

'22 PORTUGAL RENEWABLE ENERGY SUMMIT



Oceanic Renewables



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Insights on Offshore Renewables in PT



Outline

Scope

Main policy framework – EU, PT

Offshore Wind Energy in PT

International cooperation

Key takeaways

Scope

Drivers to Renewable
Energy Systems
adoption

Climate
change

Energy
transition

Technology

Net-zero
sustainable
systems by
2050

Respect for
environment
and society

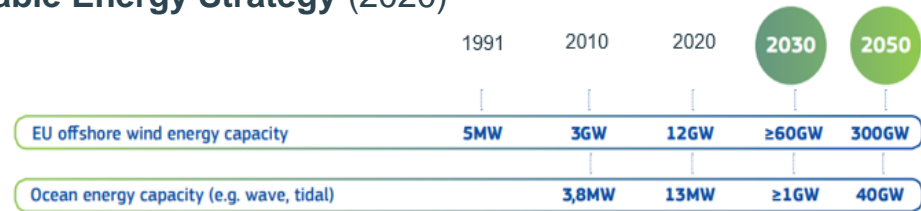
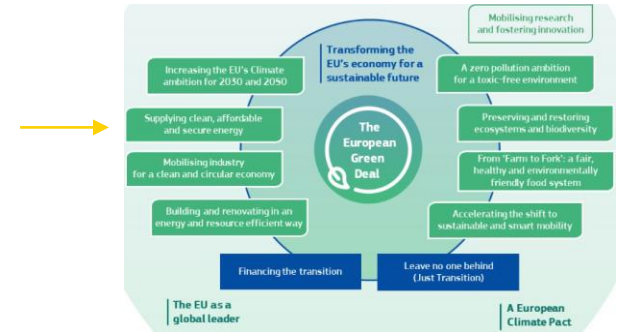
Governance



Main policy framework - EU

European strategies

- **European Green Deal** (2019),
- **European Offshore Renewable Energy Strategy** (2020)
Investment
Regional cooperation
Predictable legal framework
Strengthened supply chains
Continuous innovation



European legal framework

- **EU Climate Law** (2021) – sets a binding target of net zero GG emissions by 2050
- **Energy Union Governance** (2018) – harmonises NECP across Member States
- **Renewable Energy Directive** (RED, 2009) – requires each MS to have one NECP
RED revisions – **Fit for 55** package (2018, 2022 – recast underway), **RePowerEU** plan



Main policy framework - EU

Renewable Energy Directive recast + RePowerEU

(work in progress)

per MS:

- Indicative target of installing at least 5 % of innovative renewable energy technology until 2030. Promote the testing of innovative new renewable energy technologies in pilot projects in a real-world environment, for a limited period of time.
- Endeavor to entering into cooperation agreements to establish at least two joint projects for producing renewable energy (non PCI's) by 2025 (MS with annual electricity consumption ≤ 100 TWh).
- Identify the areas necessary for the installation of renewable energy plants that are required in order to meet at least the share of their national contributions towards the 2030 renewable energy target.
- Identify 'renewable go-to areas' for one or more types of renewable energy sources. *Overriding public interest* concept to accelerate permitting.
- Ensure that any national rules concerning the authorisation, certification and licensing procedures are proportionate and necessary. Extreme simplification of the permitting inside 'renewable go-to areas'. Max. duration in permitting processes.
- Remove unjustified regulatory and administrative barriers to long-term renewables power purchase agreements.



Main policy framework - PT

Portuguese legal framework

- **DL 15/2022** (agilises and shortens permitting process, ZLT, hybrids), DL 30-A/2022 (*overriding public interest*), DL 72/2022
- **Interministerial Working Group** (Disp. 11404/2022) to propose priority areas in the ocean for projects implementation and a development plan for grid and ports infrastructure in regard the complete value chain.

Portuguese strategies/roadmaps

- **Industrial Strategy for Ocean Renewable Energy and Action Plan** (RCM 174/2017)
 - acknowledges OE supply chain as a relevant industrial sector for PT
- **National Maritime Space Planning Situation Plan (PSOEM)** (RCM 203-A/2019)
 - maps potential regions for the installation of offshore renewable energies
- **National Strategy for the Sea 2020-2032 and Action Plan** (RCM 68/2021 and 120/2021)
 - acknowledges OE as a sector of PT blue economy



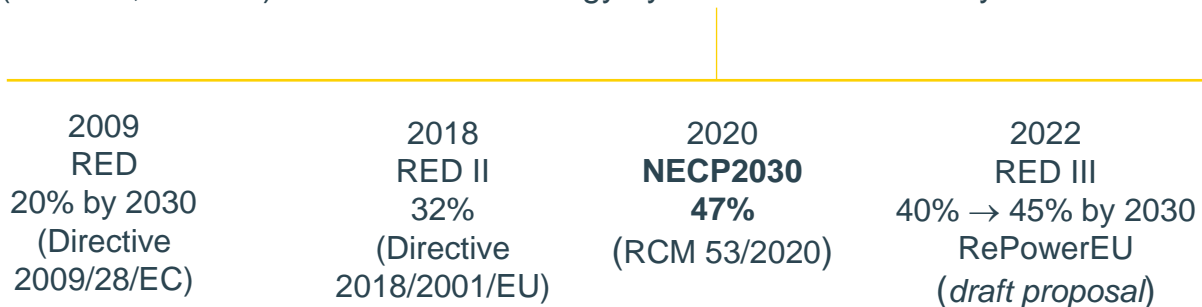
Main policy framework - PT

- **NEPC2030** (RCM 53/2020)
Total installed power capacity -
evolution assumptions
(set in 2020)

	(GW)	2020	2025	2030
Offshore wind		0,03	0,1	0,3
Waves		0,001	0,03	0,07

New target:
10 GW Offshore Wind by 2030
(set in 2022)

Target **share of renewables** (RES) in the gross final energy consumption mix (sources, vectors) of the national energy system: at least **47%** by 2030

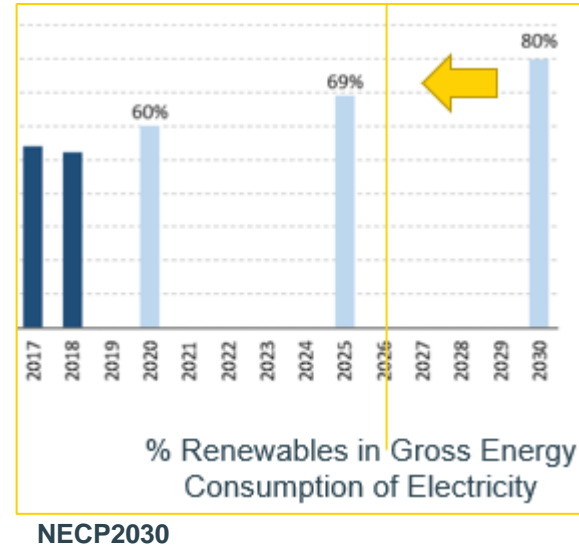
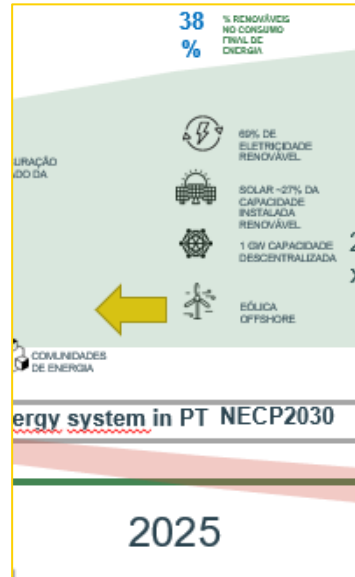


Main policy framework - PT

Experience in the design of different renewable energy auctions →

**2023/24
offshore wind auction**

New target:
10 GW Offshore Wind by 2030
(set in 2022)





Offshore wind in PT

- Bathymetry conditions along the PT coastal areas lead to adopt **floating** offshore wind.
- A 25 MW floating offshore demonstration windfarm is generating green power since 2019 (WindFloat Atl.).

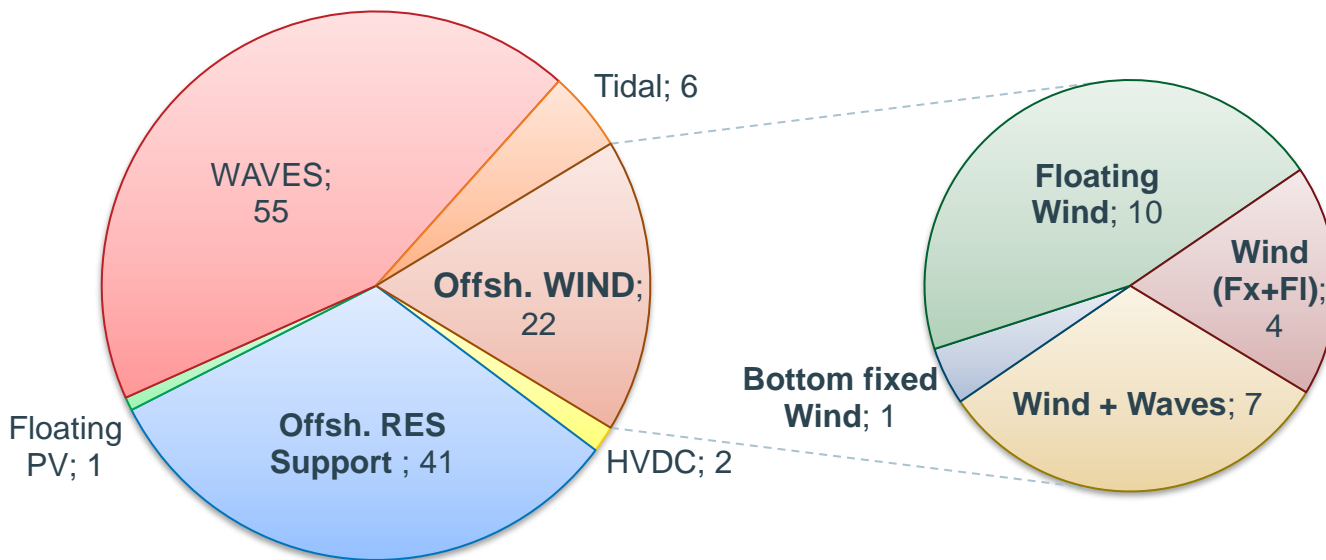
Wind energy technology at the sea offers:

- Acknowledged contribution to the NES
 - higher capacity factors than onshore, and increased stability in the energy mix.
 - related flexibility services namely on green H₂ production – which will very likely lead to new hybrid technology configurations and to new business models - such as the offshore production of hydrogen and logistics (e.g. not requiring submarine power cables).
- Creation of an industrial cluster as well as economic and social value in coastal areas, provided environmental, social and economic sustainability are met
 - Expressions of Interest are very likely showing a significant potential for the setting up of test labs with impact at the international landscape.



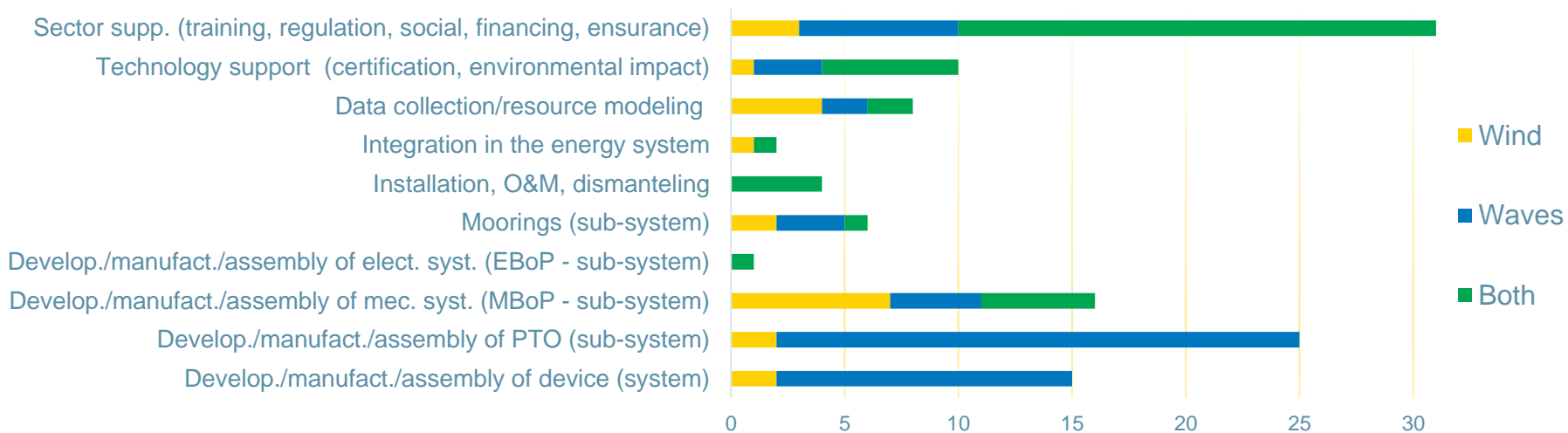
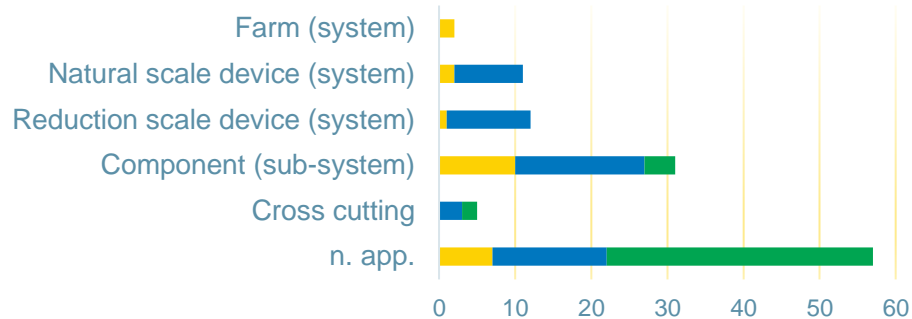
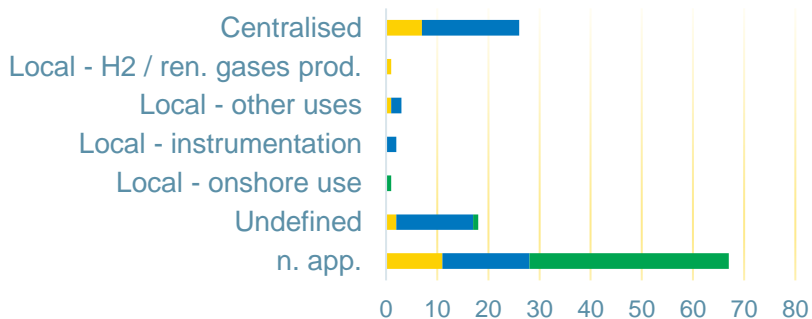
Offshore wind in PT

Offshore RES projects with PT participation (1992 – 2022, work in progress – 127 projects)



Offshore wind in PT

Offshore Wind + Waves projects with PT participation (1992 – 2022, work in progress)



International cooperation



The **SET Plan** is the technology pillar of the EU's energy and climate policy



An **Implementation Plan** was developed for ocean energy actions in the SET Plan



The **Implementation Working Group** will deliver actions



OceanSET



PT participation:

- as OceanSET partner - monitoring & review of Ocean Energy activity across 11 Member States
- as IWG member - reporting PT data and varied feedback



International cooperation



The European Strategic Energy Technology Plan



Role of the IWGs:

- Monitor and report progress on the **SET Plan targets**
- **Coordinate** R&I activities at national level
- Publish **Implementation Plans**
 - Governments, industry and academia.

Focus, strengthen and **give coherence to the overall effort in Europe** (since 2007)

International cooperation



www.setwind.eu
(2019 – 2022)

New: SETIP Wind (2022 – 2025)



www.oceanset.eu
(2019 – 2022)

New: SEETIP Ocean (2022 – 2025)



Recently formed SET Plan IWG on **HVDC** is now preparing a project.

International cooperation

The IRENA “Collaborative Framework on Ocean Energy and Offshore Renewables”(*)

Vehicle for dialogue, co-operation and coordinated action to **globally** accelerate the uptake of **offshore renewables**. PT participates/contributes.

(*) Other IRENA Collaborative Frameworks - Portugal is participating as well in ‘Long-Term Energy Scenarios’, ‘Green Hydrogen’, ‘Critical Materials’, and ‘Global Geothermal Alliance’.

The IRENA “GOWA – Global Offshore Wind Alliance”

A **global** driving force for the uptake of offshore wind through political mobilisation and the creation of a global community of practice, achieving a total global **offshore wind** capacity of a minimum of 380 GW by 2030, with 35 GW on average each year across the 2020s and a minimum of 70 GW each year from 2030.

Portugal signed up for GOWA – PT participation in GOWA has started at the COP 27, 15th November 2022, in a key structuring moment for the wind sector in Portugal – engagement of **industrial players**.



Key takeaways

- ✓ Committed national policy support, aiming to anticipate the established deployment targets for electricity generation capacity and the production of energy carriers,
- ✓ Analysis of OE national projects shows a landscape in PT where there is a reasonable and increasing effort in projects supporting the sector,
- ✓ Floating offshore wind in PT is nurtured as a driver of national development of relevant value chains related to Wind and H₂ sectors,
- ✓ National efforts are backed by strong EU and sectorial associations activity, creating a *momentum* of coordinated efforts towards the energy transition.



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Obrigada!
Thank you!