Lhyfe

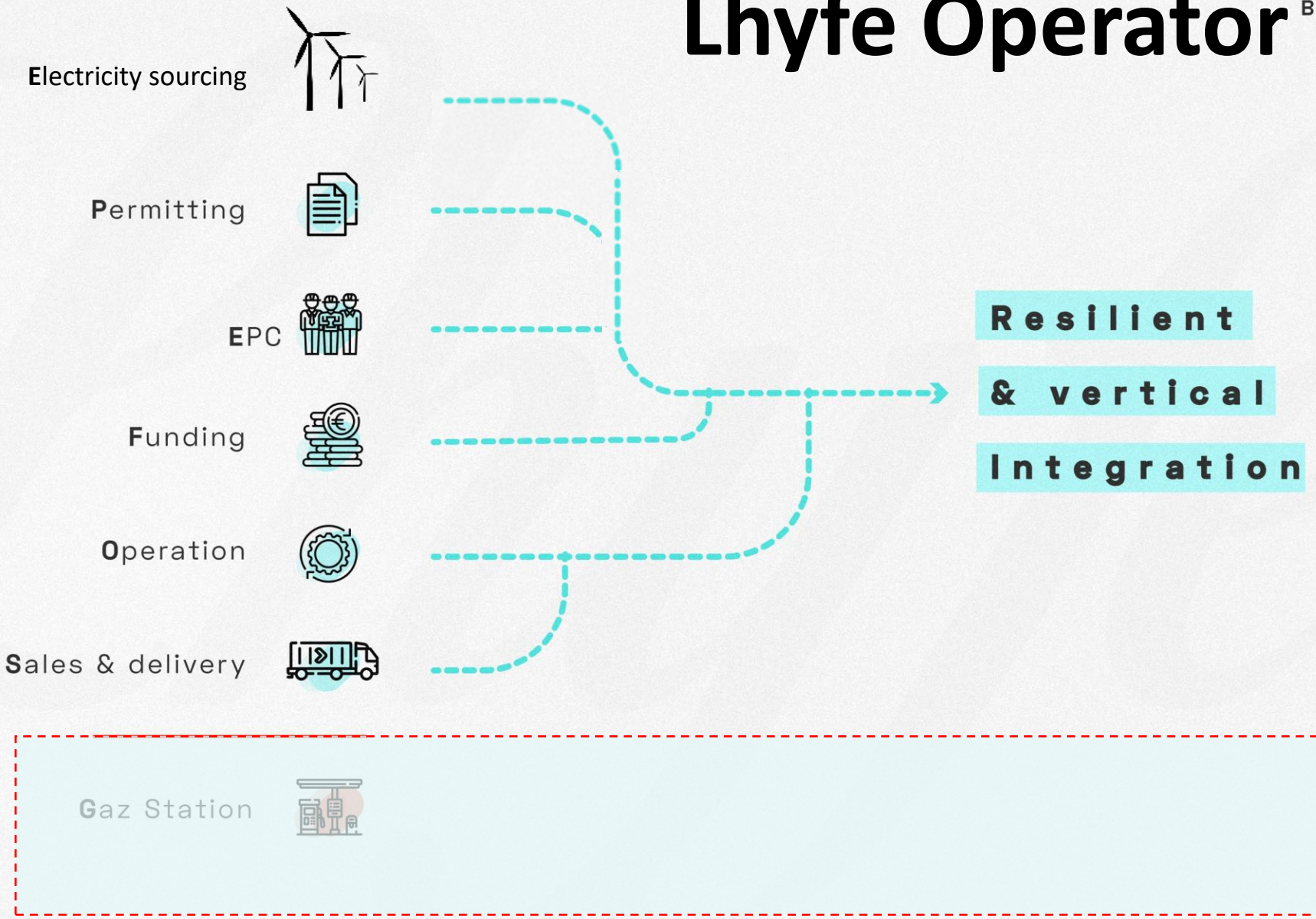
SUSTAINABLE
HYDROGEN
PRODUCER

W H Y ?

“WE WANT TO CHANGE THINGS NOW, NOT TOMORROW !”

Lhyfe Operator

LHYFE BUSINESS MODEL



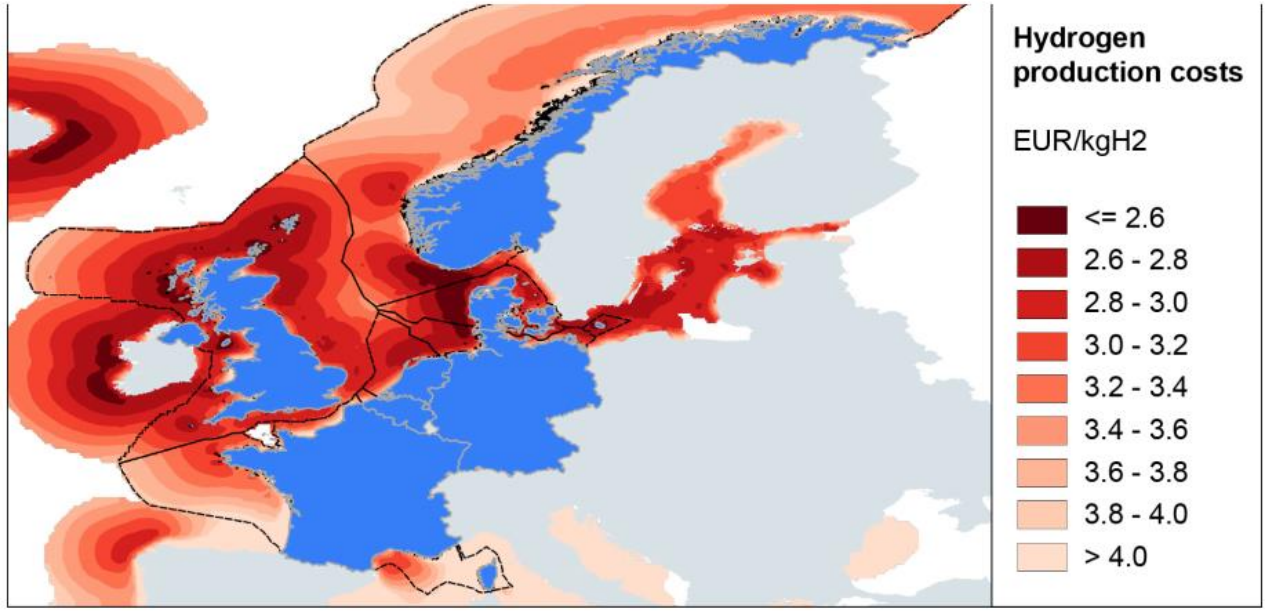
Offshore Resources

OFFSHORE – WHY?

EU ambitions by 2030:

- 40 gigawatts of green hydrogen using electrolyzers
- => About 80 to 120 gigawatts needed to power them

Hydrogen production costs from offshore wind in the Accelerated scenario, 2030



Notes: This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. The analysis is based on hourly wind speed data from Copernicus Climate Change Service (2020).[56]

https://www.greentechmedia.com/articles/read/why-offshore-wind-and-energy-giants-are-chasing-off-grid-green-hydrogen


Offshore Deployment

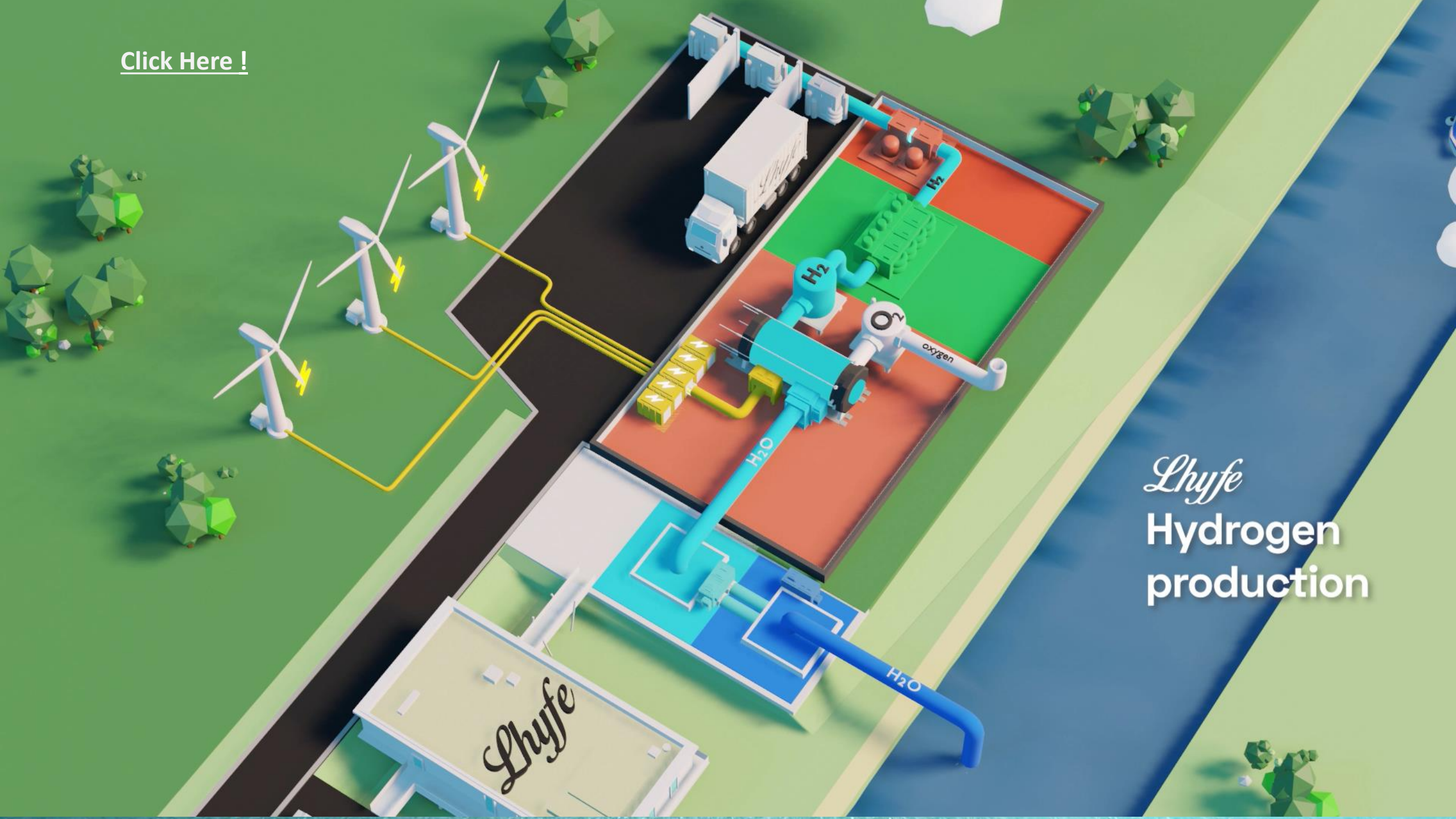
Lhyfe

PRODUCER AND SUPPLIER

OF CLEAN & RENEWABLE HYDROGEN

…directly connected to the renewable energy

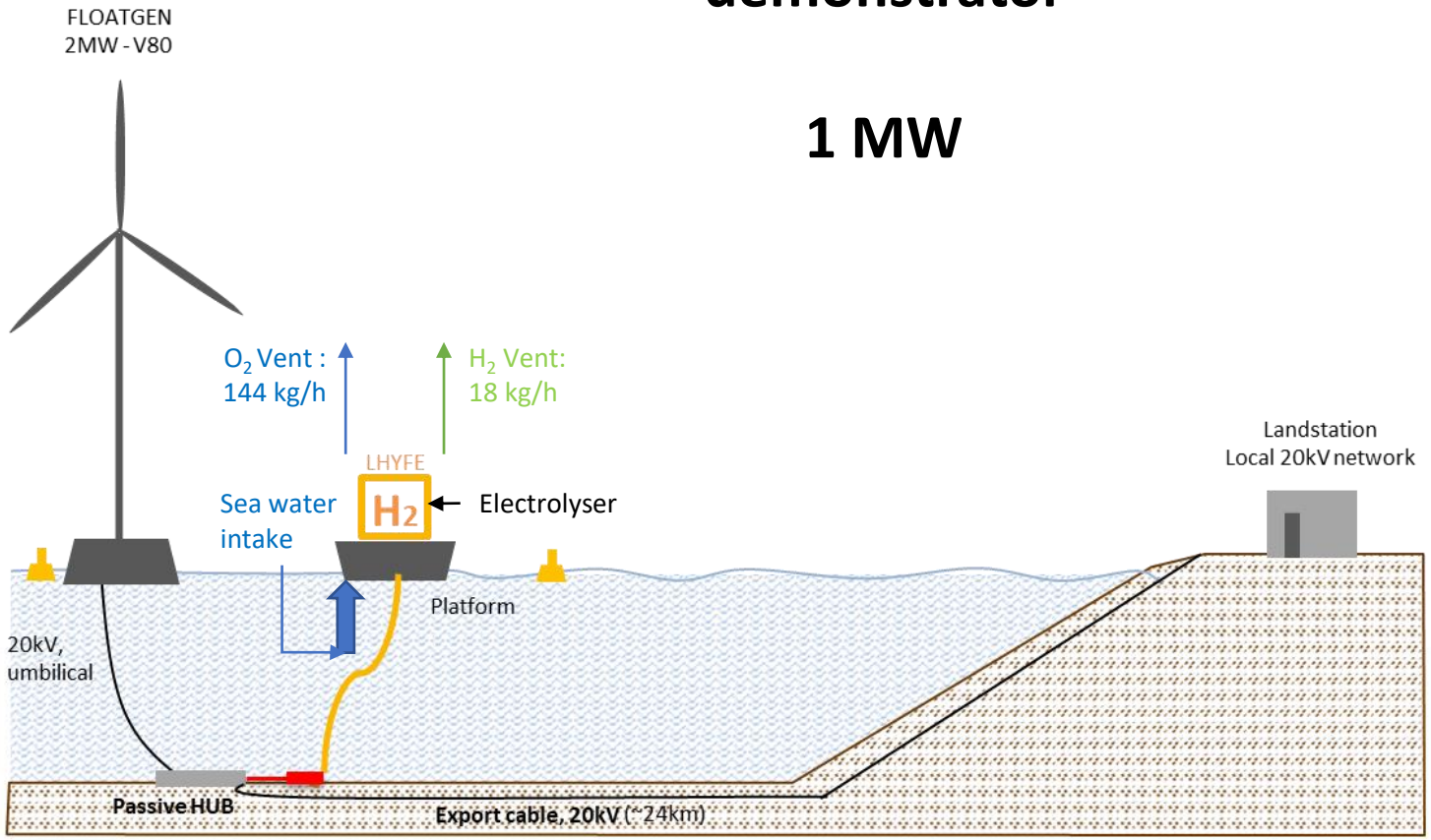
1st production site in OPERATION in JULY 2021 in France


Click Here !
H₂
H₂
O₂
oxygen
H₂O
H₂O
Lhyfe
Lhyfe
Hydrogen
production

SEM-REV

World 1st offshore demonstrator

1 MW



Green electrons only

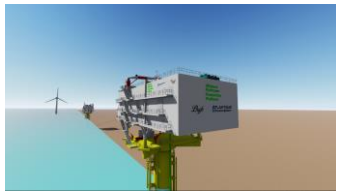
Remote operations from LHYFE data center

SeaLhyfe project

Sea Lhyfe Project

Offshore H2 production concept developments

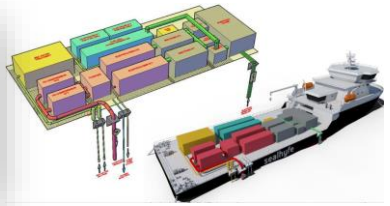
Lhyfe + CHANTIERS DE L'ATLANTIQUE



Topside Concepts
- From 100 MW and above
- Can produce about 50 T/d of H2 corresponding to 1000 boe/d

Lhyfe + SOFRESID ENGINEERING

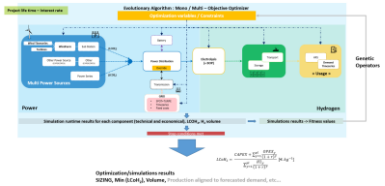
Re-use Oil & gaz assets



Floating Concepts
- 10 MW and above
- About 5 T/d and above

Lhyfe + cea tech

Global optimization



H2 Technology
- Transport
- Storage

Haldane Project

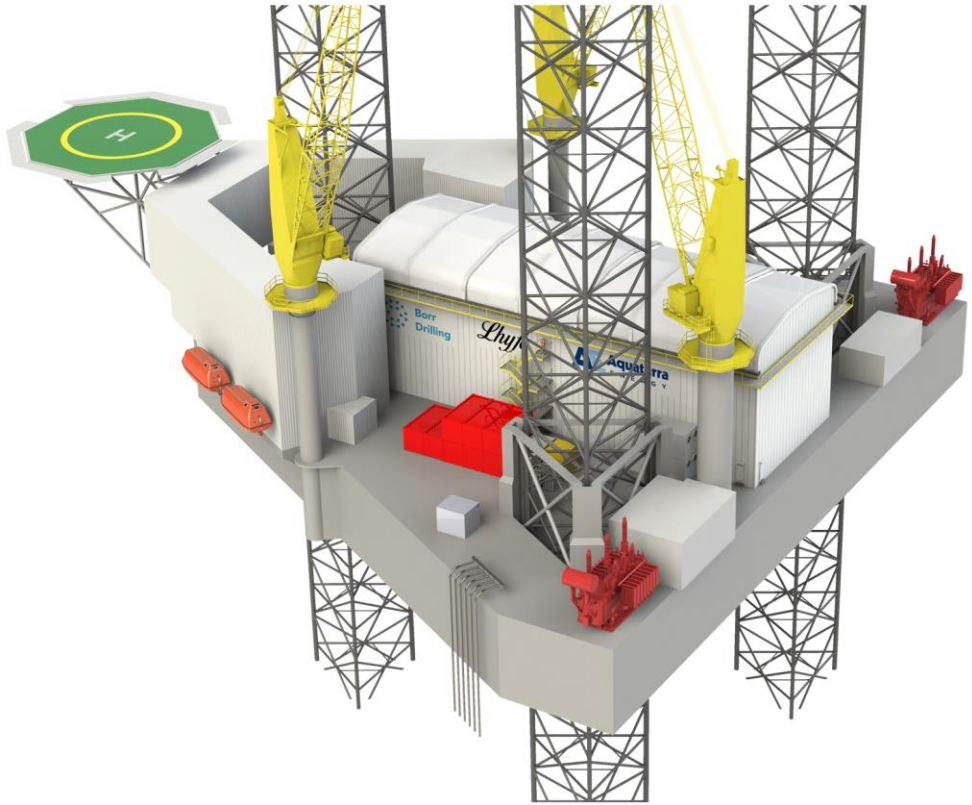
Background and Characteristics

Use an **existing Jack-up rig**

Design and **accomodate H2** process

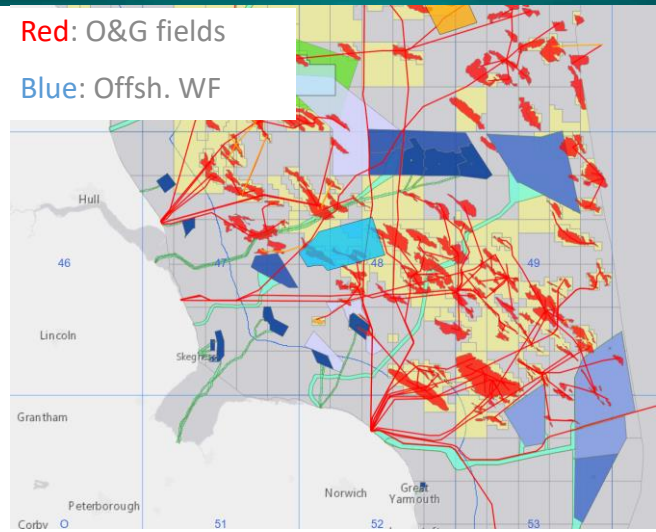
About 300 MW electrolysis capacity

About 120 T/d H2 production corresponding to about 3000 boe/d



Red: O&G fields

Blue: Offsh. WF

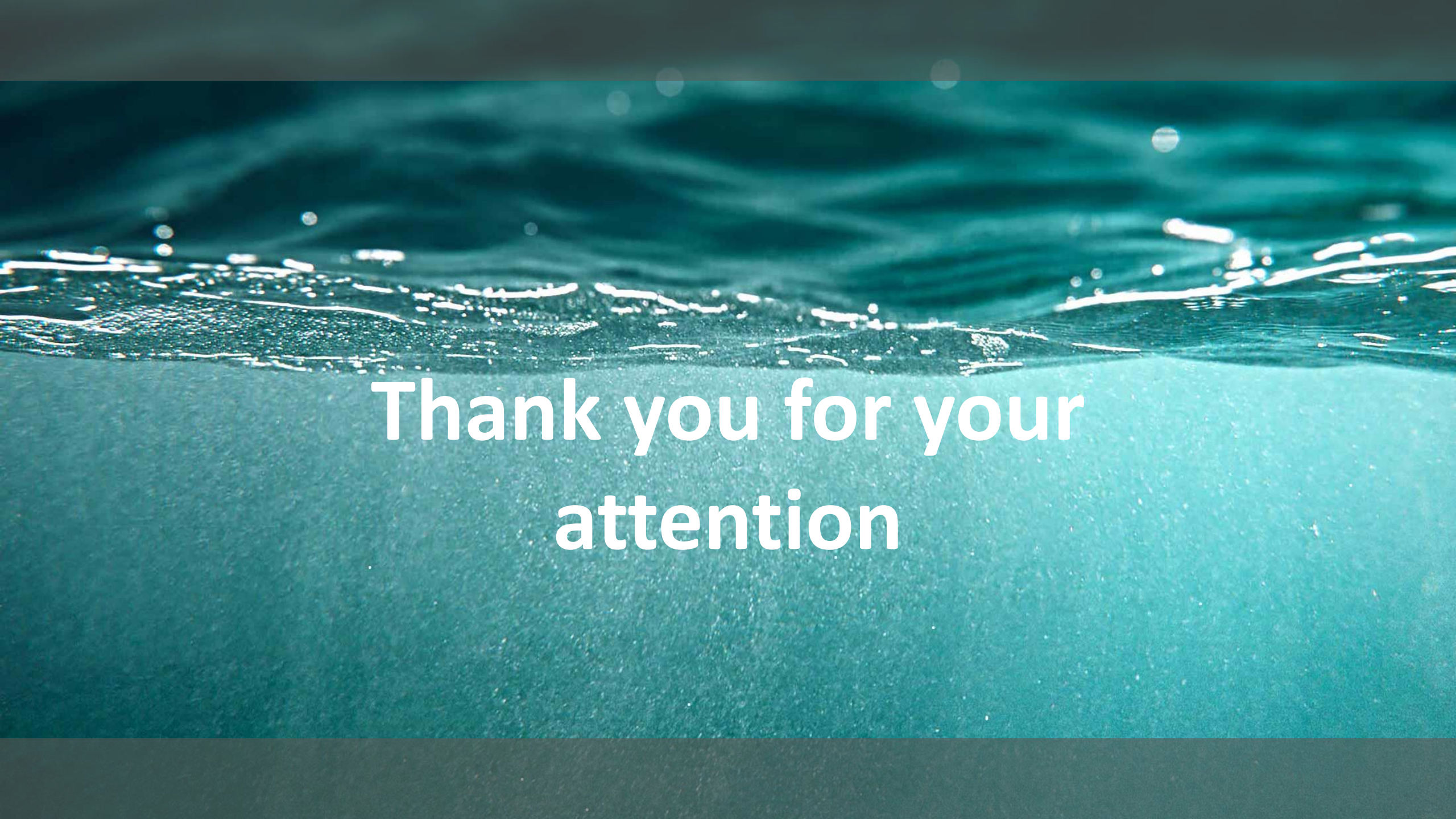


Aquaterra Energy

Lhyfe

Borr Drilling

NEREHYD Project

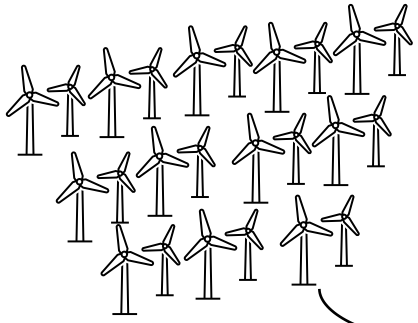

Thank you for your attention

Why choosing Lhyfe?

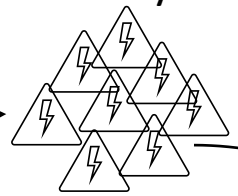
Electricity production

Lhyfe

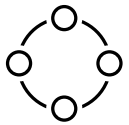
Client



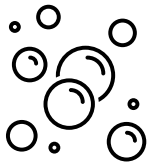
Electrolysis



H_2 Transport & Storage

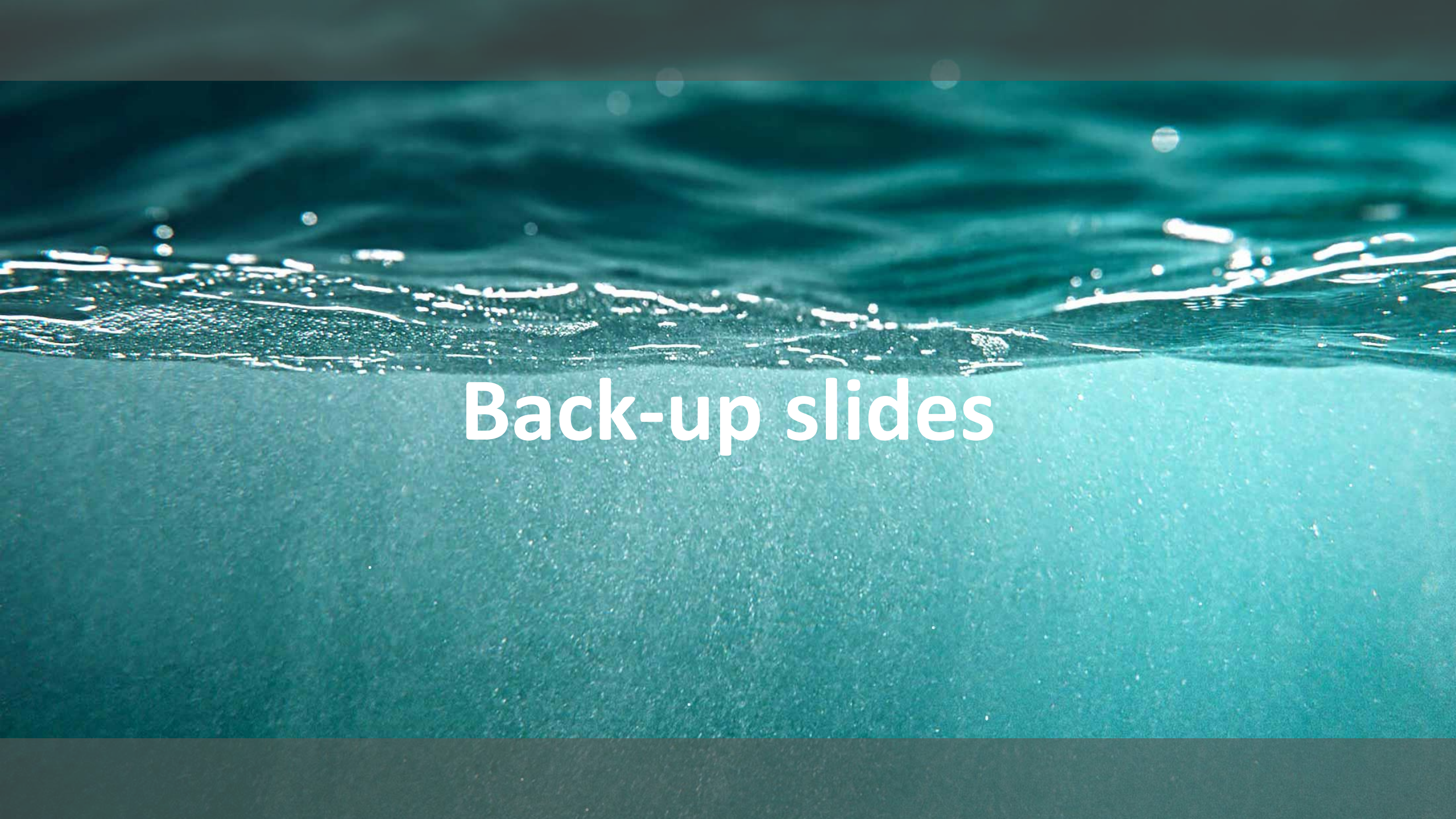


O_2 re-injection



Win the fight !

Lhyfe



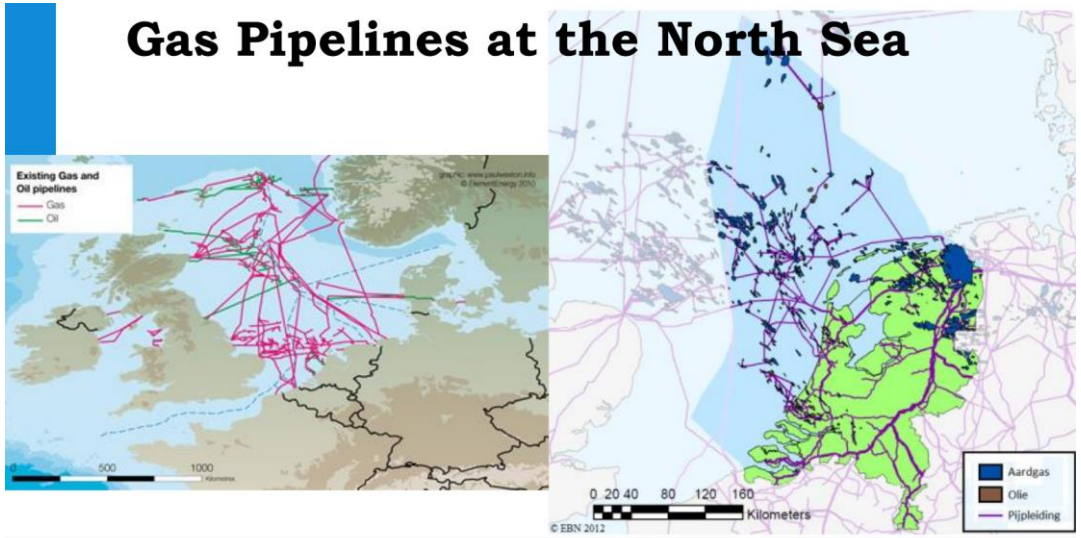
Back-up slides

Transport systems

Cable versus pipeline cost

	Cable (BritNed)	Pipeline (BBL)
Capacity	1 GW	15 GW
Construction Cost	€ 500 mln	€ 500 mln
Volume (year)	8 TWh	120 TWh

Gas Pipelines at the North Sea



- A higher cost efficiency to transport energy by pipe as by cable
- An offshore gaz network compatible with hydrogen
- An onshore gaz network under development

OUR AMBITIONS FOR OFFSHORE DEPLOYMENT

Target: 3GW offshore by 2030