



Case Study

Ben Thomas

Ben's Background

Having studied Mechanical Engineering at the University of Exeter, where he was also a member of the Formula Student team, after graduating Ben was keen to apply the practical engineering skills he had learnt. Initially, he joined Babcock International's graduate scheme in Devonport. This provided an excellent grounding in the skills needed as an engineer working in industry, but he realised that he was looking for opportunities to work more directly on detailed technical challenges.

One of his lecturers at Exeter had an EngD, and whilst Ben knew that he didn't want an academic career, the mix of industry relevant skills and practical 'hands-on' engineering offered by this training route seemed a perfect fit ...and then he found IDCORE.

Having grown up in Penzance, the sea had always been part of Ben's life, as had the renewables industry – his father was even part of the film crew who captured the deployment of Wave Hub off the Cornish coast. An opportunity to work in the marine offshore renewables industry was a 'dream come true'.

I'm really impressed with how Ben has been driving things forward since he has been with us – this is delivering direct benefits to Orbital. We see engagement with programmes like IDCORE as a great way of maintaining links with the cutting-edge academic research that underpins our technology development.

Perhaps one of the most satisfying elements of my personal involvement in the project is seeing an engineer like Ben develop, build his confidence and become actively involved in the company to a level where he is now able to contribute directly to difficult decisions in important strategic design meetings.

*Tim Baker,
Technical Director, Orbital Marine Power*

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Training

Both Ben and his project sponsor, Orbital Marine Power, have been impressed by the training he received in the first year of the IDCORE Programme. It provided a lot of specific knowledge within a context that was very relevant to the sector. It meant that he very quickly became an effective member of the team once he joined Orbital.



Project

Ben is supporting Orbital's contribution to an EU-funded project, MAXBlade, which is developing the next generation of blades for tidal turbines. The project is working through a staged process of advanced blade design utilising novel structural testing techniques, and ultimately aiming to manufacture and test a full-scale blade at the University of Edinburgh's FastBlade facility. The laboratory-based manufacture and test work that Ben is doing will de-risk the design of the full-scale prototype. However, the outputs of the work are already feeding into commercial decision making within the company.

It is not just the technical work that Ben is enjoying. His involvement with Orbital has allowed him to spend time with the team running their commercial operation in Orkney.

Working with Orbital has given me exactly what I wanted. I have felt needed – my research is clearly adding value to the company and I have been able to extend my skills by project managing packages of research and development activity which have allowed me to learn about manufacturing processes and procurement from external supply chains.

Taking on this role through IDCORE has given me a great insight into the ways that industry can work with academia.

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Benefits of IDCORE

Participation in IDCORE has been core to Ben being able to make the most of this opportunity. Not only has he benefitted from the breadth of knowledge provided by the IDCORE team, but also the understanding the course provided of the different roles needed within a technology developer. It has helped him to take a more reflective approach to his time with Orbital and consequently gain a deeper understanding of all aspects of the company. As a result, he is taking opportunities to engage with some of the more commercial aspects of the business, invaluable experience that you would be unlikely to gain as part of a standard PhD.

And then there's the IDCORE cohort – being part of a supportive group of like-minded individuals has been an overwhelmingly positive experience.



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