

# Accelerating Wave Energy Rollout in Europe



## Ocean Waves - a greater & more predictable energy source

Vast and reliable, wave power has long been considered as one of the most promising renewable energy sources. Wave energy converters (WECs) are devices that convert the kinetic and potential energy associated with ocean waves into useful mechanical or electrical energy. WECs can provide clean energy to power the electrical grid as well as many other applications such as propulsion for ocean vehicles or pumping for seawater desalination.



## Unleashing the Potential of Waves in Europe

Europe holds the largest market share of the global WEC Market. However this technology is not yet widely employed. The energy required to exploit the global wave energy potential is bigger 5 orders of magnitude than the operational waver power installed worldwide. In order to promote the adoption of WECs and fully exploit the energy they produce, several factors need to be aligned. A new pair of innovative European projects are aiming to support the deployment of WECs across Europe as part of a move towards cleaner, more secure and efficient energy, as well as promoting low-carbon energy supplies through the next generation of renewable energy techniques.



## Key results



New Testing Platforms

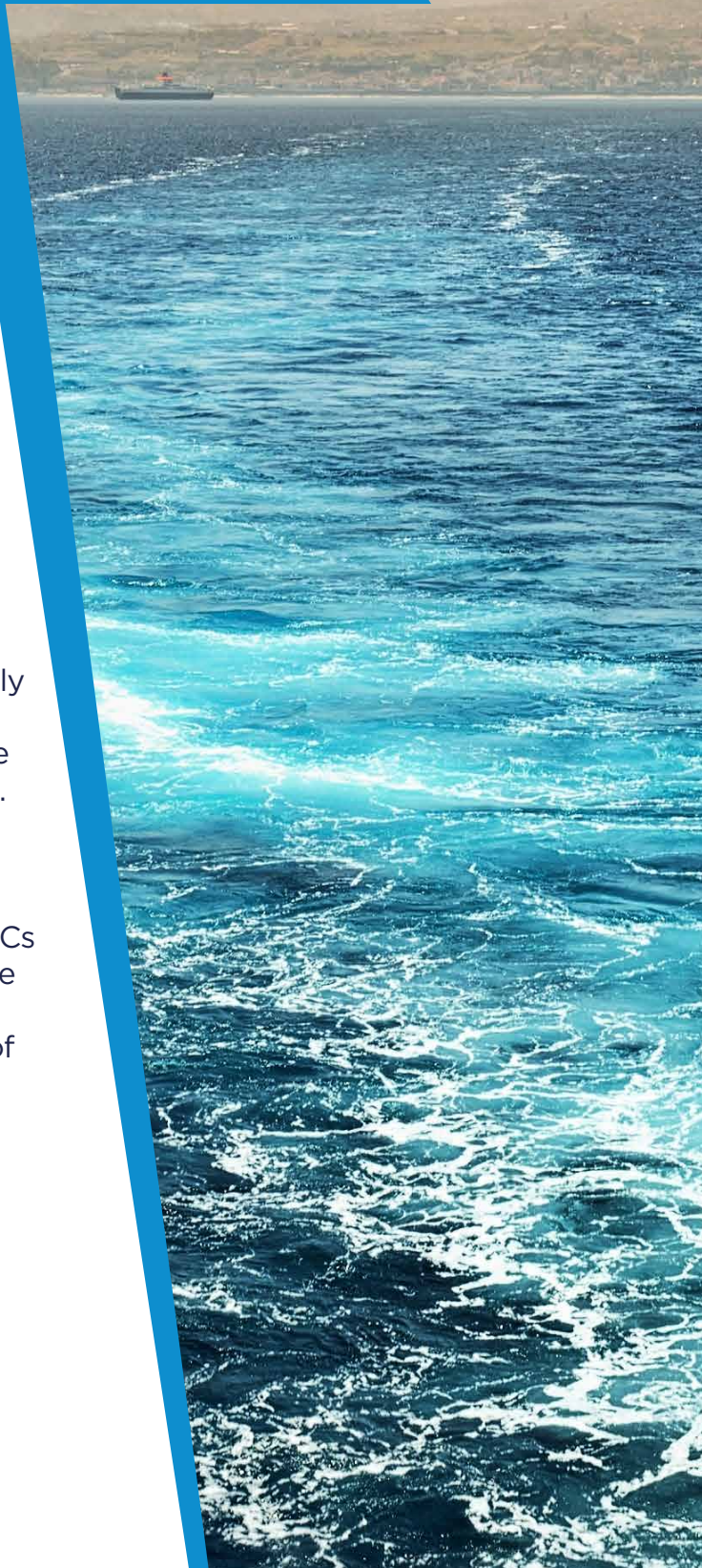


New Testing Approaches, Methodologies & Metrics



Standardisation Guidelines & Recommendations

## WAVE ENERGY ROLLOUT





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## WAVE ENERGY ROLLOUT

### The Impact

- Reduction of test duration with respect to typical endurance tests.
- Provision of clear quantitative, test-derived metrics.
- Improved techno-economic analyses of WECs, and summary of their environmental consequences.
- Finer determination, assessment and optimisation of ocean energy.
- Increased market potential due to improved testing methodologies leading to reduced uncertainties of component designs.
- Assessment of reliability and survivability of test rig use.

### Who benefits



Start-ups & SMEs



Standard Development Organisations



Large Enterprises



ICT Operators/Service Providers

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[www.validh2020.eu](http://www.validh2020.eu)

Verification through accelerated testing leading to improved wave energy design



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Next-generation testing approach for Wave Energy Converters



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