



OPENHYDRO

HARNESSING THE TIDES

October 2017
Key Challenge Workshop 1

THE BUSINESS



KEY FIGURES

- A new, focussed business, with expertise in all aspects of offshore renewable energy generation.
- Aims to be a global player in marine energy.



- Established 2004.
- 135 people across the business
- 45% Engineering, 23% project services, 13% site development.
- Delivering a turn-key solution

250

Employees
At the end of
2016



**Shareholding
distribution**

36 %

BPI France

55%

Naval Group



9 %

Others

An estimated turnover of

1 billion €

within 10 years

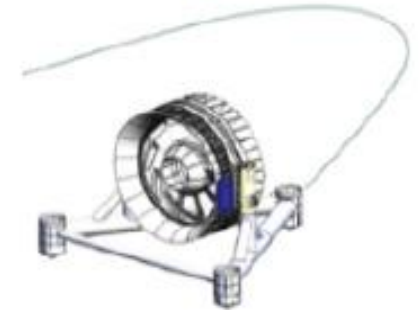
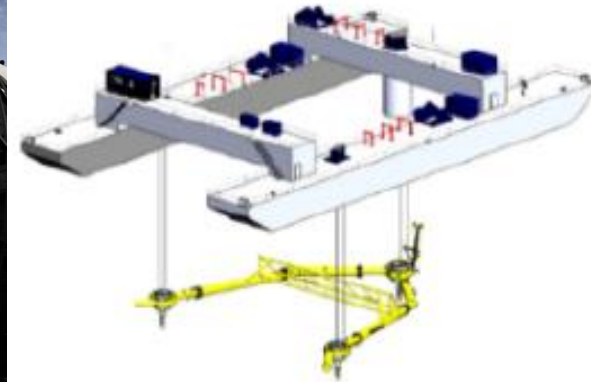
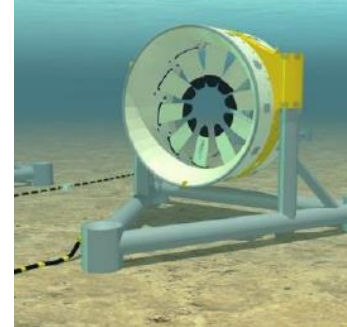
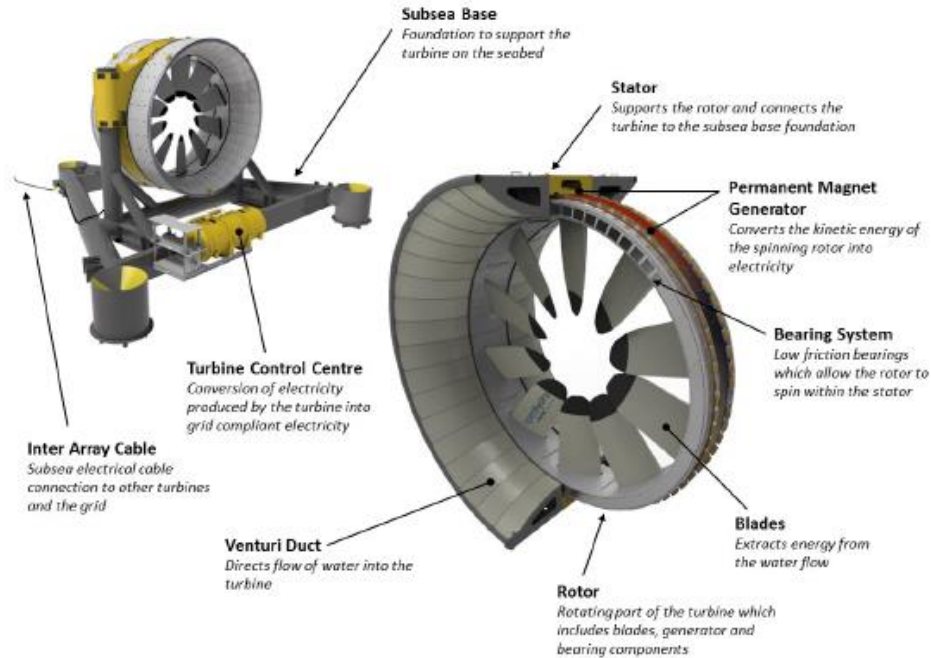


8 years

of continuing
investment in **R&D**
equivalent to €150 millions



Open-Centre Turbine



DEVELOPMENT STRATEGY

Demonstration Projects

- Cape Sharp Tidal – 4 MW demonstration array, Nova Scotia
- Paimpol-Bréhat – 4 MW demonstration array, NW France
- Goto Islands – 2 MW demonstration project, Japan

Commercial Projects

- OpenHydro have an additional portfolio of commercial projects under development with a total capacity in excess of 900 MW in the UK, France, Canada, and Asia.



1. EMEC ORKNEY ISLANDS, SCOTLAND		4. RACE TIDAL CHANNEL ISLANDS, UK		7. NORMANDIE HYDRO RAZ BLANCHARD, FRANCE	
2. EDF PAIMPOL-BREHAT, FRANCE		5. TIDAL VENTURES COUNTY ANTRIM, NORTHERN IRELAND		8. GOTO TIDAL DEMONSTRATION PROJECT GOTO ISLANDS, JAPAN	
3. BRIMS TIDAL ARRAY ORKNEY ISLANDS, SCOTLAND		6. CAPE SHARP TIDAL BAY OF FUNDY, CANADA		9. MORLAIS TIDAL DEMONSTRATION ARRAY ANGLESEY, WALES	

UK PROJECT OPPORTUNITY

Socio-economic impact

- Opportunity in the UK for 266MW of OpenHydro deployment by 2030.
- Field- proven technology and maritime skills are required – cross sectoral skills and experience.
- Delivery of a UK portfolio creates almost £700m in investment , two thirds of this in GVA.
- Premium wage rates between 14% and 26% above average in peripheral economies.
- Creating a new industry, 21,000 ftes with a high percentage of skilled roles and up to 70% permanent jobs for a 20 year period.



WHAT IS REQUIRED TO DELIVER BENEFIT

- Commitment from Government(s).
- Provision of structural funding.
- Motivated and informed supply chain.
- Excellent professional services.
- Regulatory bodies engaged and active.
- Management of collaboration opportunities.
- Improve viability of R&D spend.
- Support revenue models.
- Advance National commercial objectives to spur economic development.

Our world-beating natural resources are inspiring new local industries around our coastline.

The UK has 50% of Europe's tidal energy¹ and 35% of its wave energy.²

Our exceptional resource is creating new industrial clusters outside of the South East - in the Highlands, Wales, North England, the South-West and the Isle of Wight.³

Atlantis's Meygen commercial-scale tidal project is among those bringing new opportunities to industry and communities where jobs are needed most - including areas which used to depend on North Sea oil and gas.⁴



References:
1 DECC (2013)
2 Andrew Thomas et al. (2013)
3 Parvathasankar (2016)
4 Atlantis Resources Limited (2018)



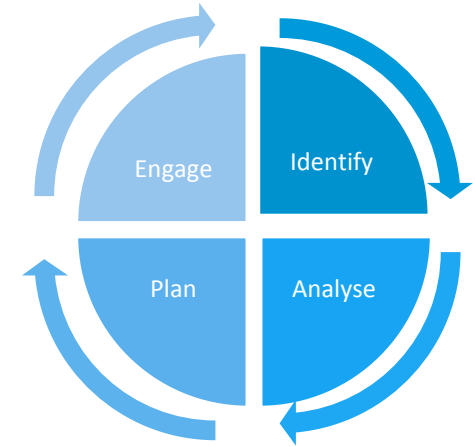
HIGHLIGHTING SOCIO-ECONOMIC BENEFITS

- See this outcome as an important deliverable of a project.
- Bad stakeholder relations costs time / money and adds risk to projects.
- Identification of your key stakeholders and supply chain (who you should be talking to) is critical.
- **Supply chain integration can provide key cost reduction.**
- Highlighting SE benefits will be critical to align with BEIS Industrial Strategy.
- Raise awareness of the **specific** benefits of wave and tidal.
- Spend time on the basics.



HOW CAN ORE SUPERGEN MEET THIS CHALLENGE

- Specific engagement with industry, supply chain and stakeholders.
- Identification of opportunities to promote and develop SE benefits within projects & supply chain.
- Analysis of key issues to reaching full benefits – cost, revenue, clustering.
- Building on existing investment – city deal, test centres, funded projects.
- Dissemination and exploitation – selling the story.





OPENHYDRO

NAVAL ENERGIES