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Magnus Willett magnus.willett@ore.catapult.org.uk







# Agenda

- Introduction to ORE Catapult
- Technology Development
- What is a TAP?
- WhyTAP?
- The OPIN TAP
- Apply for an OPIN TAP

# Introduction to ORE Catapult

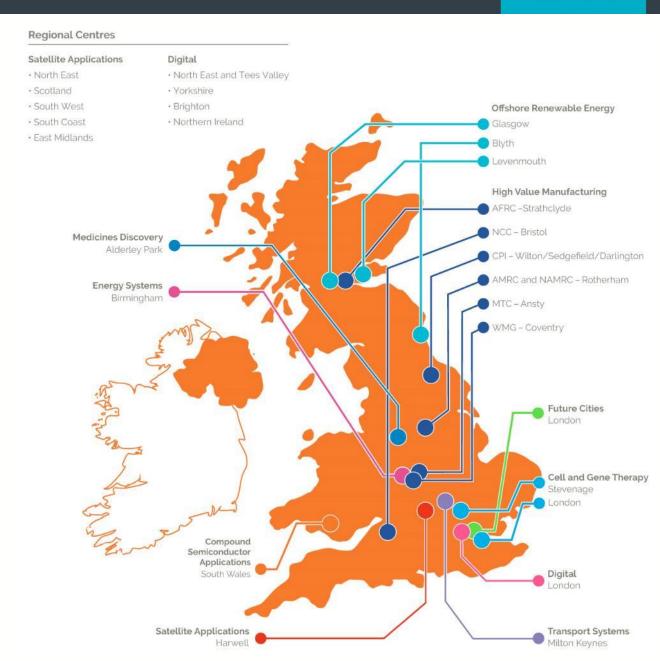


# The Catapult Network





- Designed to transform the UK's capability for innovation
- Core grant leveraged with industry and other public funding



## **Our Mission and Vision**



#### Our mission

To accelerate the creation and growth of UK companies in the ORE sector

#### Our vision

By 2023, ORE Catapult will be the world's leading offshore renewables technology centre

- Centres of Excellence
- Academic Research Hubs in partnership with leading universities
- Expanding our assets in Blyth and Levenmouth the world's foremost open-access facilities



### Our structure



#### **Test & Validation**

- Next generation Turbines & Balance of Plant
- Design validation and component testing

## **Operational Performance**

- Better intervention techniques
- Developer/owner solutions
- SMEs developing solutions
- Test & validate solutions
- O&M

## **Research & Disruptive Innovation**

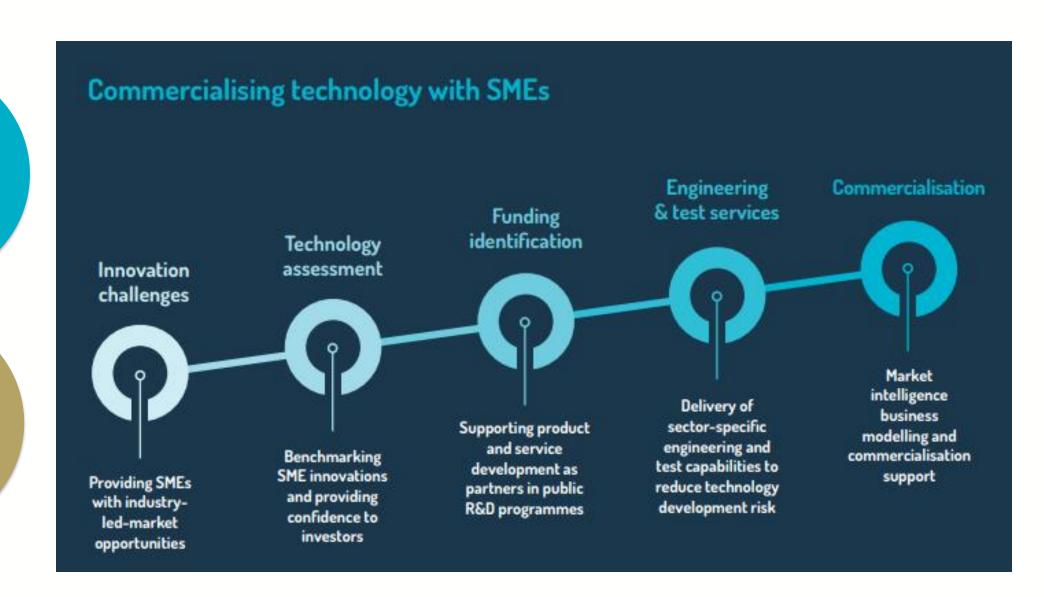
- Evaluation and support for future technologies
- Floating wind, Wave & Tidal
- Under pinning research
- Gateway to UK academia

# Commercialising technology with SMEs





803 SMEs supported



# **Technology Development**

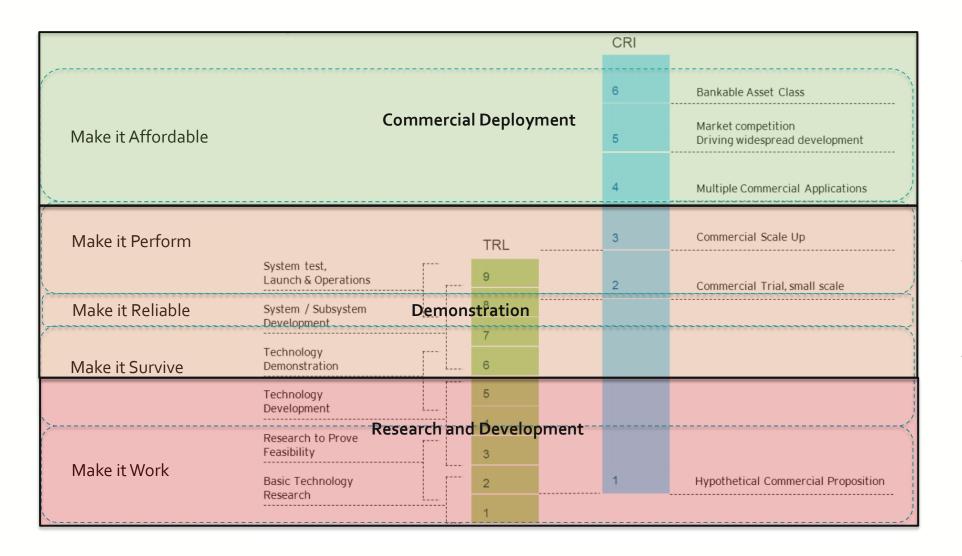




# **Technology Development Pathway**







Typical TRL/CRI Pathway

# What is a TAP?









# The TAP



Assessment of new and emerging ocean energy technologies and services



**Evidence based Dossier** 



Examination of system, sub-system or component

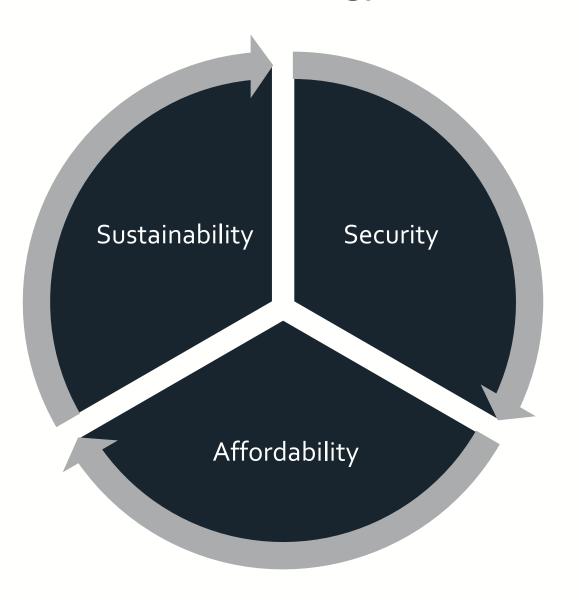
# Why TAP?







# **Renewable Energy Pillars**



# **Technology Core Characteristics**

#### Performance

 How does the innovation boost energy productivity?

# Reliability

 How does the innovation improve overall system uptime?

# Survivability

 How does the innovation contribute to the system's ability to endure the external environment?

#### Cost

 How does the innovation contribute to a lowering of system cost?

# **High Level Economic Benefits**





TAPs provide a consistent, objective, proportionate and structure assessment of technological ideas. The process is designed to realise the following high level benefits

### Match Making

• Better matching of capital and other resources to strong technical ideas rather than to ideas that simply have strong marketing

#### **Investment Decisions**

• Better informed investment decisions and have improved confidence and reduced risk

#### Focus

• Improved focus and economic risk management in technology development

#### Acceleration

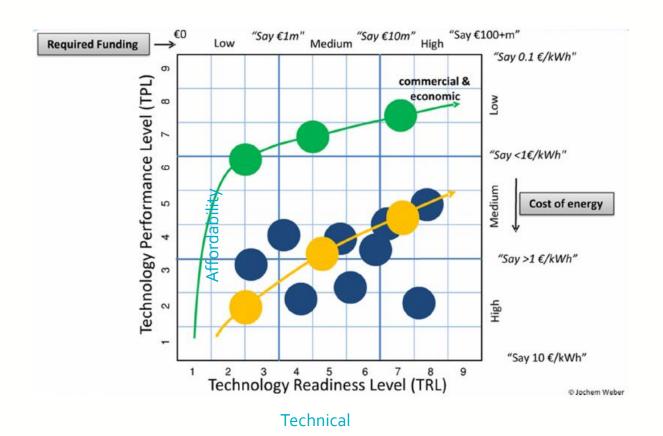
• Acceleration of the renewable energy sector to affordability.

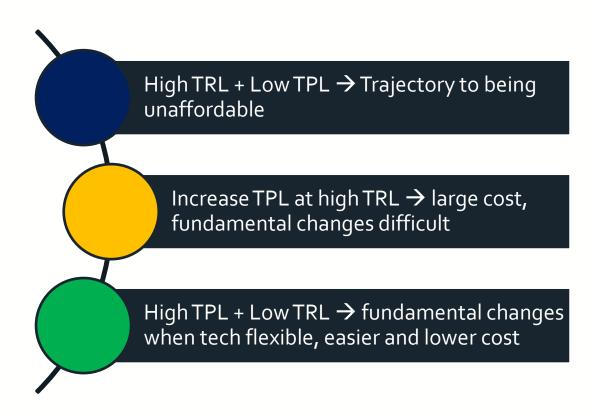
# Challenges with Technology Development Pathway





• Technology Performance Level – measure of ability to meet affordability





# The OPIN TAP



## The OPIN TAP





- As part of the OPIN project, project partners offer a high level assessment of an SMEs technology free.
- As part of the TAP, OPIN partners will discuss:
  - Design principles
  - Opportunities to de-risk onward development
  - Route to commercialisation.
- Transfer of technology from other sectors into ocean energy.
- The value of the Tap is limited to €2,000.



# The OPIN TAP Process and Report







 Application Review and Fact Finding

Week 2

 TAP technical assessment and interview

Week 3-4

Report writing and feedback.

The report generated during the TAP process would consist of the following.

- Methodology
- Technical viability
- Techno-economic competitive prospects
- The technology development route map and its progression targets
- References list of evidence provided

# Applying for a TAP





# **TAP Application and Guidelines**





- **Evaluation Criteria** 
  - Strength of the Scientific/Technical Approach
  - Ability to competently carry out the project/development
  - **Impact**
- Application forms can be found <u>here.</u>
- Application forms should be sent to OPIN@seai.ie
- Guidelines for applications can be found here.
- TAPs are **funded by Inter-Reg North West Europe** up to a value of €2,000













# Contact us

#### **GLASGOW**

Inovo 121 George Street Glasgow G1 1RD

T +44 (0)333 004 1400



#### **BLYTH**

National Renewable
Energy Centre
Offshore House
Albert Street
Blyth, Northumberland
NE24 1LZ

T +44 (0)1670 359 555



#### **LEVENMOUTH**

Fife Renewables
Innovation Centre (FRIC)
Ajax Way
Leven
KY8 3RS

T +44 (0)1670 359 555



#### HULL

O&M Centre of Excellence Ergo Centre Bridgehead Business Park Meadow Road, Hessle HU13 oGD



