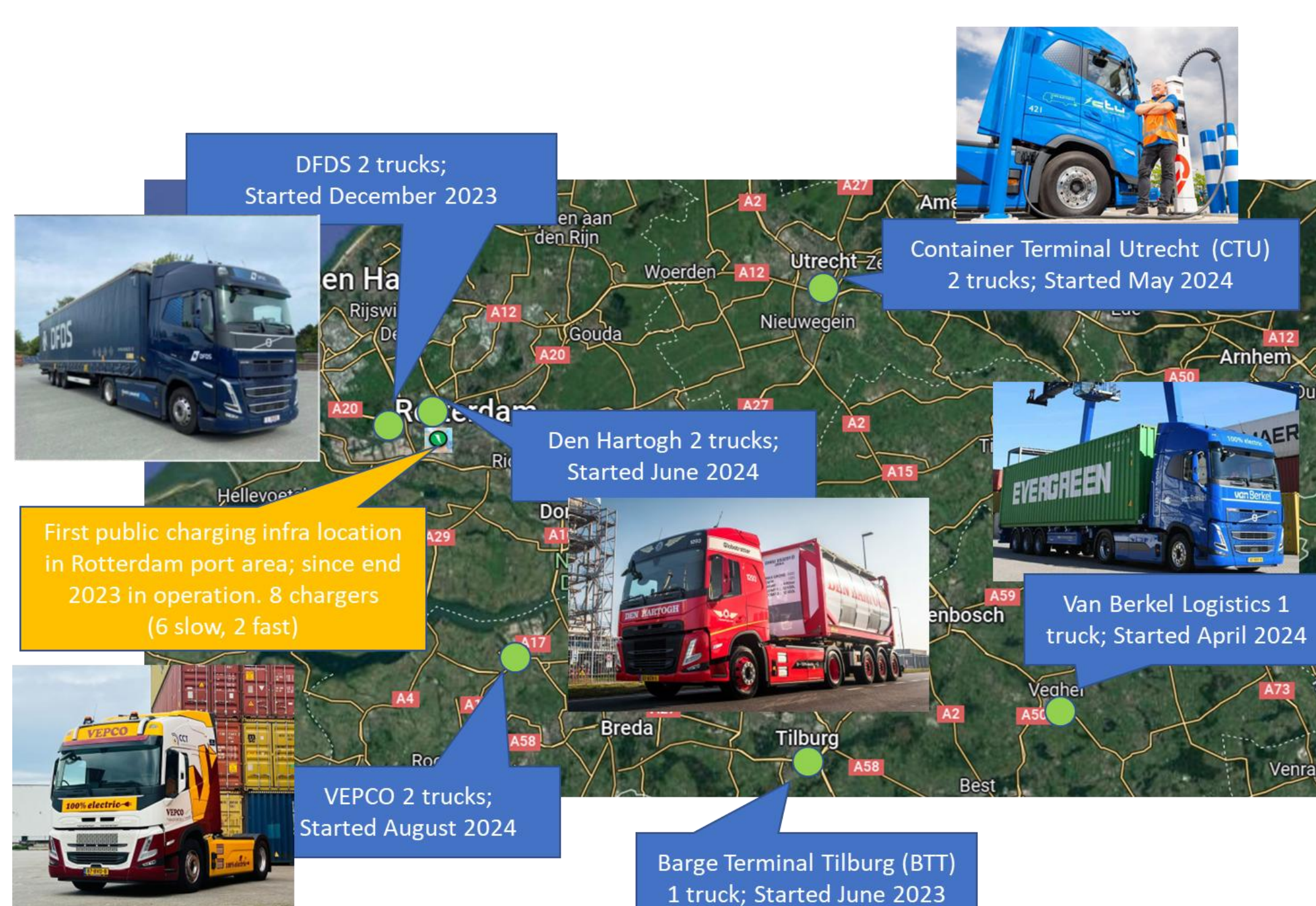
### KPIs

- Energy use
- CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, PM
- CAPEX
- OPEX

### Lessons Learned

- **Barriers** - Electric driving: involving transport companies with heavy duty electric trucks (development goes slower than expected), but now the demo is up and running with all kind of specific barriers for transport companies. Automated driving: no specific barriers for demo which is foreseen at April 10 in Rotterdam.
- **Scalability** - Electric driving: lower CAPEX, availability energy in electricity grid, good charge planning strategy. High market size. Automated driving: insights in efforts, requirements and benefits, admission public roads. Medium market size.

Electric driving



### Current Progress Status - for both electric and automated trucking

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



Automated driving



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