

MAGPIE

SMART GREEN PORTS

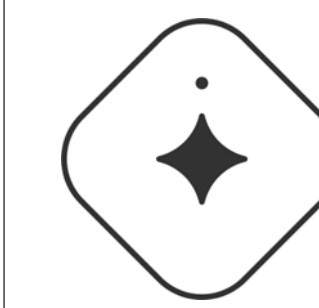
DEMO 4 AMMONIA BUNKERING

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Introduction

- **Aim of demo** - Prepare for and conduct a ship to ship transfer of ammonia within the Port of Rotterdam
- **Value proposition** - Ammonia is one of the potential green marine fuels of the future and conducting this trial will confirm that bunkering can be done safely within the Port of Rotterdam. The demo will communicate to the wider industry that the Port of Rotterdam is taking positive steps towards enabling ammonia to be used as a marine fuel.



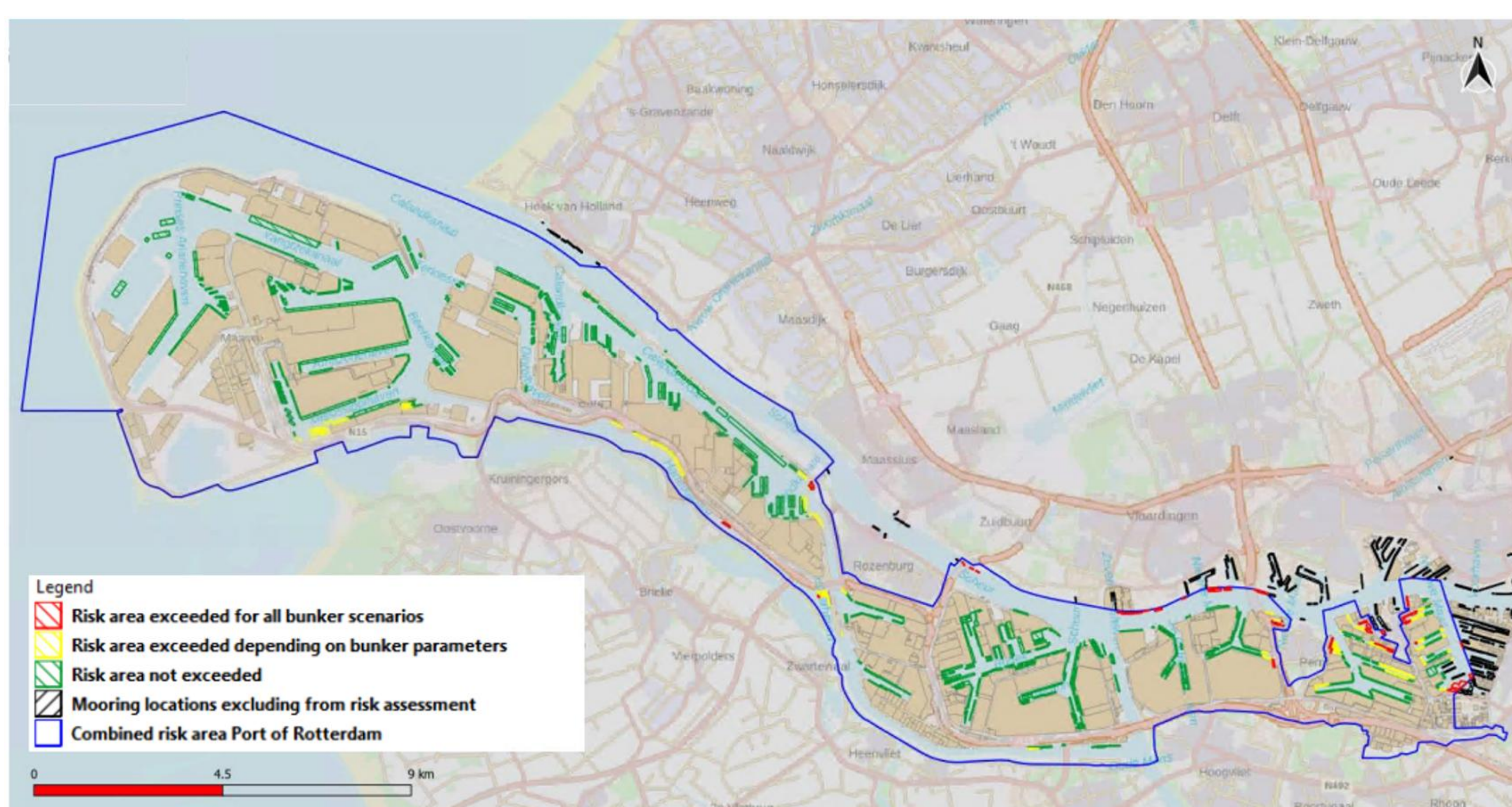
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KPIs

- Port Readiness Level
- Zero Ammonia Emissions
- Society for Gas as a Marine Fuel
- Guidance on ammonia bunkering compliance
- Social acceptance

Lessons Learned

- **Barriers** - Availability of ammonia fuelled ships, Availability of ammonia bunkering facilities, Volunteer ship owners/operators, Financial constraints, Volunteer molecule owners
- **Scalability** - TBD



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

