

ETIP Ocean & Ocean DEMO webinar: From single device to a farm – tidal edition

Lisa Fitzpatrick
Project Manager

Today's agenda

Topic	
Ocean Demo	Project introduction
EMEC experience: From single device to farm – tidal edition	Real sea testing & finance
	Orbital Marine Power – success story
	Array funding
	Consenting & environmental monitoring
	Innovative network: EMEC & PTEC partnership & site development
	Technology
Summary	Conclusion

Ocean DEMO

Interreg NWE Project
Jan 2019 - July 2023



Addressing market failure to support scaling-up to multi-device farms

Free access to Europe's world leading test sites

Drive innovation across the ocean energy supply chain

Boost collaboration within the ocean energy network

Supportive policy environment



Innovation & Testing

- Over 35 technology developers on Ocean DEMO's pipeline
- Supporting innovation - tidal, wave, FOW, solar, subcomponents & enabling technology
- Aimed at technologies at TRL 6-8
- Testing is paramount to demonstrating the investability and reliability of ocean energy



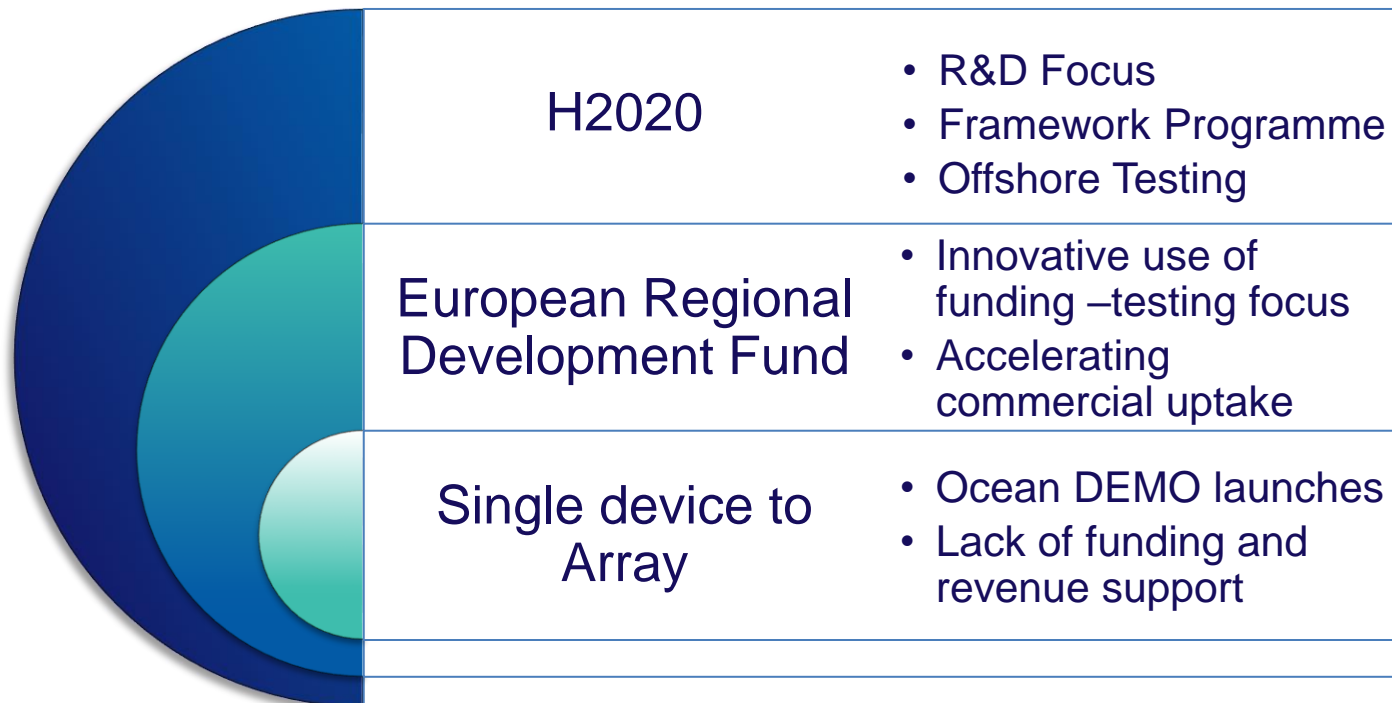
Advancing commercial uptake of ocean energy is critical to decarbonisation and contribution to a net-zero world.

Ocean DEMO exists only with the will and determination of technology developers to fight against climate change.

Beyond Ocean DEMO we continue to support testing in real sea conditions.



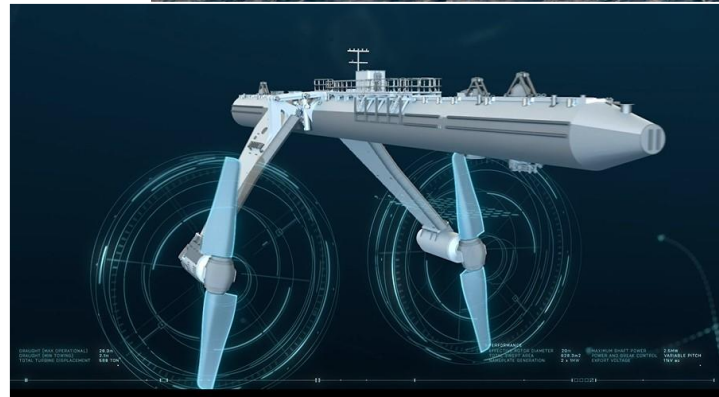
EMEC's experience in unlocking real sea testing of Tidal devices: funding landscape and Grant Projects continue to add value and lead the way



Orbital Marine Power

ORBITAL MARINE POWER

- FORESEA's success
- SR1-2000 2 MW floating tidal turbine
- Demonstrating the road map towards multi device / array testing
- Strong focus on supply chain & socio-economic impact
- Next prototype – O2 - demonstration project via Ocean DEMO
- [Golden tickets to the ocean energy factory | Interreg NWE \(nweurope.eu\)](#)



Environmental & consenting challenges

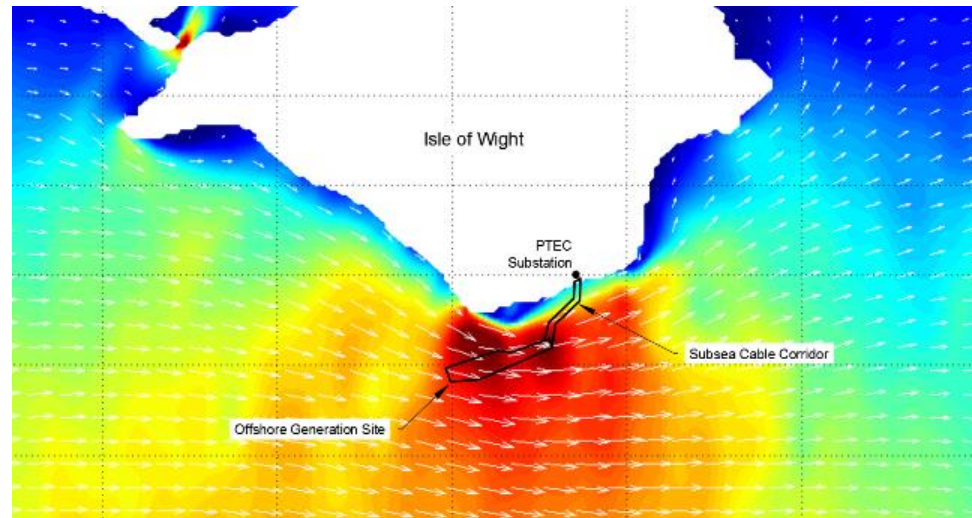
- **Key impact pathways**
 - Collision risk
 - Acoustic output of device
 - Displacement
- **Environmental monitoring**
 - Secure instrumentation
 - Power management
 - Low species densities
 - Modelling
 - New research
- **Navigational risk**
 - Commercial fishing
 - Shipping
- **Visual impact**
- **Understanding the cumulative impacts**



Innovative network

EMEC continue to build a network with tidal developers

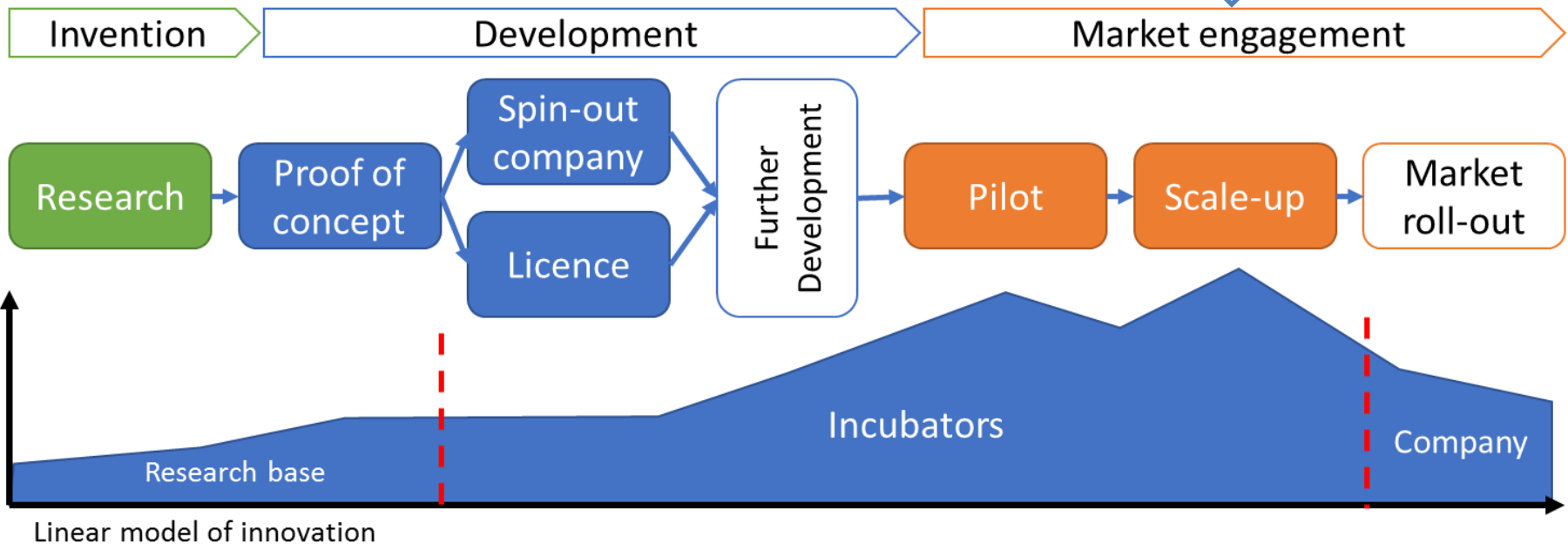
- PTEC and EMEC partnership
- Interreg Channel, TIGER project
- Large scale tidal energy site
- Development of site infrastructure to support the advancement of array testing
- Capturing lessons; O&M, device performance
- Continually moving the gauge on tidal testing towards Commercialisation



Technology

Tidal technology has reached a high TRL – now is the time to step up support mechanism

De-risking the market engagement stage to realise commercial scale is needed



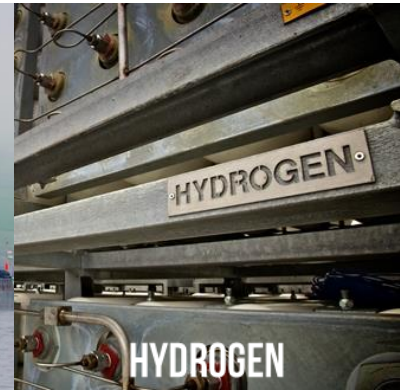
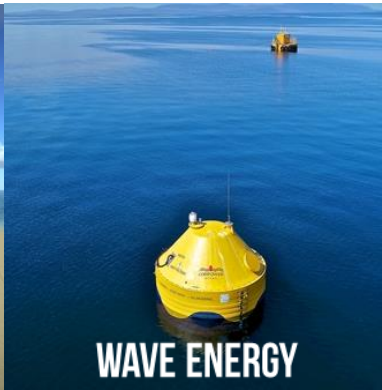
Summary

Market Push – Technology Pull:
Market engagement is needed to remove barrier to scaling up tidal technology.

Policy and advocacy work continues as we focus on a green recovery, implementing a supportive policy.

Ocean Demo and beyond – focus continues to be testing technology and enhancing performance toolbox





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Call 4 opens 4 June 2021 | call@oceandemo.eu

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