

Why wave energy?

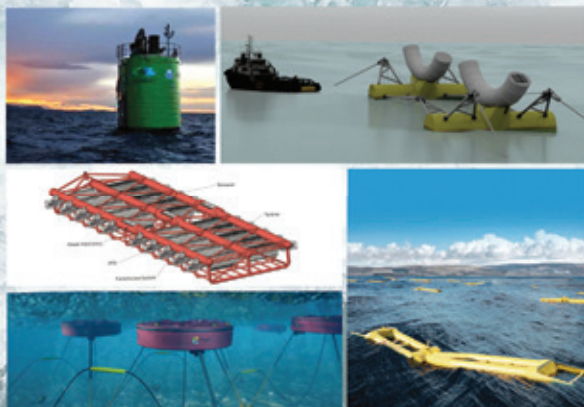
When the wind blows over the sea, its energy is transferred into the water and moves across the oceans in the form of waves. Wave energy converters (WECs) can extract this energy resource and turn it into electricity.

The size of the prize is colossal: wave energy alone could easily meet the world's energy demands. Some of the best resources around the world can be found along Europe's Atlantic coastlines.

Technology developers worldwide have put their WEC designs through years of extensive testing, and the time has come to pick the winners who will kick-start this new industry. EuropeWave aims to take the technologies that prove themselves and propel them to commercialisation.

A new wave of innovation

By focusing on the scale prototypes for wave energy converters, the EuropeWave PCP approach will speed up the development of innovative technologies and bring them closer to the commercial stage.



Project consortium

EuropeWave is a collaboration between three European partner organisations – two public authorities and the sector's representative body in Europe.



EUROPEWAVE

Driving wave energy innovation



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Bridging the gap to commercialisation of wave energy technology using pre-commercial procurement



About EuropeWave

EuropeWave is an innovative R&D programme for wave energy technology, which runs from 2021 to 2025. It combines over €22.5m of national, regional and EU funding to drive a competitive Pre-Commercial Procurement (PCP) programme for wave energy.

This PCP model provides a structured approach, fostering greater openness, collaboration and sharing of risk between the public sector and technology developers.

The programme focuses on the design, development, and demonstration of cost-effective wave energy converter (WEC) systems for electrical power production that can survive in the harsh and unpredictable ocean environment.

Funded by the EU's Horizon 2020 programme, it is a collaboration between Wave Energy Scotland (WES), the Basque Energy Agency (EVE) and Ocean Energy Europe (OEE).

This collaboration is closely aligned with the decarbonisation, industrial and competitiveness objectives of the European Green Deal, and will help meet the European Commission's targets of 100MW of ocean energy by 2025 and at least 1GW by 2030.

Pre-Commercial Procurement

Pre-Commercial Procurement (PCP) is a form of public sector innovation procurement. In a PCP, R&D service contracts are awarded to several R&D service providers in parallel to progressively develop solutions in a phased approach. This allows the procurers to compare several design solutions in a competitive environment.

The EuropeWave PCP combines the phased approach of the PCP model, a stage-gated industrial development process, and an international evaluation and guidance framework for ocean energy technology.

The multi-stage programme creates a 'funnel' to progressively select the most promising solutions. Entry to the programme is through an open procurement process. The most promising projects are selected through a competitive process to continue into the next phase. The available funding is progressively concentrated on the best-performing technologies. In the final phase, the selected technologies will be demonstrated in Basque and Scottish open waters.

Why the PCP model?

When combined with a stage-gate approach, PCP significantly de-risks technology development for public funders:

- A PCP approach defines in detail the research challenge and expected outputs.
- Developers compete directly to provide offers at market price, so procurers get best value for their investment.
- Funders are not immediately 'locked-in' with a single provider. Funders share technical knowledge to empower them to make more informed decisions.

PCP empowers developers to deliver the right innovations:

- Developers are not obliged to source private investment as 'match funding' and can focus entirely on meeting the requirements of the procurement tender.
- If at sufficient scale PCP can establish common industry standards which allow accelerated development of the sector.
- Small companies are able to participate.

