European Wind Energy Technology Platform

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Offshore Deployment and Operations
Objectives and Priorities

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Offshore Workgroup Objectives

- More than 10% of Europe ś electricity demand from offshore wind
- Offshore generating costs that are competitive with other sources of generation
- Technology for sites with water depth up to 50m, at any distance from shore, is commercially mature
- Technology for sites in deeper water, proven through full-scale demonstration

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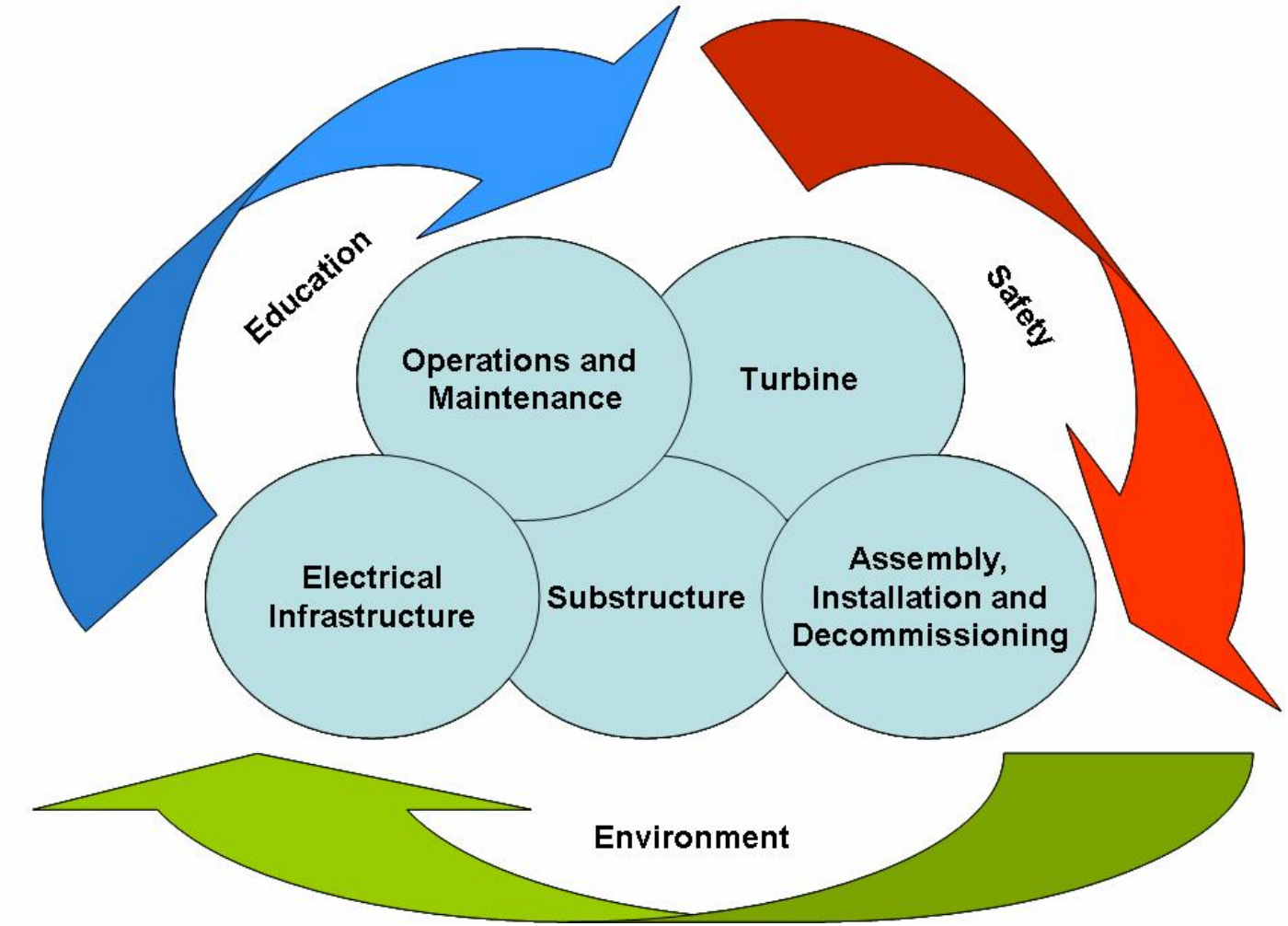
Offshore Priorities



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Common Themes

- Safety
  - Common standards for internationally mobile workforce
- Environment
  - Better informed policies, leading to improved planning and regulation
- Education
  - Deliver trained people with the skills needed to develop the industry

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Priority Actions

- Substructures
- Assembly, installation, and decommissioning
- Electrical infrastructure
- Turbines
- Operations and Maintenance

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Substructure priorities

1) New Fabrication facilities
2) Fabrication friendly, substructure designs
3) Better manufacturing processes / procedures
4) Improved fabrication technologies

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Assembly, installation and decommissioning priorities

1) Complex repetitive processes in a hostile environment

2) Efficient transport, lay down areas and harbours

3) Purpose designed vessels and specialist equipment.

4) Extend vessel operating windows

5) Better installation and assembly concepts

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Electrical infrastructure priorities

1) Integration of offshore wind into the grid system

2) Regulatory regimes to manage intermittency and flexibility of wind

3) Improved infield cabling design, technologies and installation methods

4) Facilities to manufacture cables and equipment

5) Wet / dry connector technologies

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Operations and maintenance priorities

1) Variety of safe, efficient systems access offshore facilities.

2) Capable of transferring people and equipment safely to the turbine.

3) Condition / risk based maintenance systems, to improve operational efficiency

4) Remote functionality and redundancy

5) Replacement with a minimum of dismantling and use of external lifting equipment

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Offshore turbine priorities

1) New Manufacturing and assembly facilities
2) Larger turbines adapted to offshore environment
3) Robust, reliable and fully marinised.
4) Substantial modification of onshore machines in the near term
5) Development of specific offshore designs in the medium / long-term

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Relationships

- Policy and Environment
- Grid and infrastructure
- Market and Economics
- Turbines
- External organisations