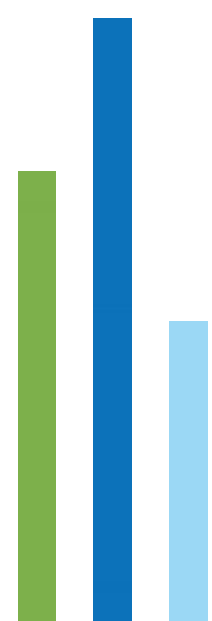




Ocean Energy
Europe

11 June 2014 2nd Meeting European Ocean Energy Forum

Sian George
CEO
Ocean Energy Europe



Representing a Growing Sector



Representing a Growing Sector



INDUSTRY VISION PAPER – EU Parliament Launch 2013

Key Asks...

- SET Plan inclusion
- Ocean Energy Hub – facilitated by the Commission
- Cooperation, collaboration & coordination – share risk

...ultimately leading to a **European Industrial Initiative.**

EC COMMUNICATION ON OCEAN ENERGY

Goal:

“Drive this nascent sector forward towards full industrialisation”



2 step action plan

1. **Establish an Ocean Energy Forum 2014-2016** - build capacity, foster cooperation & deliver a strategic Ocean Energy Road Map
2. **A European Industrial Initiative**, “could be the next step” - a platform for sharing investment risk (2017-2020).

FORUM - 2014



11 June – Convening Workstreams & Steering Committees

Agree high level targets – what does success look like?

1-2 October – Ministerial Summit, Paris

Endorse workplan goals & objectives – what is on the critical path?

Technology Workstream


>10GWh generated

Several tidal prototypes are now array-ready

Wave prototypes making progress to array-readiness

TP OCEAN – 110+ Members, Steering Committee of 20





SET Plan IR & SI Ocean STA

Reliable technologies that meet investment criteria in supported markets

LCOE target <15-20€/kWh by first GW

Performance & Cost reduction:

Continued innovation: TRL progress

Demonstration: scale up – arrays

Engage supply chain: standard components & specs

**Technology Workstream = TP OCEAN
CHAIR: FIONA BUCKLEY, GDF**



Streamline consenting processes – share best practice, data and lessons

Roll-out “one-stop-shops” across Europe

Start work early with all maritime stakeholder groups

2

Consents & Licensing Workstream

CHAIR: PHIL GILMOUR, MARINE SCOTLAND

A large yellow wind turbine nacelle is being lifted by a crane on a barge in the ocean. The nacelle is suspended by cables and is being moved from the barge to a larger vessel. The background shows a clear blue sky and the ocean.

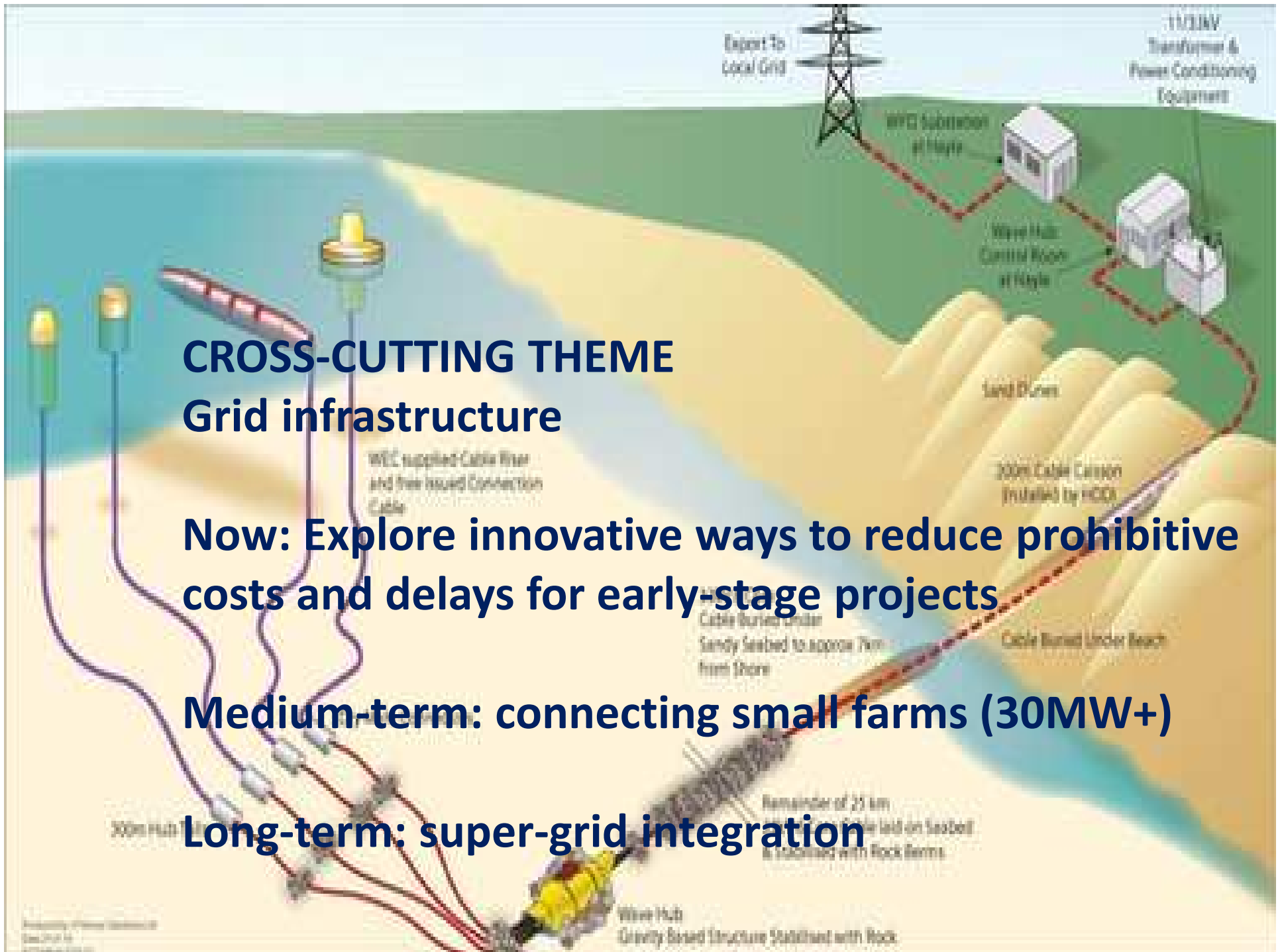
Get ten pilot arrays to financial close by 2020

Clarity and flexibility on State Aid checks for first arrays

Continue to push game-changers, challengers and frontrunners up the Technology Readiness Levels (TRL1–8)

Encourage early investment in innovation along the supply chain

**FINANCE AND MARKETS WORKSTREAM
CHAIR, ROB HASTINGS, CROWN ESTATE**



CROSS-CUTTING THEME
Grid infrastructure

Now: Explore innovative ways to reduce prohibitive costs and delays for early-stage projects

Medium-term: connecting small farms (30MW+)

Long-term: super-grid integration

SET PLAN INTEGRATED ROAD MAP

SP Ocean Group – Final Draft due for publication shortly...

Advanced Research Programme - Total Est. Cost = €210m

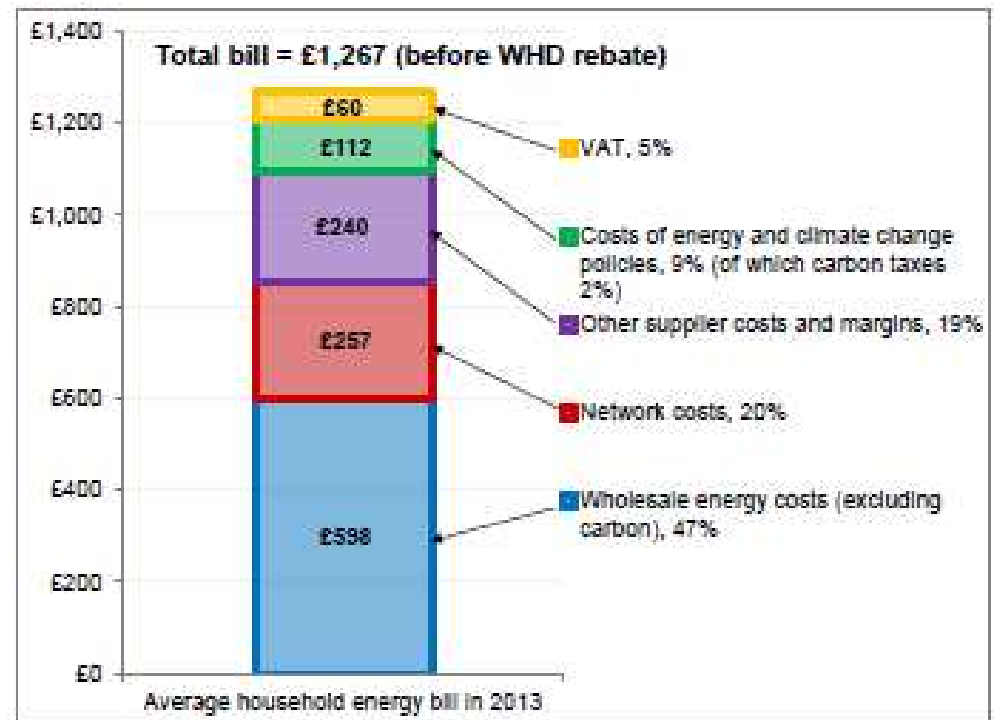
Industrial Research and Demonstration Programme - Total Est. Cost = € 385m

Innovative and Market Uptake Programme - Total Est. Cost = € 630m

€1.2bn - bookmark

Why Support New Renewables?

- Energy security – use what we have
- Raw resource is €0.00
- 54% of our fuel is imported (Ecfm)
- Across Europe - 5.4% of domestic bills “because of” renewables (Ecfm)



Source: DECC 2013



Ocean Energy
Europe

100GW by 2050 – Forum Roadmap

2020

INNOVATION & FIRST ARRAYS

Financial Close on up to 10 Arrays of 3+ Devices

2025

COST CONFIDENCE

Economies of Scale – Arrays scaling up

2030

MARKET-ROLLOUT BEGINS

Commercially Available farms – tariffs reducing

2050

**MAINSTREAM – up to 100GW
Renewable Energy Supplier**