

A European Ocean Energy Industry- the €140 Bn Opportunity



THE UNIVERSITY of EDINBURGH





ETIP OCEAN

European Technology & Innovation Platform for Ocean Energy



THE UNIVERSITY of EDINBURGH



Policy and Innovation Group

Services:

- Techno and Socio-Economic Assessment
- Life Cycle Evaluation
- Array Optimization Analysis
- Technology Roadmaps
- Consultancy

"The group analyses the dynamics of innovation in energy systems, especially the relationships between policy, investment and innovation."

Main partners:



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The Reports



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

The industrial payoff from the EU Offshore Strategy

December 2021



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 826033.



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Europe faces a choice

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to lead or to follow the
emerging ocean
energy global market



The SET Plan and its LCOE targets

- The SET Plan Ocean Energy Implementation Plan sets out 2030 LCOE targets of:
 - €100/MWh for tidal stream
 - € 150/MWh for wave

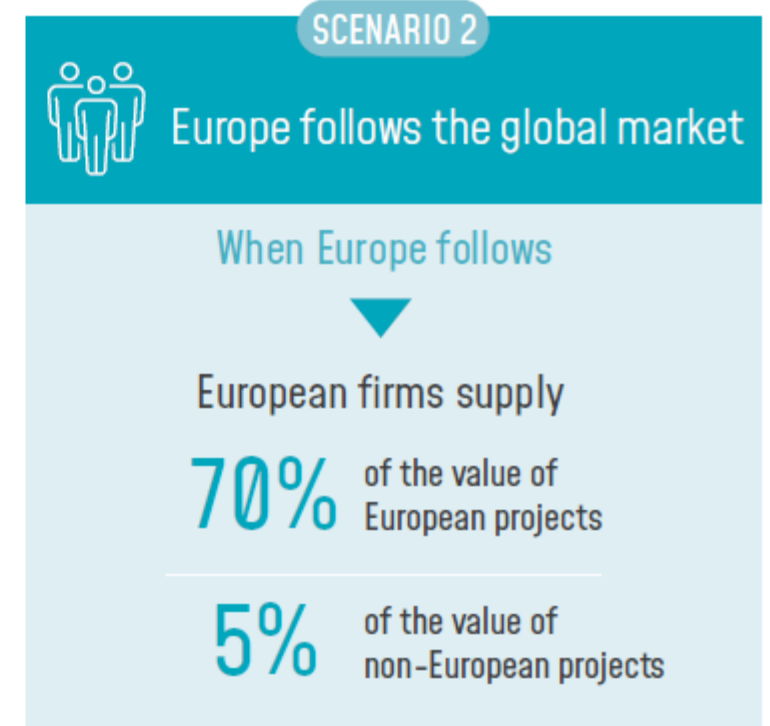


The targets and deployment Models

- Deployment modelling at a global level by the International Energy Agency (IEA) and at a European level by the EC Joint Research Centre (JRC) serve as inputs to the GVA study



The Scenarios

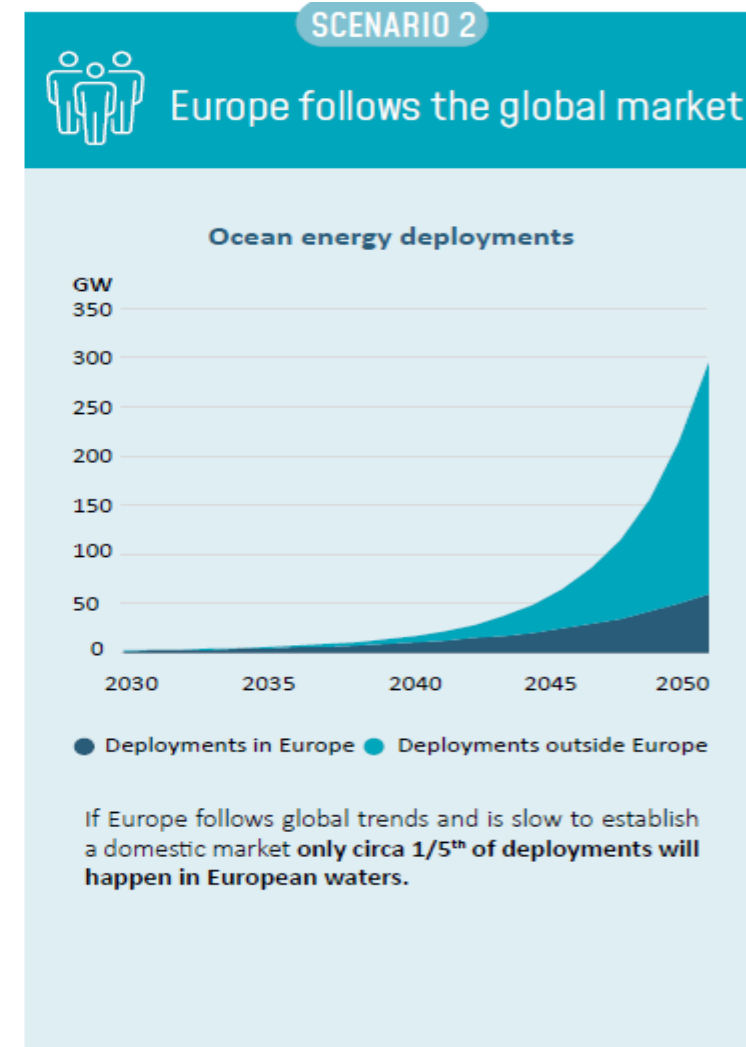
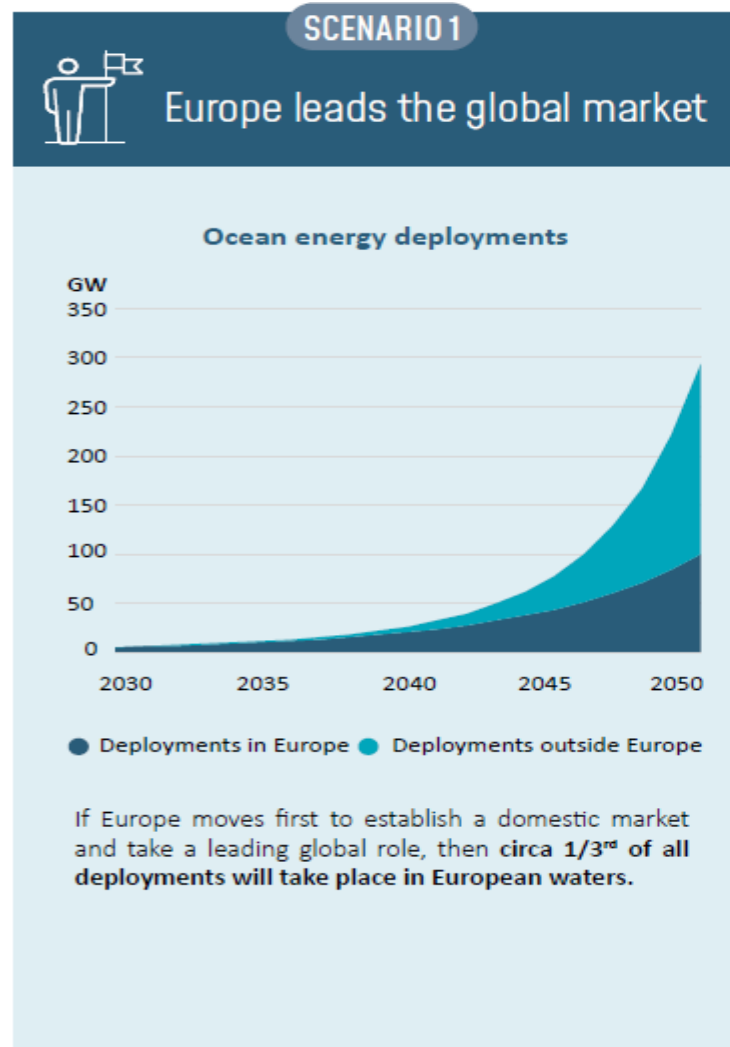


This means that when Europe leads the ocean energy global market, the economic and employment benefits are significantly greater than when Europe follows.



Deployments

- Circa 300 GW globally
- 60 / 100 GW in Europe



The Prize

SCENARIO 1



Europe leads the global market



€140bn

in economic activity



1.2M JOBS

in Europe by 2050

Europe takes clear steps to lead the global ocean energy market for ocean energy. Europe establishes a domestic market of 100 GW by 2050 – an important share of the 293 GW global market.

A strengthened European supply chain dominates the domestic European market.

This leadership position empowers European industry to export significant equipment and expertise to ocean energy projects across the globe.

SCENARIO 2



Europe follows the global market



€59bn

in economic activity



500,000 JOBS

in Europe by 2050

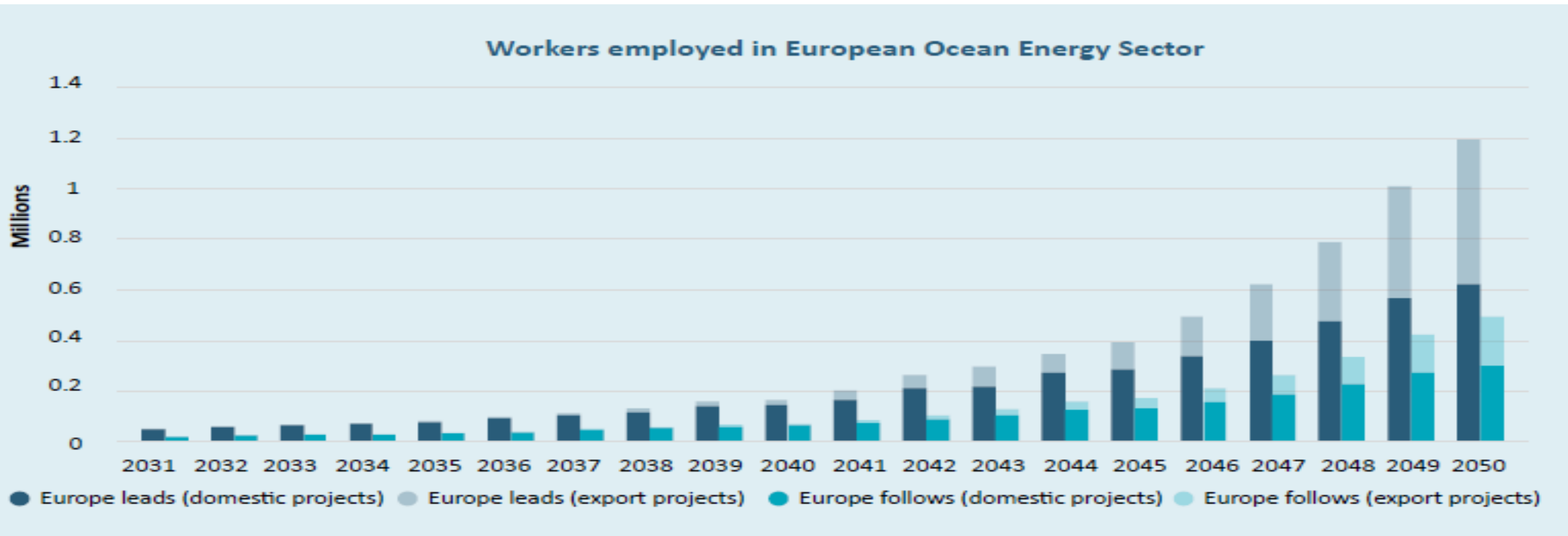
An indecisive approach means that Europe only establishes a 60 GW domestic ocean energy market by 2050 – a much smaller share of the global market.

A weaker European supply chain is more dependent on non-European players – even for projects in Europe.

This lack of leadership means that European developers only have limited ability to export into the global ocean energy market.



The Details



The End



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