

**Interreg**  
North Sea Region  
**Inn2POWER**

European Regional Development Fund



EUROPEAN UNION

# Inn2POWER

a magnifier on offshore  
wind energy & green hydrogen

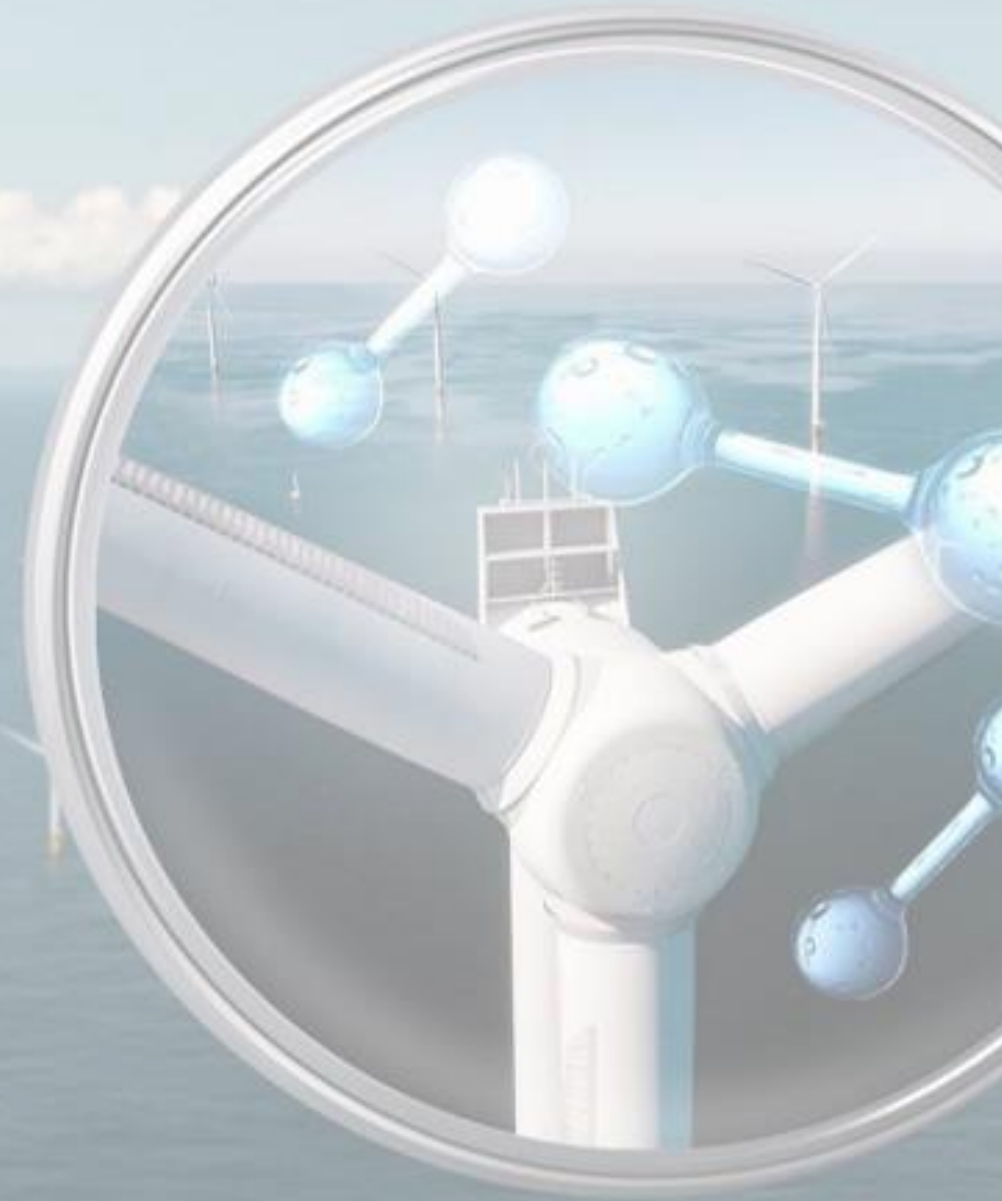
Ostend | 9 March 2023



# Welcome

9 March 2023

Marc Nuytemans, CEO





# 9 partners in 4 countries of the North Sea Region

## Belgium

- POM West Flanders
- Port of Ostend
- Blue Cluster
- WaterstofNet

## Germany

- WAB

## The Netherlands

- NOM Noordelijke Ontwikkelingsmaatschappij

## United Kingdom

- Opergy
- Kent County Council
- Hydrogen East



# The North Sea Economy: Europe's new powerhouse

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**Thank God for awful weather**





# Abundance of energy tends to attract industry (Nikolaus Wolf)

- The North Sea basin is one of the gustiest in the world with average windspeeds of 10 metres per second
- In May 2022 the European Commission & 4 North Sea countries agreed to install 150 GW by 2050 (raised to 260 GW by adding another 5 countries)
- Economies of scale drive down costs: in July 2022 Britain awarded contracts to 5 projects, including Dogger Bank (3,6 GW) at £37 (€44) per megawatthour, less than a sixth of the British wholesale electricity price in December
- Bad weather unfortunately stresses the grid, therefore more interconnectors (and energy islands) are necessary + enormous potential for green fuels (hydrogen, ammonia, methanol)
- The EU Commission has proposed a 'hydrogen bank' capitalised with €3bn to help finance projects (CIP says it has raised €3bn for a fund that will invest solely in hydrogen)
- And there's of course CCS
- Low electricity prices will allow for storage and processing data esp. Now that latency is not a big issue anymore



**And Vladimir Putin**



# 'Old' North Sea energy infrastructure

## 'Old' North Sea energy infrastructure

— Oil and gas pipelines\*

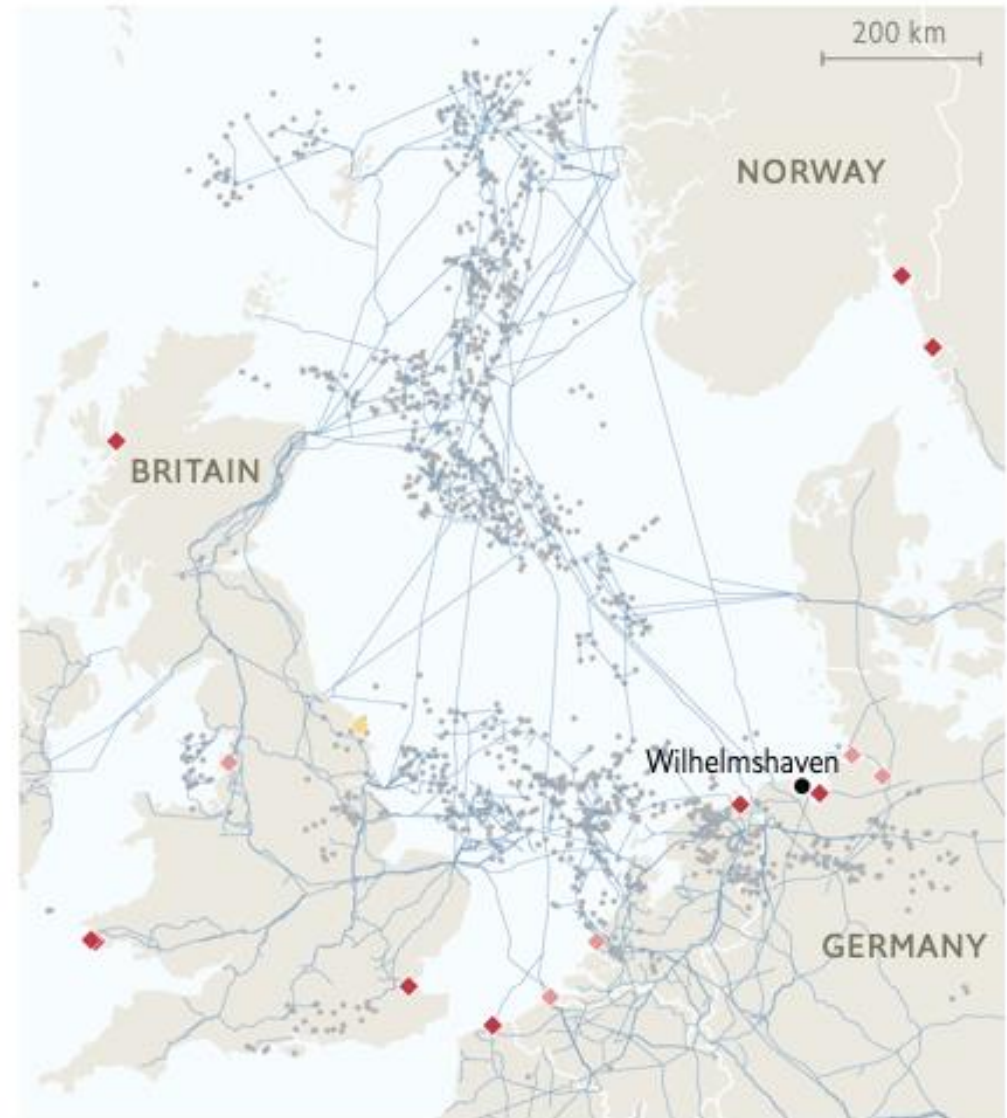
• Oil- and gasfields

### LNG import terminals

◆ Operating

◆ Under construction or planned

◆ Speculative





# 'New' North Sea energy infrastructure

## 'New' North Sea energy infrastructure

### Offshore wind farms

- Operating
- In progress or application
- Concept or development/ auction areas

### Hydrogen-electrolyser projects

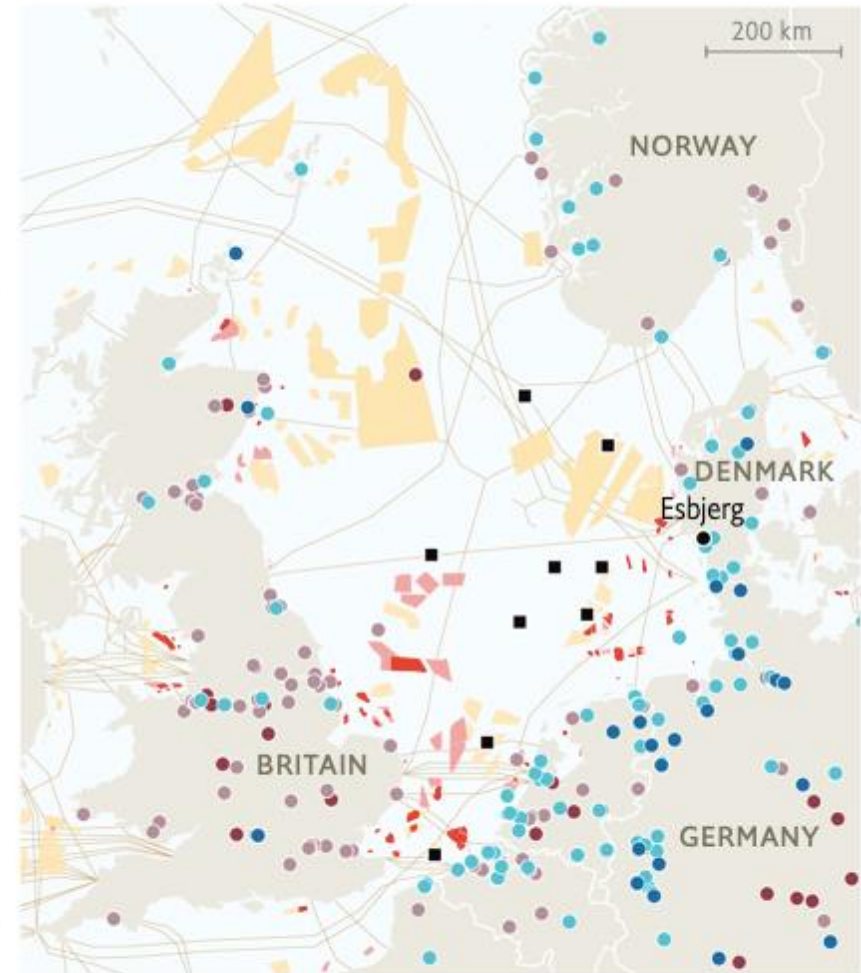
- Operating
- In progress or application

### Carbon-capture projects

- Operating
- Under development or planned

### Submarine cables\*

### Energy islands<sup>†</sup> (planned)



\*Operating, under construction or planned

<sup>†</sup>To host wind-farm repair staff, aggregate electricity and produce hydrogen in bulk

Sources: Rystad Energy; SINTEF; TeleGeography

# Caveats

Renewable energy will be even cheaper elsewhere (Christer Tryggestad < McKinsey) e.g. sun-kissed places as the Middle East & Spain

Permits for new wind farms take more than a decade to secure, which is far too long

The industry is running out of people (and machinery)

Joe Biden's Inflation Reduction Act (\$370bn in subsidies & tax credits so long as it's made in America)

Shift in political power from France & Germany (Bavaria) to a new bloc led by Denmark, the Netherlands and outside the EU, Britain & Norway



**Thank you**

**9 March 2023**

**Marc Nuytemans, CEO**

