

2030 Ocean Energy Vision

Industry analysis of future deployments,
costs and supply chains

SUPPORTED BY



ETIPOCEAN

TIDAL STREAM + WAVE TODAY

Tidal – Pilot farms driving progress



Tidal – Pilot farms driving progress



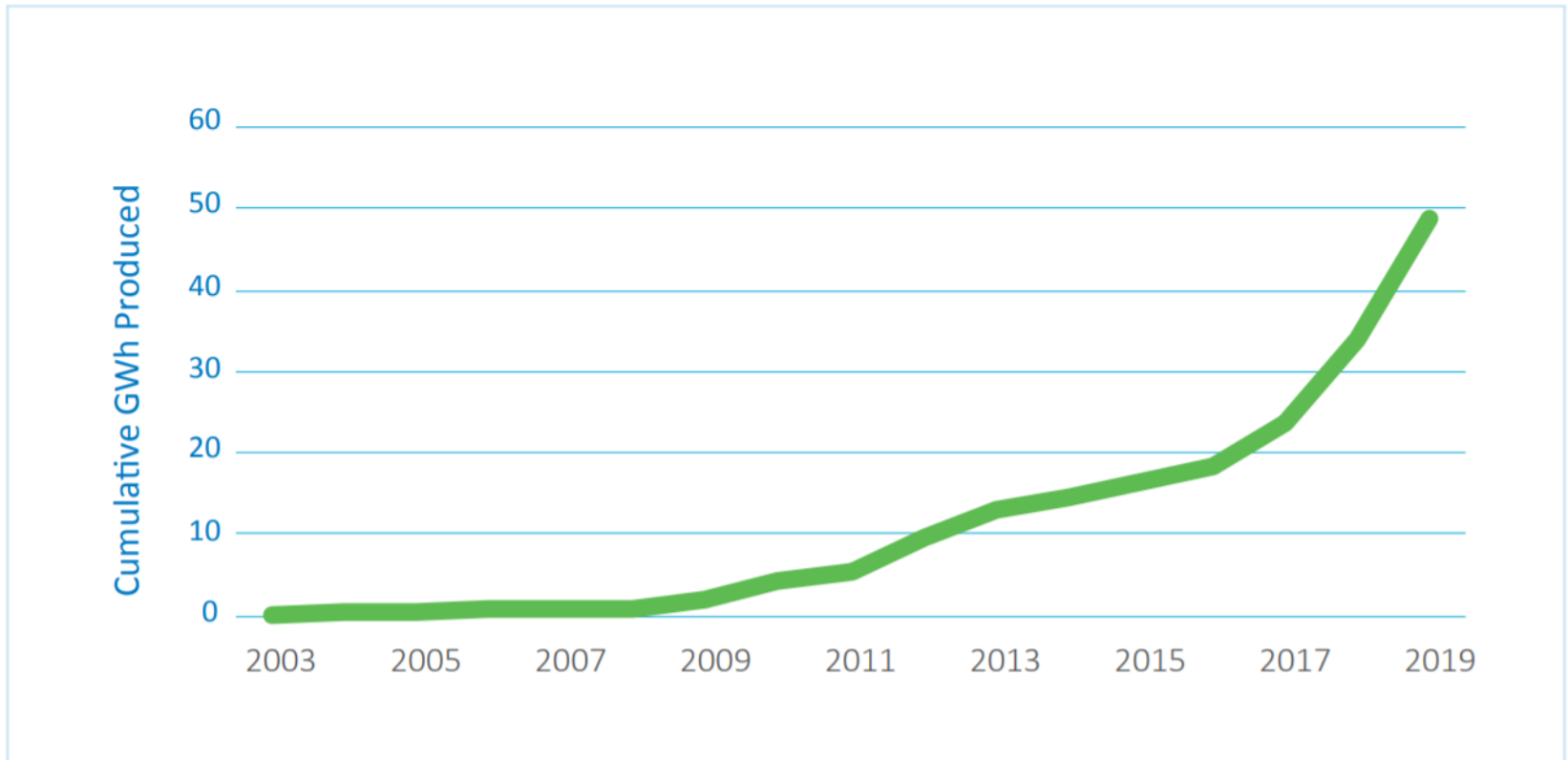
Tidal – Pilot farms driving progress



Tidal – Pilot farms driving progress



Tidal – Exponential growth in power production

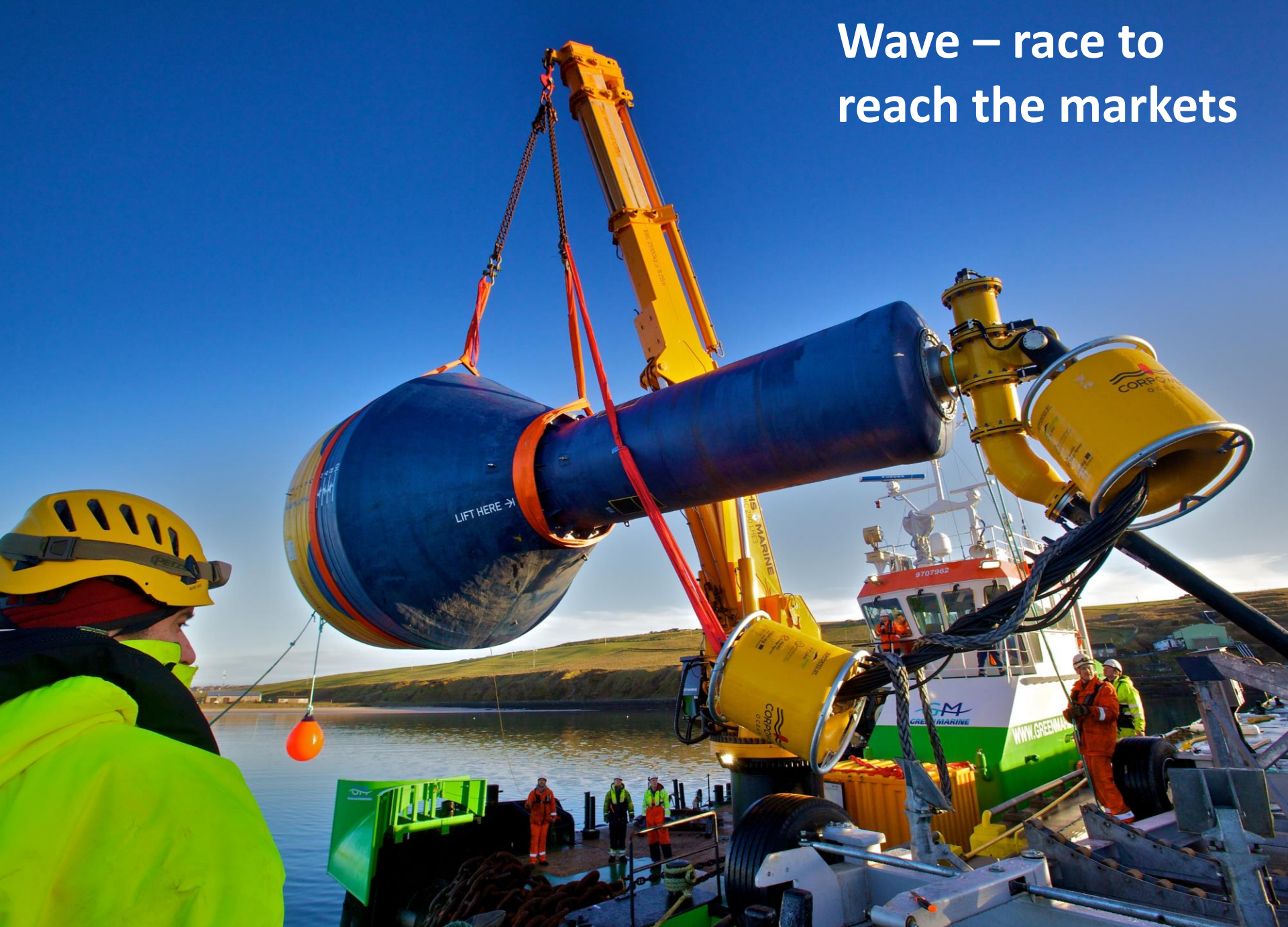


Cumulative GWh produced by tidal stream in Europe, 2003 - 2019

Wave – race to reach the markets



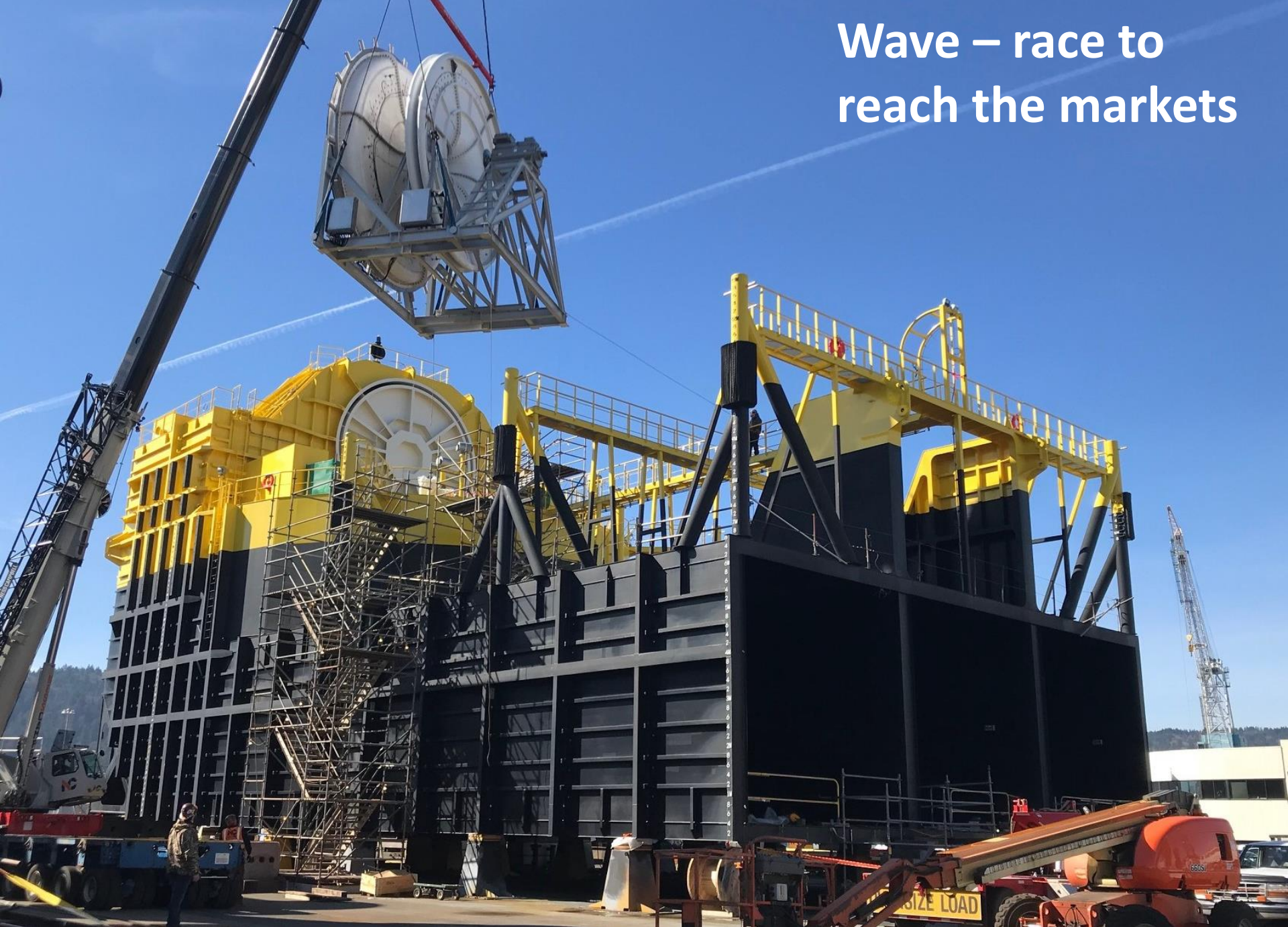
Wave – race to reach the markets



Wave – race to reach the markets



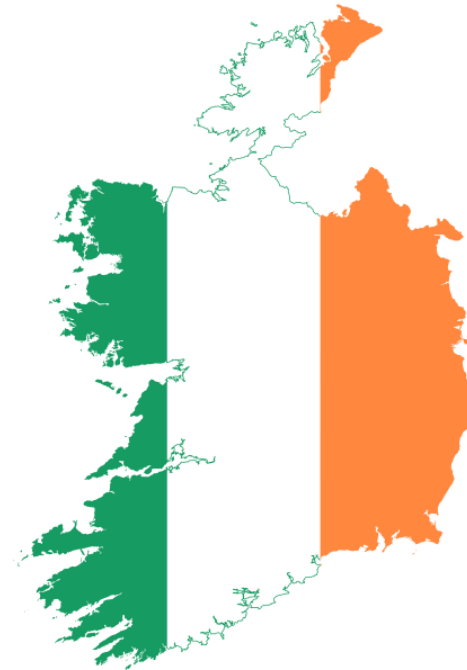
Wave – race to reach the markets



Wave markets – utility scale



Spanish, Portuguese and Irish
National Energy & Climate Plans
targeting 2025 wave deployments



Will give first-mover advantage in
€53bn export market

Wave markets – offshore applications



Wave markets – floating wind





Ocean Energy
Europe

TIDAL STREAM

+

WAVE IN 2030

TIDAL STREAM IN 2030



TIDAL STREAM IN 2030



2.4 GW of
capacity
deployed

TIDAL STREAM IN 2030



**2.4 GW of
capacity
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**93% in
European
waters**

TIDAL STREAM IN 2030



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**Costs down
to
€90/MWh**

TIDAL STREAM IN 2030



- *Tidal farms at utility scale in France, Netherlands, United Kingdom and specific sites in Mediterranean*
- *Exploitation of first lower-flow sites with improved tech + tidal kites*
- *First exports to markets such as Canada, Indonesia, Japan*

**2.4 GW of
capacity
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**93% in
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**Costs down
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WAVE IN 2030



WAVE IN 2030

494 MW of
capacity
deployed



WAVE IN 2030



494 MW of
capacity
deployed

87.5% in
European
waters

WAVE IN 2030

An aerial photograph of a floating wind turbine platform in the ocean. The platform is a large, flat, grey concrete structure with several white cylindrical nacelles and blades. A red supply vessel is positioned to the right, and a small black boat is in the center. The water is a deep blue-green color.

**494 MW of
capacity
deployed**

**87.5% in
European
waters**

**Costs down
to
€110/MWh**

WAVE IN 2030



- *Large wave farms at utility scale along Atlantic coast*
- *Smaller farms at utility scale in Mediterranean and North Sea*
- *Some floating wind co-location*
- *Exploitation of European + global niche markets (islands + offshore platforms)*
- *First exports to markets such as US, Chile, India*

**494 MW of
capacity
deployed**

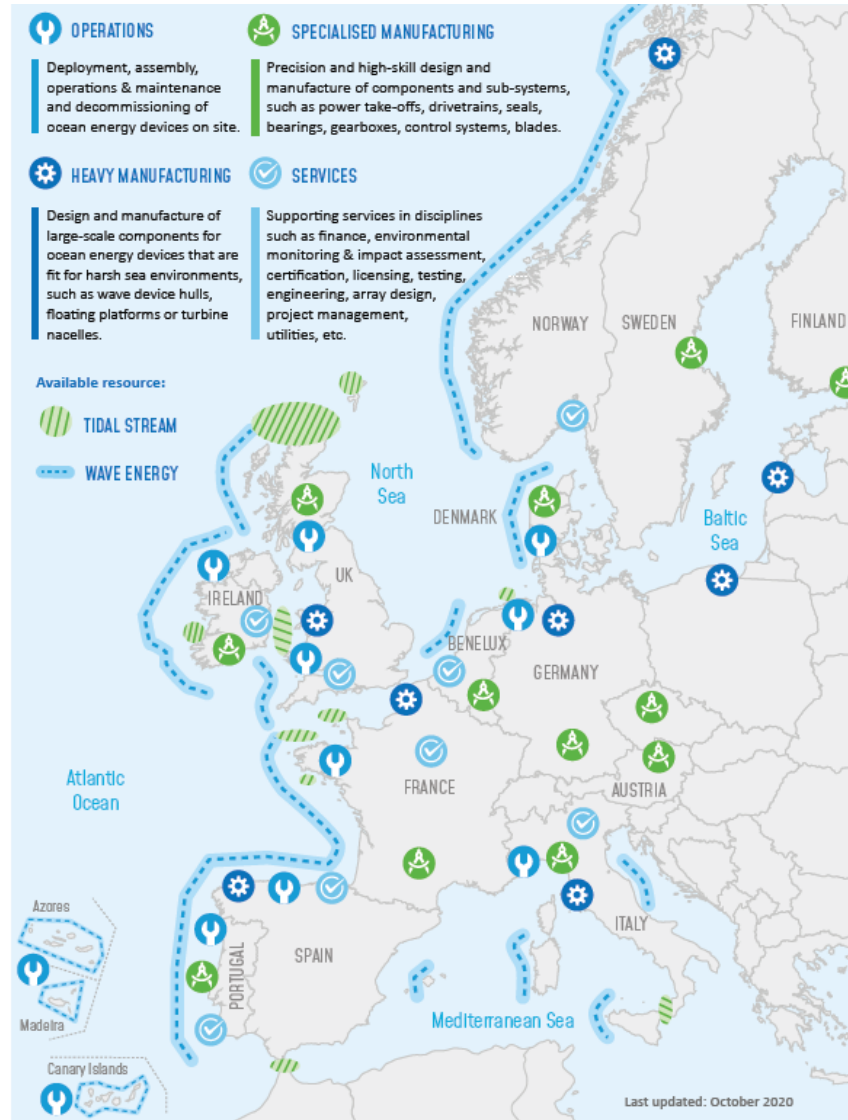
**87.5% in
European
waters**

**Costs down
to
€110/MWh**

Opportunities for all Europeans



Ocean Energy Europe



3GW by 2030 deliver:

- A new renewable industry in Europe
- Balancing power grid with more wind + solar
 - Tidal is 100% predictable
 - Wave complements wind
- Economic activity – many in coastal regions
 - €5.8bn cumulative GVA by 2030 (*Blue Economy report*)
 - European leadership in a €53bn global market
- Jobs for range of different skills – many in coastal regions
 - Replace declining traditional sectors
- Harmony with local environments
 - Limited or no visual impact for local communities



DELIVERING ON THE VISION

This is industrial roll-out

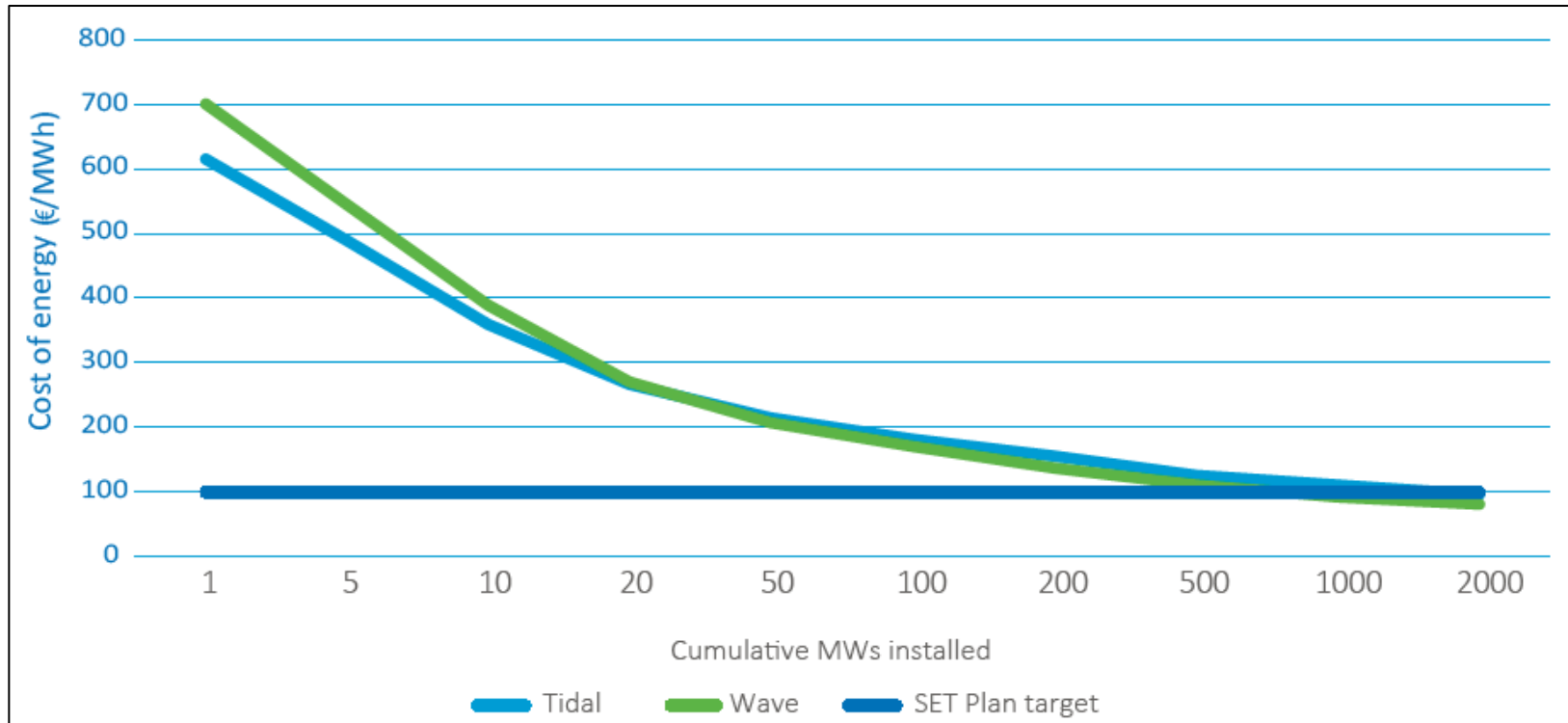


**MORE
DEPLOYMENTS**

**LOWER
COSTS**



This is industrial roll-out

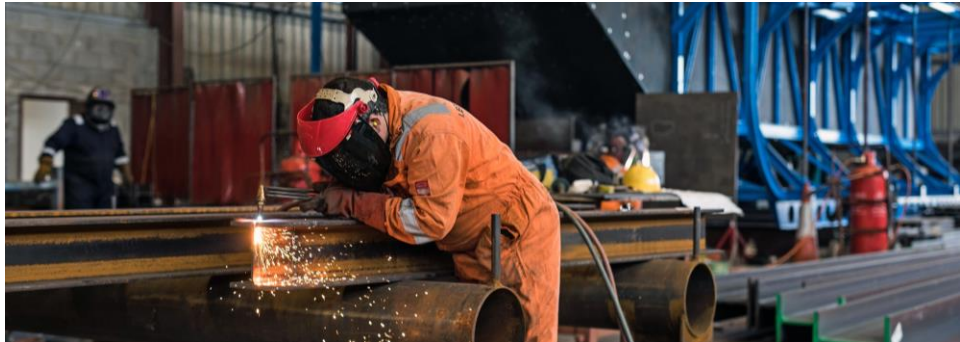


JUST LIKE WIND AND SOLAR

Solutions are well known

DEPLOY, DEPLOY, DEPLOY

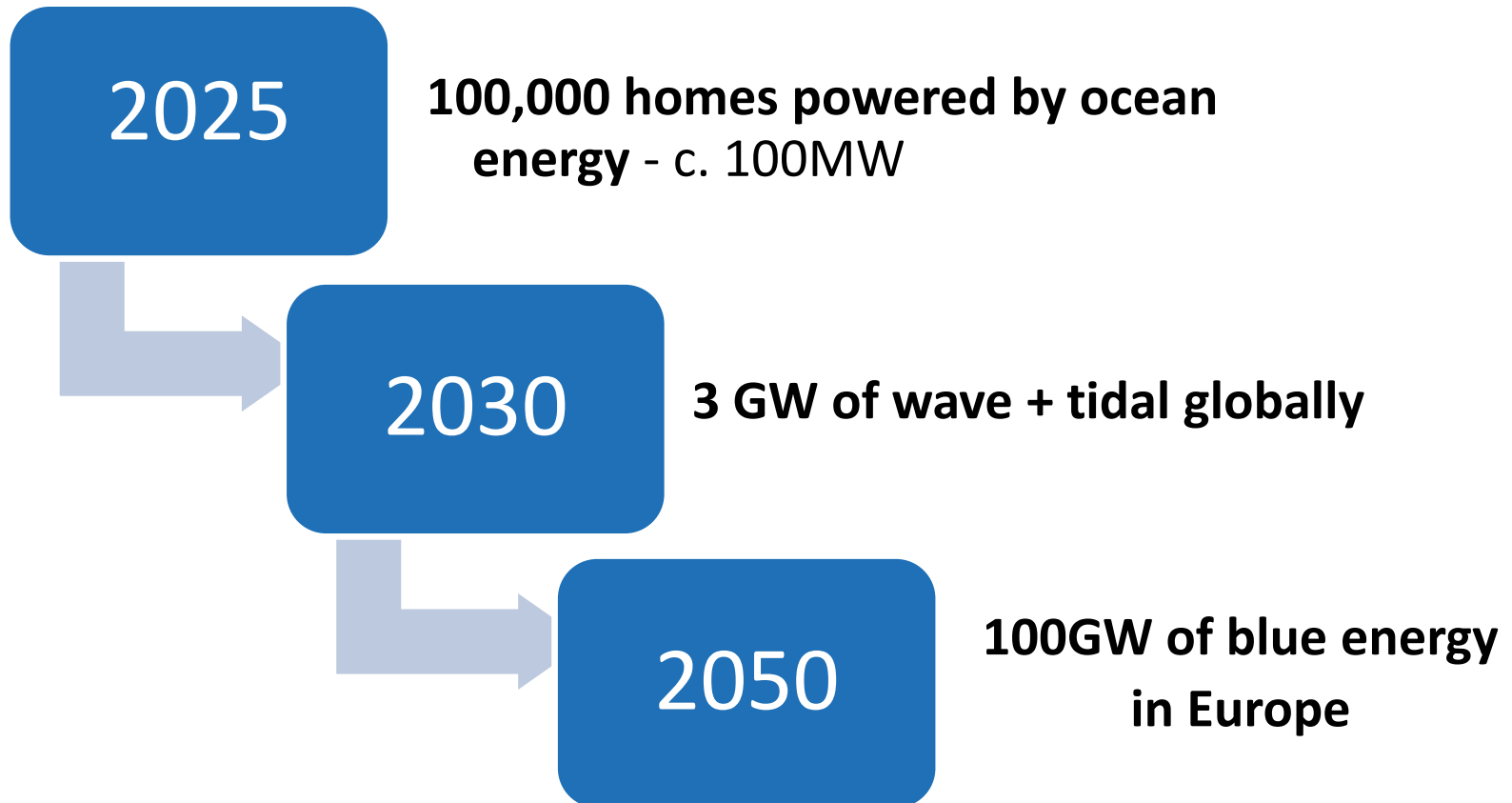
1. Clear + ambitious market signals
 - Attract investors, utilities, large manufacturers – build project pipeline
2. Unlock next phase of deployments
 - Accessible revenue support
 - Fit-for-purpose planning + consenting framework
3. Financial instruments to reduce cost of capital
 - Grants
 - Guarantees for loans, equity + insurance coverage
4. Continue technology push
 - R&I activities continue to improve the tech



How the European Offshore Strategy can help



1. Clear + ambitious market signals



How the European Offshore Strategy can help



2. Unlock next phase of deployments

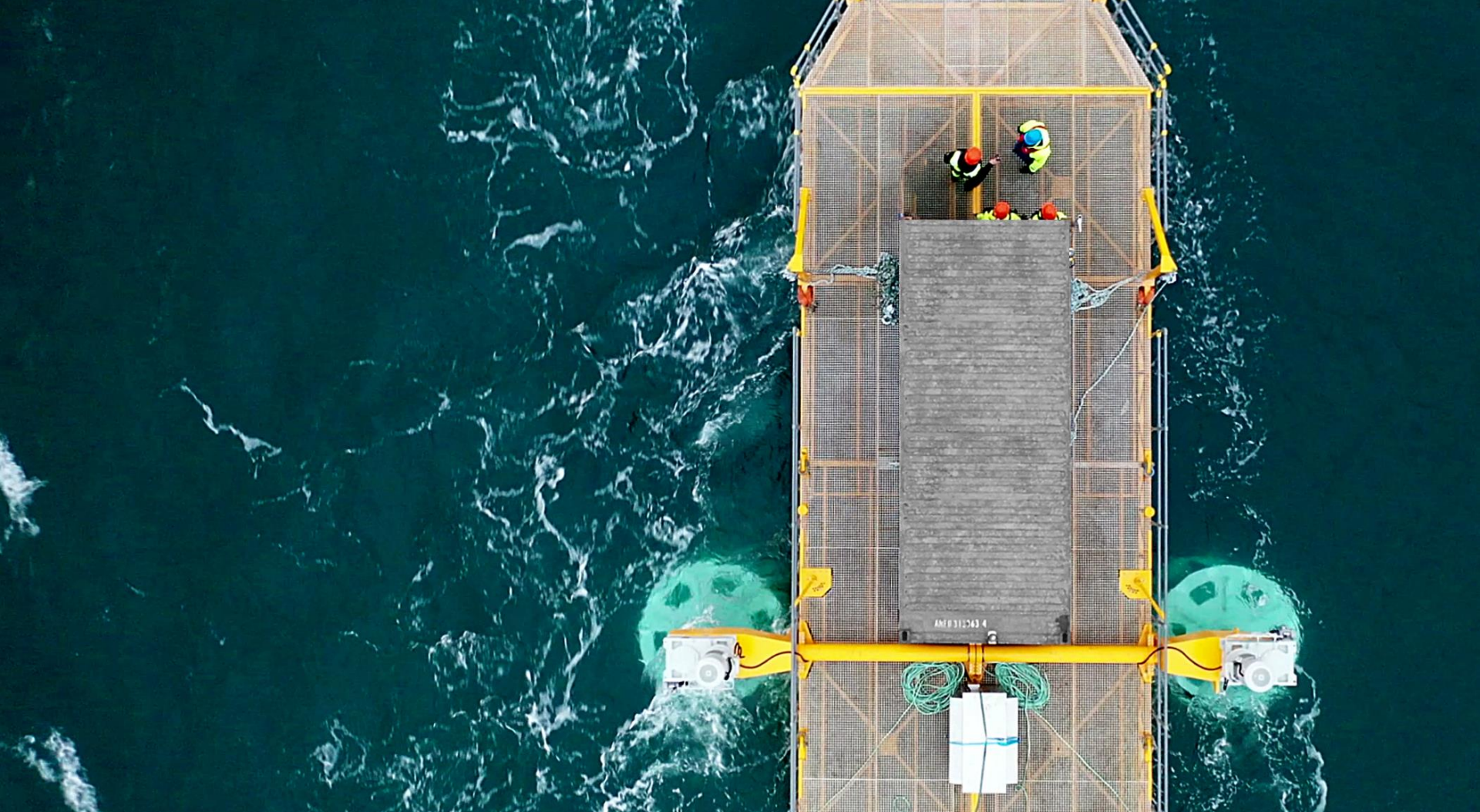
- Accessible revenue support – with Member States
- Access to sea + permitting – with Member States


3. Financial instruments to reduce cost of capital:

- InvestEU (Insurance + Guarantee Fund)
- Innovation Fund
- EIB
- BlueInvest

4. Continue technology push

- €300m for European-level Research & Innovation actions
- 1st Horizon Europe Work Programme = key



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Ocean Energy
Europe

Donagh Cagney
Policy Director
d.cagney@oceanenergy.eu
T +32 2 400 1047