

marinerg-i

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EITP Ocean webinar
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The MARINERG-i_PP project has received funding from the European Union's Horizon Europe INFRADV programme under grant agreement No. 101128668

Projects

ESFRI roadmap

Permanent legal
entity

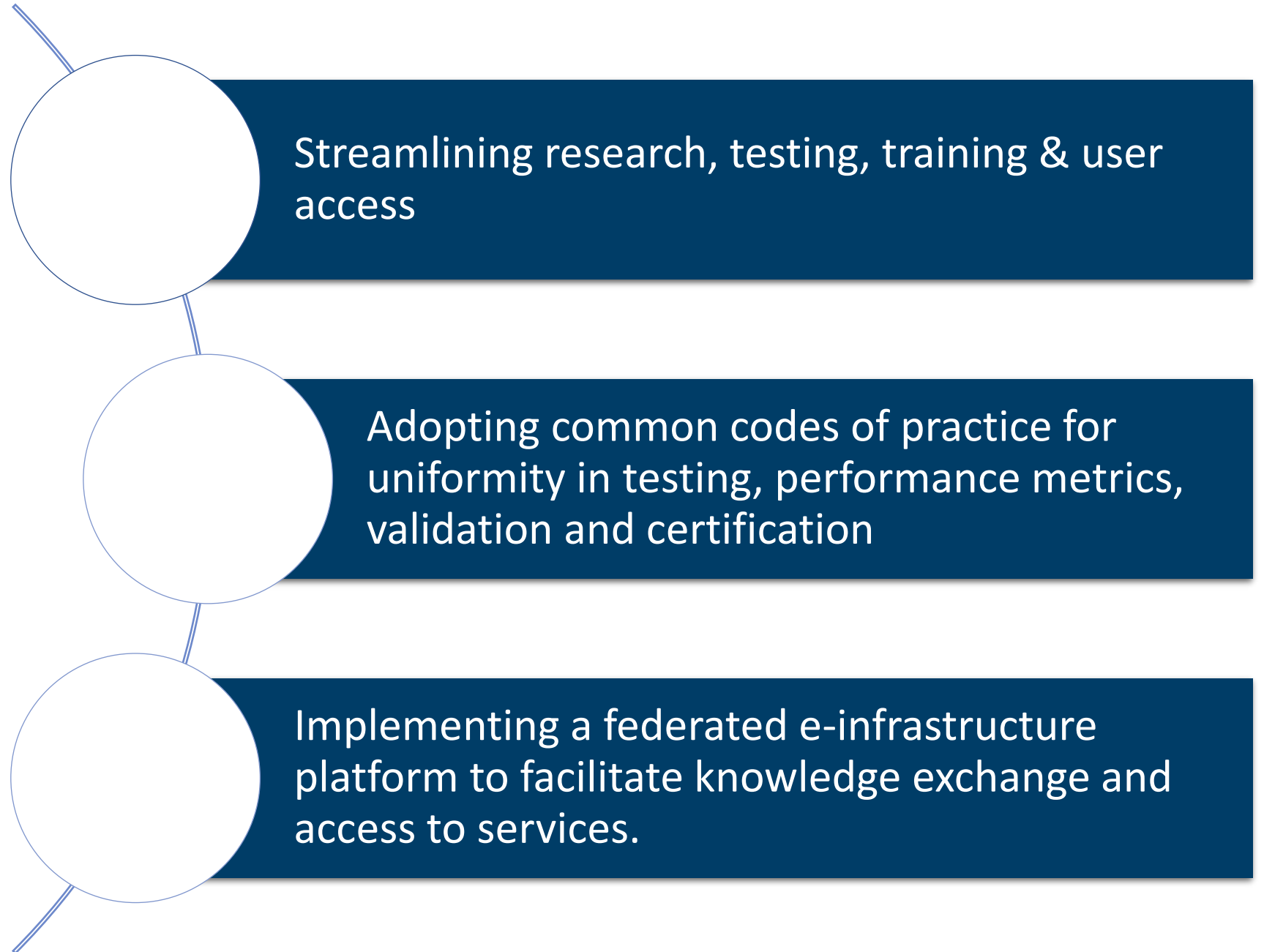
The logo for marinerg-i, featuring a stylized blue wave icon above the text "marinerg-i" in a bold, blue, sans-serif font.

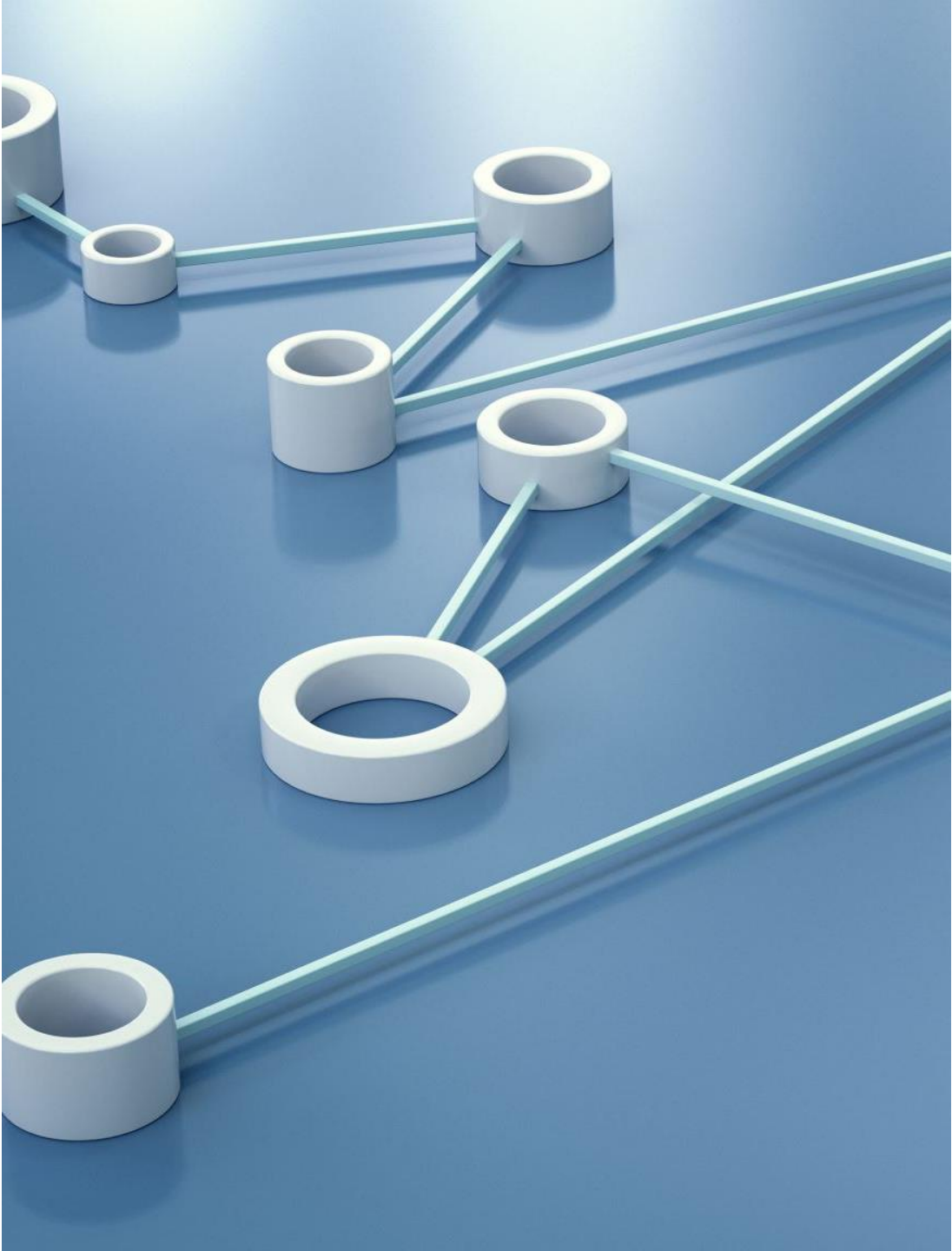
marinerg-i

**A Distributed Research Infrastructure (DRI) of testing infrastructures to
accelerate the delivery of Offshore Renewable Energy (ORE).**

Mission

Drive the development of innovative, investable ORE technologies by...



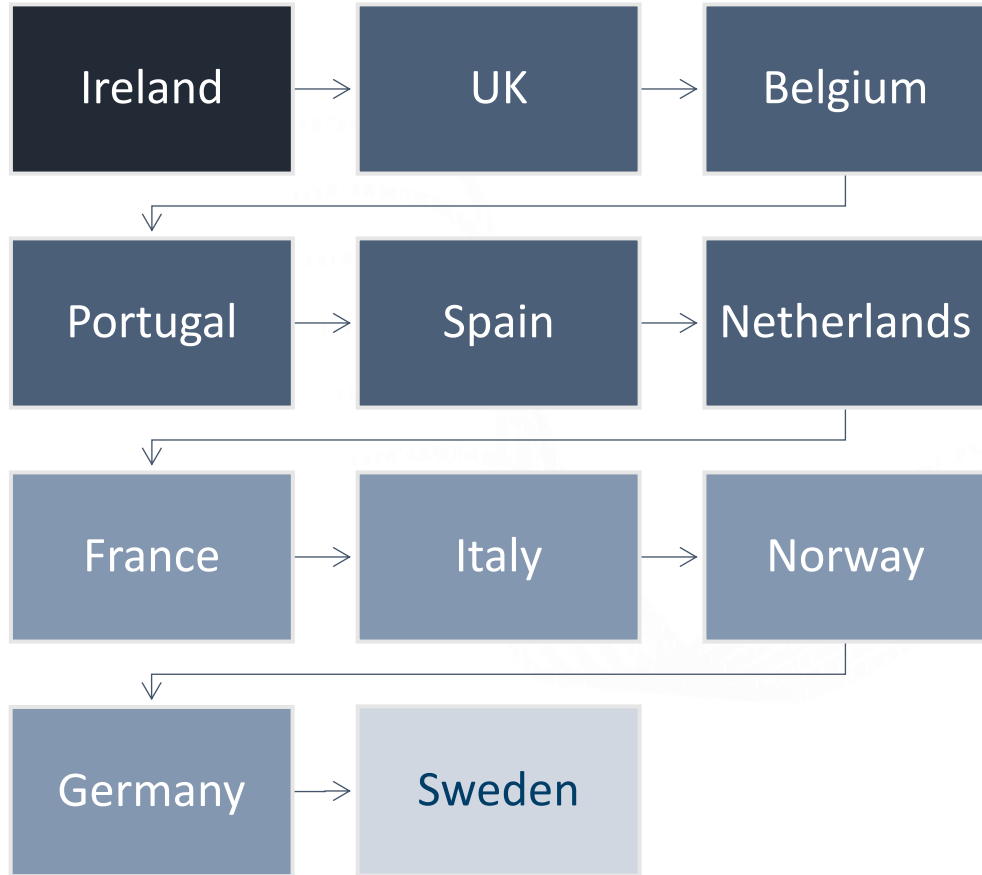


Mission

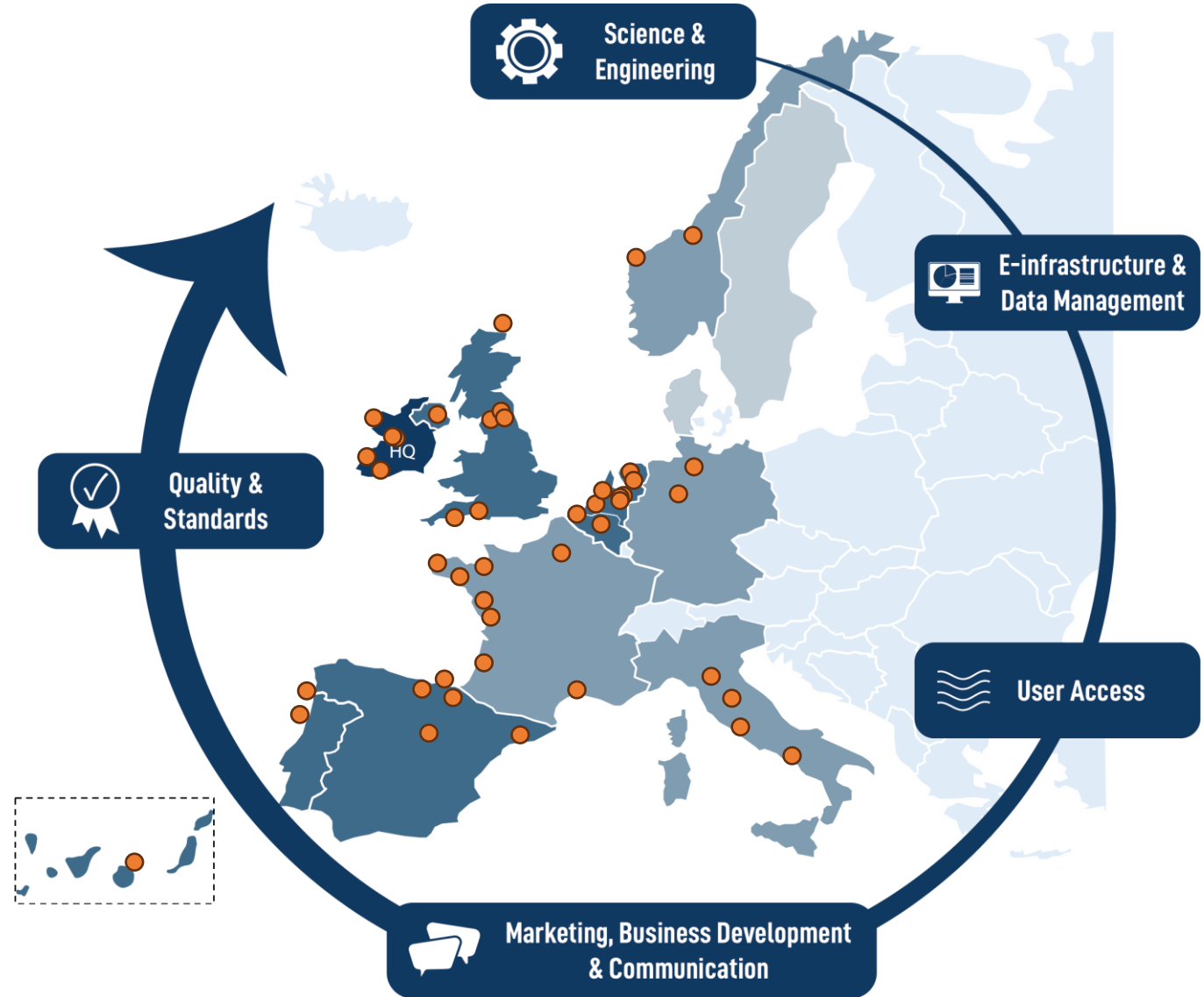
Accelerate novel solutions through cross-sector collaborations and integration of distributed testing infrastructures.

Inform national and EU policy and infrastructure investment strategies, sustaining global leadership and recognition in the ORE sector.

Membership



60 Facilities

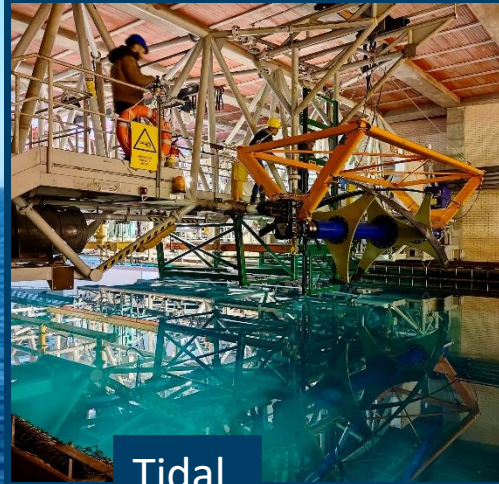




Floating wind



Wave



Tidal



Floating solar

What will we cover?



Mooring systems, anchors & components



Electrical: power quality, performance & grid integration



Drivetrains, Generators & Electrical components



Device Components



Logistics & robotics



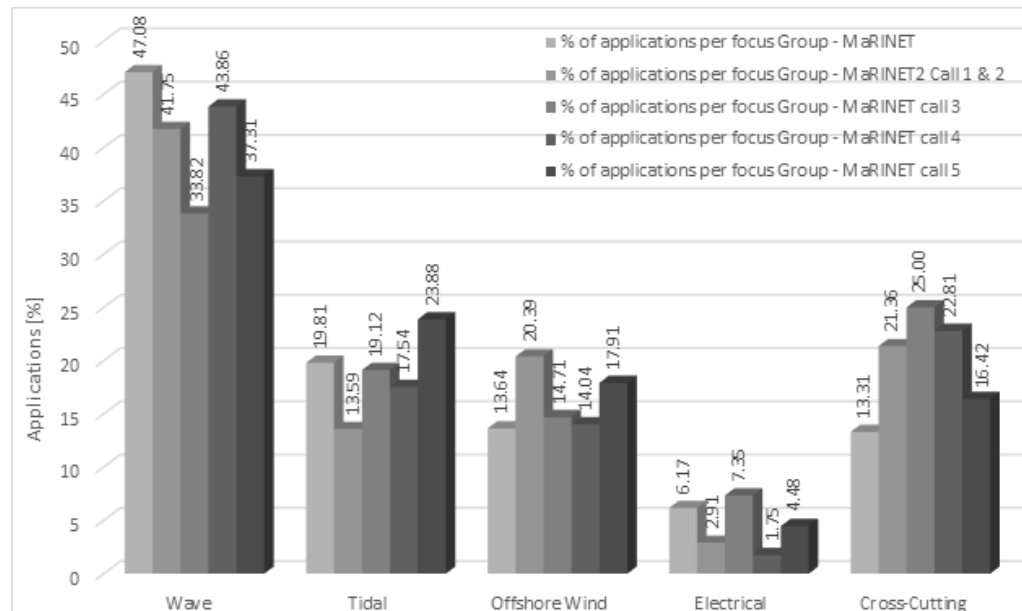
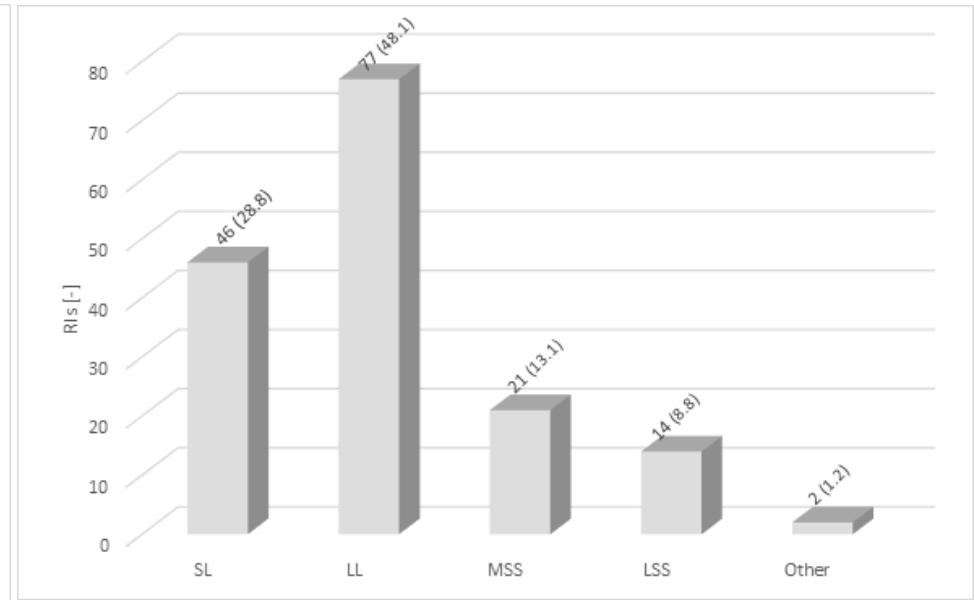
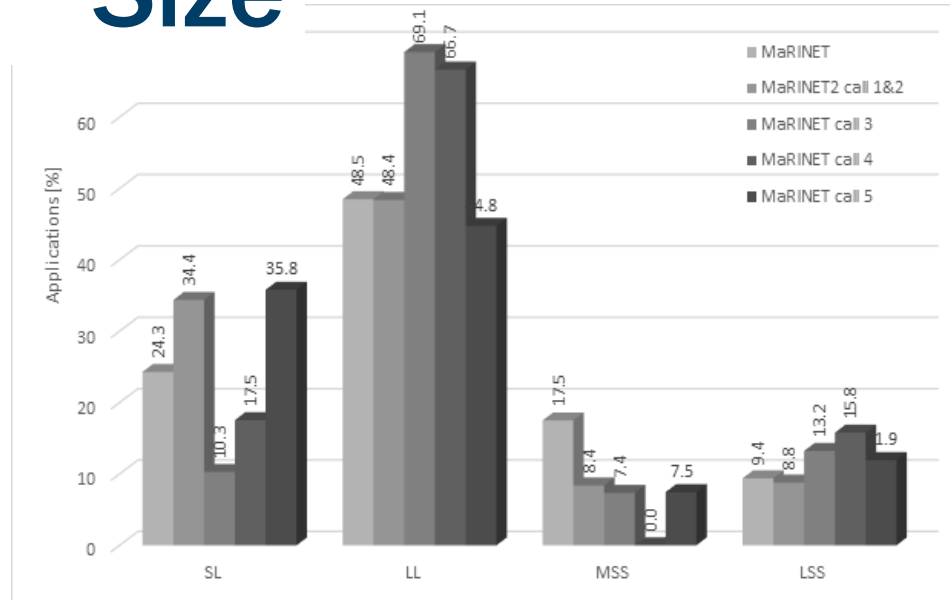
Structures, Materials, Geotech & Manufacturing



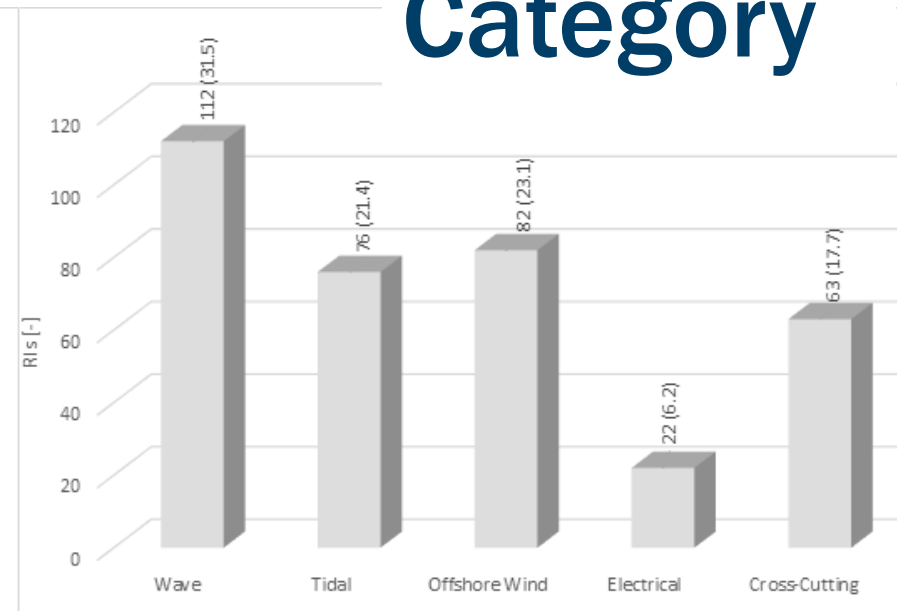
Facility Scale	Focus Group					
	Wave	Tidal	Offshore wind	Solar (PV)	Electrical and Grid connection	Cross-Cutting
Small Lab	Wave flume	Current flume	Wind tunnel	Wave flume	Turbine emulator	Material testing bench
					Wave flume	
					PTO testing bench	
Large Lab	Wave basin	Current flume	Wind tunnel	Wave basin	Turbine emulator	Material testing bench, corrosion tanks
			Wave basin		Wave basin	
Medium Scale open sea test site	Sheltered bay Low-energetic test site	Sheltered strait or channel	Sheltered bay	Sheltered bay Low-energetic test site	PTO testing rig	Coastal corrosion testing facility
					Sheltered bay	Sheltered bay
Large Scale Open Sea test site	Offshore open area	Offshore open area Strait or channel	Offshore open area	Offshore open area	Offshore open area	Offshore open area

Need based on experience

Size



Category





Kelvin Hydrodynamics Wave and Tow Tank



Ghent University Wave Flume



Lir NOTF Wave and Current Flume; Wavewatch flume; Electrical Test Rigs & Microgrid



UNIFI-LABIMA flume tanks



Sintef Ocean Circulating water Tunnel



IHCantabria Wave-Current Flume (COC); Directional Wave Tank



LIM/UPC CIEMito - Small scale wave flume and LaBassa Wave Basin



Deltares Pacific Basin; Delta Basin; Delta Flume

Small-scale laboratory

Small-scale laboratory



Marin Concept Basin; Shallow Water Basin; Depressurised Wave Basin; Simulators



NIOZ Test facility for component- and supporting technology testing



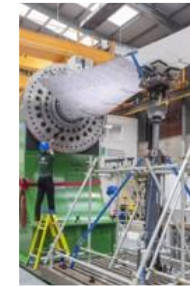
TNO; Structural Dynamics Laboratory; hydrogen and materials lab; Small scale air/water flow lab



WUR Flume tank facilities; Acoustic and telemetric monitoring techniques



TU Delft Several small wind tunnels; Structures and Material lab



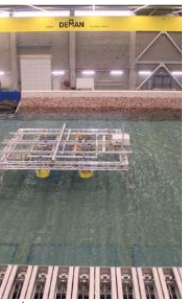
FASTBLADE Structural Composites Research Facility



DNW Low-speed wind tunnel LST



SWEET Lab Structural component test rig and Drivetrain test rig



COB wave basin and towing tank



ECN hydrodynamic and ocean engineering tank and towing tank



IFREMER Deep wave Basin; Wave-Current Flume; Material testing facility



UGE's geotechnical centrifuge, cable fatigue test bench and mechanical test bench



Leibniz Universitaet Hannover Large Wave Flume



NUIG Structural Research Laboratory



LIR Deep Ocean Basin & Ocean Basin



CNR-INM Towing & Waves Tanks (TWT) and Circulating water channel (CWC)

Large-scale laboratory

Large-scale laboratory



Federico II University
Wave/Towing tank



Sintef Ocean Marine Structures
Laboratory; Smartgrids; Ocean
Basin and Towing Tanks



CEHIPAR Seakeeping Tank



CENER Wind Turbine Test
Laboratory



IHCantabria Coastal and Ocean
Basin and Wave-Current-
Tsunami Flume



CIEM - Large scale wave and
currents flume



Deltares IOS basins incl. header for
pump (sump) research and Ship Lock
facility incl. fresh and saltwater facilities



DNW Large Low Speed Wind
Tunnel Facility

Large-scale laboratory



MARIN Marine Offshore Basin;
Seakeeping and Maneouvring
Basin



TU Delft Wave Flume; Stream
Flume; Stream Tank; SAM|XL



ORE Catapult Marine Test Site;
Blade Test; Powertrain
facilities; CPTC Energy Link
Lab; HV Lab



FloWave



COAST lab



University of Exeter DMaC



Seeneoh
Sainte-Anne Test Site



UL Marine Robotics Laboratory



Runde Environmental Test Centre



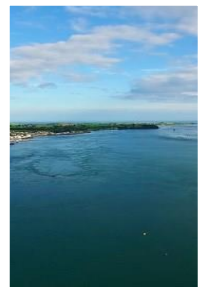
Royal Netherlands Institute for Sea Research (NIOZ) research vessel fleet



TNO facilities - Offshore LiDAR; Radar; RE Ecology field lab; Floating solar energy lab etc.



EMEC wave and tidal scale test sites (Scapa flow and Shapinsay sound)



Queen's University Belfast tidal and wave test sites: Strangford Lough, Portaferry and Marfield



University of Exeter FabTest

Medium-scale test sites

Large-scale test sites



Aguçadora



Atlantic Marine Energy Test Site (AMETS)



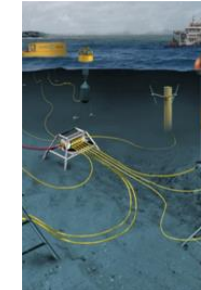
Biscay Marine Energy Platform (BIMEP)



TNO wind turbine test sites



Mistral; SEMREV; Paimpol-Brehat



SmartBay



PLOCAN Test Site



EMEC Tidal (Fall of Warness) and Wave (Bilia Croo) Full Scale test sites

Services



ACCESS



FACILITY
SELECTION



TECHNOLOGY
DEVELOPMENT
GUIDANCE



TRAINING
(INTERNAL
AND
EXTERNAL)



DATA
PROCESSING,
CURATION &
ACCESS



KNOWLEDGE
BASED
DISSEMINATION

- About:
 - Mission & Vision
 - Members & Participants
- News & Events
- Contact us
- Links

Website



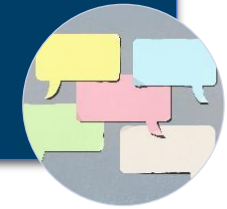
- Science plan
- Research Projects
- Collaboration activities international/industry
- Outreach activities

Science & innovation



- Document store & archive
- Task assignment/tracking
- Internal communications system
- Internal training/staff exchange programmes

Member & Participant portal



E-infrastructure

- Facility details
- Common Vocabularies
- Document extracts e.g. best practices & standards
- Network & community

Community Portal



- Access application and management
- Training
- Other services TBC

Services Portal

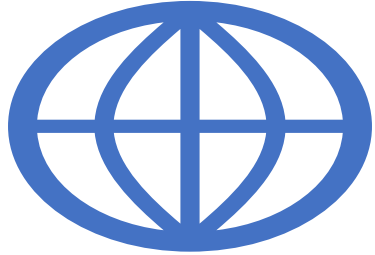


- Datasets available per facility
- Data tools e.g. APIs to access datasets & dedicated vocabulary server
- Virtual Research Environment

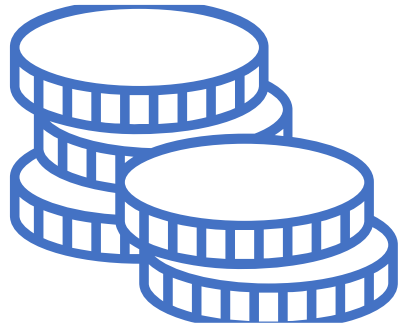
Data Portal



Added-value



Access



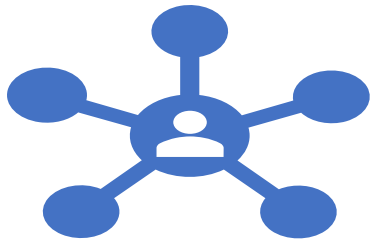
Funding



Standards &
Quality



Reducing risks



Collaboration &
Networking



Planning &
Efficiency



Informing
policy

Key objectives



Become established as a legal
entity 2026/2027



Pilot of access programme 2028

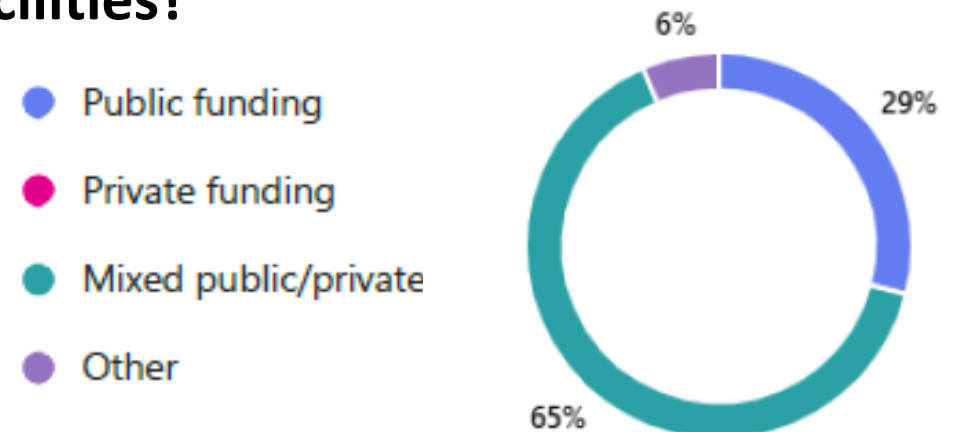
Feedback so far...

- 71% of respondents were SMEs
- Test facilities needed over next 5-10 years:
 - 34% require wave/current basin or flume;
 - 25% require open-sea test sites;
 - 15% require full-scale testing
- **65% - funding is the main decision-driver to use facilities**



Q. How do you plan to fund your future access to facilities?

- 29% public funding
- 65% mixture of public and private funding
- 6% other



User input needed



<https://forms.office.com/e/R37k9SnnjY>



Thank you for your attention