

Offshore Wind

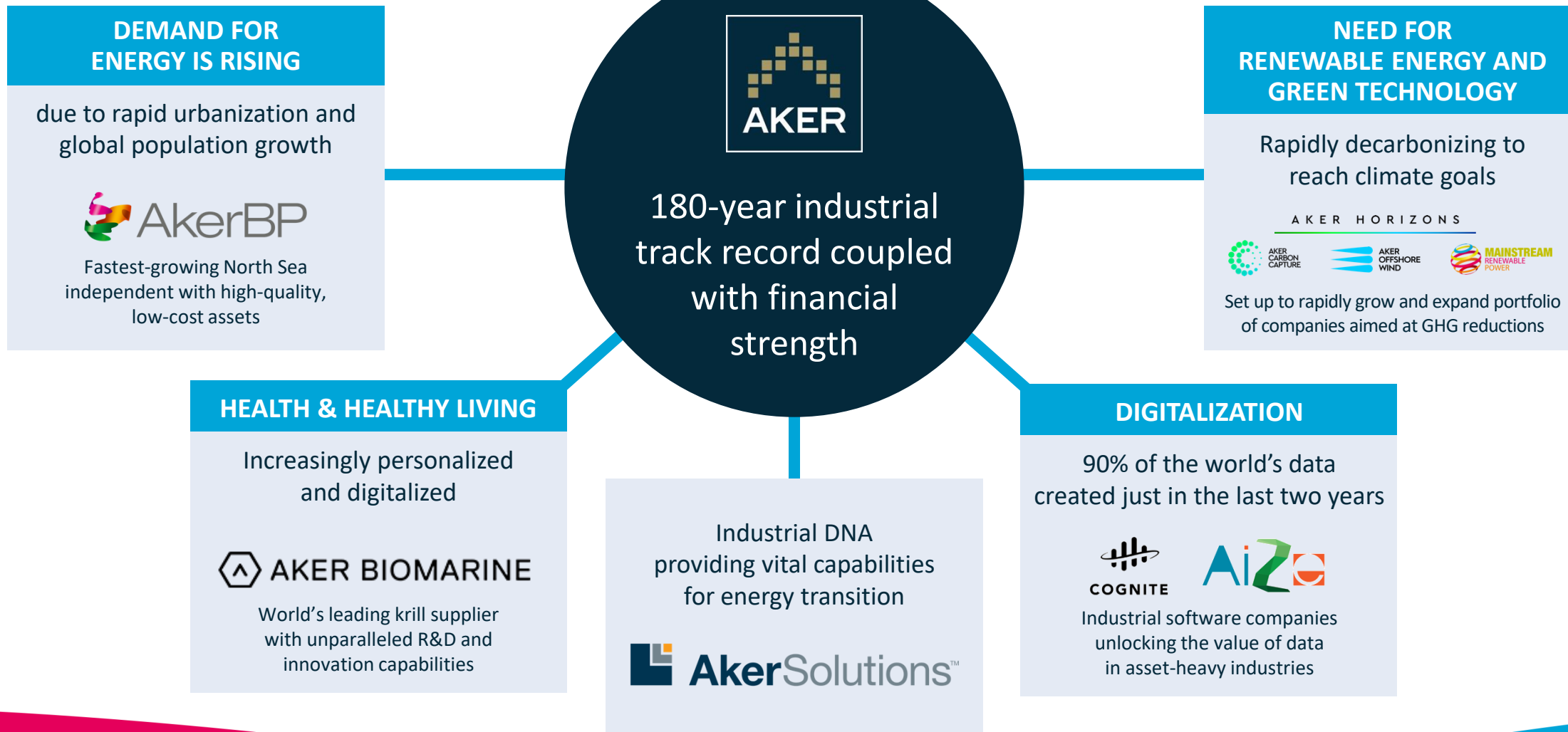


EERA Deepwind 2023 - Advancements in offshore wind,
Geir Olav Berg, SVP Engineering & Technology, Mainstream Renewable Power

20/01/2023

A WORLD ELECTRIFIED
BY RENEWABLE ENERGY

Aker group positioned to invest along global megatrends

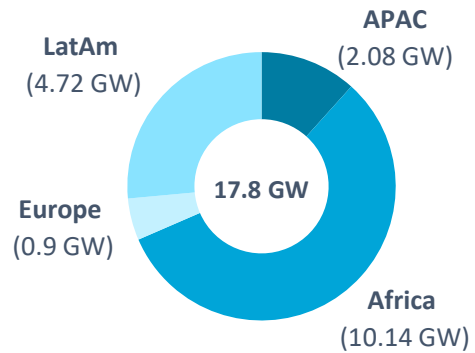


Global Pipeline (offshore, onshore, solar)

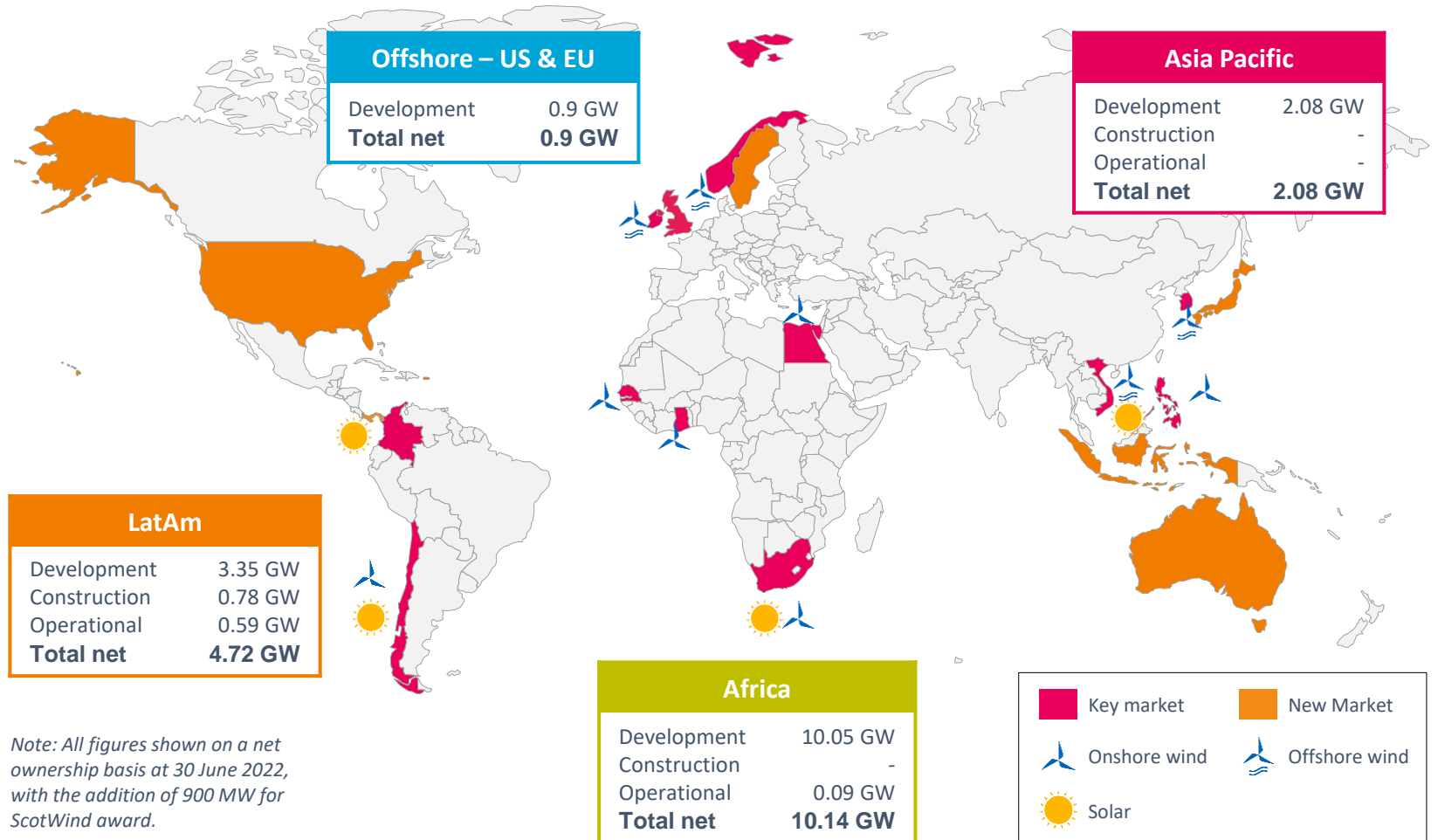
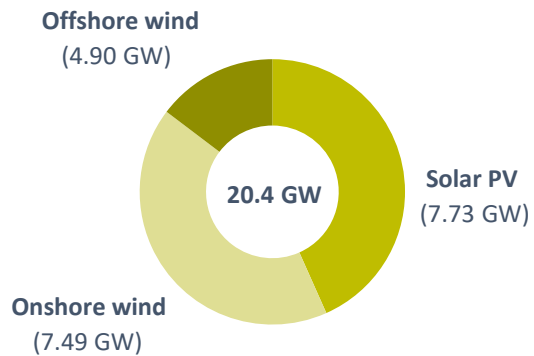


Reflects assets in development, construction and operation

Capacity distribution by geography



Capacity distribution by technology



Note: All figures shown on a net ownership basis at 30 June 2022, with the addition of 900 MW for ScotWind award.

Global Offshore Wind Projects

4.9 GW in Active Development



Scotwind 1.8 GW

Shetland Islands, Scotland

- > Appointed preferred bidder on NE1 by Crown Estate Scotland
- > Developed in partnership with Ocean Winds.

Phu Cuong 1.4 GW

Soc Trang Province, Vietnam

- > Will be the largest wind farm in SE Asia when complete
- > 1.6 million homes powered each year
- > TCO₂e savings each year: 1.8 million
- > Phase 1 (400 MW)

KF Wind 1.2 GW

Ulsan, South Korea

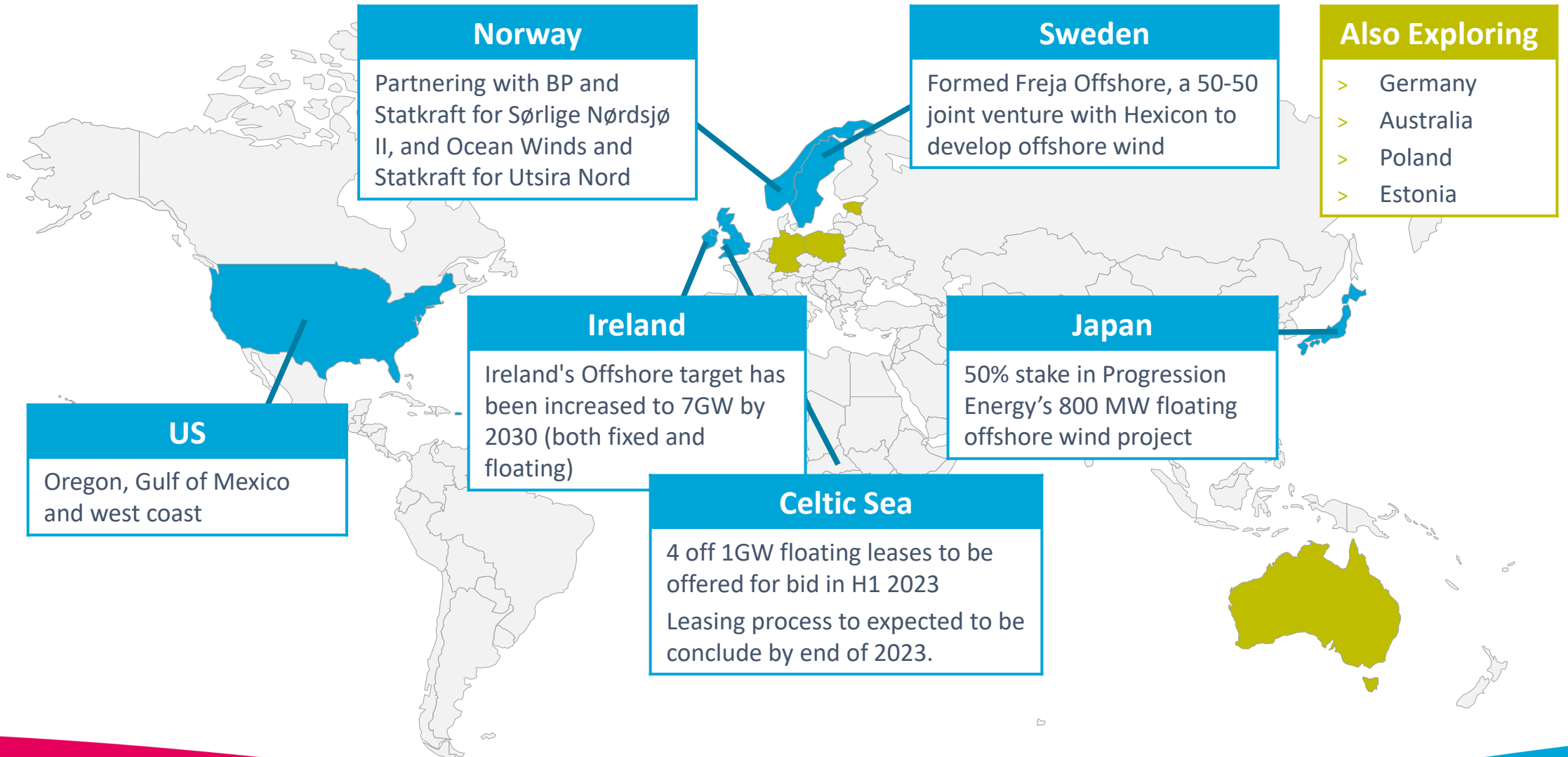
- > Phase 1: 500 MW, generating from 2027
- > Site location: 80 km from the coast
- > Developed in partnership with Ocean Winds and local partner, Kumyang Co.

Ben Tre 500 MW

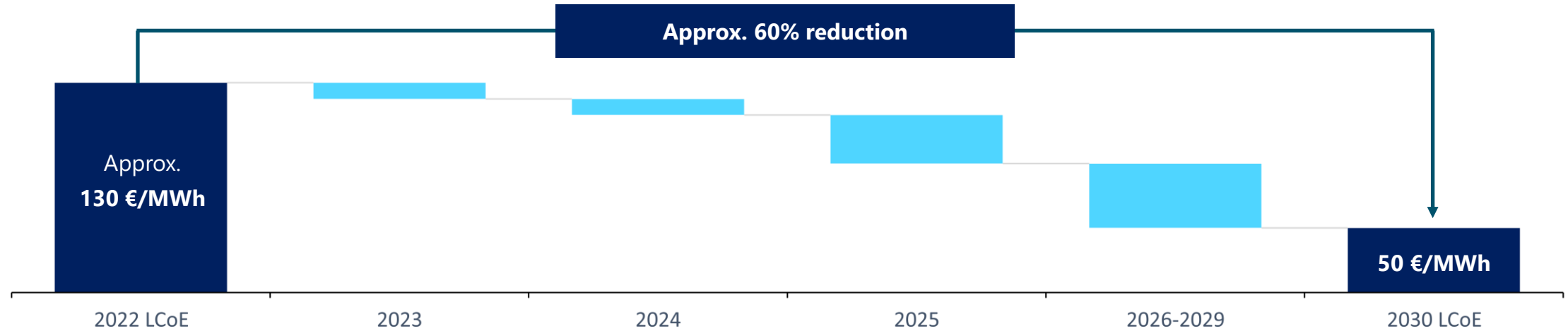
Ben Tre Province, Vietnam

- > Formed joint venture with AIT in Nov 2020 to co-develop the project
- > Received site survey license
- > Completed feasibility study

Upcoming Offshore Opportunities



Advancements in offshore wind – Key drivers to bring down offshore wind LCOE



Key drivers

WTG

- Increase turbine size beyond 15 MW to 20+MW (reduced number of turbines)
- Low wind speed WTG
- Cost efficient WTG-Floater integration
- Wake steering in high density WTG's layout

Foundations, Mooring & Marine Operations

- Mass production & industrialization of floater
- Deepwater bottom fixed (60-70 m) XXL monopiles
- Enable deep/shallow-water mooring
- Reduce mooring cost
- Cost efficient anchors for challenging soil conditions

Electrical system

- Industrialize and qualify dynamic cables and reduce cost
- Enable deep-water inter array cable
- Cost efficient floating / bottom-fixed HVAC substation
- Cost efficient bottom-fixed HVAC/HVDC substation
- Subsea HVAC substation

Digitalization

- Efficient site screening & Wind field layouts
- Increase data gathering & analysis for optimized operations
- Optimize maintenance (preventive & less human effort)

Other

- Onshore P2X and E-fuels
- Offshore H2 production, H2 pipelines
- Environmentally friendly technologies