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MARINE POWER

Etip Ocean 17/10/20

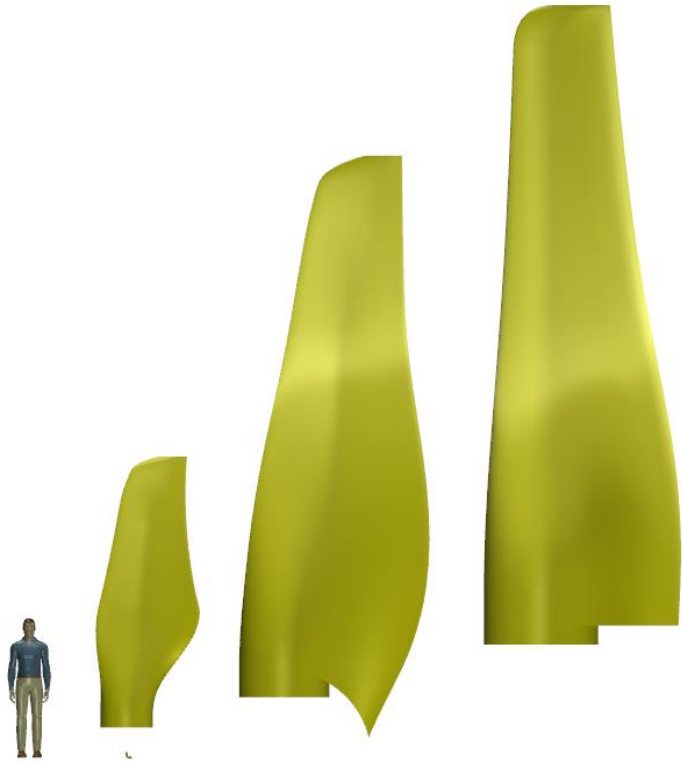
Seablade

Finlay Wallace

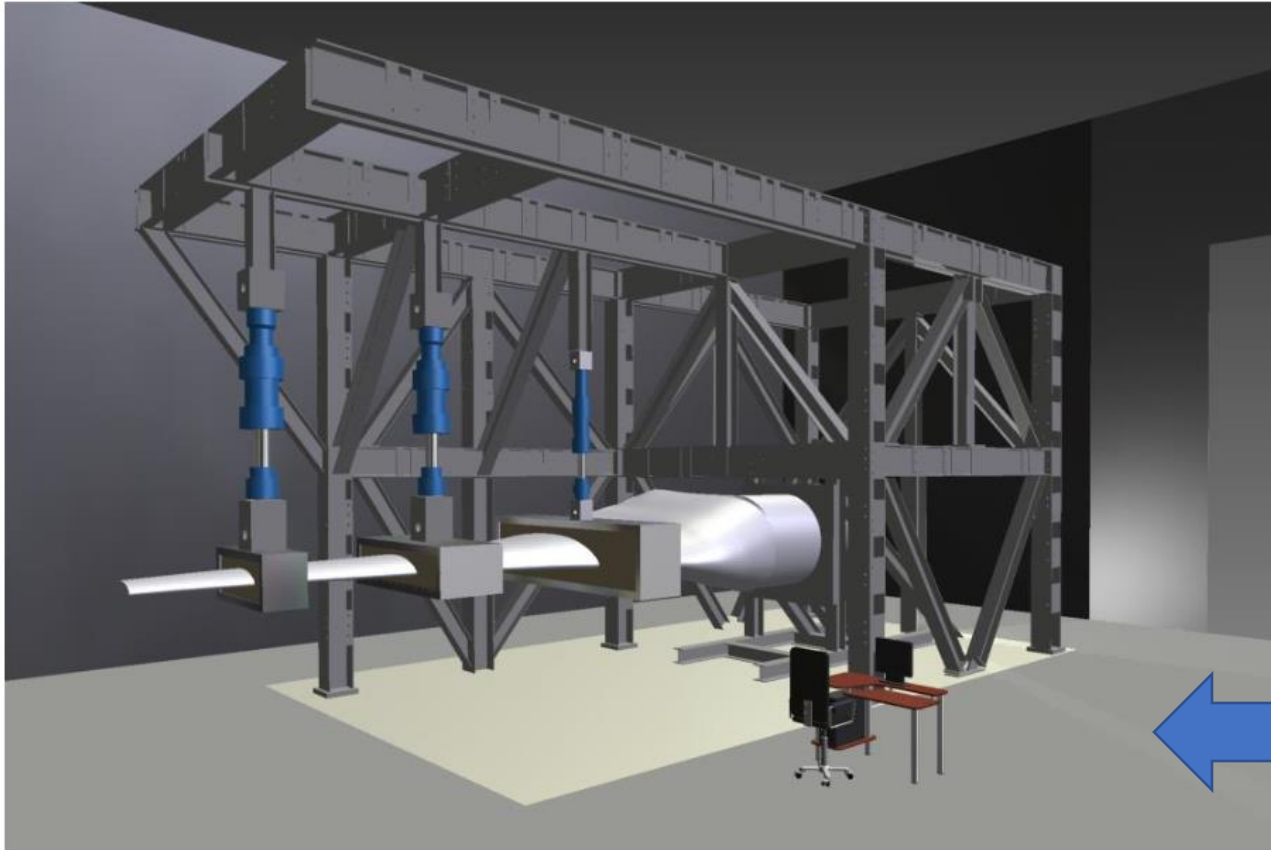


- Floating tidal turbine developer
- Breakthrough project SR2000

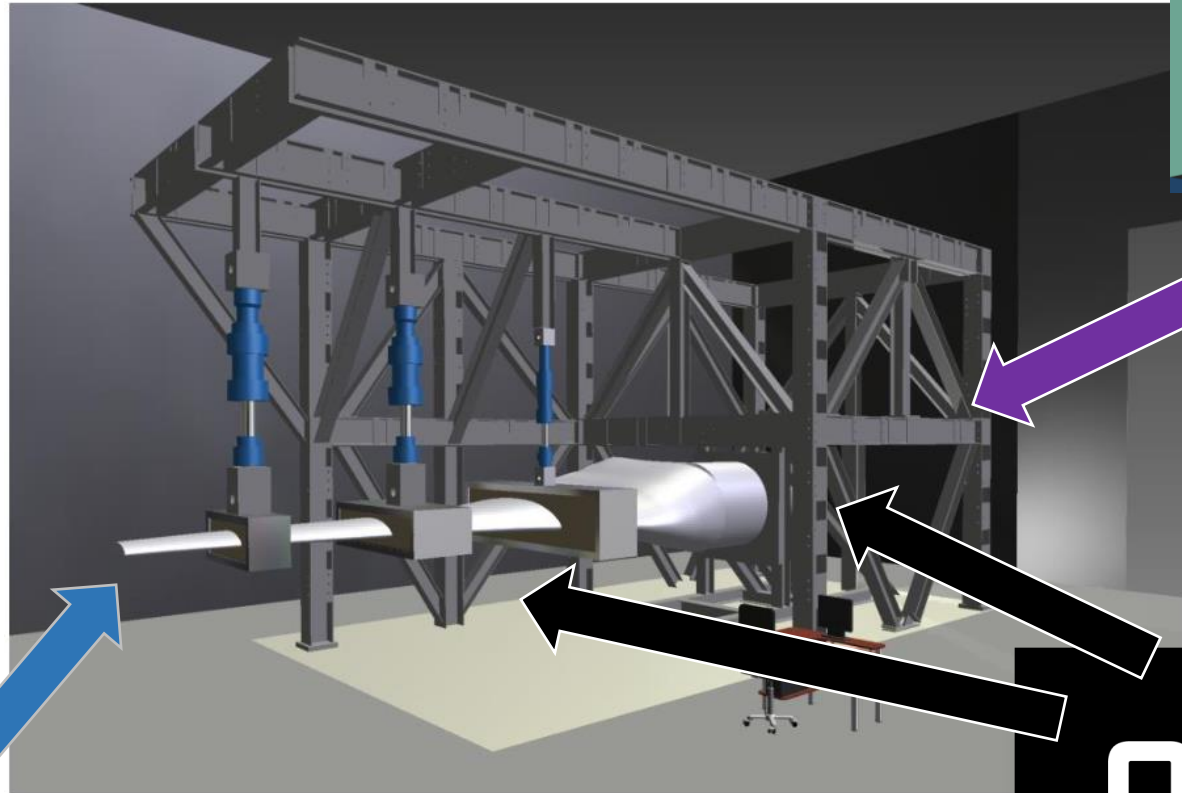




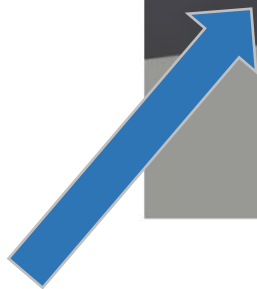
- Finlay Wallace
 - Mechanical Engineer
- Blades Manager
 - Blade design engineering
 - Project management
 - R+D
- Joined Orbital in 2013



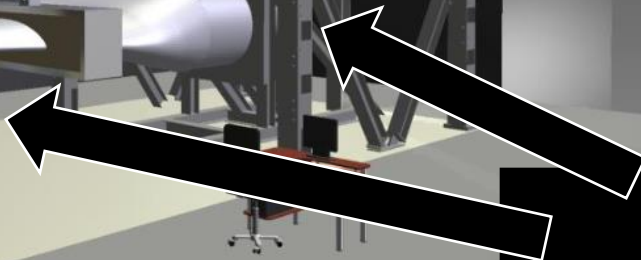
- Goal is to reduce the cost of tidal energy
- Systematic Evaluation of Composite Tidal Blades
- Full scale Static and Fatigue Structural testing of a E-glass/Epoxy composite blade design for a 1MW tidal turbine rotor



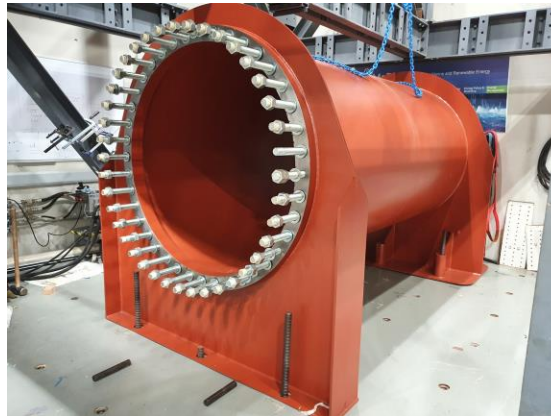
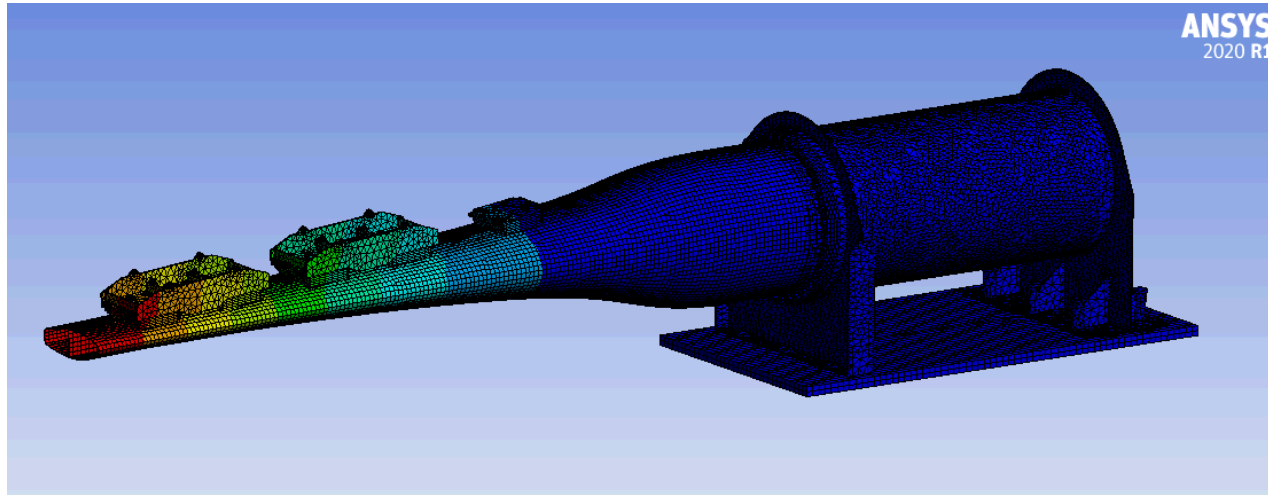
NUI Galway
OÉ Gaillimh



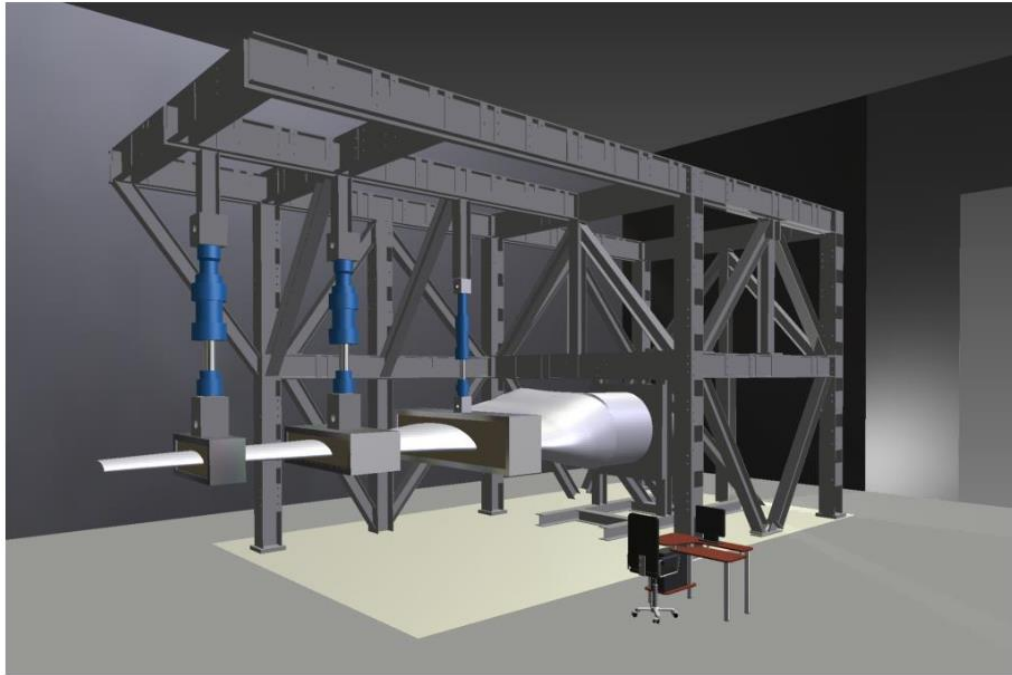
 ÉIRECOMPOSITES



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- Test fixtures
 - Design
 - Analysis
 - Production
- Blade
 - Manufacture and delivery
- Assembly in place at NUI Galway



- Initial Static testing is complete
- Static load case:
 - 1MN, 5.5MNm representing ultimate load for a 1MW rotor blade
 - Blade passed without damage
- Fatigue testing ongoing
- Sea trials and test reports are still to be completed

Full Scale Full load structural tests



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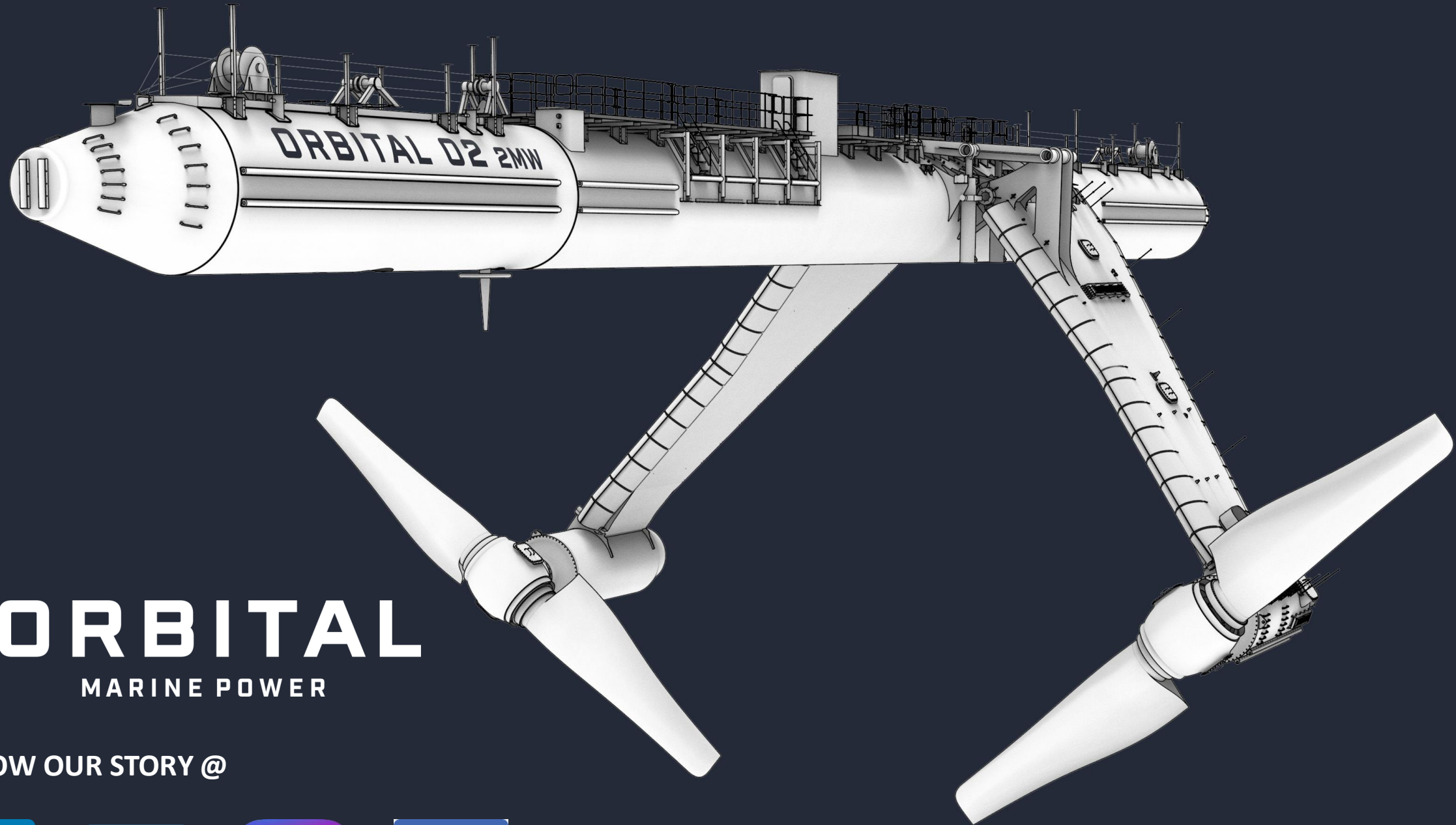


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Questions?



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