Stakeholder Case Study

Ian Masters

EPSRC & NERC InDustrial CDT for Offshore Renewable Energy

www.idcore.ac.uk

Ian first became involved with IDCORE when he took on the role of External Examiner for Phase 2 of the programme, acting as critical friend to the Centre and providing the necessary challenge to ensure continued academic rigour in the teaching programme.

As the plans for Phase 3 of the Centre were developing he saw an opportunity for Swansea University (where he is Professor of Ocean Energy) to have a closer relationship with IDCORE, and he is now a Co-Director. This has involved him in a detailed process of planning and thinking about how to build on past success and ensure that the work of IDCORE remains relevant for another ten years.

Complementarity

The research group that Ian runs at Swansea is focussed on all aspects of offshore renewable energy and its application, particularly in Wales. Surrounded by locations with significant offshore renewable energy resources, Wales has the potential to build an industrial base that could support the harnessing of those resources.

This is particularly relevant to the role IDCORE has in developing the next generation of engineers, helping them to learn from their experiences and build careers supporting the development of new technologies and their associated supply chains. Specific examples of this potential include tidal stream turbines and tidal lagoons around the coast of Wales, the development of floating offshore wind projects in the Celtic Sea, and proposed wave energy developments in the Western Approaches off Pembrokeshire.

In support of these opportunities, Swansea University is part of the MEECE Project – a Centre of Excellence in Marine Energy Engineering that is working to put Wales and Welsh companies at the heart of the UK's growing marine and offshore renewable energy sectors. Swansea's involvement in IDCORE can only add value to the new partnerships and collaborations this is going to create.

Impact

The benefits of IDCORE are very obvious to Ian. At offshore renewable conferences, particularly EWTEC (the European Wave and Tidal Energy Conference) there will often be a group of IDCORE students and alumni in the room, and they always make a valuable contribution to the proceedings. Because of the direct connection to industrial partners, their research is shaped by commercial realities.

Ian also finds it refreshing and encouraging to see others wrestling with challenges he faces on a day-to-day basis, but in different contexts. IDCORE students bring innovation and energy to a small community, particularly in the tidal sector where much of Ian's own research is focussed. There is competition in this sector, but also important collaboration, and a number of IDCORE alumni have gone on to play an influential role in the companies involved.

He has always been impressed by the quality of the IDCORE researchers, talent that has to be attracted into the sector if it is going to deliver its full potential as a solution to climate change. It would be so easy to lose them to other sectors if their first experience is not a good one.

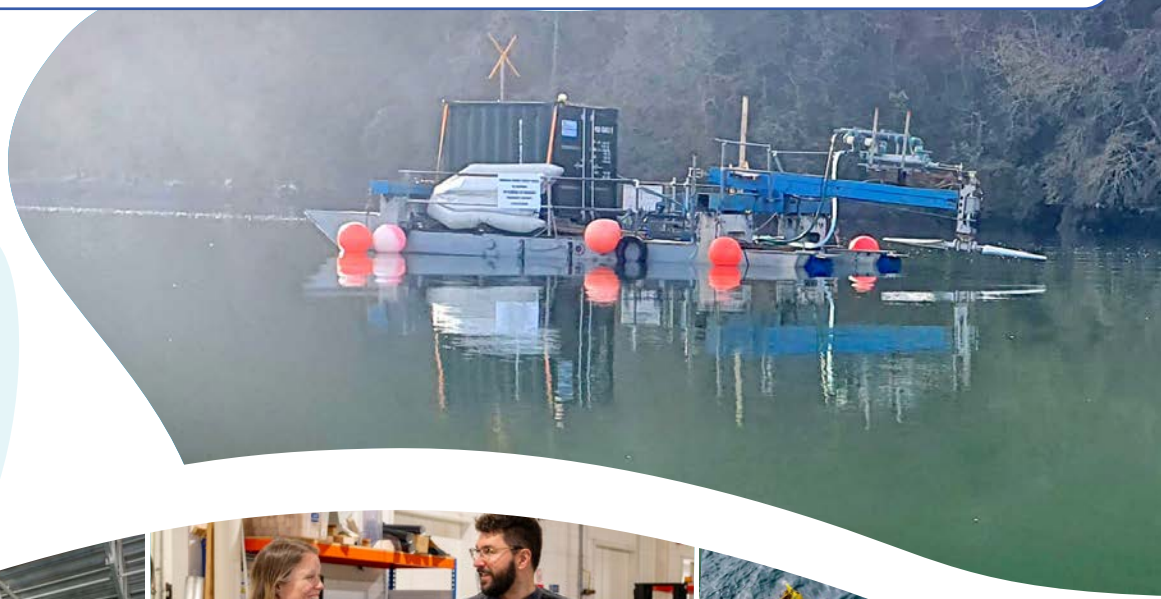
Offshore renewables is a rapidly developing industrial sector in the UK. In particular, the level of offshore wind asset deployment in now such that it is considered by some to be a 'mature' technology. Certainly, with this technology, asset management and maximising operational value is now the focus for successful developers.

By contrast tidal turbines are still at the very early stages of commercial deployment, with the first commercial arrays now entering operation, while wave devices are still at the demonstration phase. However, even here we are starting to see sensible concepts getting to full scale with effective technologies.

I am proud to be part of the team that is helping IDCORE respond to the challenges created by this diverse industry, which has a significant role to play in delivering a net zero transition for the UK energy system. The work we are supporting isn't just about the technologies themselves, but also the way they interact with the wider system through, for example, flexibility services and the use of alternative energy vectors.

However, the key issue here isn't the technology, it's the people. I strongly believe that the success of IDCORE is founded on the care taken over recruiting the researchers. Getting the right people, nurturing them and supporting them as they grow into their careers, ensures we create the talent and ethos that deliver success. Everything else is in place. The taught element of IDCORE is right, the partnerships are successful, we must now continue to attract people with talent who are engaged in the issues and who understand that overcoming the challenges requires tenacity.

Ian Masters, IDCORE Programme Co-Director



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SAMS Scottish Association for Marine Science

UKRI Natural Environment Research Council

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