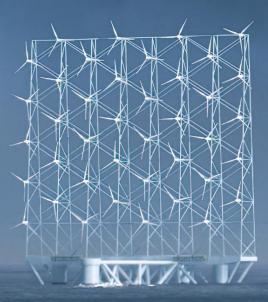


## Wind Catching Demo

Magnus Bakken, CCO and Project Manager

WIND +X CATCHING X+





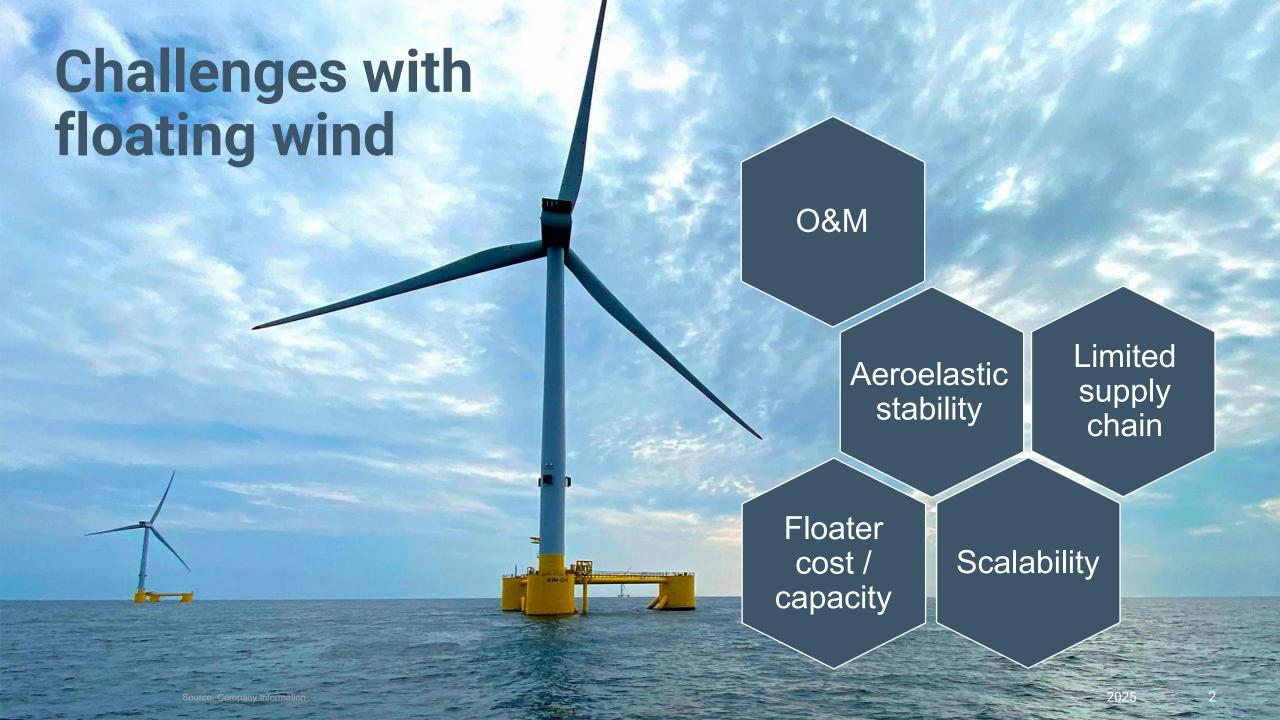








FOUNDERS AND MANAGEMENT



## Disruptive O&M capabilities

- ✓ Integrated turbine handling system with onboard repair and replacement of parts and turbines
- No return to shore and no crane vessel required - reducing O&M cost



5

4

lowering LCOE through solving key challenges

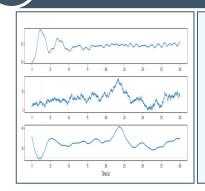
## WIND CATCHING X+

## **Efficient capacity scaling**

- ✓ The technology allows for scale with number of turbines instead of the turbine size
- ✓ Multi-rotor technology enables scaling of installed capacity, limiting the need for developing new turbines



## Loading, Energy capture & stability



- ✓ No issues with aeroelastic stability of large blades
- Significantly reduced peak thrust loads due to rotor averaging
- ✓ Increased energy capture due to blockage and individual turbine control

## Standardization, mass production, transportation



- Standardized design enabling a flexible and local supply chain in addition to easy transport in containers
- Mass production of small turbines available in all relevant regions with high local content opportunity

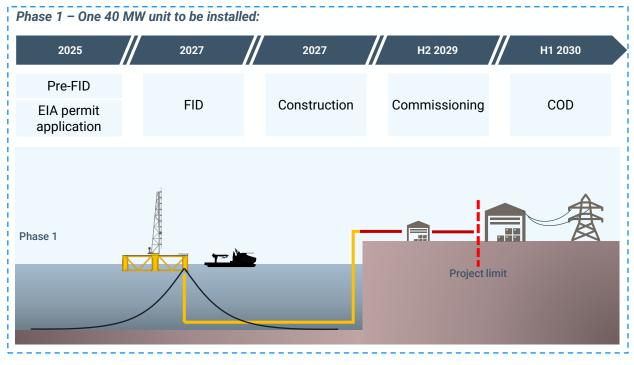
## Turbine CAPEX, OPEX and supply chain



- ✓ Due to scaling laws, significantly lower total mass and cost of turbines.
- ✓ Greater supply chain for smaller turbine components
- Lower offshore wind entry requirements for **OEMs**

## Wind Catching Demo project overview

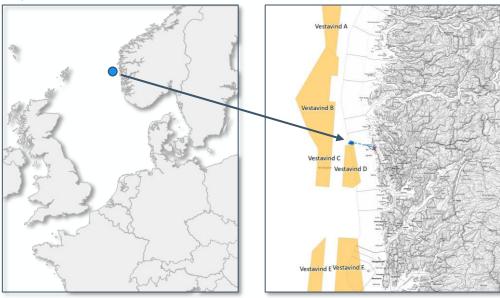
#### Wind Catching demo with 30 years operational lifetime



Phase 2 - Possibility to install additional units with up to 210 MW

### To be installed near Vestavind D, funded together with partners

#### **Project location**



#### Key stakeholders



Leading offshore wind developer as main partner

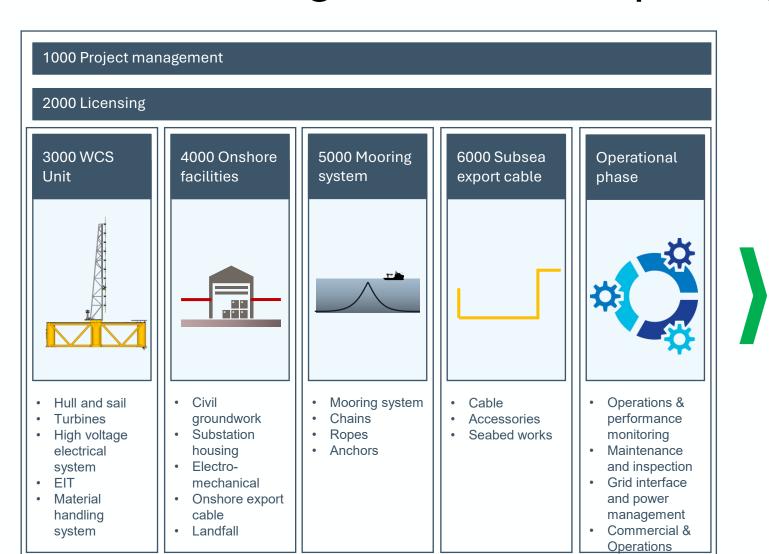


Granted EUR 105m in Jan'25 for construction **Undisclosed OEM** 

Collaboration on turbine system with CapEx and O&M focus



## Wind Catching Demo - Work packages



### FID Deliverables

#### **Project Management**

→ PEM & Schedule; HSE & Quality Plans; Stakeholder & Permitting Status, Risk & Mitigation Assessments

#### Regulatory & Legal

→ Permits; Landfall/Onshore Cable Approvals; Legal & Due Diligence Review

#### **Procurement & Yards**

→ Fabrication yard shortlist; Procurement strategy; Vendor pre-qualification; Yard availability & capacity; Contracting strategy

#### Windcatcher unit

→ Hull, Sail, Turbines, HV system, Elevator, Control system

#### **Electrical & Grid**

→ Grid Connection Agreement; Electrical System Concept; Load Flow & Compliance Studies

#### **Installation & Logistics**

→ Installation Strategy & Schedule; Assembly yard Marine Operations & Logistics Plan

#### **Site & Environment**

→ Metocean Data & Analysis; Geophysical & Geotechnical Surveys; Environmental & Marine Risk Assessments

#### **Operations & Maintenance**

→ O&M Strategy; Reliability/Availability Model; OPEX Estimate & Maintenance Plan

#### Commercial & Financial

CAPEX/OPEX & LCOE Estimates; Energy yields/Power curves, Financial Model; Insurance and Warranties

# Key activities in 2025-2027 to mature technology

### Work scope for technology readiness

### FEED scope

## FID and LCOE confidence deliverables

2027

#### Development of proprietary technology

Turbine system with OEM

Turbine Handling System

Floater

#### **Technology Qualification**

Model testing

Large-scale testing

Rotor interaction

Simulations

Aerodynamic effects

### Project Engineering

Mooring and cable system

Structural engineering

Systems engineering

**Electrical & Controls** 

Project execution

model

- ✓ Basic Design review
- ✓ Basic Engineering documentation
- ✓ Quantities, specifications, weights
- Qualified technology
- √ Fabrication and assembly model
- √ Familiarised EPC supply chain

- ✓ Basic Design approval
- ✓ Firm offers for all main CAPEX and OPEX elements
- √ Verified Power Production estimate
- Comprehensive project execution plan and schedule
- ✓ Risk management with mitigation plan
- ✓ Verified commercial park scale LCOE estimate
- ✓ Commercial park scale O&M model
- √ Familiarised supply chain



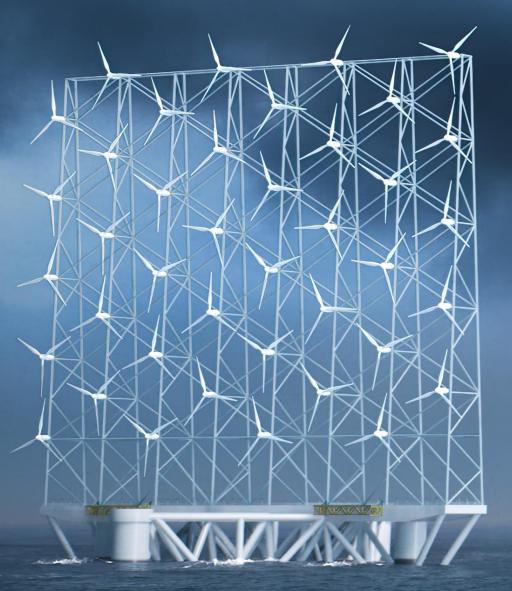
Positive FID



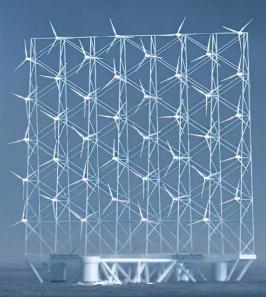
Design with LCOE confidence



Technology ready for project adaption



Thank you!



VIND +X
CATCHING X+