

Delegate information and schedule

Updated 30th June 2022

The 9th PRIMaRE conference on marine renewable energy will take place on 6th and 7th July 2022 at the University of Exeter Penryn campus in Cornwall. We look forward to welcoming you to our campus and enjoying an inspiring and interesting programme of talks, posters and discussion.



In keeping with the aim of PRIMaRE, conference costs have been kept as low as possible to ensure no-one is excluded from attending. We are grateful to our conference sponsors for helping to ensure the conference is zero cost and open to all.

Location

The conference will take place in Cornwall at the University of Exeter, Penryn Campus. Keynote and conference presentations will take place in the Chapel lecture theatre, with a large poster and exhibition space on the upper floor of the Peter Lanyon building. During session 4, Lecture Theatre 5 in the Peter Lanyon building will also be used.

Both buildings are accessible and have lifts where required.



Travel

We hope participants will travel by public transport where possible. Penryn (15 minute walk) and Falmouth (1 hour walk, 20 minute bus) stations are both within easy reach of the conference, and are well connected to the rest of the UK. European visitors can arrive by ferry and train. Car parking is available on campus and is payable by the hour or day. If arriving by car, use postcode TR10 9FE (or alternative TR10 9EZ).

If arriving by rail please note there is no taxi rank at Penryn station. Taxis can be booked by prior arrangement (phone: 01326 373007) or the U1 bus service from Truro Bus Station will bring you directly to the campus.

Conference format

Conference presentations will take place in the Chapel Lecture theatre, with an exhibition space for posters, exhibitors and coffee breaks nearby. During Thursday afternoon, a second lecture theatre will be used for a parallel session.

We received a large number of excellent abstracts for presentations and posters covering wave energy, tidal energy, offshore wind energy, resource assessment, and related technology, across engineering, economics, social and environmental viewpoints.

Abstract submission is now closed and we are unable to accept any further presentation abstracts. Any last-minute poster requests should be directed to Stuart Walker s.walker7@exeter.ac.uk. Authors of accepted abstracts are asked to prepare a poster or presentation, no paper is necessary.

Meals

Coffee and tea will be served during mid-morning and mid-afternoon breaks on day 1 and day 2. A buffet lunch will be provided on both days. All food will be vegetarian with vegan options. Any additional coffee or food requirements can be met at the numerous on site cafés.

Gala Dinner

The PRIMaRE Gala dinner will take place on the evening of Wednesday 6th July at the Greenbank hotel in Falmouth. Please arrive at 7:30pm for dinner at 8pm. The hotel has fantastic views across Falmouth harbour and will provide a delicious vegetarian menu. Dinner registration has now closed.

The gala dinner will be preceded by a poster and exhibition networking event between 5pm and 6pm. After this, guides will be available to lead those who would like to walk to the gala dinner.



Accommodation

There are a huge number of hotels and other accommodation options to suit every budget within close proximity of the Penryn campus and in the wider Falmouth area. We can also offer accommodation on campus, which can be booked directly. Below are a few example hotels and prices. Prices are based on single rooms for one night and should be checked at the time of booking. Where special rates for delegates are offered, these are included below.

Penryn campus accommodation:

From £65

www.cornwall-plus.co.uk

Seven Stars Pub Hotel

(20 min walk to campus):

From £110

www.sevenstarspenryn.co.uk

01326531398

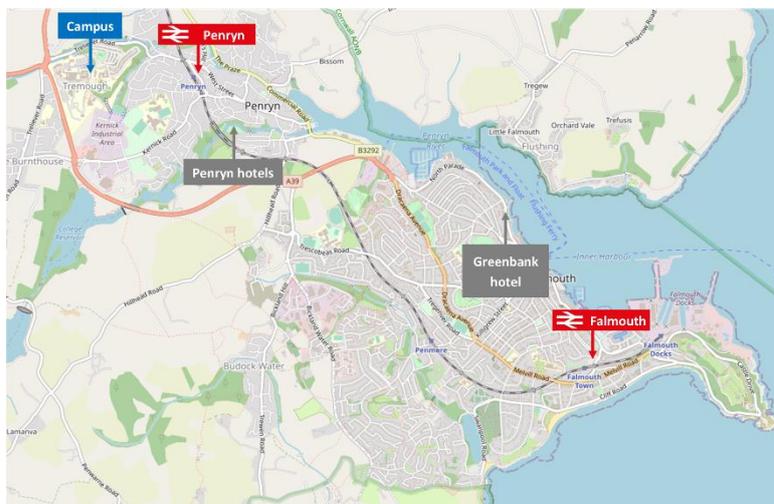
The Thirsty Scholar Pub Hotel

(15 min walk to campus):

From £120 inc. breakfast

www.thethirstyscholar.co.uk

01326372996



The Greenbank Hotel (50 min walk to campus, Gala dinner location):

From £169 inc. breakfast

Call for rates/booking: 01326 312440

Other options for accommodation include Seaview Inn, Falmouth Hotel and numerous B&B options, and premium options such as St Michaels Resort.

Posters

Posters should be A0 or A1, portrait format is preferred. Posters can be set up in the poster hall on the evening of Tuesday 5th July (until 7pm), or on the morning of Wednesday 6th July (as early as possible please).

Presentations

Presenters will be allocated 10 minutes + 5 minutes for audience questions. Presenters should upload their slides to the Onedrive link which was circulated on 17th June. A few presentations will be delivered by video and we hope the presenters will be available for online Q&A following these.

Prizes

Prizes will be awarded to the best three presentations (sponsored by the Supergen ORE Hub) and the best three posters (sponsored by The Devon & Cornwall Joint Branch of RINA & IMarEST), as judged by the organising committee. Cash prizes of £200, £100 and £50 will be awarded. A prize-giving ceremony and announcement will be made at the end of the second day of the conference.

Keynote Speakers

Each session will be opened by a keynote speaker. We are very grateful to our keynote speakers for sharing their experience and knowledge.

Session 1 Keynote: Kerry Hayes – Simply Blue Group



Kerry joined the Simply Blue Group team as Projects Development Manager in August 2021, focusing on the early-stage development of multiple large scale floating offshore wind projects. She is also the Policy Engagement Manager on the Blue Gem Wind project portfolio. Kerry has a decade of experience working across the renewable energy sector with marine energy project developers, and a broad range of experience in supply chain development, stakeholder engagement, planning, consenting and energy policy. Kerry is passionate about increasing female representation in the renewable energy sector. She is chair of the RenewableUK Shadow Board, a regular conference speaker, mentor for students and professionals and holds guest lecturing posts at UK universities. Kerry has a BSc in Ocean Science and an MSc in Marine Renewable Energy.

Session 2 Keynote: Sue Barr – Cambrian Offshore



Sue has 20 years' experience in the offshore and nearshore construction and environmental industries, including the wind, wave and tidal sector.

Sue is a Board member of Marine Energy Wales, Pembrokeshire Coastal Forum and a Non-Executive Director of Marine Power Systems. Sue also chairs the UK Marine Energy Council. Sue was the recipient of the 2018 SUT Award for 'Outstanding Contributions to Marine Energy' and was awarded Ocean Energy Europe's Vi Maris 2019 award for outstanding contribution to marine energy. Sue has played a key role in driving renewable industry development and policy in the marine area, both in the UK and internationally.

Session 3 Keynote: John Chapman – Marine Power Systems



John is Chief Engineer of Marine Power Systems. He has over 16 years' experience in marine renewables in both academia and industry, with experience in several high-tech renewable energy start-ups including tidal, wave and offshore wind renewables. With experience in Mechanical engineering and computational simulation, at MPS he has responsibility for technical system development of MPS' products.

Session 4 Keynote: Matt Hodson – Celtic Sea Power



Matt is Celtic Sea Power's Chief Operations Officer. He is playing a leading role alongside key partners in positioning, formulating, and delivering the strategy for the future of Floating Offshore Wind and the marine sector in Cornwall and Isles of Scilly. Matt is an experienced commercial and operational leader with over 30 years' experience across a range of sectors, but predominately in the Marine industry. Following an early career as a Merchant Navy Deck Officer his roles have covered Public Sector economic growth, Marine Operations/Marine Technology/ Marine Renewable Energy, Port Management, Marine Leisure, Shipping and Commercial Services.

Conference Schedule

Day 0: Tuesday 5th July 2022

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| Registration and Exhibitor setup | | |
| 17:00 – 19:00 | Poster & exhibitor setup | Peter Lanyon |
| 18:00 – 20:00 | Early registration (optional) | Stannary Bar |

Day 1: Wednesday 6th July 2022

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| Registration and Welcome | | |
| 08:30 – 09:00 | Registration | Peter Lanyon |
| 09:00 – 09:10 | Welcome (Professor Lars Johanning) | Chapel |
| Session 1: Innovation across marine renewable energy (sponsored by EuroSWAC) | | |
| 09:10 – 09:40 | Keynote (Kerry Hayes, Simply Blue Group) | Chapel |
| 09:40 – 10:40 | Presentations (4) | |
| 10:40 – 11:00 | Coffee break | |
| 11:00 – 12:00 | Presentations (4) | |
| 12:00 – 13:00 | Lunch | Peter Lanyon |
| Session 2: Tidal Stream Energy (sponsored by the Interreg TIGER project) | | |
| 13:00 – 13:30 | Keynote (Sue Barr, Cambrian Offshore) | Chapel |
| 13:30 – 14:30 | Presentations (4) | |
| 14:30 – 15:00 | Coffee break | Peter Lanyon |
| 15:00 – 16:00 | Presentations (4) | Chapel |
| 16:10 – 17:00 | TIGER Panel session | |
| 17:00 – 18:00 | Poster and exhibitors networking event | Lower Stannary |
| 19:30 – 23:00 | Gala Dinner | Greenbank Hotel |

Day 2: Thursday 7th July 2022

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| Registration and Welcome | | |
| 08:30 – 09:00 | Registration | Peter Lanyon |
| 09:00 – 09:15 | Welcome (Professor Lars Johanning) | Chapel |
| Session 3: Wave Energy (sponsored by Marine-i) | | |
| 09:15 – 09:45 | Keynote (John Chapman, Marine Power Systems) | Chapel |
| 09:50 – 10:50 | Presentations (4) | |
| 10:50 – 11:10 | Coffee Break | Peter Lanyon |
| 11:10 – 12:10 | Presentations (4) | Chapel |
| 12:10 – 13:10 | Lunch | Peter Lanyon |
| Session 4: Wind Energy | | |
| 13:10 – 13:40 | Keynote (Matt Hodson, Celtic Sea Power) | Chapel |
| 13:45 – 14:45 | Parallel sessions: Presentations (4) | Chapel / LT 5 |
| 14:45 – 15:15 | Coffee break | Peter Lanyon |
| 15:15 – 16:30 | Parallel sessions: Presentations (5) | Chapel / LT 5 |
| 16:30 – 16:45 | Awards | Chapel |
| 16:45 – 17:00 | PRIMaRE chair handover and close | |

Supporting organisations & Exhibitors

The PRIMaRE conference could not take place without the support of sponsoring organisations and exhibitors. We are very grateful to all our sponsors and encourage delegates to visit sponsor exhibitions in the upper area of the Peter Lanyon building during the conference.



Session 1 (Innovation across marine renewable energy) session sponsor: EuroSwac

Large cooling demand in the Channel Area in various sectors and global societal changes require a fundamental rethink of how Heating & Cooling can be produced at local level. Currently, almost all cold used in the Channel Area is produced by vapor-compression refrigeration, contributing to high CO₂ emission and releasing gases harming the ozone layer.

The EUROSAC is a highly innovative project (co-financed by the European Regional Development Fund, total budget of €3.9 million) aiming at demonstrating the ability of using the Channel seawater for cooling, adapting an existing technology to the low depth and temperate climate of the Channel Area. It involves eleven UK and French partners, from academic and industrial fields.

The SWAC (Sea Water Air Conditioning) technology is exploiting temperature difference between sea water and external air temperature to produce cold by pumping cold water and transferring its cooling power to a secondary loop via a heat exchange station.

Up to 10% of cooling needs and 5% of heating needs of the Channel area tertiary buildings could be met by shallow-water based SWAC by 2030, reducing electricity consumption for cooling by minimum 30%.

The project aims to develop two UK SWAC demonstrators (Brixham laboratory and National Lobster Hatchery) and provide blueprints for replication of SWAC installations along the Channel coastline. In order to advance the SWAC technology work will be direct to streamline EIA processes, enhance the technology aiming on cost reduction while identifying key market segments, and business models. In order to achieve this, a multigeneric optimisation approach has been proposed for a range of sites within the Channel to provide multi-solution for end users wanting to decrease their carbon footprint. Advances within the SWAC technology will be discussed and findings related to optimisation approach will be disseminated.



EUROPEAN UNION
European Regional Development Fund

Session 2 (Tidal Stream Energy) session sponsor: Interreg TIGER

The Tidal Stream Industry Energiser Project, known as TIGER, is the biggest ever Interreg project driving collaboration and cost reduction through tidal turbine installations in the UK and France. The TIGER project will drive the growth of tidal stream energy to become a greater part of the energy mix, with significant benefits for coastal communities.

The project will demonstrate that Tidal Stream Energy is a maturing industry, capable of achieving an accelerated cost reduction pathway, and will position the Channel region at the heart of the sector by addressing technology challenges; building the supply chain; switching on new sites; and installing new turbines.

The project aims to drive the growth of tidal stream energy by installing up to 8 MW of new tidal capacity at sites in and around the Channel region thus driving innovation and the development of new products and services. TIGER will make a stronger, more cost-effective case for tidal stream to become part of the energy mix in the UK and France by harnessing economies of scale via volume manufacturing and multi-device deployments. Coastal communities used as ports of deployment will benefit from knock-on investment and job creation.

The total theoretical tidal energy capacity in the Channel region is nearly 4 GW, enough to power up to three million homes. Proving that tidal energy generation can be cost-effective on a large scale could open the door for it to become the renewable energy of choice in coastal locations with strong tidal currents globally, helping the growth of clean, green energy generation and tackling the climate emergency. The project will install up to 8 MW of additional energy capacity, ultimately leading to a reduction of greenhouse gas emissions of ~11,000 tonnes per annum; investment in coastal communities, leading to an economic increase in GVA of €13 million per annum; and a tidal energy cost reduction towards €150/MWh.

The Tidal Stream Industry Energiser project (TIGER) is co-financed by the European Regional Development Fund through the Interreg France (Channel) England Programme. More information is available at www.interregtiger.com



Session 3 (Wave Energy) session sponsor: Marine-i

Marine-i is a pioneering business support programme that has been designed to foster innovation in Cornwall's marine technology sector. Part-funded by the European Regional Development Fund, the project brings together expertise from six Project Partners - the University of Exeter, University of Plymouth, Cornwall College Group, Cornwall Marine Network, Cornwall Development Company, and the Offshore Renewable Energy Catapult - to stimulate research and innovation, and help Cornish marine businesses exploit new market opportunities.

Lars Johanning, Professor of Ocean Technology at the University of Exeter, leads the programme. "Our goal is to help put Cornwall at the forefront of the marine tech industries of the future. These include marine energy, marine manufacturing, maritime operations and marine environmental technologies. We want to help businesses get to the stage where their new ideas can be demonstrated and commercialised – and to do this as quickly as possible."

To achieve this, Marine-i offers one of the most complete packages of innovation support ever designed for the marine sector. This includes business consultancy, research expertise, grant funding, access to some of the best testing facilities in Europe, and graduate support at a subsidised cost. Marine-i provides a bespoke package to marine businesses that is geared to their specific needs and delivered through one point of contact.

Since its inception in 2017, Marine-i has supported 131 local marine businesses with market-leading research, received grant funding for 51 projects, placed 16 graduates with local businesses at a subsidised cost, launched 23 new products into the market, and helped 27 new businesses relocate - or open new offices - in Cornwall. The programme runs until December 2022, so there is still a great opportunity for more local SMEs to benefit from its support.

Supergen



Offshore
Renewable
Energy

Exhibitor and presentation prize sponsor: Supergen Offshore Renewable Energy Hub

The Supergen Offshore Renewable Energy (ORE) Hub is a £9 Million Engineering and Physical Sciences Research Council (EPSRC) funded consortium of 10 UK leading universities. The Hub is tackling the fundamental engineering research challenges in ORE in order to provide research leadership to connect academia, industry, policymakers and the public, inspire innovation and maximise societal value.

The University of Plymouth leads the Supergen ORE Hub, with Co-Directors from the Universities of Aberdeen, Edinburgh, Exeter, Hull, Manchester, Oxford, Southampton, Strathclyde, and Warwick. The Supergen ORE Hub is one of several Hubs created by EPSRC to deliver sustained and coordinated research on Sustainable Power GENERation and supply. Find out more about the Supergen ORE Hub at www.supergen-ore.net



Exhibitor and poster prize sponsor: The Devon & Cornwall Joint Branch of RINA & IMarEST

IMarEST is The Institute of Marine Engineering, Science and Technology; the international professional body and learned society for all marine professionals. IMarEST is the first Institute to bring together marine engineers, scientists and technologists into one international multi-disciplinary professional body. The mission of IMarEST is *To be the international organisation of choice for all concerned with marine resources and activities, by providing professional leadership, upholding standards, and developing and sharing knowledge based upon integrity, quality and fairness.*

The Royal Institution of Naval Architects (RINA) is an internationally renowned professional institution whose members are involved at all levels in the design, construction, maintenance and operation of marine vessels and structures. Members of RINA are widely represented in industry, universities and colleges, and maritime organisations in over ninety countries.



Exhibitor: META (Marine Energy Test Area)

The Marine Energy Test Area (META) is a £2.7 million project managed by Marine Energy Wales that has developed a series of eight consented marine energy test areas in and around the Milford Haven Waterway alongside world class engineering facilities; to test devices, sub-assemblies, components and scientific instruments. The project's mission is to reduce the time, cost and risks faced by marine energy developers, in order to accelerate growth in the sector, whilst complementing the existing test centre network present across the UK.

META is easily accessible and therefore ideal for early stage technology developers, and is also a perfect base for research and innovation. Targeting Technology Readiness Level 4-6, the META sites are non-grid connected, ranging from sheltered quayside sites to open water sites with moderate to strong wave and tidal resource. META is part funded by the European Regional Development Fund (through the Welsh Government), the Coastal Communities Fund and the Swansea Bay City Deal and contributes towards Wales' plans to play a key role in a growing global market.