PROMOTioN
PROGRESS ON MESHED HVDC OFFSHORE TRANSMISSION NETWORKS

Progress on Meshed HVDC Offshore Transmission Networks

23rd of March 2017, North Sea Energy Forum, Brussels, Cornelis Plet – DNV GL

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691714.

- Background
- Objectives
- Project structure
- Consortium

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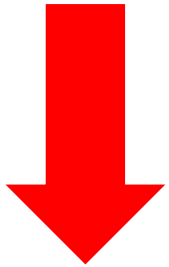
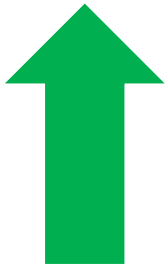
European Commission energy strategy

By 2030…..



40%

cut in greenhouse gas emissions compared to 1990 levels

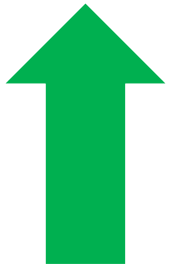


27%

share of renewable energy consumption

30%

energy savings compared with the business-as-usual scenario



15%

electricity interconnection target

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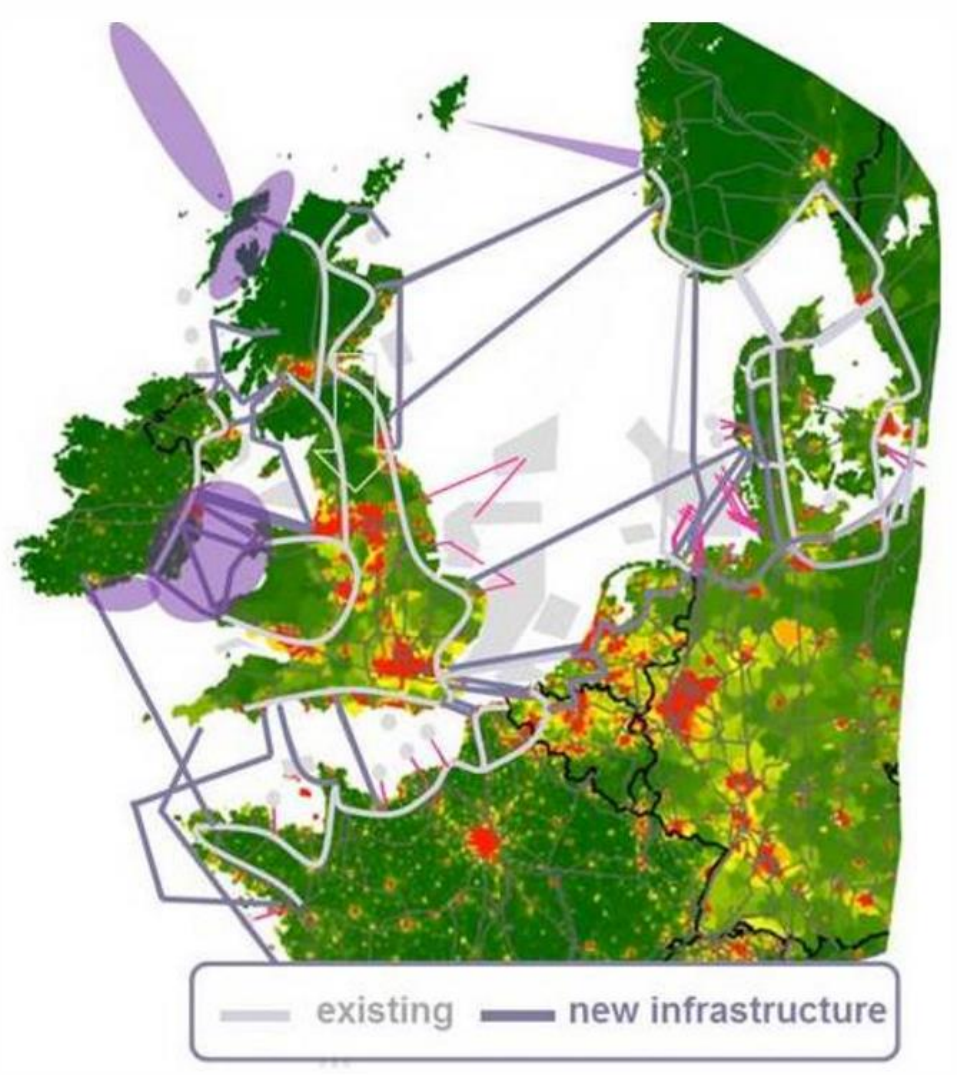
ENTSO-E vision 2030 for the North Sea



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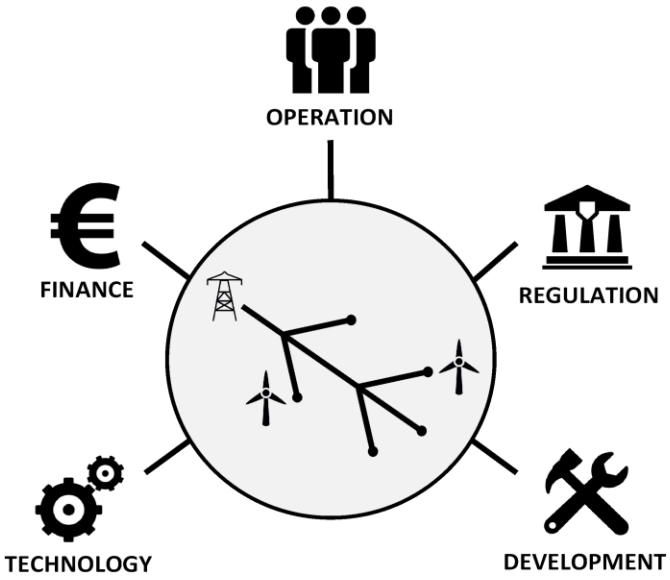
Challenges for deployment of meshed offshore HVDC grid

- Cost effective and reliable converter technology
- Grid protection systems
- Financial framework for infrastructure development
- Regulation for deployment and operation
- Agreement between manufacturers, developers and operators of the grid



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PROMOTioN - Objectives

- Identify **technical requirements** and investigate possible **topologies** for **meshed HVDC offshore grids**
- Develop **protection schemes** and **components** for HVDC grids
- Establish components' **interoperability and initiate standardisation**
- **Demonstrate cost-effective** offshore HVDC equipment
- Develop recommendations for a coherent EU and national **regulatory framework** for HVDC offshore grids
- Develop **recommendations for financing mechanisms** for offshore grid infrastructure deployment
- Develop a **deployment plan** for HVDC grid implementation

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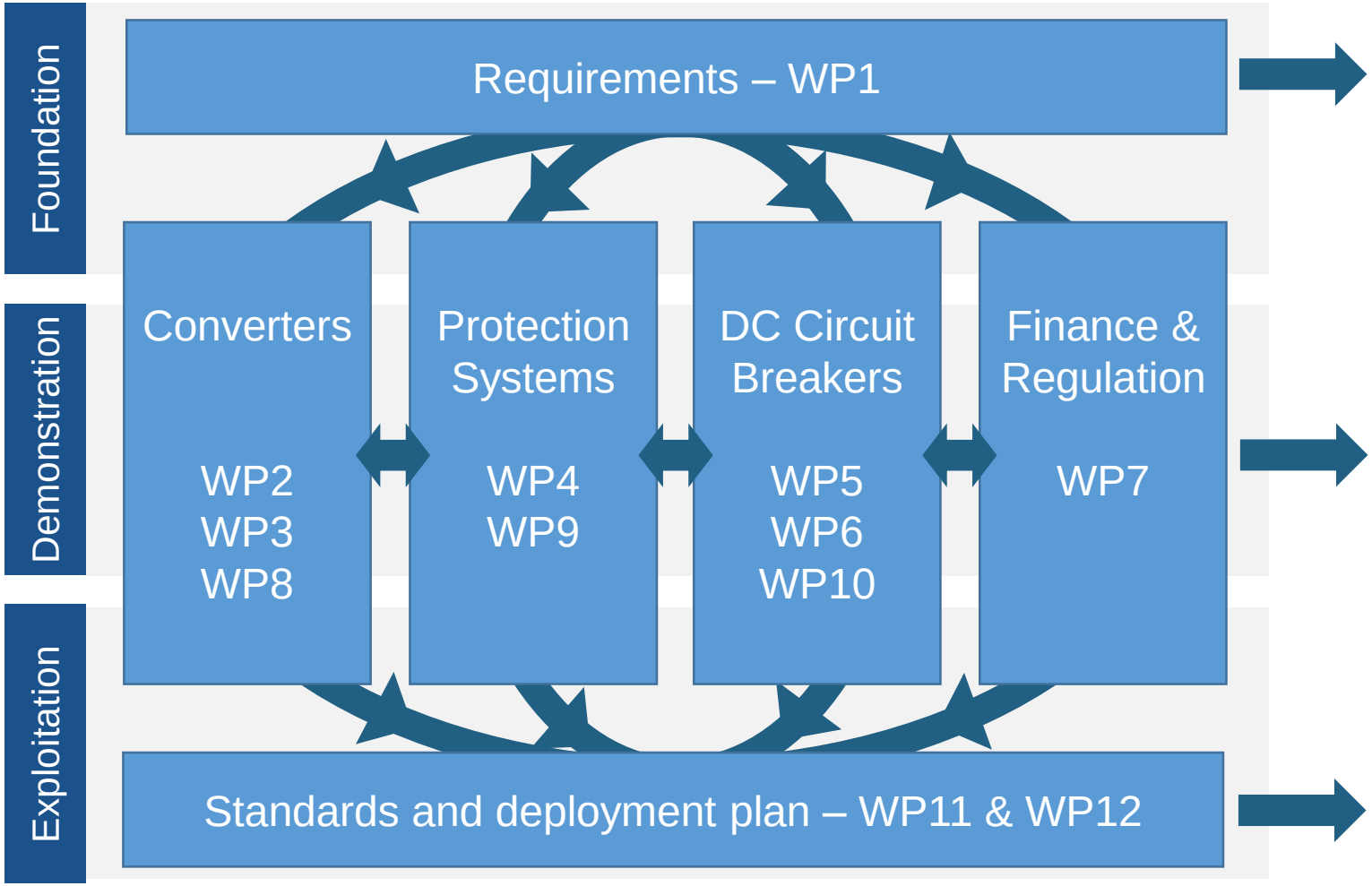
Project Structure



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Partners

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APPENDIX

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