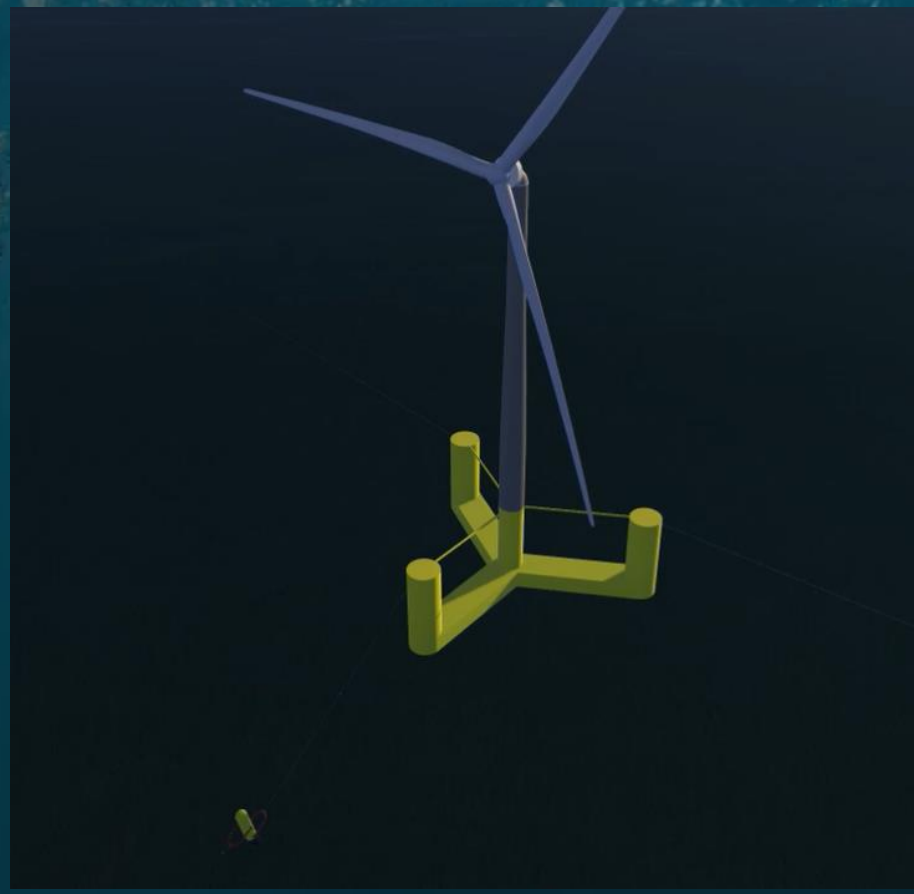
Dublin Offshore

Engineering Technology Solutions for the World's Oceans

Introduction – May 2024

INTRODUCTION

- Dublin Offshore Technology (DOT) is a highly specialised offshore engineering technology company, based in Dublin, Ireland.
- DOT's innovative Load Reduction Device (LRD) is a multi-award-winning, patented mooring component that is revolutionising mooring design in Floating Offshore Wind (FOW).
- The LRD's unique design enables project developers to significantly reduce equipment cost and ongoing maintenance costs, to lower their environmental footprint, and increase the lifespan of their floating assets.
- DOT has recently secured their first customer for LRD supply to Malin Sea Wind, a 100MW floating offshore wind project in Scotland, under development by ESB, a UK & Ireland developer with a >5GW portfolio.
- DOT are exploring financing options to grow the business, secure its market-leading position and ensure its long-term success and profitability.



FLOATING WIND & MOORINGS

- FOW is an emerging market building on Oil & Gas and offshore wind experience. FOW enables build-out of utility scale renewable energy in water depths greater than 60 metres that account for 80% of total offshore wind potential (DNV).
- The mooring system holds profound significance for wind farm operators, influencing the farm layout, capital cost, maintenance costs and, ultimately, the likelihood of reaching Final Investment Decision (FID).
- Floating structures are typically secured in position using heavy chains and large synthetic ropes but the size of next generation wind turbines (>15MW) combined with harsh wind and wave conditions present technical and commercial challenges.
- Wind farm developers need innovative technologies to drive down costs, streamline installation, enhance operational efficiency, and reduce risks inherent in large-scale offshore operations.
- Dublin Offshore's LRD is the solution.

THE SOLUTION

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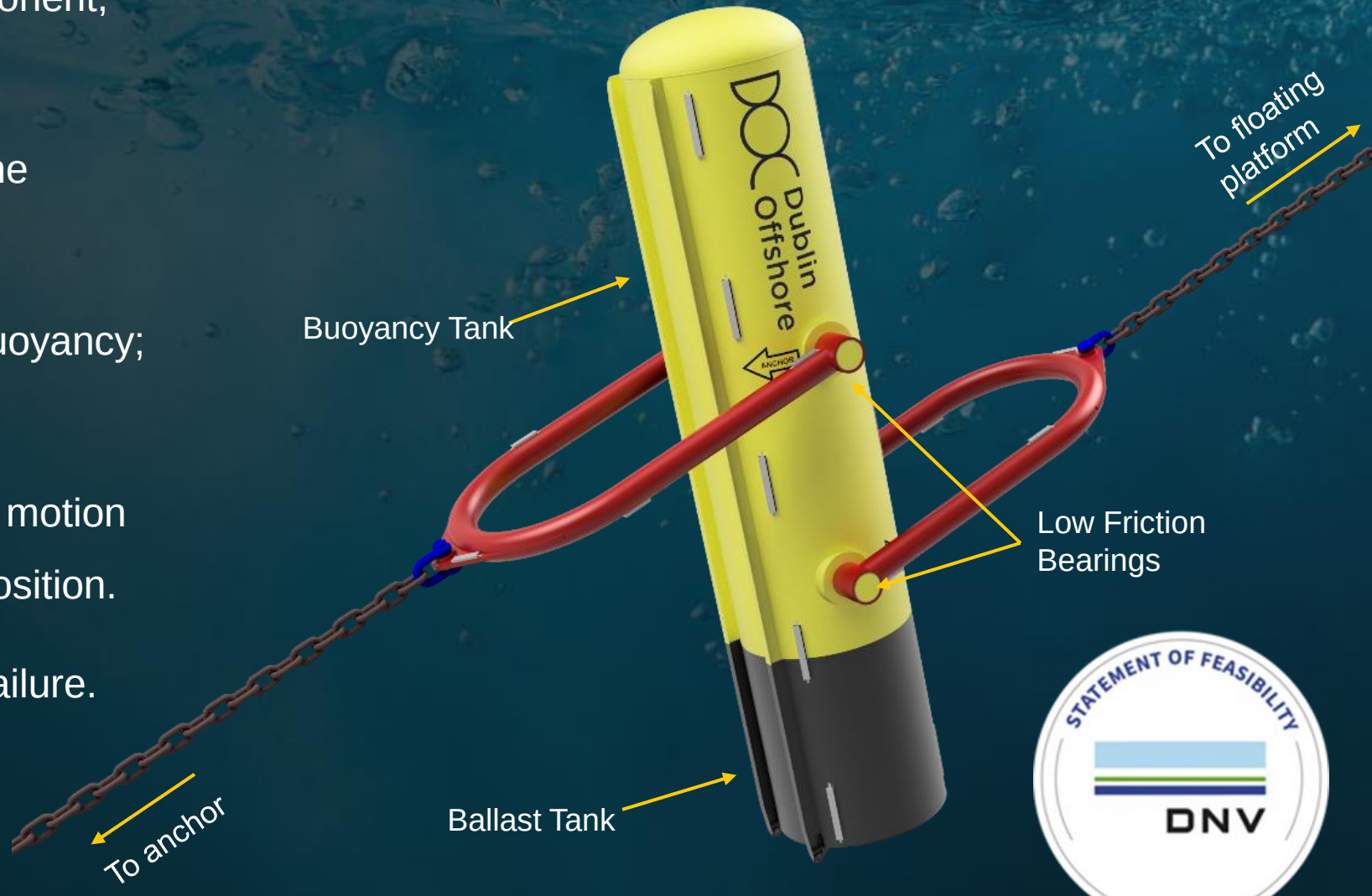
- The LRD’s USP is its unparalleled ability to reduce the formidable mooring loads encountered by FOW Turbines.
- Our innovation is centered on a pioneering mooring philosophy, inspired by natural systems. Instead of relying on ever-increasing strength to resist the environment, this groundbreaking innovation allows the FOW platform to move in a controlled, compliant response to wind and waves.
- This paradigm shift is made possible by the LRD, a simple device constructed from readily available materials with an established track record of use subsea.
- The LRD delivers peak load reduction of up to 70% redefining the constraints for mooring system design, enabling the specification of compact and lightweight moorings with reduced upfront cost.
- The LRD simultaneously reduces the typical operating loads associated with fatigue damage, significantly extending the lifespan of the system and slashing Operational and Maintenance (O&M) costs.
- The streamlined design opens up new possibilities for deployment, allowing the use of smaller vessels for further reduced cost.

THE PRODUCT

- The LRD is an innovative mooring component, manufactured from steel and concrete.
- The LRD is connected in-line between the anchor and platform.
- The top of the LRD is filled with air for buoyancy; the bottom is filled with concrete ballast.
- LRD rotates with wave-induced platform motion and gravity returns LRD to the vertical position.
- Reduced loads reduce cost and risk of failure.
- Compatible with all mooring types and materials.



STATEMENT OF FEASIBILITY
DNV

PRODUCT EXCELLENCE

- The LRD’s unique design builds on the founders’ decades of experience in the offshore industry to deliver high performance with low complexity.
- Global patent protection covers design, implementation and mooring method, creating a formidable barrier to entry.
- Independently validated performance, demonstrated offshore. Product (DNV) certification within 12 months.
- Multi-award-winning product recognised by industry.
- Simple design allows bespoke solutions tailored to specific project requirements for unparalleled optimisation.
- Simple manufacture uses established, ready-made global supply chain. Think Global, Act Local.
- Sustainable, environmentally-friendly product, allowing lower turbine footprints, less overall wind farm material, reduced cost of energy and extended project lifetime.

MARKET & MONETISATION

- Offshore wind is the world's fastest-growing renewable technology.
- The total addressable market for LRDs is based on the number and size of windfarm projects globally*.
- Using the current pipeline of identified windfarm projects globally, the TAM for the LRD is over €15.7 billion to 2050.
- DOT have developed existing industry relationships with what is a relatively small, well-defined group of windfarm operators, most of whom have already seen the benefits of the LRD technology.
- As evidence of this, ESB, a UK & Ireland developer with a >5GW FOW portfolio, recently became a minority shareholder in the business.
- DOT have secured their first customer for LRD supply to Malin Sea Wind, a 100MW FOW project in Scotland.
- Robust, cost-plus pricing model with >50% gross margin.

* Excludes floating solar, aquaculture and vessel mooring markets.

** Over 244GW of FOW projects currently under development. Market size of 250GW to 2050 predicted by DNV.

INVESTMENT & PARTNERSHIP OPPORTUNITY

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- DOT are offering investors an exciting opportunity to participate in the commercialisation and monetisation of a business with an incredible future.
- Targeting €4-5 million new investment to support the next phase of growth.
- Final fundraise with no expected future dilution and clear path to exit.
- Funding can be phased with a minimum €1 million targeted by Q3 2024.
- The new investment will deliver:
  - Product Enhancement & Certification,
  - New Market Entry,
  - Business Development & Growth, and
  - Working Capital to deliver first orders.

SUMMARY

- Offshore wind is the world's fastest-growing renewable technology.
- Floating Offshore Wind is expected to reach 250GW of installed capacity by 2050, a TAM for LRDs of €15.7 billion.
- The increasing size and quantity of Floating Offshore Wind Turbines renders legacy O&G mooring equipment increasingly obsolete.
- Dublin Offshore's LRD is an industry-recognised solution that revolutionises mooring design, enabling the specification of compact and lightweight moorings with significantly reduced upfront costs and maintenance costs.
- The LRD is robust, reliable, easily manufactured, hugely cost-effective and environmentally friendly.
- DOT are offering investors an exciting opportunity to participate in the commercialisation and monetisation of a business with an incredible future.

Thank You

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Supporting Material

Reference	Link
DOT Introduction to the LRD	Introduction to the LRD - Read our White Paper
LRDs as industry standard components	Carbon Trust - Guide to a Floating Windfarm
Independent validation of performance – offshore testing	EMEC Testing Validation Report
LRD patent family	LRD Patent Publication
Recognition by industry of LRD technology impact and excellence	Engineers Ireland Excellence Award | Wind Energy Ireland Innovation Award
LRD reducing embodied CO2 of FOW	FOW Emissions Study (see figure 29)
Investment by ESB in DOT	ESB Investment Press Release
LRD selected for Malin Sea Wind project	Malin Sea Wind Press Release