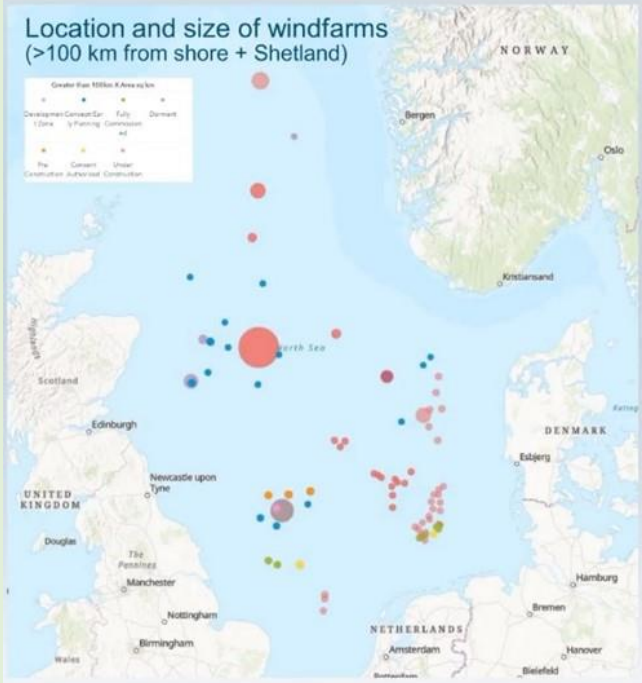
AquaDuctus

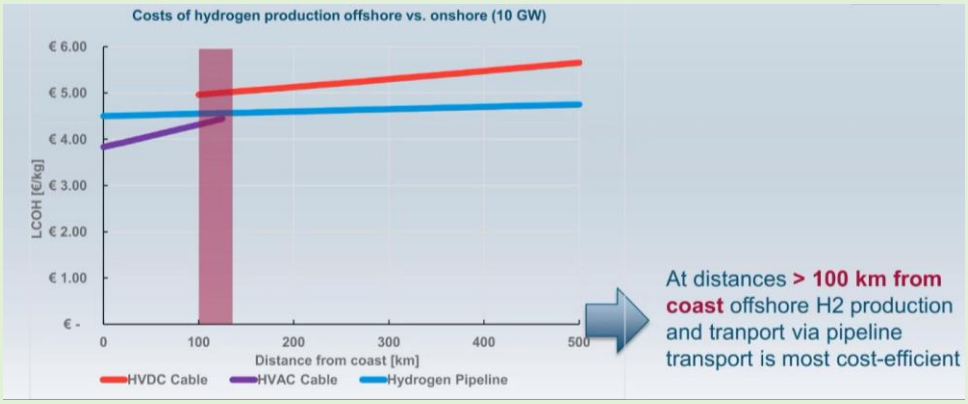
Nucleus of an offshore hydrogen backbone

Green Hydrogen Potential of the North Sea



- By **2050**, an offshore wind capacity of **135 GW** (equivalent to 450 TWh/a) is forecast and meets >100km criteria
- This results in a **green hydrogen** production capacity of **~100 GW**

- Hydrogen Demand in 2050 could exceed **2000 TWh/a in Europe** (thereof 500 TWh/a in Germany)
- Strategic benefits for considering domestic production within the EU to help maintain **Europe's energy security**



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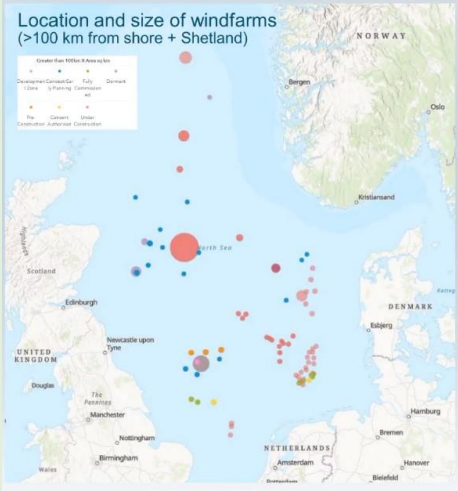

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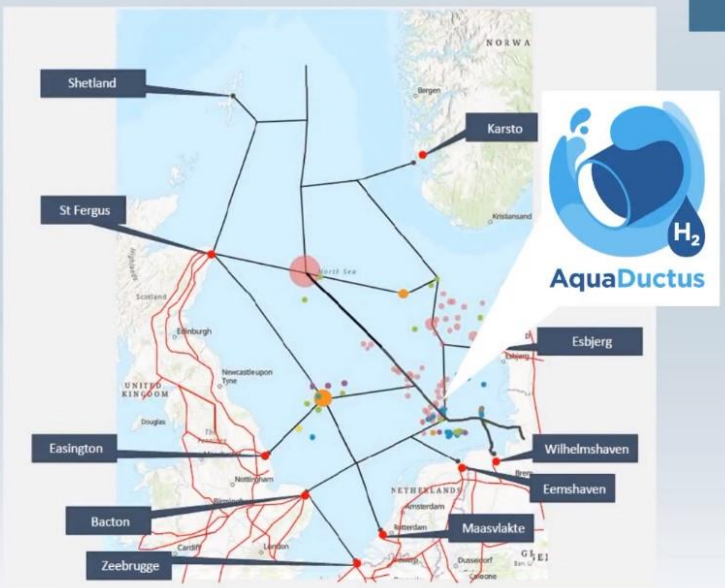
Offshore Hydrogen Backbone in the North Sea

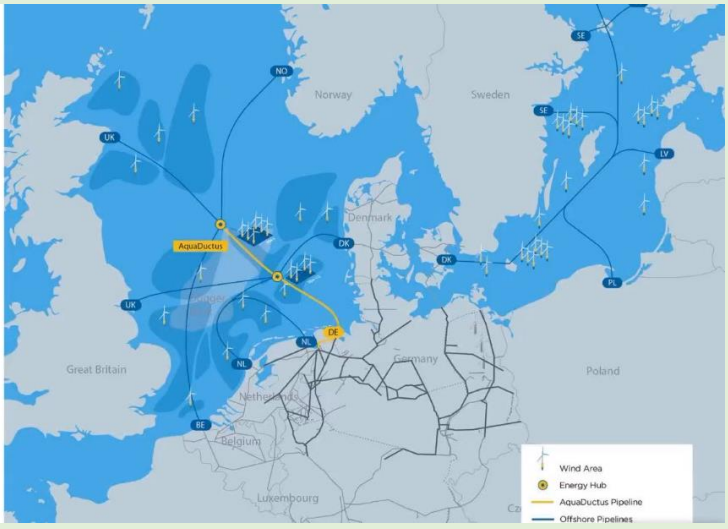
- An interconnected H2 network in the North Sea sums up to approx. **4.000 km** in length
- The invesment in the pipeline infrastructure is approx. **15-22 billion EUR** (newly constructed)
- An interconnected H2 network in the North Sea only increases the levelized cost of H2 by **0,1 to 0,2 €/kg**
- **AquaDuctus** is an **integral part** of the future H2 interconnected network in the North Sea

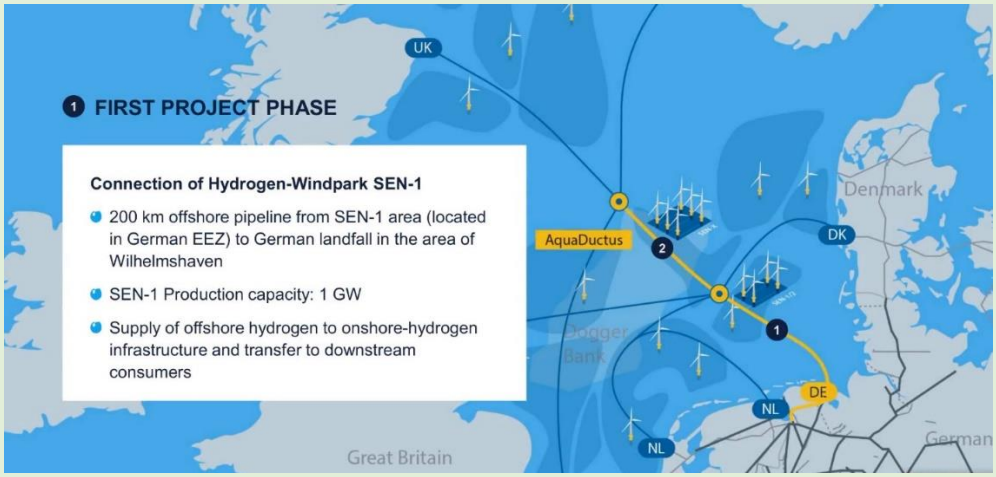


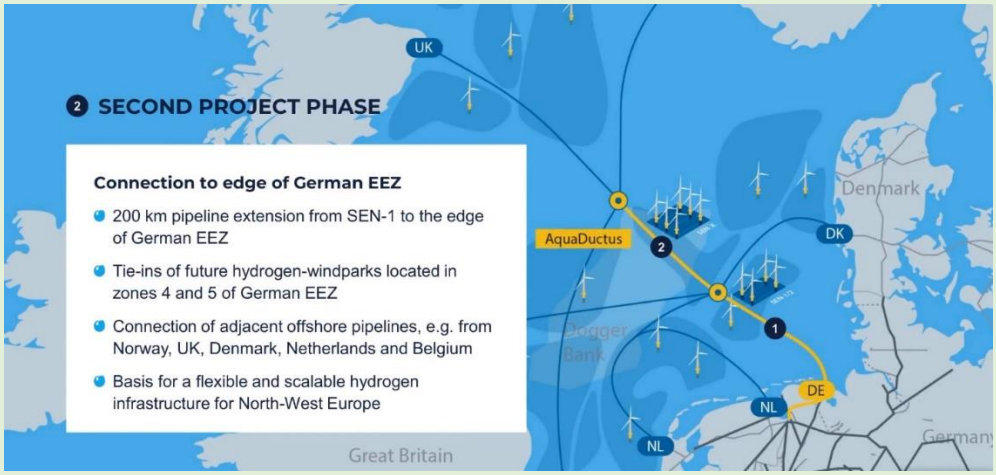
AquaDuctus

Key Facts

- Offshore Hydrogen-Pipeline in German Northsea
- Length: > 400 km (German EEZ and coastal waters)
- Transport capacity: 20 GW
- Start of operation: 2030 (planned)
- Open access for all potential







Conclusion

- Domestic offshore H2-Production is fundamental for Europe's future energy supply/ security and achievement of its climate targets
- Offshore Hydrogen Pipelines are most efficient in terms of cost, implementation time and environmental impact compared to alternative energy transport concepts
- AquaDuctus as GW-scale offshore hydrogen backbone pipeline unlocks the German EEZ at a length of ~400km and is the German import route for offshore hydrogen in the future European Offshore Hydrogen Backbone
- AquaDuctus provides the interconnection for offshore hydrogen production sites as well as export pipelines originating from other North Sea countries aiming for hydrogen transport to Germany (open-access-principle)

Courtesy; Mission Hydrogen & AquaDuctus

https://bit.ly/3p8ade7

Hydrogen Networks