



**MAINSTREAM
RENEWABLE
POWER**

Developers Perspective

Offshore Technician Training Initiative

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Presentation content

- Overview of Mainstream Renewable Power
- Skills and Training Landscape from Developers Perspective
- Areas Where Mainstream Can Contribute
- Mainstream Training Initiative
- Conclusions



MAINSTREAM – INTRODUCTION

- **Market Focus**
 - Americas onshore wind
 - European offshore wind
 - Emerging markets
 - Partnering key to business model
- **Offshore Wind**
 - **UK** – Consortium of Leading Companies Submitted Round 3 Bids
 - **Scotland** – Awarded 420MW Neart na Gaoithe Project
 - **Germany** – Developing 1GW in North Sea – Horizont
- **Onshore Projects**
 - Canada, South Africa and Chile – JVs with local developers to build out a pipeline of onshore projects



O&M SKILLS - THE DEMAND WILL BE THERE

- **Studies indicating the demand (EWEA, Bain, SQW, etc)**
 - Lots of figures out there, but
 - All agree a shortage will exist, All agree on scale
- **Backed up by Mainstream internal analysis**
 - Use detailed input from our suppliers/partners
 - Demand will still depend on specific O&M Strategy
 - Again, exact number uncertain but the scale is clear



O&M SKILLS – BUT WILL THE SUPPLY?

- **Few wind specific programs in UK**
 - Northumberland College
 - Certainly a lot of interest
- **Lots of talk about investing in “green jobs”**
 - Not much trickling down to those that matter (LSCs, etc)
 - Funding in recent budget?
- **Stakeholders need to be focused**
 - SSCs, LSCs, RDAs, NSAs, Training Providers
 - No single coordinating body
 - All stakeholders hungry for industry perspective
- **Could Supply come from Elsewhere?**
 - Germany & Denmark have strong training programs
 - UK leads offshore,
 - » Competitive advantage to develop skills base

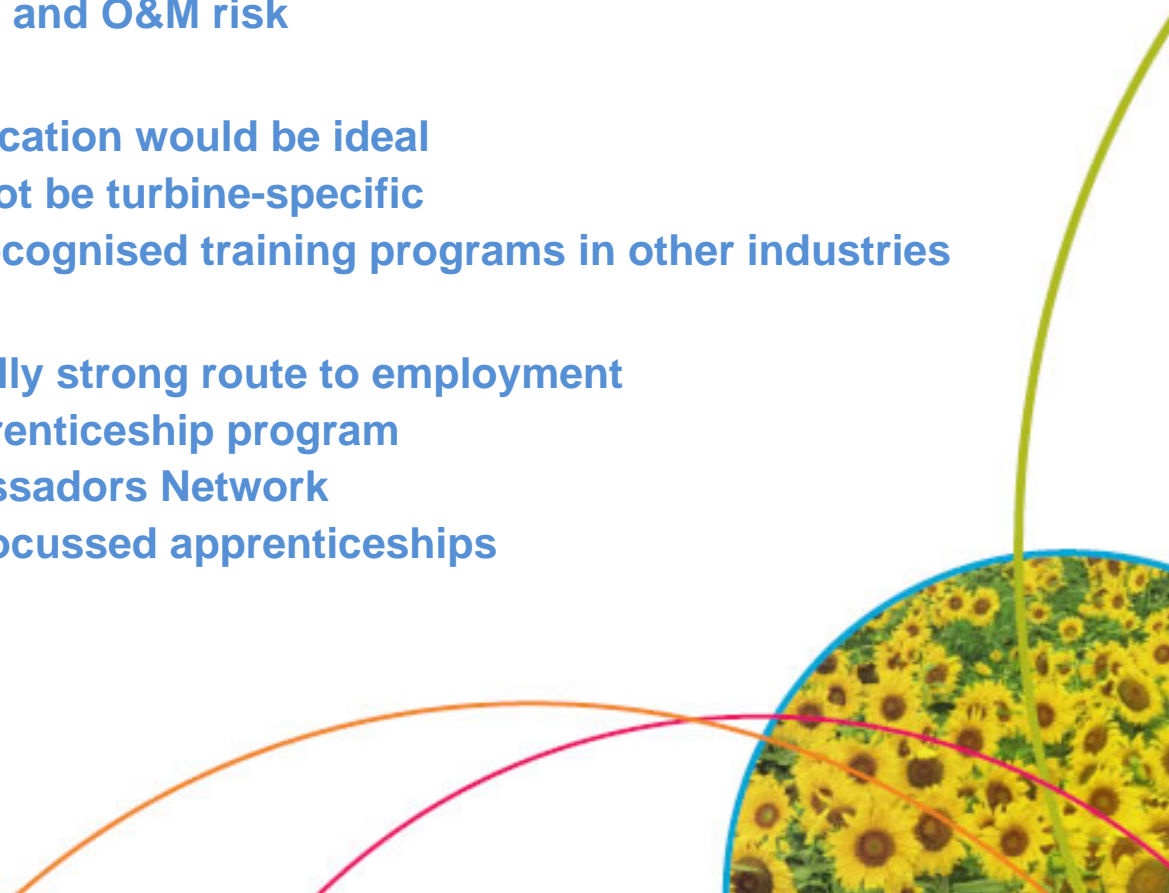
WHY MAINSTREAM?

- **Risk**
 - Long term O&M risk is perhaps greatest risk for Offshore
 - Large, qualified, recognised pool of technicians necessary to allay risk
 - Long term issue, needs to be addressed now
- **Building Long Term Relationships**
 - We foster relationships as early as possible
 - Supporting skills and training will foster broader regional relationships
- **Leading by Example**
 - Industry always talking about problems (finance, grid, etc)
 - Mainstream wants to be proactive and contribute



WHAT WE WANT TO SEE IN THE FUTURE?

- **Large Scale**
 - Industry big enough for more than a few training providers
 - UK should have capacity to service its offshore wind industry
- **Quality**
 - Need to have confidence in workforce
 - Reduced Construction and O&M risk
- **Standardisation**
 - One world wide qualification would be ideal
 - Qualification should not be turbine-specific
 - UK has history of unrecognised training programs in other industries
- **Apprentices**
 - Apprentices traditionally strong route to employment
 - Skills For Energy Apprenticeship program
 - Apprenticeship Ambassadors Network
 - National programme focussed apprenticeships



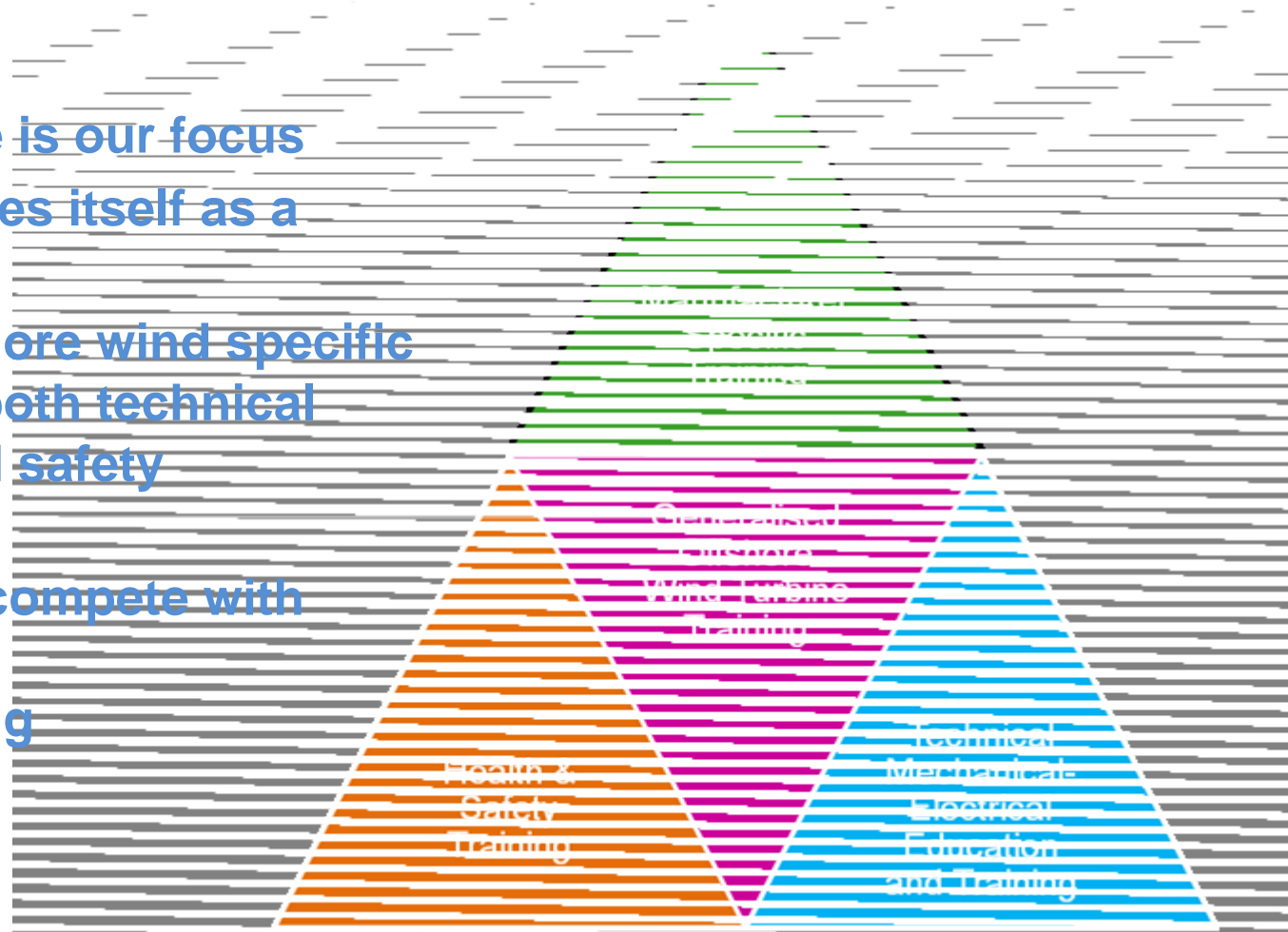
HOW CAN MAINSTREAM CONTRIBUTE

- **Long Term Foresight**
 - We have strong line of sight to 2020
 - Real world private sector perspective
 - » Comforts training providers and funding agencies
- **International Perspective**
 - Learning from Others
 - Standards
- **Industry Wide Coordination**
 - Relationships with everyone working on an offshore wind farm
 - » WTG manufacturers
 - » Construction Companies
 - » Vessel Operators



WHERE MAINSTREAM FITS IN THE MIX

- Centre triangle is our focus
- Mainstream sees itself as a coordinator
- Facilitate offshore wind specific training from both technical and health and safety perspective
- Don't want to compete with Manufacturer specific training



Mainstream Training Initiative

- **Partner with existing providers**
 - Either on technical side or Health & Safety
 - Provide a conduit to industry
 - Assist financially if necessary
 - » In conjunction with other funding
 - Flexible in our approach
- **Not reinventing the wheel**
 - Want to take advantage of existing facilities
 - Need to be efficient to be effective
- **Measurable results**
 - Higher throughput
 - Recognised programs



Conclusion

- Availability of skilled engineering talent is likely to become a key bottleneck alongside turbines & vessels.
- Developers have a role to play
- Mainstream willing to proactively contribute
- Are you?



Mainstream Renewable Power

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