



Matthew Dickson

Technical Project Manager
CorPower Ocean

Main product: CorPower Ocean Wave Energy Converter

Aim: To develop leading Wave Energy Converter (WEC) technology and provide a clean, reliable and sustainable renewable energy source



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Sustainable and cost-competitive ocean wave energy

The project

The idea

We are developing a unique converter technology to efficiently and sustainably harvest wave energy, thus revolutionising the world of wave renewable energy.

“Opportunities to present a subject you’re passionate about to an audience as eager as you to move things forward, should not be missed.”

Inspiration

The ocean is one of the largest untapped renewable energy sources and the world’s largest natural battery. Inspired by the pumping principle of the heart, and after 30 years of research, we wanted to contribute to a clean-energy future and tap into the vast energy potential stored in our oceans.

Unique selling points

The WEC addresses the key challenges of efficient wave energy harvesting in a unique way. We have developed a novel and advanced Power Take Off (PTO) system which

enables efficient energy production with high natural frequency and a lightweight design. Additionally, we are able to address the challenge of ocean survivability by utilising the same PTO system to effectively make the device transparent to large incoming, and potentially damaging, waves.

Societal impact

Wave energy aligns perfectly with the general desire to decarbonise our society with a market potential to displace 0.8 to 1.6 Gigatons of CO₂ every year. Also, it allows diversification of the energy production sector and creates lots of jobs, both qualified and unqualified in multiple deployment regions.

Venture Development

After a successful half-scale WEC deployment in 2018, our goal is now to introduce certified and warranted full-scale WEC products on the market by the

Supported by:



Start year:
2012

Generated funding:
EUR 12 600 000

Challenge:
Renewable wave energy

end of 2023. We have also signed a strategic collaboration agreement with a project developer focusing on the large scale, commercial rollout of wave energy arrays.

EIT Community support

People from EIT InnoEnergy were the ones who first believed in our product and were ready to actually put money into it, thus facilitating attracting other investors. We also received valuable business advice and continue to keep EIT InnoEnergy upto date with our latest developments.

The nominee

The beginning

I have always wanted to combine my passion for the ocean with my engineering career. So, after I graduated in mechanical engineering, spent several years working in the offshore energy sector in Scotland and gained my engineering chartership, wave power engineering represented the perfect opportunity and challenge.

Rewarding moments

The most rewarding moment of my career so far has been to present our EU-funded Waveboost project at the European Commission in Brussels earlier this year. I enjoyed how engaged the audience was during the presentation and the questions at the end showed participants real understanding, interest and knowledge of the ocean energy sector.

