



ETIP OCEAN

European Technology & Innovation Platform for Ocean Energy

**ETIP Ocean Strategic Research and Innovation Agenda
Supergen International Session:
Latest developments in international offshore renewable energy research
20 January 2022**

tecnal:a

MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE



THE UNIVERSITY of EDINBURGH



WavEC
Offshore Renewables



**Ocean Energy
Europe**

ETIP OCEAN: The European Technology and Innovation Platform for Ocean Energy

Coordinated by



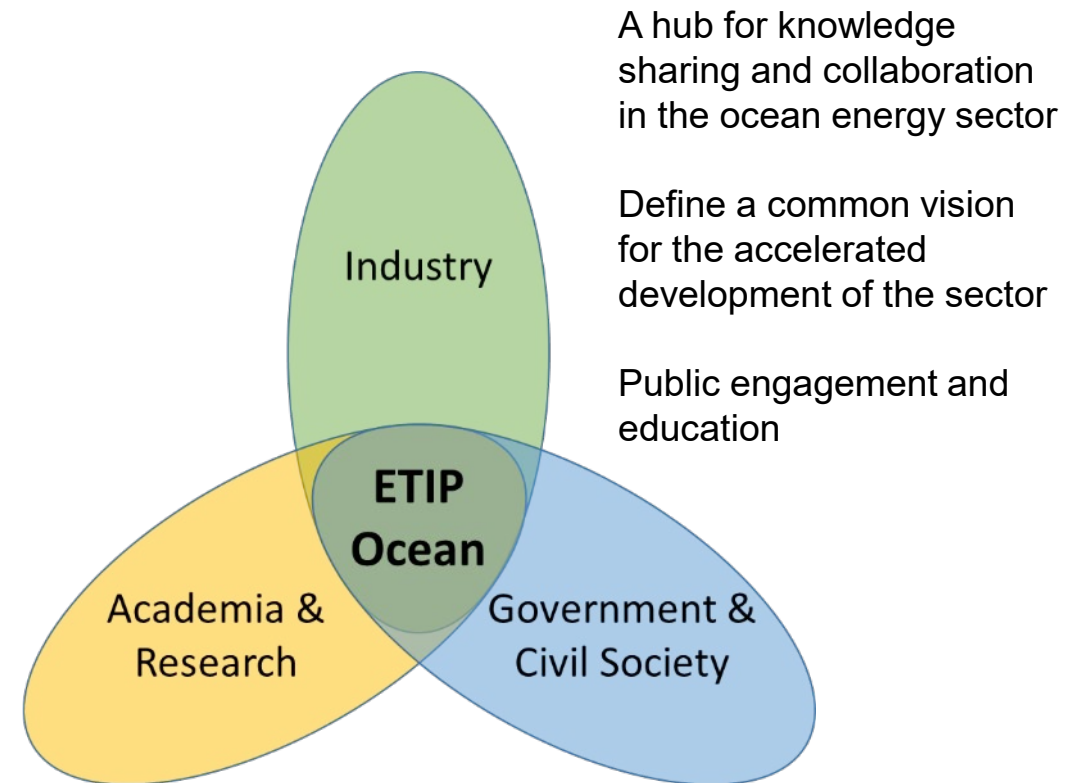
Partners



Supported by



- ETIP OCEAN network brings together around **500 experts** from over **150 organisations**
- Guided by **ETIP Ocean Steering Committee** – leading technology + project developers, research institutes and key stakeholders



ETIP OCEAN: Some publications

ETIP Ocean report: A European Ocean Energy Industry – the €140bn Economic Opportunity

38 days ago



By taking the lead in the global ocean energy market, Europe will benefit from economic activity worth €140bn by 2050, according to a new report 'A European Ocean Energy Industry – the €140bn Economic Opportunity', launched today. Projects both in Europe and around the world will rely on European expertise and equipment, creating 1.2 million European jobs.

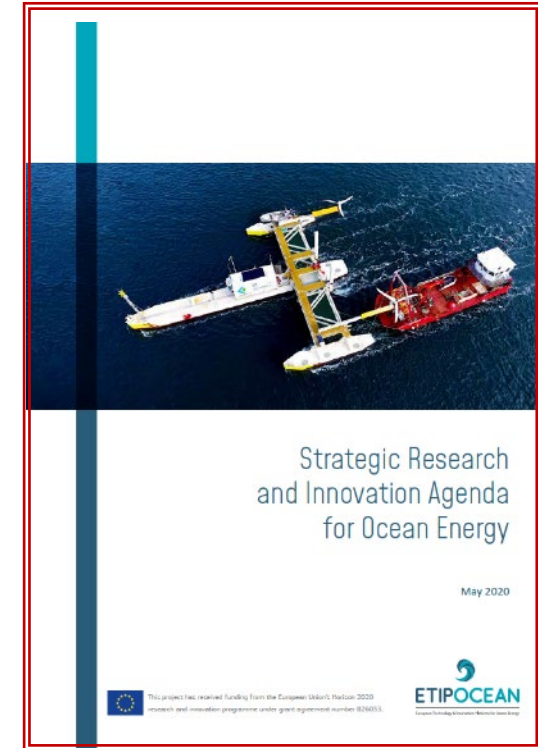


Ocean energy and the environment:
Research and strategic actions

December 2020



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 820033.



Strategic Research
and Innovation Agenda
for Ocean Energy

May 2020



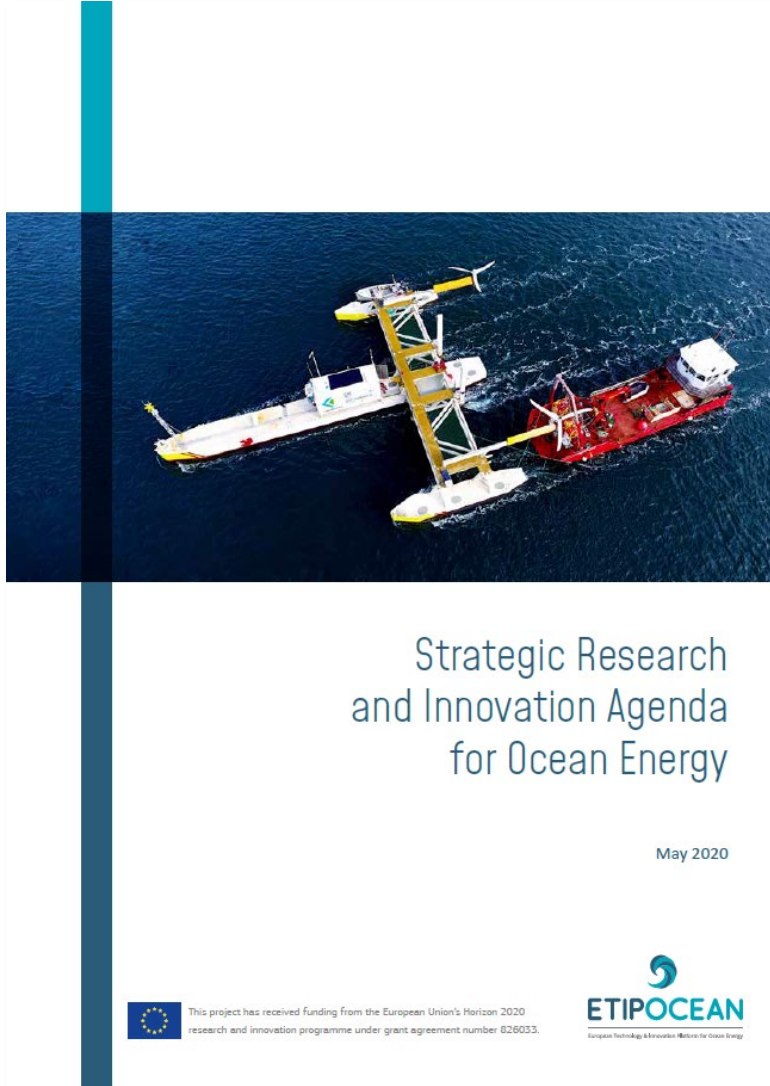
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 820033.



ETIP Ocean report out soon: Socioeconomic benefits of ocean energy

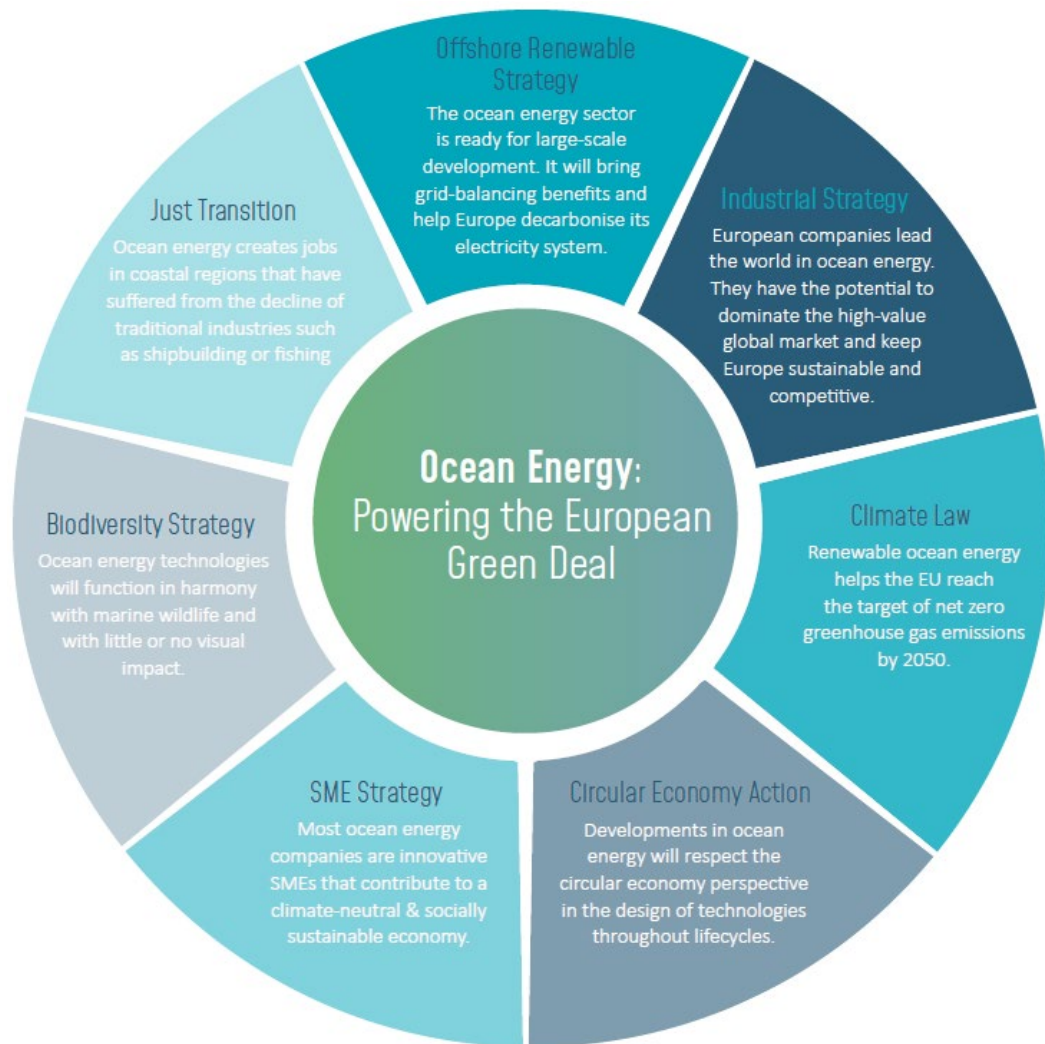
ETIP OCEAN Some publications

<https://www.etipocean.eu>



- A reference document for the whole ocean energy sector and specifically for **public funding organisations** (EC, Member States and Regional Agencies) with the aim of inspiring research calls.
- Updates **key priority challenge areas** for research, technology development and innovation from the previous strategic agenda in 2016
- Defines specific objectives and actions to carve the path towards **Ocean Energy commercialisation**
- Developed in close cooperation with **sector stakeholders**

[Link to download](#)

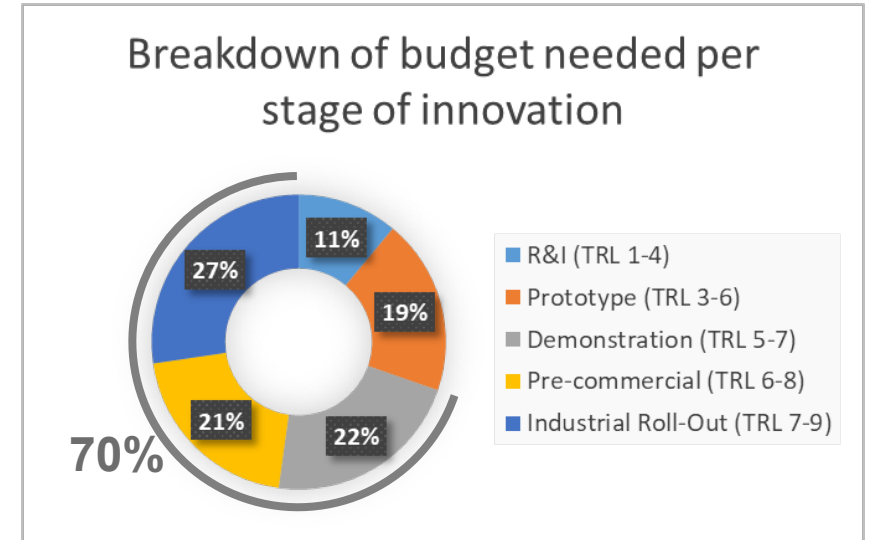
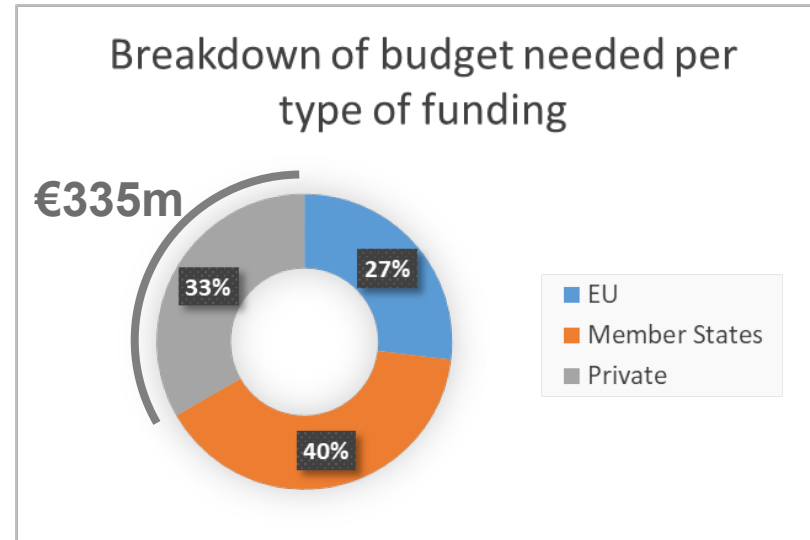
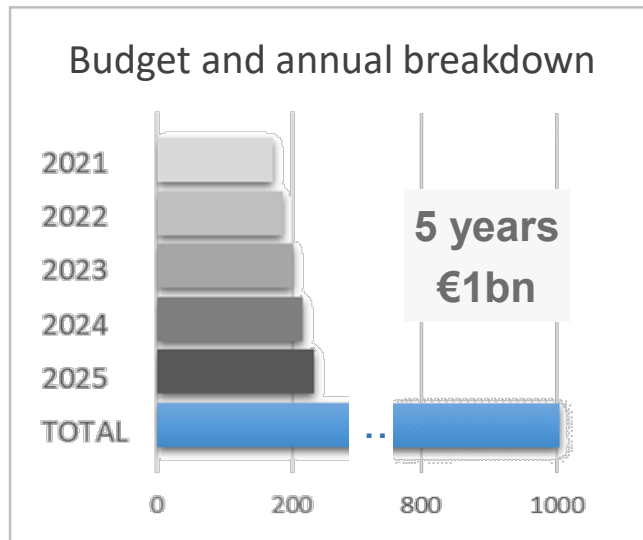


Ocean energy for a 100% decarbonised Europe and aligned with the objectives of the Green Deal

[Ocean energy: The next big thing in energy](#)

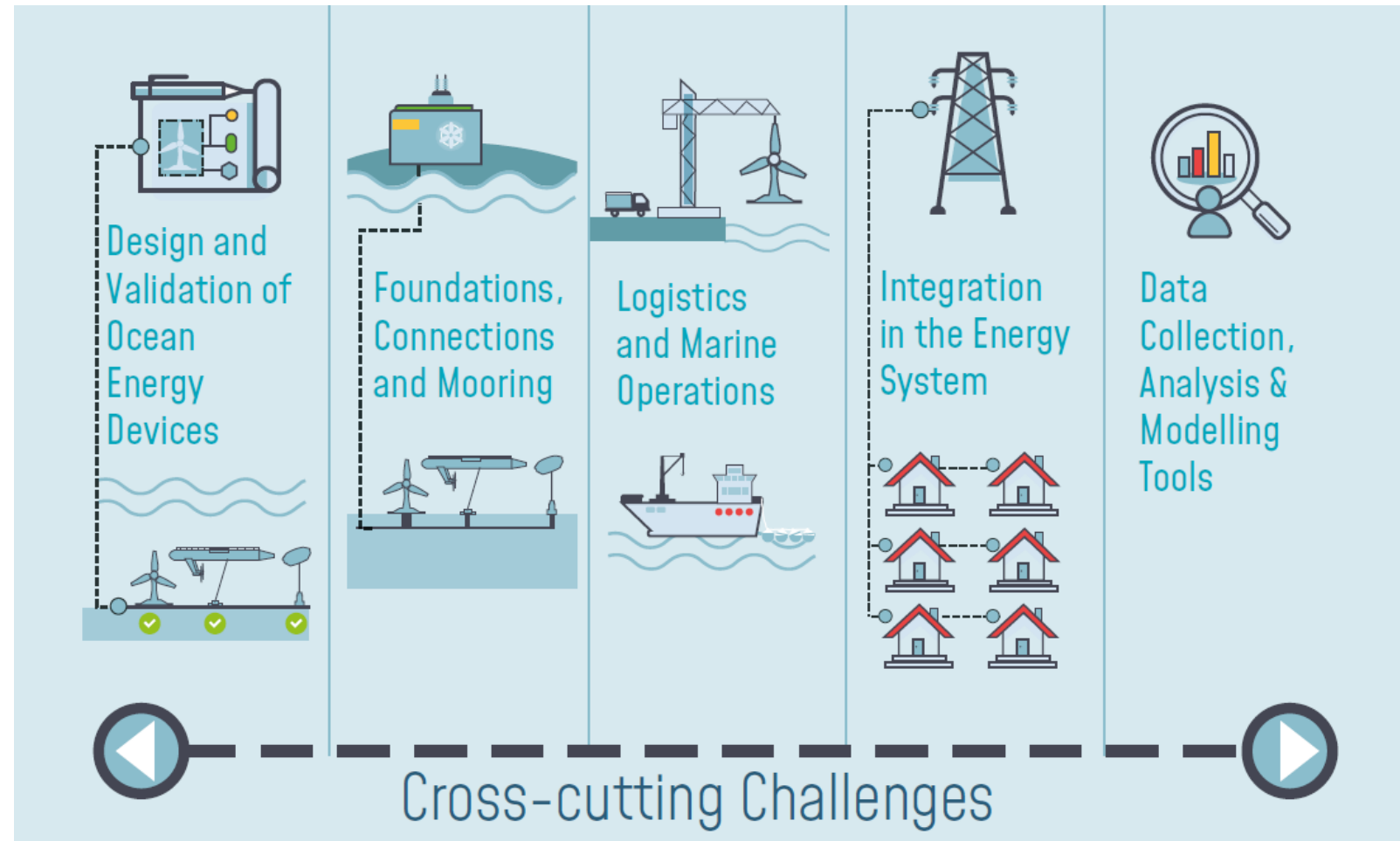
Public funding will leverage private investment

The right EU and national public funding at the right stages of development can attract and unlock significant volumes of private investments.



Challenge Areas

- Not to be addressed in isolation
- Implementation driven by a systemic innovation approach
- Optimal balance between open data and confidentiality
- Contribute to the expected impacts described in each Priority Topic
- Demonstrate a wider impact on European Green Deal objectives



Priority Topics

For each priority topic, the SRIA defines:

- Scope
- Applicability (wave, tidal, others)
- Actions
- Expected impact
- TRL (entry/exit)
- Budget Required (number and size of projects)

DESIGN AND VALIDATION OF OCEAN ENERGY DEVICES

Demonstration of ocean energy devices to increase experience in real sea conditions

Demonstration of ocean energy pilot farms

Improvement and demonstration of PTO and control systems

Application of innovative materials from other sectors

Development of novel wave energy devices

Improvement of tidal blades and rotor

FOUNDATIONS, CONNECTIONS AND MOORING

Advanced mooring and connection systems for floating ocean energy devices

Improvement and demonstration of foundations and connection systems for bottom-fixed ocean energy devices

LOGISTICS AND MARINE OPERATIONS

Optimisation of maritime logistics and operations

Instrumentation for condition monitoring and predictive maintenance

INTEGRATION IN THE ENERGY SYSTEM

Developing and demonstrating near-commercial application of ocean energy in niche markets

Quantifying and demonstrating grid-scale benefits of ocean energy

DATA COLLECTION & ANALYSIS AND MODELLING TOOLS

Marine observation and modelling to optimise design and operation of ocean energy device

Open-data repository for ocean energy

CROSS-CUTTING CHALLENGES

Improvement of the environmental and socioeconomic impacts of ocean energy

Standardisation and certification

Future work

- ETIP Ocean SRIA can be used to **define funding calls at European, national and regional level** (some of the current Horizon Europe calls on ocean energy are inspired by this SRIA)
- ETIP Ocean plans to work with member states and other stakeholders of the Implementation Working Group of the **SET Plan on Ocean Energy**
- One of the objectives of this collaboration is to **update the SRIA** and outline the technological priority areas, objectives and actions to encourage the commercialization of ocean energy in Europe.
- The new SRIA expected by 2024 will include a development plan identifying the projects needed to deliver the **EU Offshore Renewables Strategy 2030 target**

Thank you!

Jose Luis Villate

joseluis.villate@tecnalia.com



Rue d'Arlon 63
B-1040 Brussels
Belgium

www.etipocean.eu

© Ocean Energy Europe

Coordinated by



Partners



Supported by

