



OPIN Symposium

07th June 2022



Welcome

- Attendees' microphones will be muted during the event.
- After the presentation there will be time for a Q&A Session.
- Questions can be formulated in the chat at any time, and they will be addressed during the Q&A session. Please address your question to 'All panelists' and specify, in the text, to whom this question is for.
- The meeting will be recorded, and the slides will be shared on the OPIN website.

Agenda (GMT)

14:00 – 14:05 Welcome & Introduction

Ana Sladic

14:05 – 14:20 Overview and success of OPIN

Lesley Doyle (Scottish Enterprise) and Magnus Willett (Offshore Renewable Energy Catapult)

14:20 – 14:35 OPIN Case Study – Kelp Systems

Don Smith, Inventor & Founder (Kelp Systems)

14:35 – 14:55 Overview of offshore renewable energy and the benefits of industry collaboration

Gordon McIntosh, Chairman of Aberdeen International Associates Ltd and
Director of Aberdeen Renewable Energy Group

14:55 – 15:05 Innovation Collaboration & Funding Opportunities

Jane Watters & Ann Marie Reid (Scottish Enterprise)

15:05 – 15:15 Closing remarks & Q&A

Lesley Doyle (Scottish Enterprise)



Overview and success of OPIN

Lesley Doyle – Scottish Enterprise

Magnus Willett – ORE Catapult

Interreg 
EUROPEAN UNION
North-West Europe
OPIN

European Regional Development Fund

Who are OPIN ?

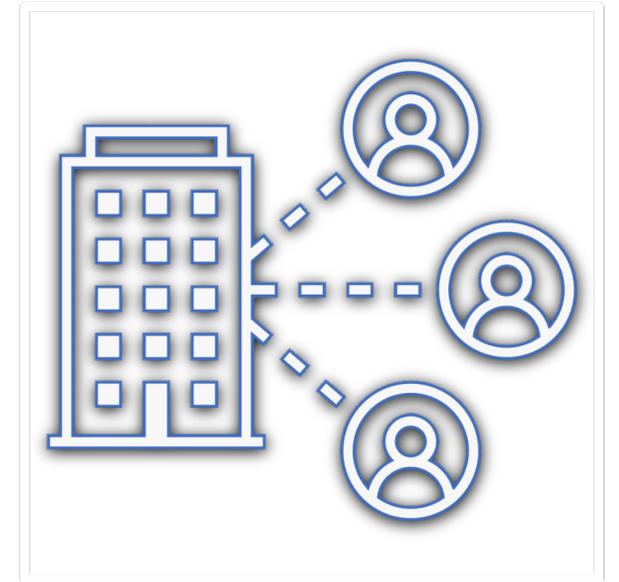
7 partners from Ireland, UK, Belgium, France, the Netherlands and Germany



Project Partners	Countries
Sustainable Energy Authority of Ireland (SEAI)	Ireland
Scottish Enterprise (SE)	United Kingdom
Offshore Renewable Energy Catapult (OREC)	United Kingdom
Sirris, het collectief centrum van de technologische industrie (SIRRIS)	Belgium
West Atlantic Marine Energy Community, École Centrale de Nantes (WEAMEC)	France
Dutch Marine Energy Centre (DMEC)	Netherlands
Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (Fraunhofer IEE)	Germany

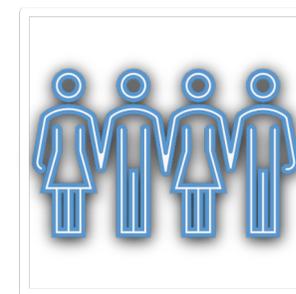
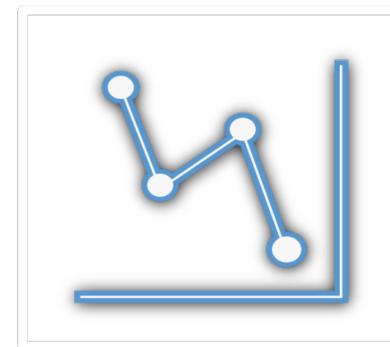
OPIN Premise

To encourage both cross-sectoral and cross-regional collaboration for Offshore Renewable Energy SMEs



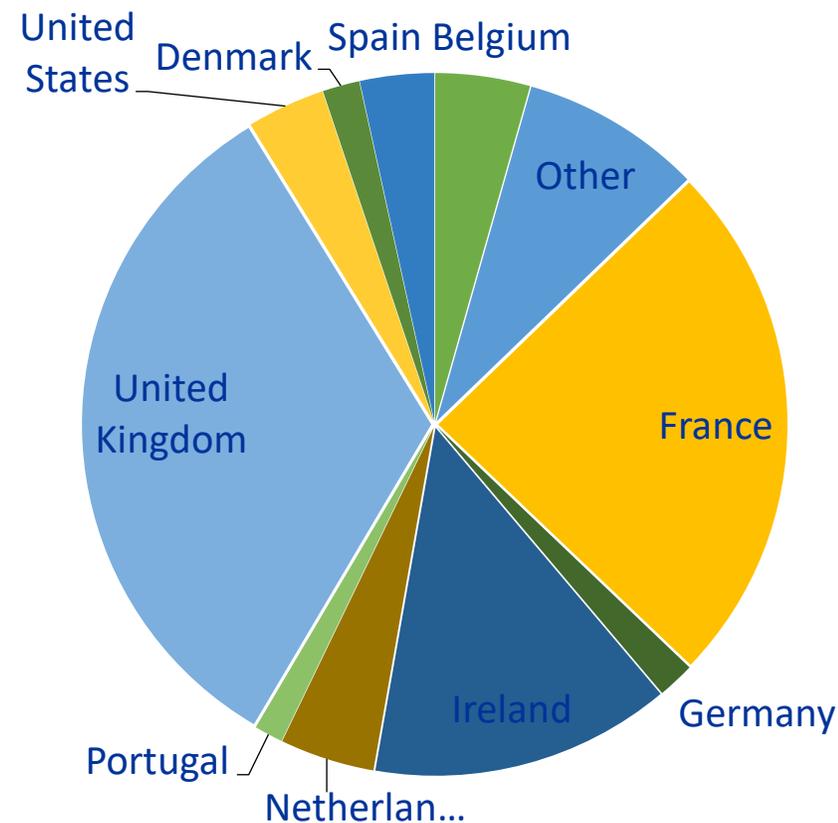
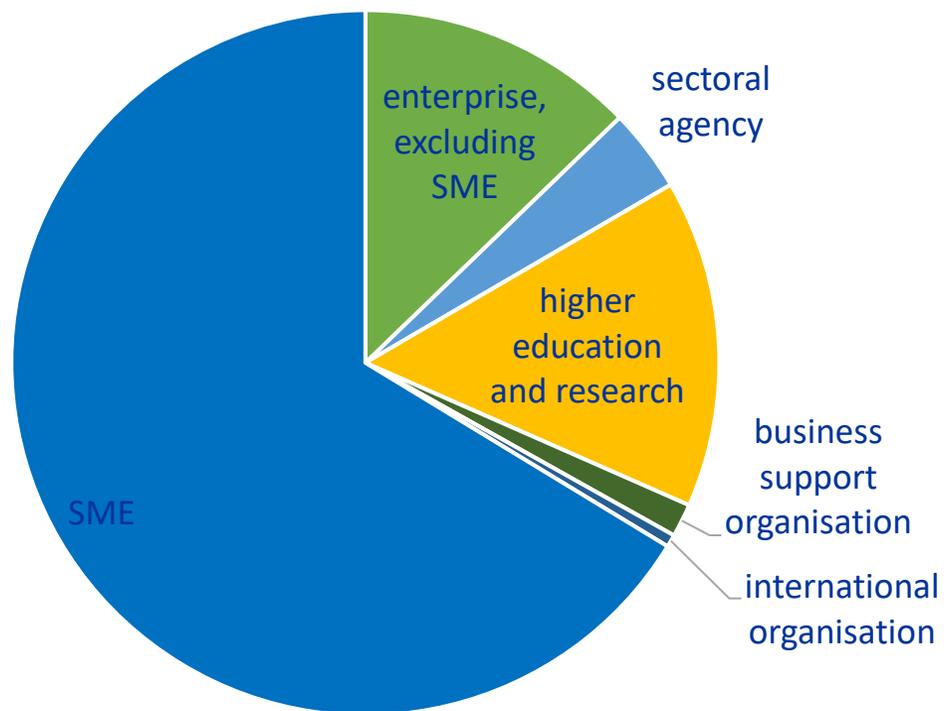
OPIN Statistics

- **Increasing number of attendees** from multiple countries
>100 participants for most webinars
- **557** Twitter followers and **435** OPIN LinkedIn group members
- Stable rhythm despite online context *~1 event/month*
- Events in **collaboration** with other EU-projects
MEA, TIGER, OceanDEMO, Marine-I, FAN-BEST, BlueGIFT, AFLOWT



OPIN Membership

525 members from 35 countries



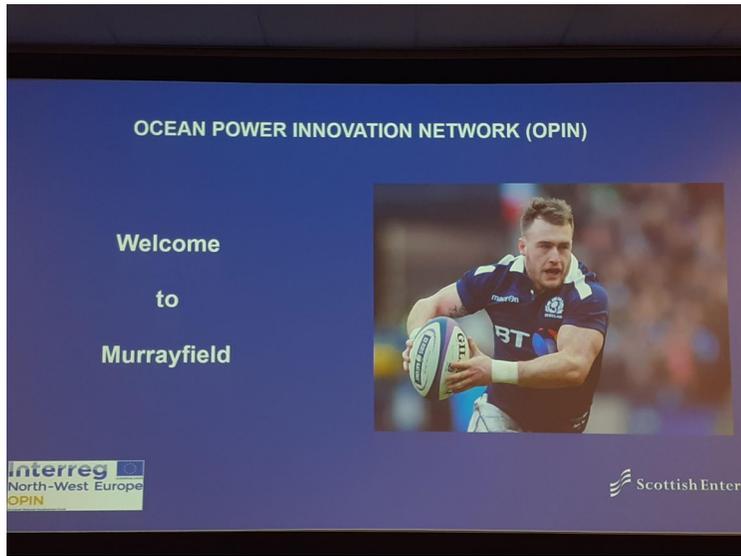
*Other countries (5 members or less):
Australia, Canada, Chile, Colombia, Finland, Hong Kong,
India, Indonesia, Israel, Italy, Malaysia, Norway, Poland,
Romania, Russia, Singapore, Slovakia, South Korea,
Sweden, Switzerland, Taiwan, Thailand, Turkey, Vietnam*

OPIN Events

Type of event	New Targets 2021	Delivered 30/05/22	Gap
Symposiums	3	2	1
Thematic workshops	15	15	0
Cross-sector workshops	10	10	0
Masterclasses	7	8	0
TOTAL	35	35	1

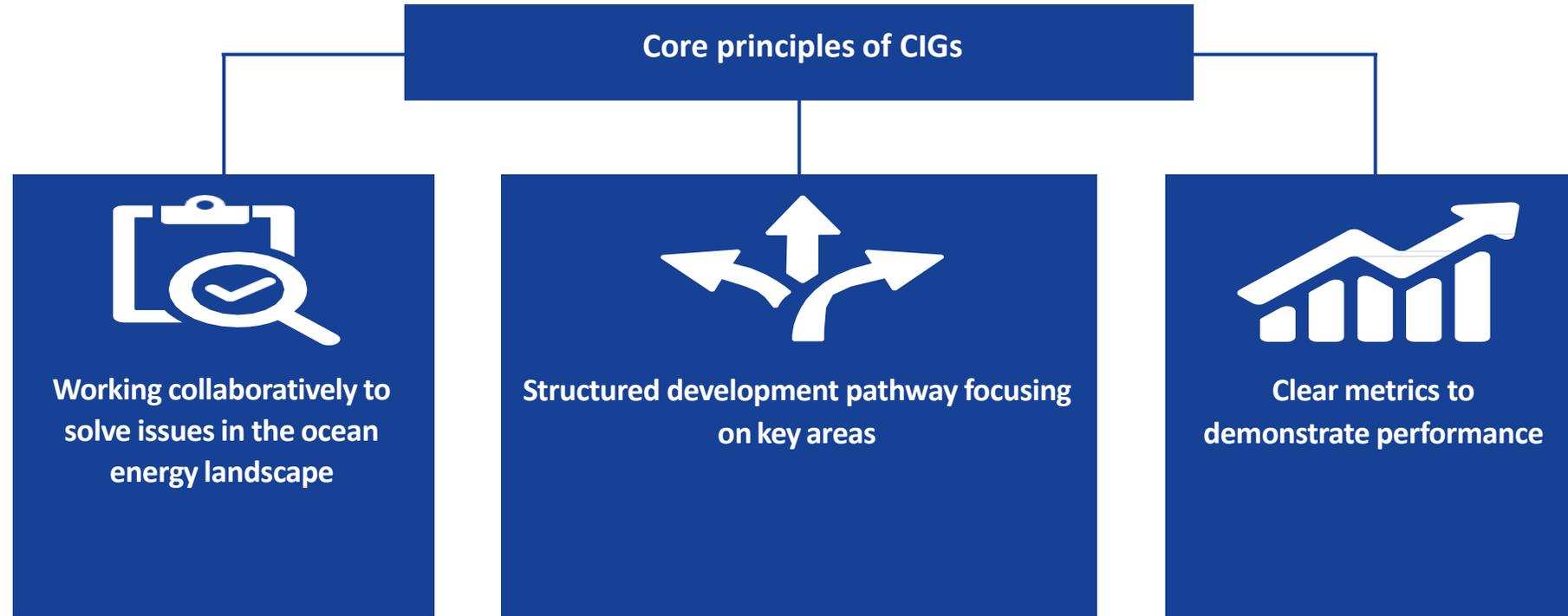
Final Event

- 28/06/22 – Control engineering - Fraunhofer



Ocean Energy and the supply chain - Building the Future into Today Event – 26 February 2020

Core principles of CIGs



A CIG is one of the services offered to developers and businesses.

If you have an issue or challenge within the ocean energy sector that cannot be solved by your business alone, a CIG allows you to work with others to find a solution.

Benefits of CIGs and follow on support

- Explore opportunities for new products, services, markets
- Expand your network nationally and internationally
- Gain complementary skills and expertise
- Preparatory step to National and EU research calls

Following on from CIG support, there are other mechanisms available to explore your ideas further including support from:

- Other European projects
- OPIN partner organisations – contact details can be found on the [OPIN website](#)
- [Enterprise Europe Network](#)

CIGs Progress



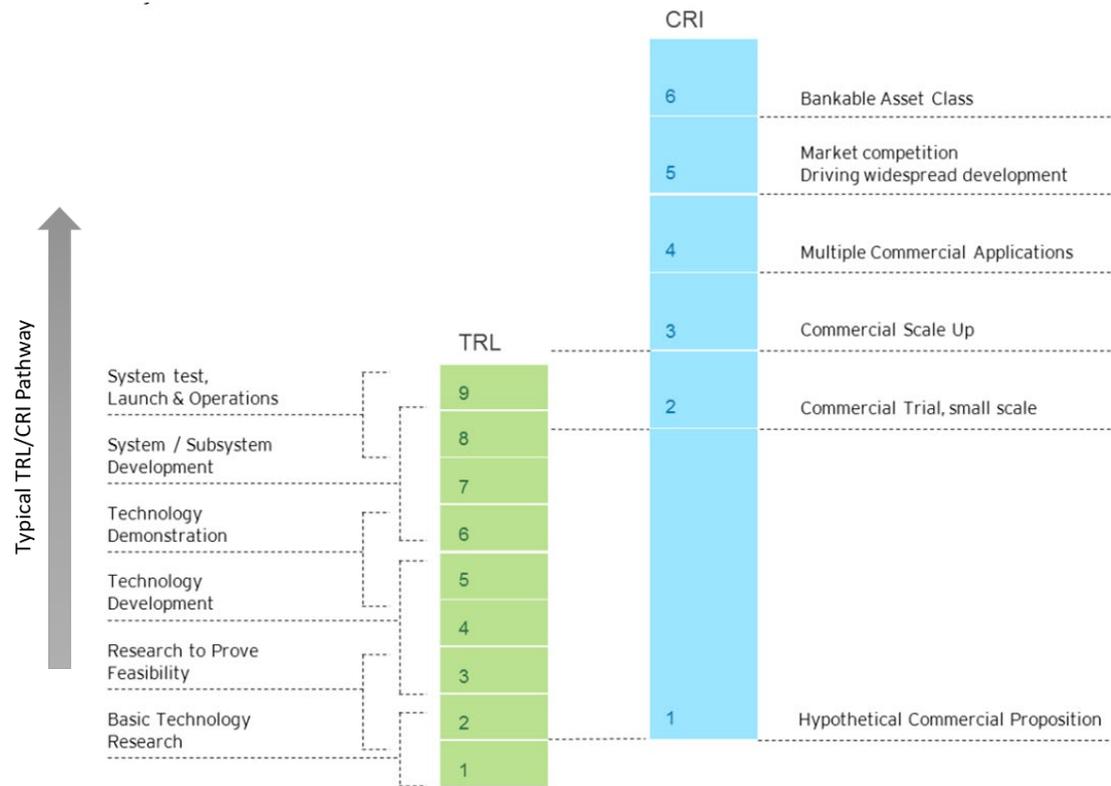
CIGs completed

- CIG on supporting for early stage floating solar demonstration – SME led CIG with Aquatera
- CIG on corrosion monitoring (Sirris)
- Corrosion in reinforced concrete structures used for offshore renewables (WEAMEC)
- Benefits of Space Technology for the Marine Energy Sector with ESA
- CIG in pre-commercial Funding – SME led CIG with Aquatera

CIG outcomes

- **Corrosion in reinforced concrete structures** - Several future R&D collaboration opportunities within the CIG members (all or a subset) were identified with the aim of looking at associated grant applications.
- **Corrosion Monitoring** - Various future opportunities have been identified including development of sensor systems, and development of proven, unified data interpretation methods, models or algorithms.
- **Floating Solar** - Potential commercial collaborations with CIG participants in the future as projects progress beyond Phase 1 of their demonstrations.
- **Benefits of Space Technology** - Assessing the technical feasibility and commercial viability of satellite-based services in the domain, addressing key operational challenges across planning, logistics, efficiency and safety of operations.

Technology Assessment Process (TAP)



Australian Renewable Energy Agency TRL Definition:

What is a TAP?



Assessment of new and emerging ocean energy technologies and services

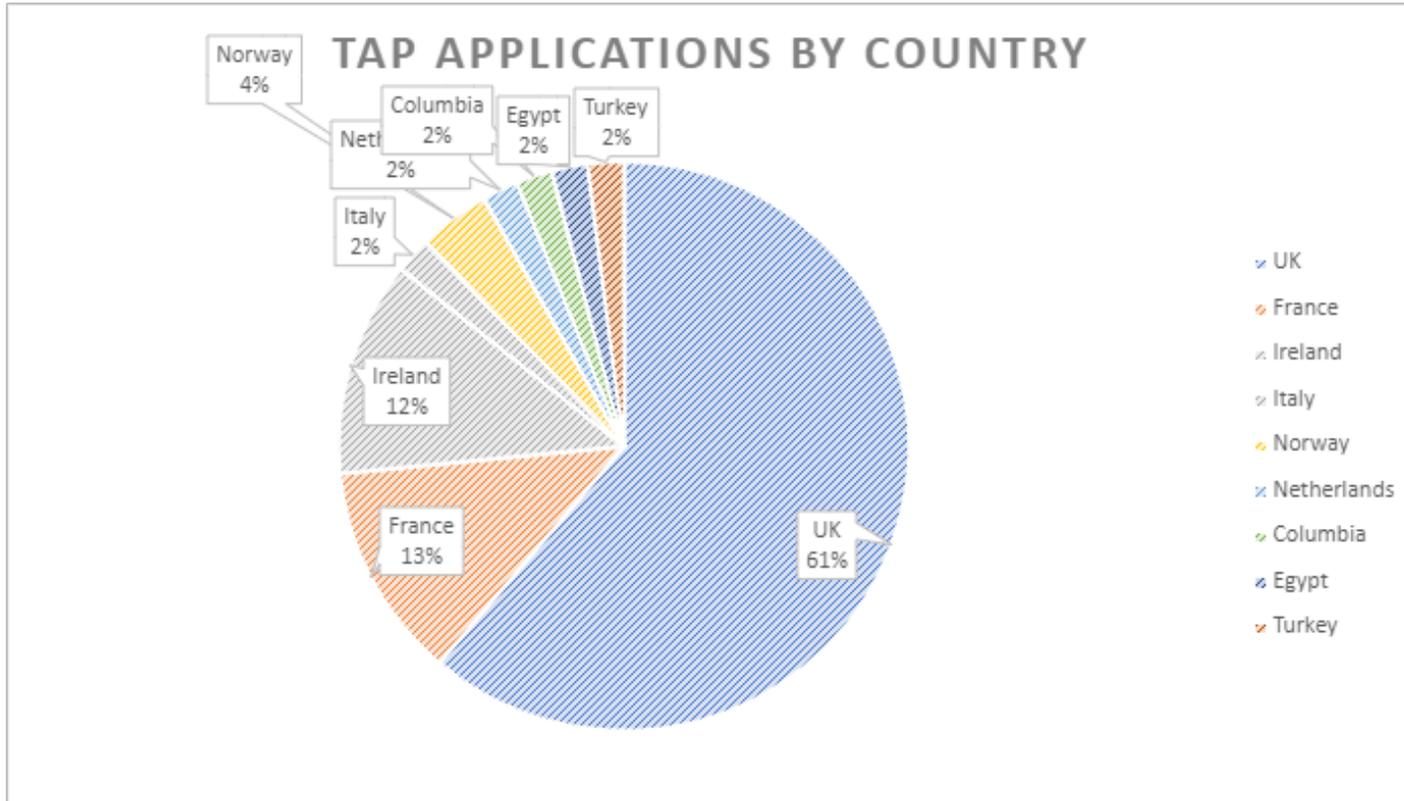


Evidence based Dossier



Examination of system, sub-system or component

Technology Assessment Process - Outcomes



Applications by Country	
Country	Percentage
UK	61%
France	12%
Ireland	12%
Italy	2%
Norway	4%
Netherlands	2%
Columbia	2%
Egypt	2%
Turkey	2%
TOTAL	100%



OPIN Case Study – Kelp Systems

Don Smith, Inventor & Founder (Kelp Systems)



Overview of offshore renewable energy and the benefits of industry collaboration

Gordon McIntosh, Chairman of Aberdeen International Associates Ltd & Director of Aberdeen Renewable Energy Group

OVERVIEW OF OFFSHORE RENEWABLE ENERGY & THE BENEFITS OF INDUSTRY COLLABORATION

AIA

**ABERDEEN
INTERNATIONAL
ASSOCIATES**





RENEWABLE ENERGY A SCOTTISH EXPERIENCE

Gordon McIntosh

Chairman – Aberdeen International Associates

Director – Aberdeen Renewable Energy Group (AREG)

Deputy Minister Natural Resources, NL Canada (2016-2019)

Director Enterprise Planning & Infrastructure – Aberdeen City Council (1995-2016)

ABERDEEN RENEWABLE ENERGY GROUP

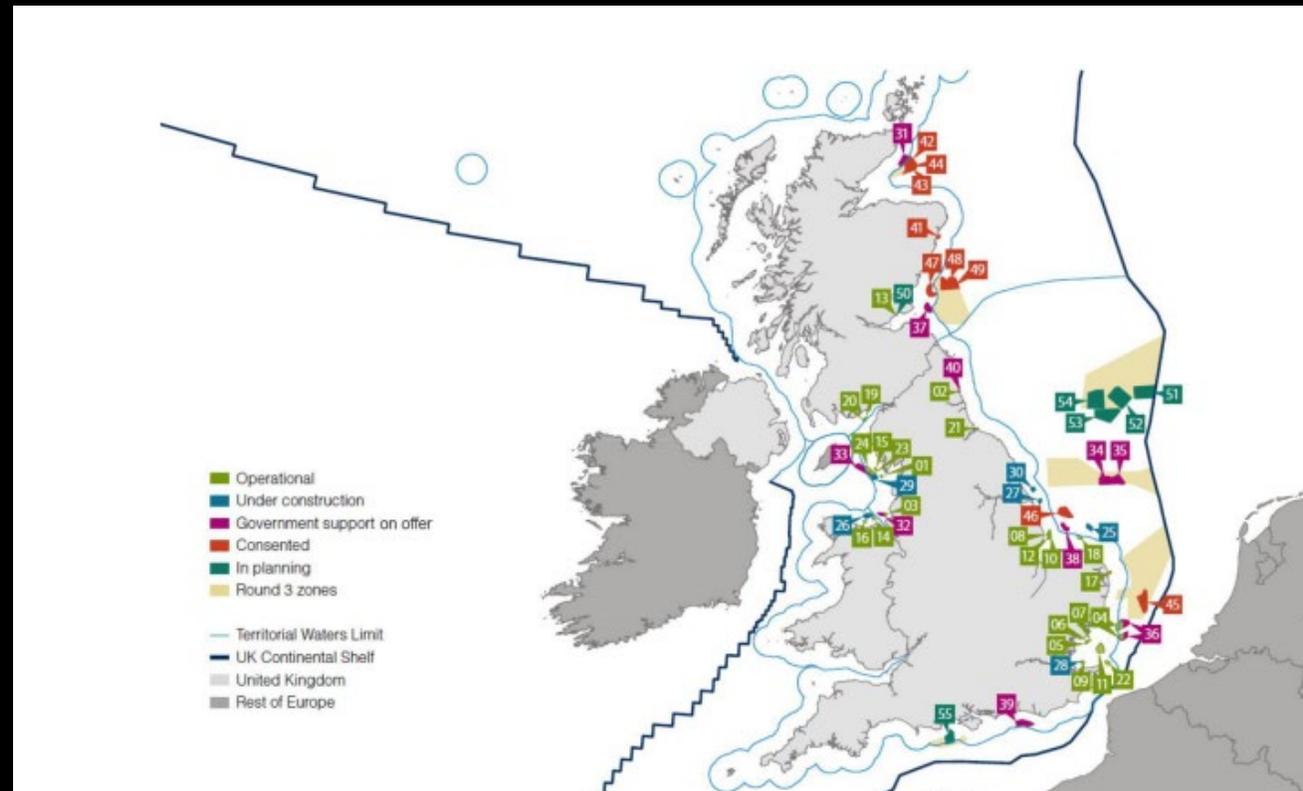
- FOUNDED 2003
- ALL ENERGY
- EUROPEAN OFFSHORE WIND DEPLOYMENT CENTRE (EOWDC)
- 240 MEMBERS



EUROPEAN OFFSHORE WIND DEPLOYMENT CENTRE (EOWDC)

- HISTORY
- LICENSING PROCESS
- ENVIRONMENTAL ASSESSMENT
- OBJECTIONS
 - HARBOUR BOARD
 - DONALD TRUMP
- ABERDEEN BAY WIND FARM

UK INSTALLED WIND CAPACITY



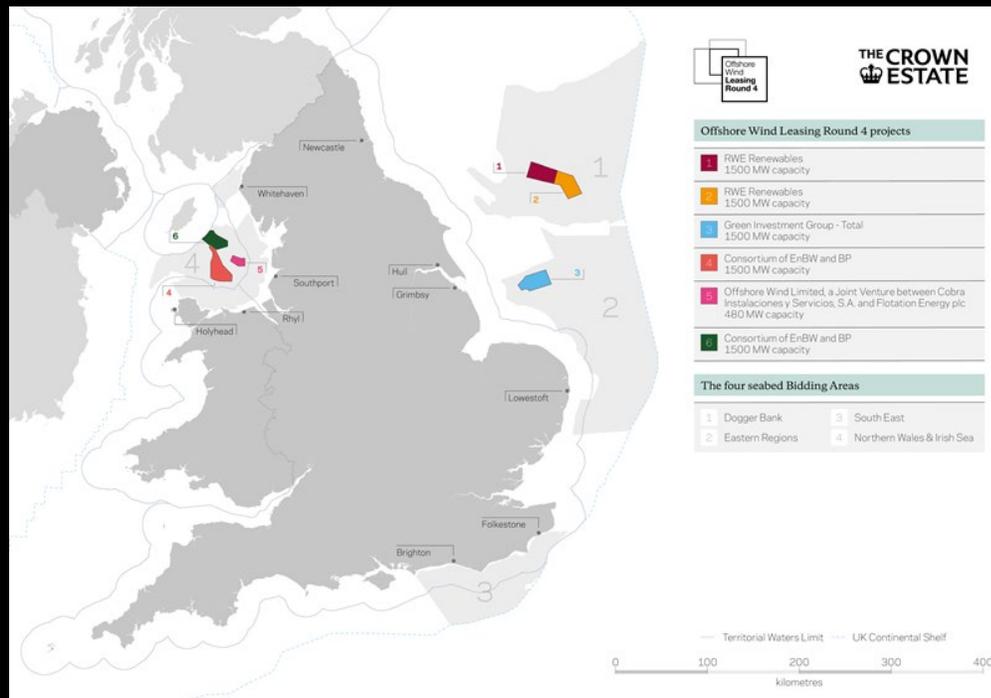
<https://www.offshorewindindustry.com/sites/default/files/ei-understanding-the-impacts-of-offshore-wind-farms-on-well-being.pdf>

ENERGY TRANSITION AND NET-ZERO

- DECARBONISATION
- NET-ZERO TECHNOLOGY CENTRE
- CARBON CAPTURE UTILISATION AND STORAGE (CCUS)
- NORTH SEA TRANSITION DEAL
- ABERDEEN AND HYDROGEN
- AQUATERRA ENERGY

LEASING ROUNDS 2021/2022

- UK OFFSHORE WIND ROUND 4 AUCTION
- SCOTWIND



<https://www.thecrownestate.co.uk/round-4/>

ScotWind Awarded Sites

- 1 BP Alternative Energy Investments 2,907MW
- 2 SSE Renewables 2,610MW
- 3 Falck Renewables 1,200MW
- 4 Shell New Energies 2,000MW
- 5 Vattenfall 798MW
- 6 DEME 1,008MW
- 7 DEME 1,008MW
- 8 Falck Renewables 1,000MW
- 9 Ocean Winds 1,000MW
- 10 Falck Renewables 500MW
- 11 Scottish Power Renewables 3,000MW
- 12 BayWa 960MW
- 13 Offshore Wind Power 2,000MW
- 14 Northland Power 1,500MW
- 15 Magnora 495MW
- 16 Northland Power 840MW
- 17 Scottish Power Renewables 2,000MW



Source: Crown Estate Scotland



<https://www.bbc.co.uk/news/uk-scotland-scotland-business-60002110>

SUPPLY CHAIN DEVELOPMENT STATEMENTS (SCDS)

	£ Million			
Stage	Scotland	RUK	EU	Elsewhere
Development				
Manufacturing and Fabrication				
Installation				
Operations				

<https://www.crownstatescotland.com/resources/documents/supply-chain-development-statement-summary>

INDUSTRY COLLABORATION

“THE ACTION OF WORKING WITH SOMEONE TO PRODUCE SOMETHING”

“TRAITOROUS CO-OPERATION WITH AN ENEMY”

- Company Collaboration
- Country Collaboration
- Trade Missions
- Memoranda of Understanding
- World Energy Cities Partnership

EUROPE'S LEADERS IN BLUE ENERGY (ELBE)

- 7 Regions / 6 Countries
- Offshore Wind, Wave, Tidal
- Basque Country Test Centre
- Wave & Tidal EMEC
- Taiwan, Japan, South Korea, USA & Canada
- H2O Halifax



THANK YOU

GORDON MCINTOSH

gordon@aiascot.co.uk

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ABERDEEN
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ASSOCIATES



Innovation Collaboration & Funding Opportunities

Jane Watters & Ann Marie Reid (Scottish Enterprise)



European Innovation Funding Opportunities

*Ann Marie Reid
Jane Watters
7th June 2022*

Agenda

Ann Marie:
Horizon Europe
Calls related to offshore energy

Jane:
Single company/small consortia innovation funding calls

Ann Marie:
UK Association to Horizon Europe/ UK Treasury Guarantee
Support available and signposting to support in other regions

Horizon Europe Funding Programme

- Horizon Europe is a Research and Innovation programme budget of EUR 95.5 billion.
- Horizon Europe aims to develop radical solutions to pressing societal challenges, and fostering sustainable economic growth and employment.
- Open to all types of organisations across Europe and the world. Funding calls require a team of partner organisations to form a consortium – usually must be at least 3 organisations from different countries. Although some funding calls allow a single organisation to apply.



Horizon Europe Framework



Pillar 1 EXCELLENT SCIENCE

European Research Council

Marie Skłodowska-Curie Actions

Research Infrastructures



Pillar 2 GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre



Pillar 3 INNOVATIVE EUROPE

European Innovation Council

European innovation ecosystems

European Institute
of Innovation and Technology

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

Horizon Europe Framework – Pillar 2 Cluster – Climate, Energy and Mobility

Destination 1: Climate sciences and responses for the transformation towards climate neutrality

Destination 2: Cross-sectoral solutions for the climate transition

Destination 3: Sustainable, secure and competitive energy supply

Destination 4: Efficient, sustainable and inclusive energy

Destination 5: Clean and competitive solutions for all transport modes

Destination 6: Safe, resilient transport and smart mobility services for passengers and goods

Horizon Europe Framework – Pillar 2 Cluster – Climate, Energy and Mobility

Call Topic Reference	Title	Deadline
Horizon-JTI-CleanH2-2022-01-10	Demonstrating Offshore Production of Green Hydrogen	20 Sept. 2022
Horizon-Miss-2022-Ocean-01-01	European Blue Parks – protection and restoration solutions for degraded coastal and marine habitats	27 Sept. 2022

MISSION AREAS:

Soil health and food



Adaptation to climate change, including societal transformation



Climate-neutral and smart cities



Cancer



Healthy oceans, seas, coastal and inland waters



#HorizonEU



European
Commission

[Horizon Europe Funding Portal](#)

European Innovation Council (EIC) - Pillar 3 Horizon Europe Framework

Call	Eligibility	Grant max	TRL	Deadline and indicative budget 2022
EIC Pathfinder-Open	Collaborative	<=€3m	1-4 (lab validated)	3/05/22 €183m
EIC Pathfinder-Challenges (includes systems-integrated energy storage)	Single/2 partner for Pathfinder Challenges	<=€4m 100% eligible costs		19/10/22 €167M indicative budget
EIC Transition-Open	Single/small consortia	<=€2.5m	4-5/6 (validated/demonstrated in relevant environment)	28/09/22 €70.9m
EIC Transition-Challenges	Must build on results of an eligible Pathfinder, FET, or ERC Proof of Concept project)	100% eligible costs		28/09/22 €60.5m indicative budget
EIC Accelerator - Open	Single start-ups and SMEs	<=€2.5m	5/6-9 (proven in operational environment)	15/06/22; 5/10/22 €630.9
EIC Accelerator Challenges (includes Fit for 55)		70% eligible costs		15/06/22; 5/10/22 €536.9m

- Open call so no specific themes/sectors
- Supports international collaborative research and innovation projects that can go to market 2 years after the project finishes
- Can address any technological area but must be aimed at the development of a new product, process or service
- Next deadline 15/09/22

UK specific rules (national rules differ)

- EuroStars will award up to €360,000 euros funding for each UK project partner or 60% of eligible project costs, whichever is the least.
- In the UK – SMEs eligible
- UK SMEs will need at least one partner from another one of the [36 Eurostars participating states and partner countries](#) (OPIN partner countries are eligible)

Other international innovation funding calls (out-with Horizon Europe)

Competition	Description	Funding %	Max	Single co/collaborative	Closing date
<u>ESA – Space acting for decarbonisation</u>	Enabling studies that will aid in understanding the opportunities for space sectors in support of decarbonisation (focus includes energy; transport; buildings; industry; food production)	100%	£200,000	Single/collaborative	8/07/22
<u>Green Offshore Tech</u>	SMEs – advanced materials; advance manufacturing and digitalization; environmental technologies and new energy carriers (for offshore wind; aquaculture; O&G; water transport)		€60k max per project	Single/collaborative (SME coordinator with large companies/research centres from <u>UK</u> ; Latvia, Poland, Portugal, <u>Germany</u> , Norway, Iceland)	6/07/22

Horizon Europe and UK Association

The UK stands ready to implement the agreement to participate reached between the UK and EU in **December 2020**. As stated by the Commission in their Q&A document from Feb 2021, “UK entities are already eligible to apply ahead of formally associating”

The UK remains committed to securing association and continue to encourage UK organisations to take advantage of this opportunity.

Recognising that there is uncertainty until the UK’s association agreement is complete, UK Govt recently announced an extension to the Horizon Europe Treasury Guarantee which is a short-term safety net: *“Successful applicants for Horizon Europe grant awards will be guaranteed funding regardless of the outcome of the UK’s efforts to associate to Horizon Europe, under a new scheme announced by the government.”*

Call to Action

We can support you to:

- Find relevant innovation funding call, strengthen your application and refer to other support (available to Scottish companies and those partnering with them)
- Find partners
- Signpost you to equivalent support in your region e.g. National Contact Points and Enterprise Europe Network Advisers



Resources

Innovation funding database (mainly UK calls):

<https://www.scottish-enterprise.com/support-for-businesses/funding-and-grants/innovation-funding>

Scottish EU Funding Portal (EU Programmes, project ideas, NCPs):

<https://www.scottish-enterprise.com/support-for-businesses/funding-and-grants/european-funding>

annmarie.reid@scotent.co.uk

jane.watters@scotent.co.uk



Q&A Session

Interreg 
EUROPEAN UNION
North-West Europe
OPIN
European Regional Development Fund



OPIN Closing remarks

Lesley Doyle (Scottish Enterprise)

OPIN Resources



[Partner Organisations](#)



[OPIN Members list](#)



[OPIN Library:](#)

- Workshops/masterclasses presentations
- Value chain study - summary report
- Ocean energy challenges and recommendations: Desktop analysis of studies and reports

Interreg North-West Europe

OPIN

European Regional Development Fund

Thank you!