

FLOATING WIND

Challenge Background

The landscape of Scotland's energy sector is undergoing a rapid and exhilarating transformation as we progress towards a net-zero future. With the Scottish Government steadfastly committed to achieving net-zero emissions by 2045, the call for innovation has never been more urgent.

To achieve these bold targets, Scotland's vast potential offshore renewable energy resources that could be captured through the deployment of offshore wind must be harnessed. Crown Estate Scotland's "ScotWind" leasing round in 2022 unlocked 30GW of offshore wind, which includes 19.2GW of commercial floating wind. In addition, the INTOG (Innovation and Targeted Oil & Gas) leasing round added a further 13 floating wind projects in Scotland totalling 5.4GW, bringing the total pipeline of **floating wind** projects in Scotland to **24.6GW**.

Launch Academy: Scotland is seeking pioneering technologies, services and solutions to drive the development and expansion of Scotland's world-leading floating wind pipeline and resource. In particular, Launch Academy: Scotland seeks solutions addressing critical focus areas for innovation in floating wind, including ***Moorings & Anchors, Dynamic Cables, Environmental Interactions and Construction, Operations & Maintenance***.

Examples of the types of innovations that Launch Academy: Scotland is seeking to target through the **Floating Wind** theme include:

Moorings & Anchors

- Innovative remote monitoring solutions for mooring lines
- Alternative mooring line materials (i.e. synthetic)

Dynamic Cables

- Novel connection and disconnection of floating WTG/cables
- Innovative remote monitoring solutions for dynamic cables

Environmental Interactions

- Innovative environmental monitoring and impact mitigation solutions for floating offshore wind

Construction, Operations & Maintenance

- Remote monitoring of floating WTG behaviour
- Remote monitoring of biofoul on floating substructures
- In-situ major component exchange solutions for floating offshore wind farms

These solutions should seek to:

- Enable improved safety and efficiency throughout the floating offshore wind lifecycle
- Facilitate the capture of greater volumes and clarity of remote monitoring data
- Reduce revenue losses and improve energy yield
- Provide greater understanding and mitigation of impacts linked to deployment of floating offshore wind

Please note that the above list of examples is non-exhaustive and that all solutions relevant to offshore wind that represent or contribute towards an innovative step-change for Floating Wind would be considered relevant.

Eligibility and Further Information	
Eligibility	Entrants to this competition must be: - Established businesses, start-ups, SMEs (Small-Medium Enterprises) or individual entrepreneurs - Based in Scotland, or have an intention to set up a base in Scotland - Minimum of TRL (Technology Readiness Level) Four. See link for further detail on the TRL scale https://enspire.science/trl-scale-horizon-2020-erc-explained/
Assessment	Applications will be assessed on: - Applicability to the challenge - Innovativeness of the solution - Coherence of proposed business model and company vision - Feasibility and economic viability, including ability of the team to progress the solution - Development potential - Maturity of the solution - Ability to launch product and ease of implementation
IP & Commercial Route	- Existing background IP associated with a potential solution will remain with Launch Academy applicant(s)/participant(s). Where any new IP generation is envisaged during the Launch Academy programme, it will be subject to the mutual IP agreement of the Launch Academy participant(s) and Launch Academy sponsors if it is jointly developed. If new IP is developed solely by the Participant then it will remain with the Participant. - Where necessary, a non-disclosure agreement (NDA) may be signed to uphold confidentiality in the engagement between the Launch Academy Participant(s) and Launch Academy Sponsors. - ORE Catapult does not take any share of IP ownership or enter commercial ventures through the Launch Academy programme.