

# Pentland Floating Offshore Wind Farm

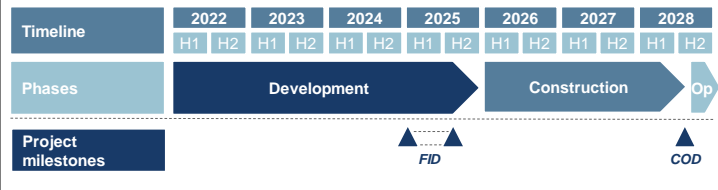
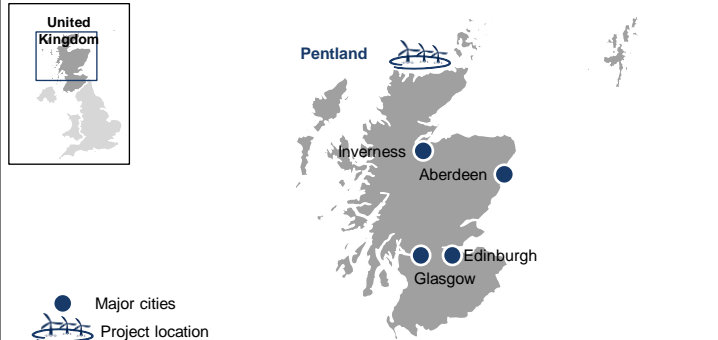
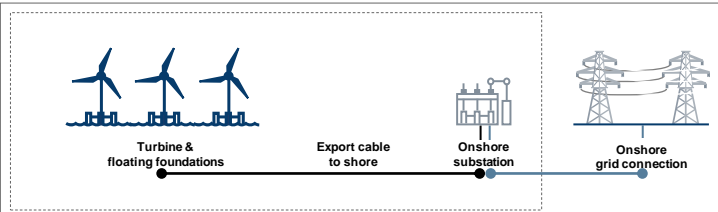
## DeepWind INTOG 2024: Supply Chain Update

Wednesday 17<sup>th</sup> April, Isaac Connell



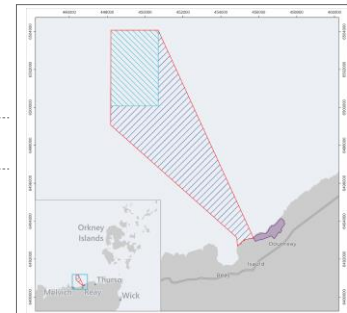
# Introduction to Pentland floating offshore wind farm

## Overview of infrastructure assets and project location



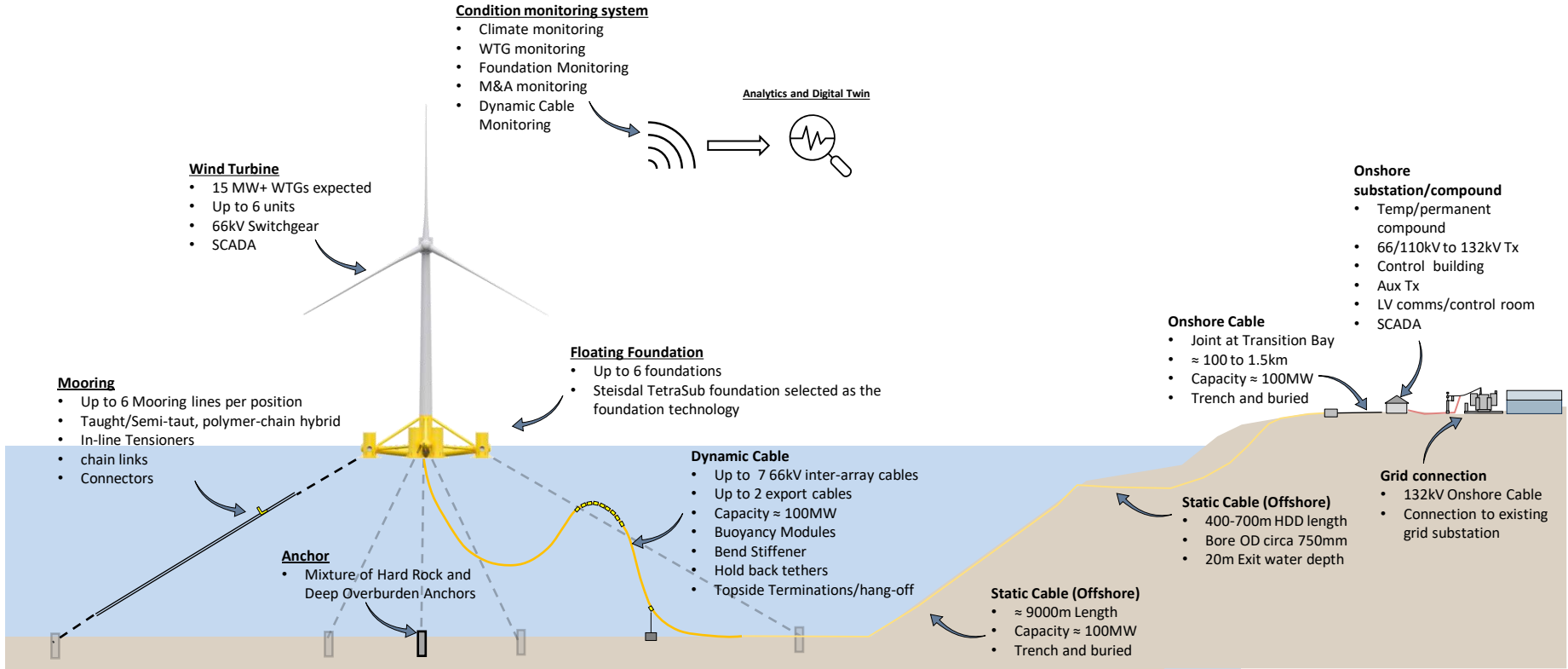
## Key project facts

<b>Background</b>	<ul style="list-style-type: none"> <li>Advanced stage floating wind demonstration project up to 100 MW</li> <li>Objective to deploy technologies that will enable industrialization in floating offshore wind</li> <li>Stiesdal offshore technologies tetrasub technology selected</li> </ul>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>6 x WTGs up to total capacity of 100 MW</li> </ul>
<b>Location</b>	<ul style="list-style-type: none"> <li>Located 7.5km off the coast of Dounreay, North Scotland</li> <li>Situated close to existing and planned transmission level grid infrastructure and with good access to suitable port facilities</li> </ul>
<b>Site conditions</b>	<ul style="list-style-type: none"> <li>The site area is ~10 km<sup>2</sup></li> <li>Wind speeds of ~10+m/s</li> <li>Water depths of 75-101m LAT</li> <li>FLiDAR campaign complete and Offshore Geophys/tech complete</li> </ul>
<b>Lease, Consenting and Land</b>	<ul style="list-style-type: none"> <li>✓ Lease option agreement secured with CES</li> <li>✓ Offshore consent granted for 100MW with 25-yr operations</li> <li>✓ Onshore consent granted in early 2023</li> </ul>
<b>Grid capacity</b>	<ul style="list-style-type: none"> <li>✓ Grid secured for up to 100 MW</li> </ul>
<b>Timeline</b>	<ul style="list-style-type: none"> <li>FID expected 2025</li> <li>COD targeted in 2028</li> </ul>

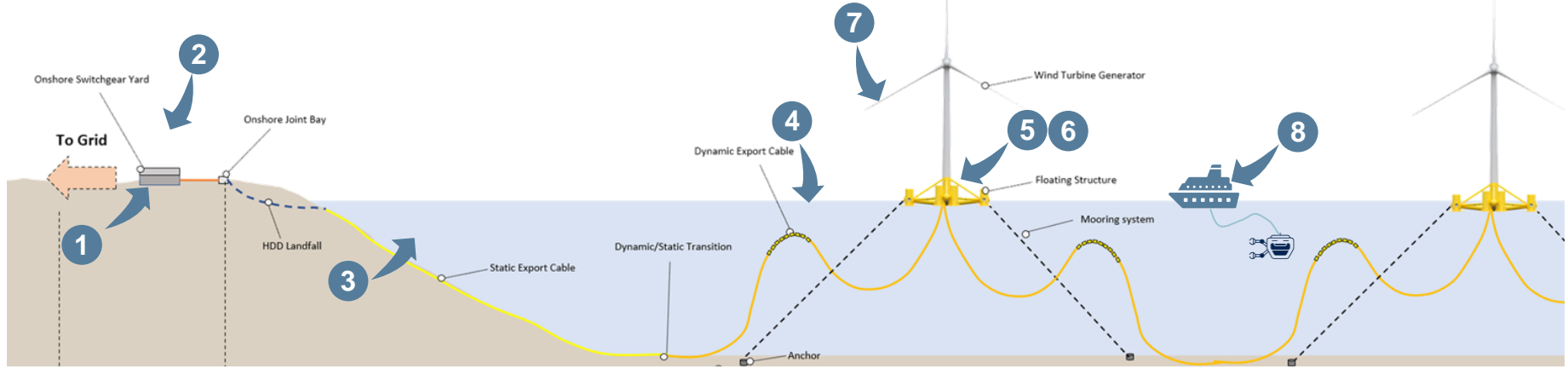


# Project Concept & Scope Overview

Overview of current design thinking, subject to refinement and finalisation



# Overview of Types of Supply Chain Opportunities

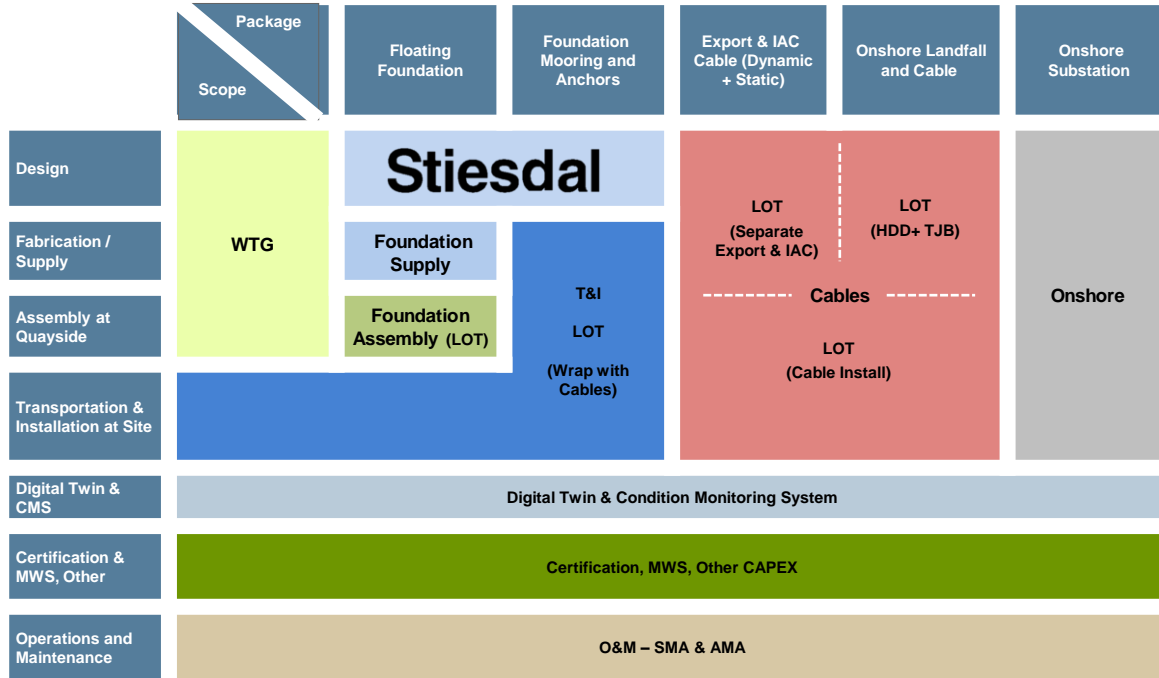


	1	2	3	4	5	6	7	8
Package/Scope	Onshore Substation and Infrastructure	HDD and Onshore Cable	Export & IAC Cables	Mooring & Anchoring/T&I & Hook-up	Floating Sub Structure Supply/ Assembly	Floating Sub Structure Fabrication	Wind Turbine Generator	Operation and Maintenance
Tier 1 (EPC or EPCI contractors)	EPC selection in progress	EPCI selection in progress		EPCI selection in progress	EPC selection in progress	EPC selection in progress	EPCI selection in progress	AMA & SMA selection in progress
Tier 2 Scopes (high level, non-exhaustive)	<ul style="list-style-type: none"> <li>SI/GI</li> <li>Earthworks</li> <li>Buildings</li> <li>HV/LV fit-out</li> <li>Plant &amp; Temp offices</li> <li>Security</li> <li>Waste disposal</li> </ul>	<ul style="list-style-type: none"> <li>SI/GI</li> <li>Earthworks</li> <li>HDD services</li> <li>Welfare</li> <li>Generators</li> <li>Security</li> <li>Guard vessels</li> <li>Temp offices</li> </ul>	<ul style="list-style-type: none"> <li>Cable ancillaries</li> <li>Vessels</li> <li>Logistics</li> <li>Storage</li> <li>Labour</li> <li>Site surveys</li> <li>Lifting services</li> <li>Vessel crew</li> </ul>	<ul style="list-style-type: none"> <li>Mooring lines</li> <li>Mooring Connector</li> <li>Anchor Supply</li> <li>Vessels &amp; crew</li> <li>Bunkering</li> <li>Subsea inspections and repair</li> <li>Labour</li> <li>Guard vessels</li> <li>Marshalling Port</li> <li>Port Services</li> </ul>	<ul style="list-style-type: none"> <li>Port services</li> <li>Grout supply</li> <li>Labour</li> <li>Tugs</li> <li>Barges</li> <li>Power supply</li> <li>Assembly tooling</li> <li>Lifting services</li> </ul>	<ul style="list-style-type: none"> <li>Transport</li> <li>Load/unloading</li> <li>Storage</li> <li>Lifting services</li> <li>Structural steel</li> <li>Office/welfare</li> <li>Anodes</li> <li>Secondary steel</li> </ul>	<ul style="list-style-type: none"> <li>Transport &amp; logistics</li> <li>Lifting equipment</li> <li>Secondary steel</li> <li>Temporary site facilities</li> <li>Welfare</li> </ul>	<ul style="list-style-type: none"> <li>CTV's/ports</li> <li>Helicopters</li> <li>Vessels/ROV</li> <li>Inspections</li> <li>Monitoring</li> <li>Data mgmt</li> <li>Technicians</li> <li>Storage</li> </ul>

# Pentland: Potential Contract Quilt



## Overview of infrastructure assets and project location



## Key project facts

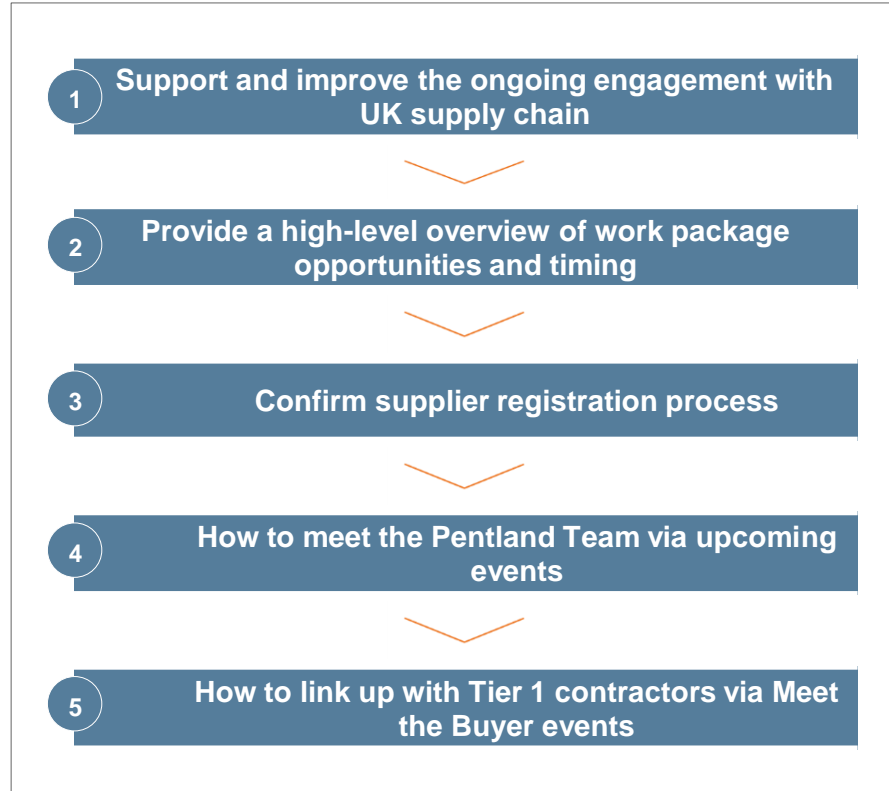
Package	Pentland Array Strategy
FOU Design	Stiesdal Offshore Technologies selected
WTG	Dialogue with OEMs ongoing with final WTG selection expected in 2024
FOU Fab.	Competitive tender w/split component supply strategy. Will build on previous engagement and reapproach market late 2024
FOU Assembly	Competitive tender with Early Engagement approach. Inclusion as lot in offshore scopes. *
FOU T&I	Competitive Tender with prequalified suppliers with Early Engagement. Lot based approach with cables and assembly.
IAC and Export Cables	Competitive Tender with prequalified suppliers with early engagement. Lot based approach with MATH and Assembly
Onshore	Competitive EPCI tender based on 3 <sup>rd</sup> party pre-FEED.

\* - some offshore T&I/EPCI contractors have expressed interest in providing a wrap of these packages, therefore market re-engagement in 2024 will test this

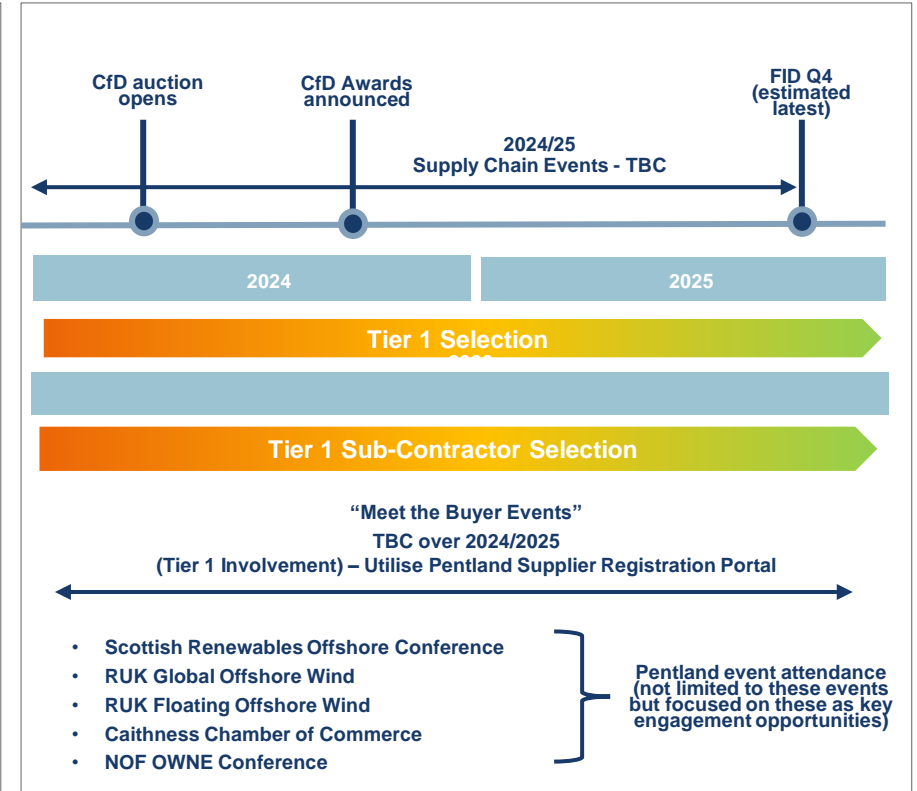
# Project Timeline and Supply Chain Engagement

Various supply chain engagement events held over past 3 years – plans for 2024 & 2025 events to be announced shortly.

## Objective of the Project's supply chain engagement



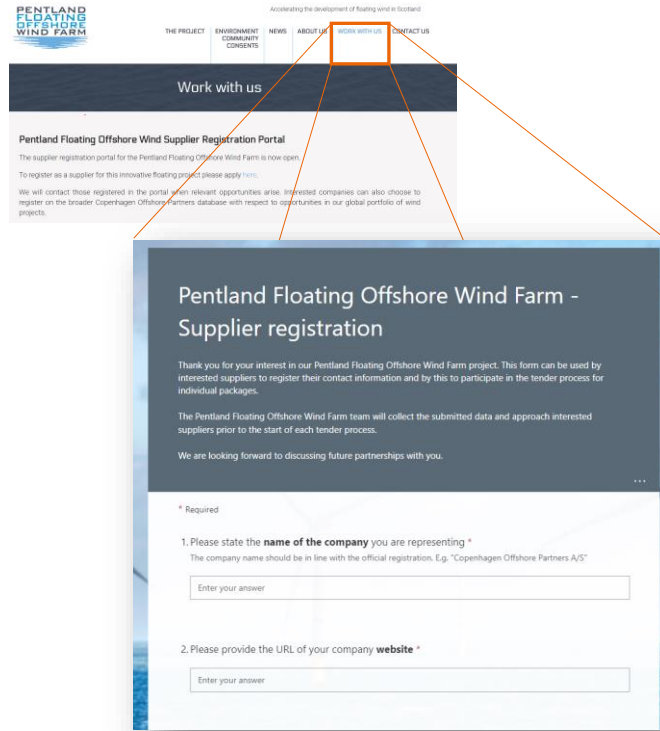
## Timeline & supply chain engagement



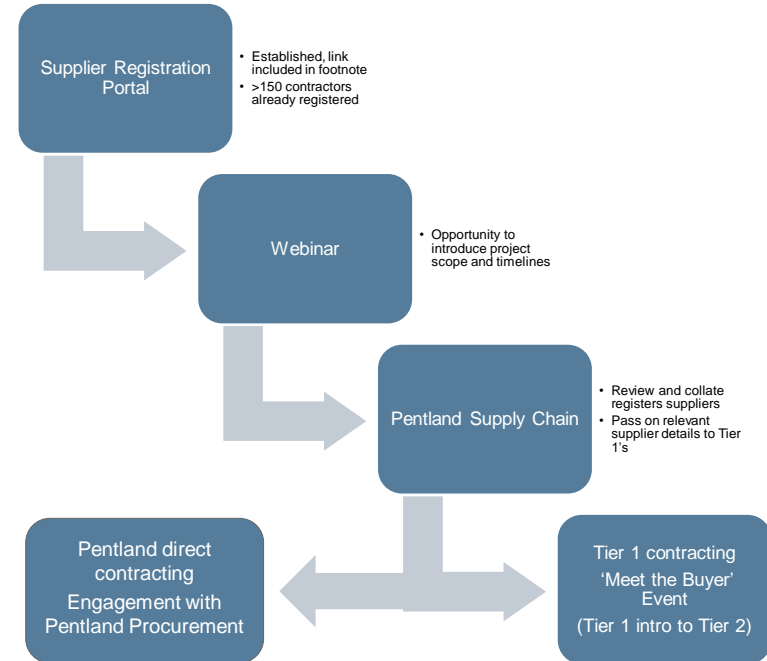
# Supplier Registration

Link to Pentland Floating Offshore Wind Farm website portal

## Where to register



## How your registration will be managed



Option to sign up to the global COP database - Pentland can facilitate access to global floating wind opportunities