

Norwegian Offshore Wind



Marin Energi Testcenter AS

NOW
Cluster

Cluster with
over 370 member
companies

MET
Centre

Test centre for
new technology

NOW
Accelerator

Incubator &
accelerator
for startups

FWD
Floating
Wind Days

International
floating wind
festival

NOW
Visits

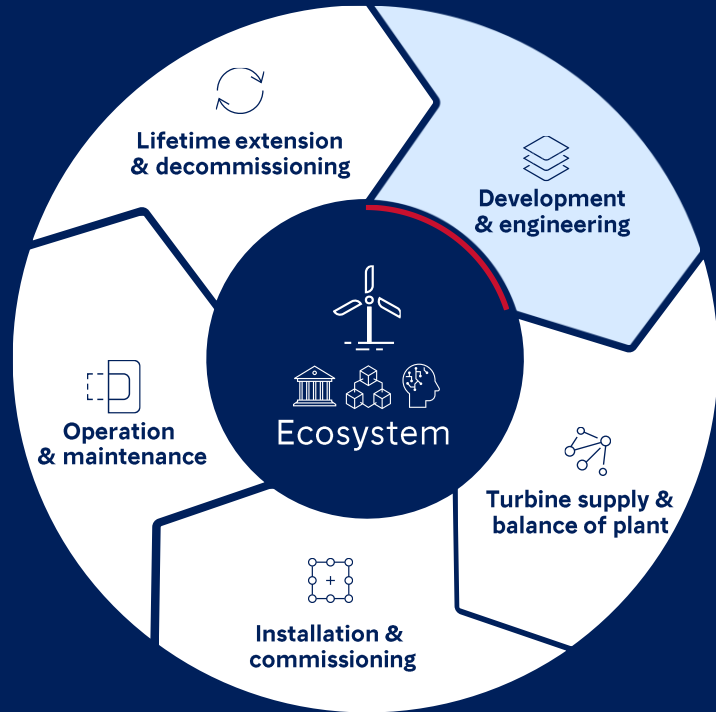
Market visits
to international
markets



Norwegian Offshore Wind – Supply chain

Offshore Wind Developers						
	EPCI					
Development & engineering	Turbine supply	Balance of plant	Installation & commissioning	Operation & maintenance	Life time extension & decommissioning	Ecosystem
Site investigation and surveys	Marshalling yards	Turbine foundations	Turbine installation	Maintenance services	Life time extension	Law
Design and engineering	Turbine logistics	Assembly yards	Foundation installation	Inspection services	Decommissioning	Finance
Project management	Drive chain	Electrical cables	Offshore and onshore cable installation	Vessels		Marketing
Consenting and development services	Power conversions and supplies to the turbine	Electrical systems	Offshore and onshore substation installation	O & M ports		Digitalisation and systems
		HVAC/HVDC/Substations	Installation port	Training and certification		Universities and research institutions
		Secondary steel work	Installation logistics	Monitoring		Government and other public institutions
		Mooring	Commissioning			
		Equipment for foundation and transition piece				

Development and engineering



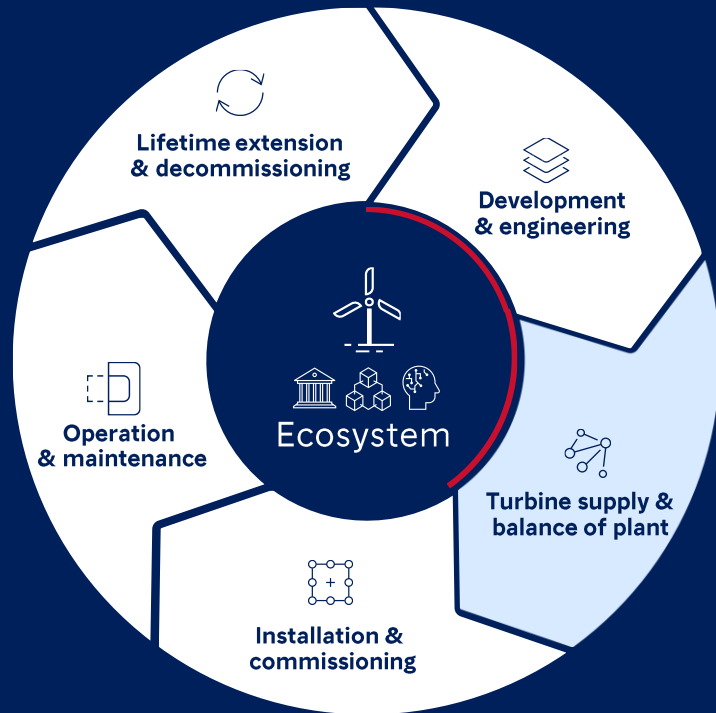
Tier 2



Tier 3



Turbine supply and balance of plant



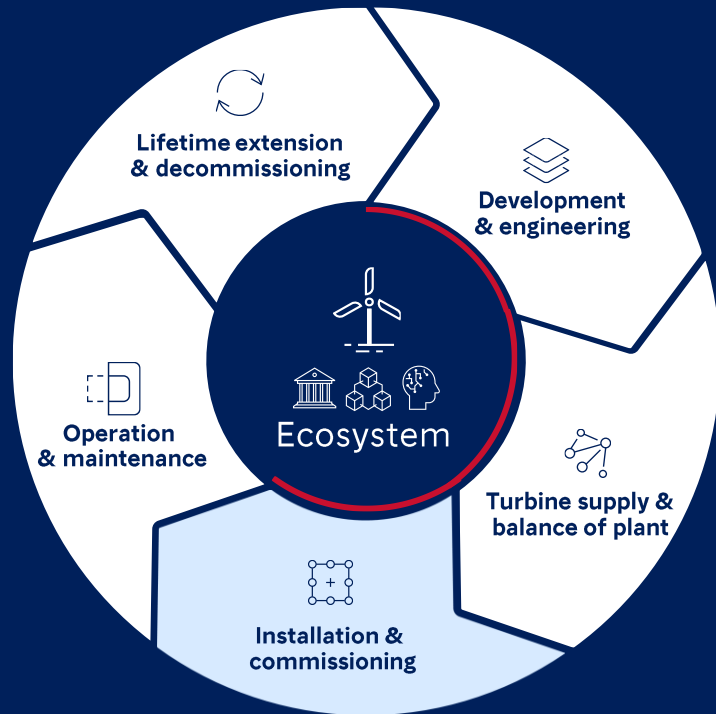
EPCI



Tier 2 and tier 3



Installation and commissioning



EPCI

Fred. Olsen Windcarrier

DCF Subsea

subsea 7

moreld ocean wind

Havfram

odfjell oceanwind

bouygues TELECOM

Tier 2 and tier 3

abyss

sagasubsea

KONGSBERG

OCEANEERING

B

GLOBAL MARITIME

sarens

SOLSTAD OFFSHORE

edda wind

We develop world leading supply chains within floating wind

Must-win battles



Home market



Innovation



Export development

Home market



Offshore wind parks

Floating: Utsira Nord

1,5 GW

3 areas, each 500 MW

Power cable to Norway only

Bottom fixed: Southern North Sea II

1,5 GW

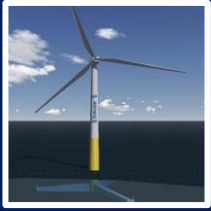
1 area

Power cable to Norway only



Innovation





Bluewater



SeaTwirl

Company X



FLAGSHIP



TetraSpar



Zephyros

Company Y



Hexicon



Flex2Power

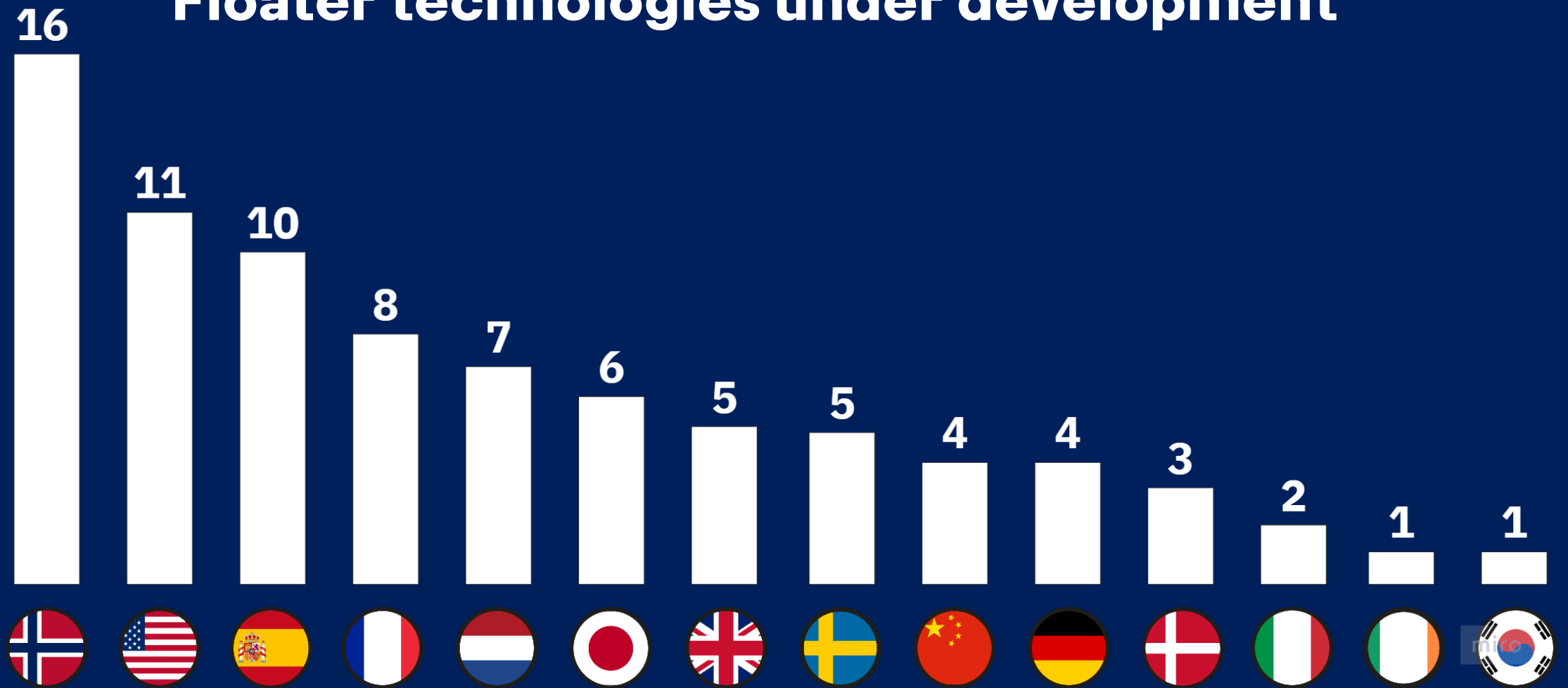
● Haugesund

● Stavanger

● Mandal

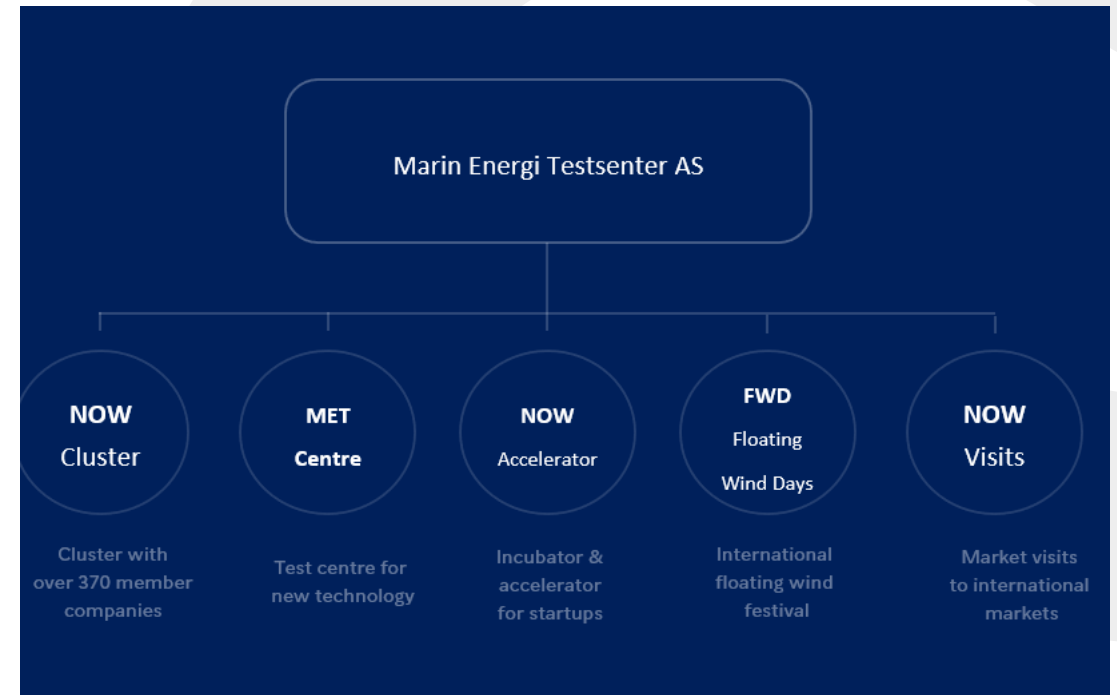
● Oslo

Floater technologies under development



NOW – EU strategy and approach

- NOW Cluster members: Position businesses and RDI Organisations into EU-projects
- MET Centre: Position the test site and its projects into EU-projects
- NOW Accelerator: Position the companies and the accelerator into EU-projects
- NOW Cluster: Position the cluster into EU-projects



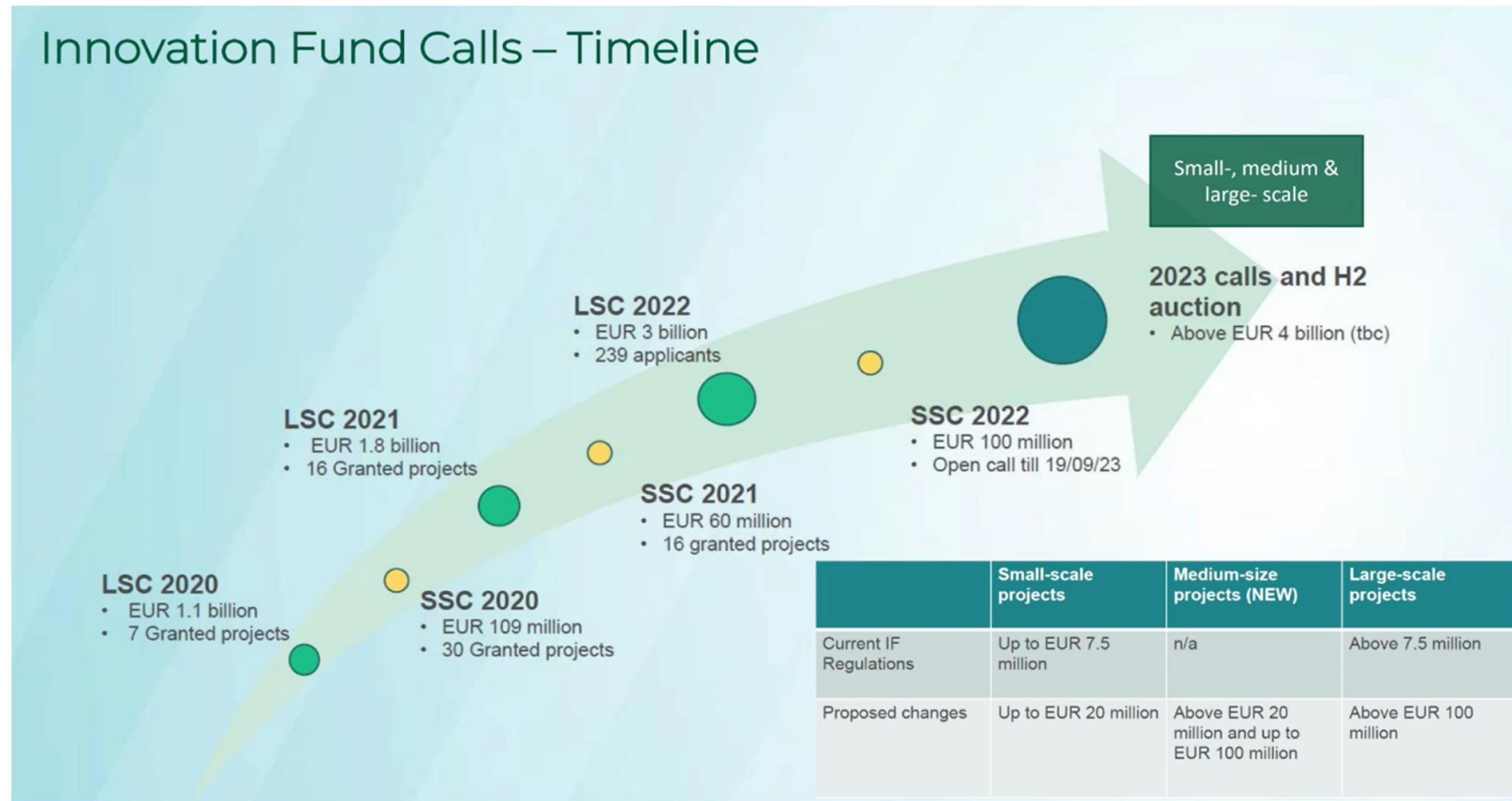
Focus Areas

- Structures and Integrity:
 - Concept selection
 - Design and Fabrication
- Marine Operations and Logistics
- Electrical Infrastructure & System Integration
- Digital Twin & Asset Management
- Sustainable Wind Development
 - Environmental conflicts
 - Societal conflicts.

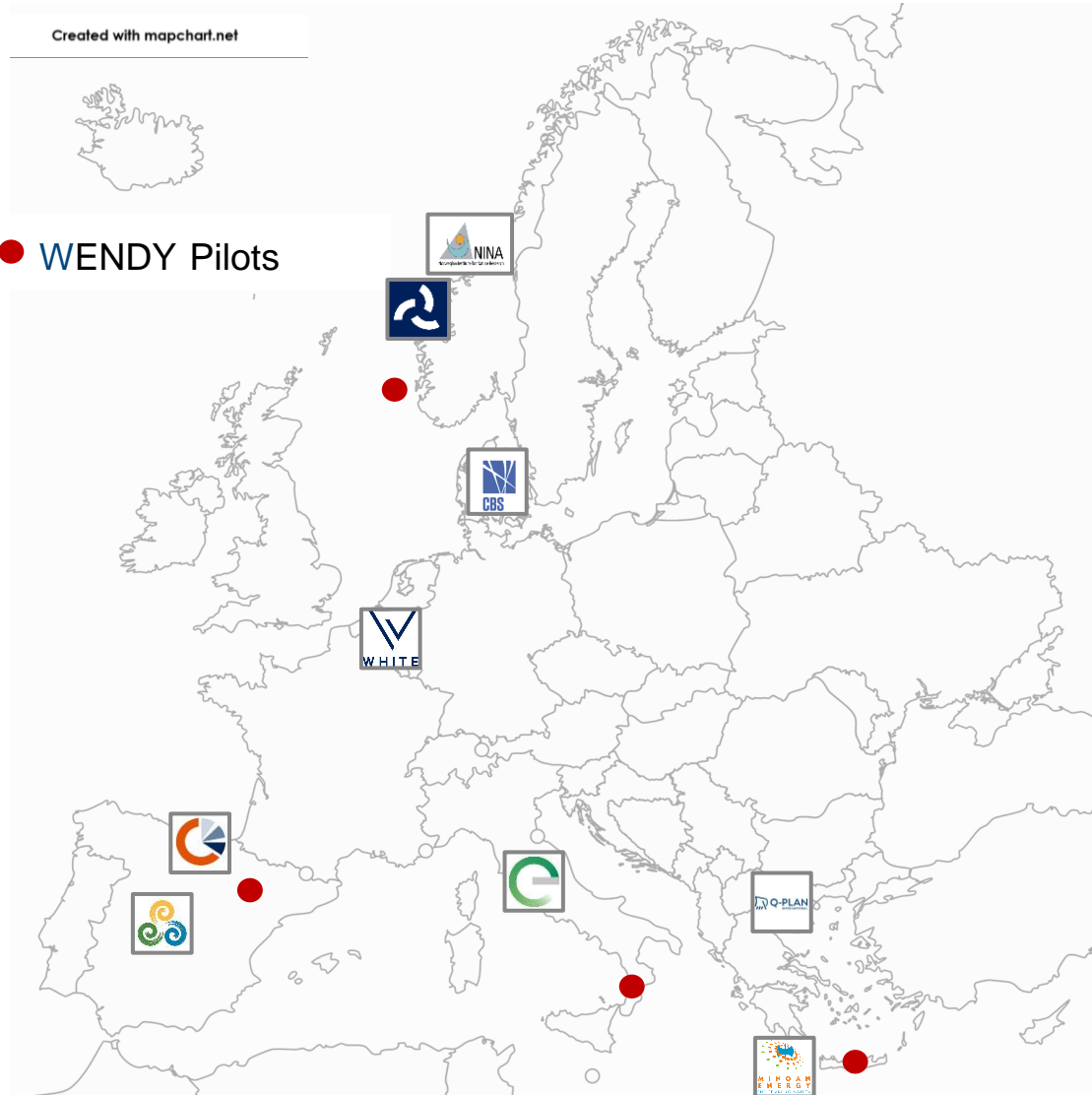
Horizon Europe

- HORIZON-CL5-2024-D3-02-04 Critical technologies for the future ocean energy farms
- HORIZON-CL5-2024-D3-02-08 Minimisation of environmental, and optimisation of socio-economic impacts in the deployment, operation and decommissioning of offshore wind farms
- HORIZON-CL5-2024-D3-02-09 Demonstrations of innovative floating wind concepts
- HORIZON-CL5-2024-D3-02-10: Market Uptake Measures of renewable energy systems

EU Innovation Fund



WENDY Consortium



Nine (9) partners:

- having expertise in SSH, biodiversity, economics, wind technology
- representing six (6) different countries
 - (ES, BG, IT, NO, DK, GR)
- focusing on 4 EU regions

Categorisation of partners:

- 🌱 Academia: **CIRCE** (Instit.), **NINA** (Instit.), **CBS** (Uni)
- 🌱 Energy Developers: **EGP** (company), **MEC** (commun.)
- 🌱 Consultancies/SMEs: **WR**, **Q-Plan**
- 🌱 Clusters/ Associations: **NOWC** (offshore wind), **APPA** (R.E.S.)

What does WENDY aim to achieve

Fostering the acceptance of renewable wind energy in European communities



Unravel the factors triggering social acceptance of wind farms.



Develop integrated modelling tools and **validated methodologies** evaluating the effects of wind energy farms on local natural environment.




Identify the optimal turbines' siting spot through **Holistic Impact Assessment**.



Empower the wider adoption of **participatory approaches** in wind farms' development.

WENDY Use Cases

USE CASES Region	Calabria (1) 	Saragossa (2) 	North Sea (3) 		Minoan EC (4) 
			Hywind tampen	Utsira N, S. Nordsjø II	
Type of project	Onshore	Onshore	Offshore	Offshore	Onshore
Project phase	Long term operation	Short term operation	Early operation	Planning	Planning
Wind farms	2	4	1	2	-
Pilot representative	EGP	EGP	NOWC, NINA	NOWC, NINA	MEC

Export development



Working Groups and group leaders

Home market



Spain & Portugal



France



UK & Ireland



Italy & Greece



US



Japan



South Korea



Poland & Baltics



Sweden



