



### What is MARINET?

EC-funded marine renewable energy infrastructure initiative offering free-of-charge access to world-class test facilities and a streamlined approach to the testing process.

29 partners

12 countries

44 marine testing facilities available

4 year duration: April 2011—March 2015

€11m budget

### Free-of-charge access to 44 facilities & associated expertise!

APPLY at [www.fp7-marinet.eu](http://www.fp7-marinet.eu)

to access test facilities for:

- Wave Energy
- Tidal Energy
- Offshore-Wind Energy & Environmental Data
- Common Aspects e.g. Electrical, PTO, Materials etc.

- ⇒ Facility costs are paid by the EC
- ⇒ All scales available, from lab to sea
- ⇒ Open to companies of any size, research groups etc.

### Why the need for MARINET?

- Coordinated approach is needed to streamline access, avoid research duplication and increase pace of development.
- Alleviate increasing facility access costs and cross-border access issues.
- Address technology failures by following structured technology development plans.

### What does MARINET offer?

- Free-of-charge access to infrastructures & expertise
  - ⇒ 44 state-of-the-art facilities, world experts
  - ⇒ contribution towards travel costs
  - ⇒ workshops & networking to enhance subsequent development
- Joint-activity by partners in parallel to:
  - ⇒ adopt common test standards
  - ⇒ conduct research to improve testing capabilities
  - ⇒ staff exchange and free-of-charge industry training



### What are the access conditions?

- Visiting leader and majority of visiting-group members must be based in the EC or an FP7-associated country
- Facility must be outside the country where the group leader and majority of group are based
- Testing results may be published (allowing for IP restrictions)

### Further information



Web: [www.fp7-marinet.eu](http://www.fp7-marinet.eu)

Email: [info@fp7-marinet.eu](mailto:info@fp7-marinet.eu)

Coordinator: Hydraulics & Maritime Research Centre, UCC, Ireland



MARINET Group

MARINETfp7

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Facilities Available

Area	Wave Energy	Tidal Energy	Offshore Wind Energy & Environmental Data	Cross-Cutting Areas e.g. Electrical /PTO/Materials etc
 <b>Small Lab</b>	<ul style="list-style-type: none"> <li>• AAU – Deep Water Wave Basin</li> <li>• QUB – Shallow Water Wave Tank</li> <li>• UCC-HMRC – Ocean Wave Basin</li> <li>• UEDIN – Curved Wave Tank</li> <li>• UNI-STRATH – Kelvin Hydrodynamics Lab</li> <li>• UNIFI-CRIACIV Wave-Current Flume</li> </ul>	<ul style="list-style-type: none"> <li>• DTU – Current Flume with Carriage</li> <li>• UNI-STRATH – Kelvin Hydrodynamics Lab</li> <li>• USTUTT – Laminar Wind Tunnel</li> <li>• UNIFI-CRIACIV – Boundary Layer Wind Tunnel</li> <li>• UNIFI-CRIACIV Wave-Current Flume</li> </ul>	<ul style="list-style-type: none"> <li>• UNIFI-CRIACIV – Boundary Layer Wind Tunnel</li> <li>• UNI-STRATH – Kelvin Hydrodynamics Lab</li> <li>• USTUTT - Laminar Wind Tunnel</li> </ul>	<ul style="list-style-type: none"> <li>• SINTEF – Renewable Energy Lab SmartGrids</li> <li>• TECNALIA – Electrical PTO Lab</li> <li>• UCC-HMRC – Rotary Test Rig</li> <li>• USTUTT – Turbine Test Rigs</li> </ul>
 <b>Large Lab</b>	<ul style="list-style-type: none"> <li>• CNR-INSEAN – Wave Tank</li> <li>• ECN – Hydrodynamic and Ocean Engineering Tank</li> <li>• IFREMER – Deep Seawater Wave Tank</li> <li>• IFREMER – Wave-Current Circulation Tank</li> <li>• NAREC – Wave Flume</li> <li>• PU - COaST Coastal Ocean and Sediment Transport Laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• CNR-INSEAN – Circulating Water Channel</li> <li>• IFREMER – Wave-Current Circulation Tank</li> <li>• PU - COaST Coastal Ocean and Sediment Transport Laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• CNR-INSEAN – Wave Tank</li> <li>• ECN – Hydrodynamic and Ocean Engineering Tank</li> <li>• PU - COaST Coastal Ocean and Sediment Transport Laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• DTU – Mechanical Test Facilities</li> <li>• DTU – PowerLabDK</li> <li>• IFREMER – Materials in Marine Environment Lab</li> <li>• NAREC – CPTC Energy Link Labs</li> <li>• NAREC – Nautilus Rotary Rig</li> <li>• UNEXE – Dynamic Marine Component Test Facility</li> </ul>
 <b>Medium-Scale Site</b>	<ul style="list-style-type: none"> <li>• AAU – Nissum Bredning</li> <li>• EMEC – Real Sea Test Sites Orkney</li> <li>• SEAI-OEDU – Galway Bay</li> </ul>	<ul style="list-style-type: none"> <li>• EMEC – Real Sea Test Sites Orkney</li> <li>• QUB – Portaferry Tidal Test Centre</li> <li>• TTC – Den Oever Tidal Site</li> </ul>	<ul style="list-style-type: none"> <li>• AAU – Nissum Bredning</li> <li>• QUB – Portaferry Tidal Test Centre Data</li> <li>• SEAI-OEDU – Wave Site Data Galway</li> </ul>	<ul style="list-style-type: none"> <li>• UNEXE – South West Mooring Test Facility</li> </ul>
 <b>Large-Scale Site</b>	<ul style="list-style-type: none"> <li>• EVE – Biscay Marine Energy Platform</li> <li>• SEAI-OEDU – Belmullet Test Site</li> </ul>	<ul style="list-style-type: none"> <li>• No Infrastructure Currently Available</li> </ul>	<ul style="list-style-type: none"> <li>• DTU - Database of Wind Characteristics</li> <li>• DTU – Mobile Offshore Wind Measuring</li> <li>• DTU – National Wind Test Site</li> <li>• ECNETH – Database of Measurements on OWEZ</li> <li>• NTNU – Full-scale wind measurement station</li> <li>• PU – HF Radar Environmental Monitoring Facility</li> <li>• SEAI-OEDU – Wave Site Data Belmullet</li> <li>• USTUTT – Offshore Nacelle LiDAR</li> </ul>	<ul style="list-style-type: none"> <li>• EVE – Mutriku OWC Plant</li> <li>• FH-IWES – Offshore Field Test Facilities</li> <li>• WAVEC – OWC Pico</li> </ul>

Partners

		<b>Ireland</b> University College Cork, HMRC (UCC-HMRC) <i>Coordinator</i>	
		Sustainable Energy Authority of Ireland (SEAI-OEDU)	
		<b>Denmark</b> Aalborg Universitet (AAU) Danmarks Tekniske Universitet (DTU)	
		<b>Portugal</b> Wave Energy Centre (WAVEC)	
		<b>United Kingdom</b> National Renewable Energy Centre Ltd. (NAREC)	
		The University of Exeter (UNEXE)	
		European Marine Energy Centre Ltd (EMEC)	
		University of Strathclyde (UNI-STRATH)	
		The University of Edinburgh (UEDIN)	
		Queen's University Belfast (QUB)	
		Plymouth University (PU)	
		<b>Spain</b> Ente Vasco de la Energía (EVE)	
		Tecnalia Research & Innovation Foundation (TECNALIA)	
		<b>Belgium</b> 1-Tech (1-TECH)	
		<b>Netherlands</b> Stichting Tidal Testing Centre (TTC) Stichting Energieonderzoek Centrum Nederland (ECNETH)	
		<b>Germany</b> Fraunhofer-Gesellschaft Zur Foerderung Der Angewandten Forschung E.V (FH-IWES) Gottfried Wilhelm Leibniz Universität Hannover (LUH) Universitaet Stuttgart (USTUTT)	
		<b>France</b> Ecole Centrale de Nantes (ECN) Institut Français de Recherche Pour l'Exploitation de la Mer (IFREMER)	
		<b>Italy</b> Università Degli Studi Di Firenze (UNIFI-CRIACIV) PIN S.c.r.l. Università Di Firenze (UNIFI-PIN) Università degli Studi della Tuscia (UNITUS)	
		<b>Brazil</b> Instituto de Pesquisas Tecnológicas do Estado de São Paulo S.A. (IPT)	
		<b>Norway</b> Sintef Energi AS (SINTEF) Norges Teknisk-Naturvitenskapelige Universitet (NTNU)	