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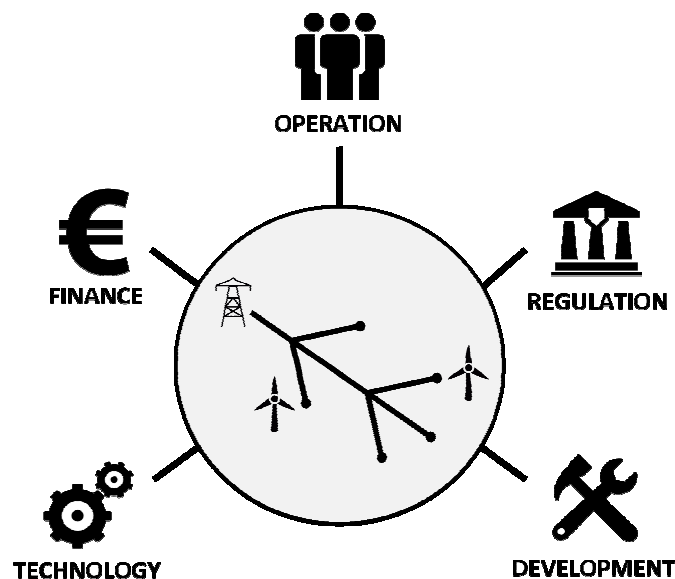
PROgress on Meshed HVDC Offshore Transmission Networks



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

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

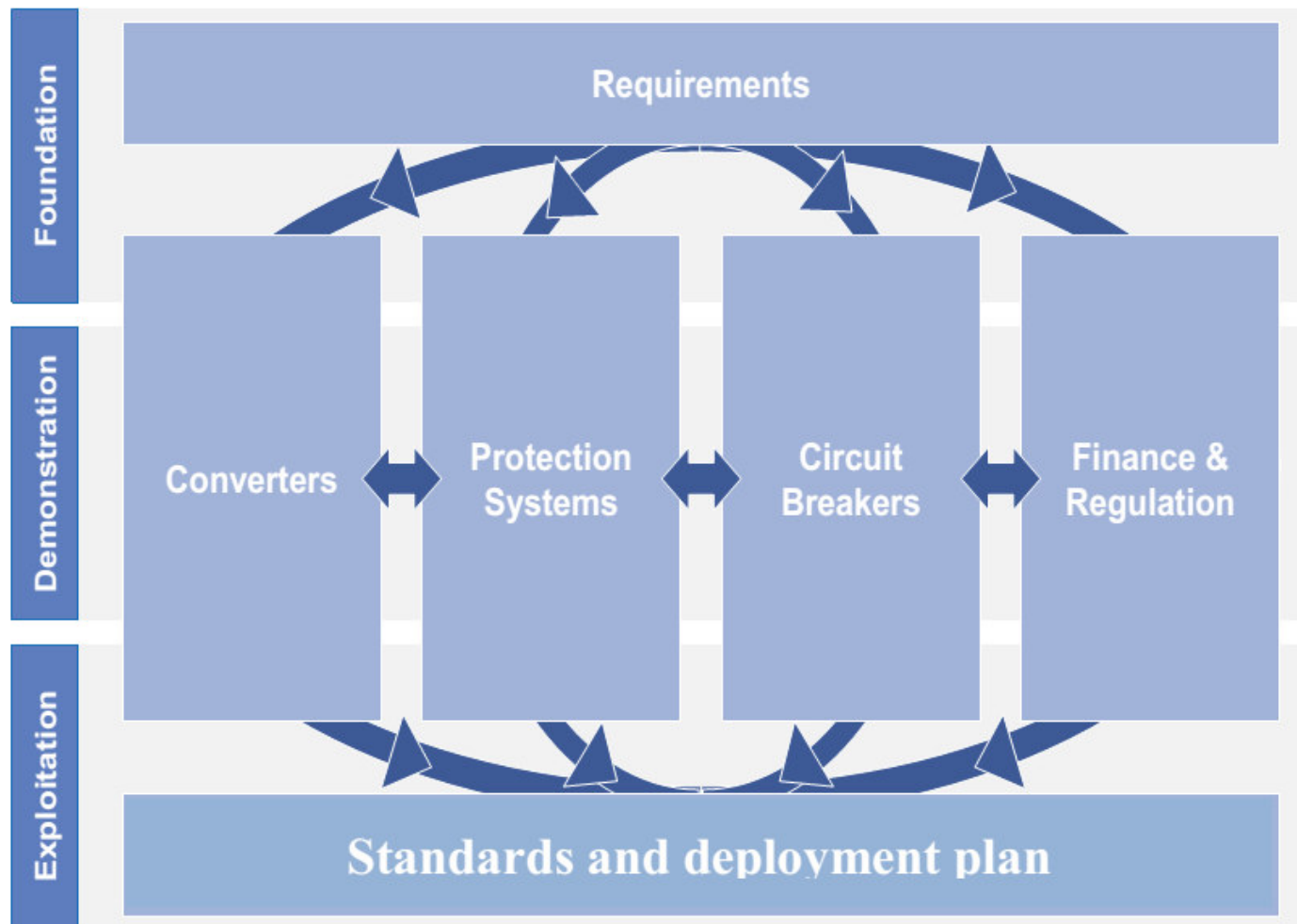


Objectives

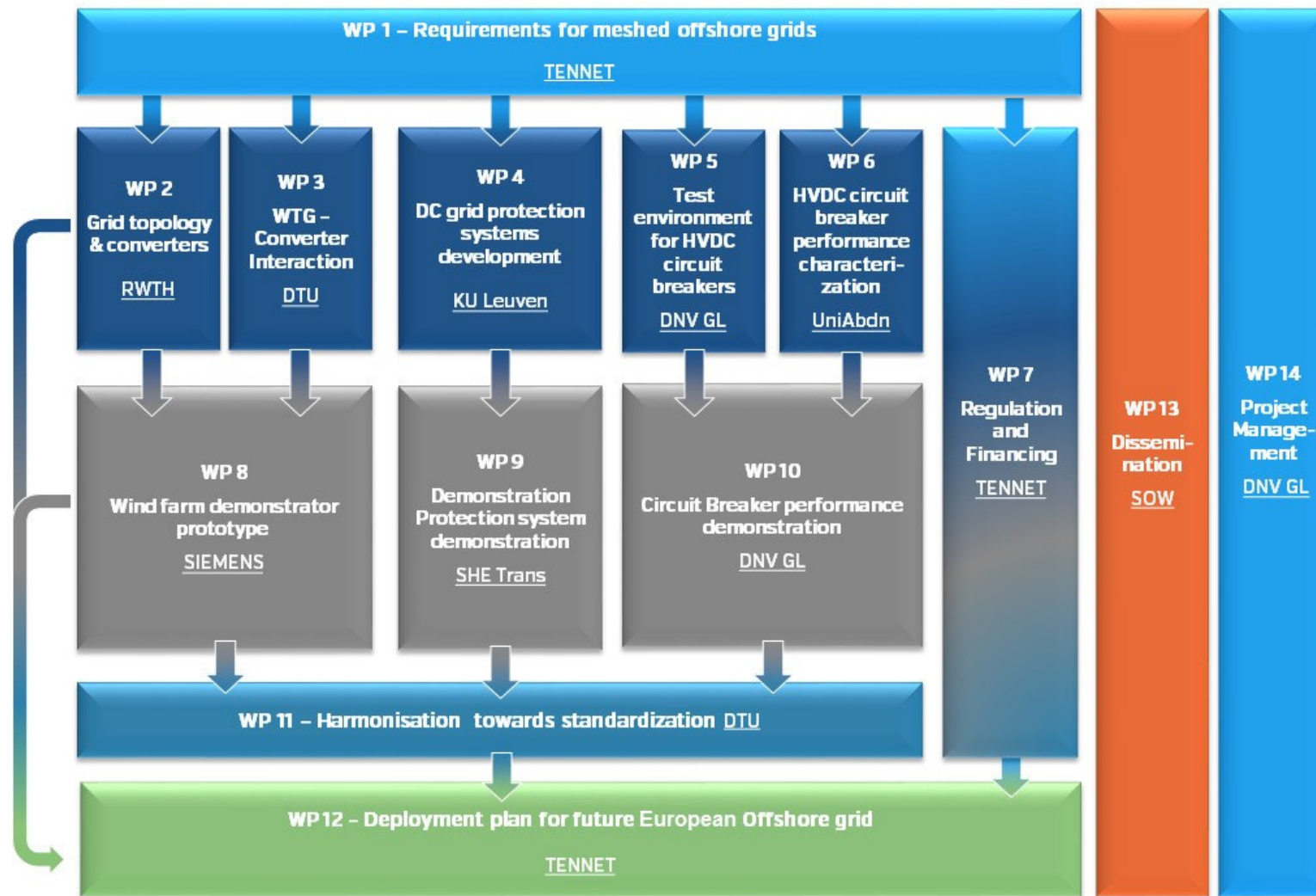
- Identify **technical requirements** and investigate possible **topologies** for **meshed HVAC/DC offshore grids**
- Develop **protection components** and **schemes for offshore grids**
- Establish components **interoperability** and **initiate standardisation**
- Develop recommendations for a coherent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



Project Structure

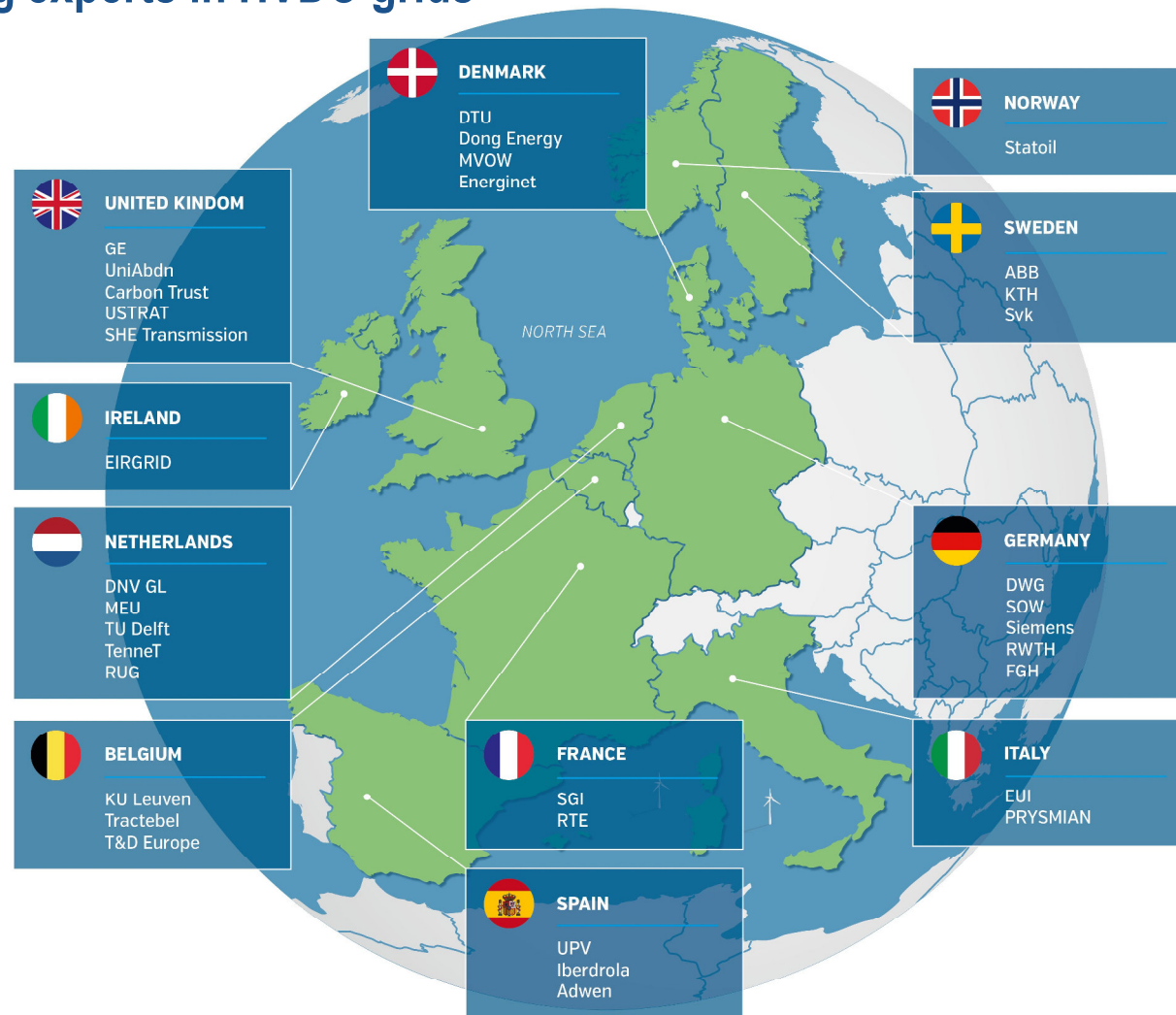


Work Package Structure



European Partners

34 leading experts in HVDC grids



Project Partners

SHORT NAME	LEGAL NAME	COUNTRY	SHORT NAME	LEGAL NAME	COUNTRY
ABB	ABB AB	Sweden	RTE	Réseau de Transport d'Électricité	France
Adwen	ADWEN Offshore, S.L.	Spain	RUG	Rijksuniversiteit Groningen	Netherlands
Carbon Trust	The Carbon Trust	United Kingdom	RWTH Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	Germany
DNV GL (Coordinator)	Kema Nederland BV	Netherlands	SIG	SuperGrid Institute	France
Dong Energy	Dong Energy Wind Power A/S	Denmark	SHE Transmission	Scottish Hydro Electric Transmission plc	United Kingdom
DTU	Danmarks Tekniske Universitet	Denmark	Siemens	Siemens AG	Germany
DWG	Deutsche WindGuard GmbH	Germany	SOW	German OFFSHORE WIND ENERGY Foundation	Germany
EirGrid	EirGrid plc	Ireland	Statoil	Statoil ASA	Norway
Energinet	Energinet.dk	Denmark	Svk	Affärsverket Svenska kraftnät	Sweden
EUI	European University Institute	Italy	T&D Europe	European Association of the Electricity Transmission & Distribution Equipment and Services Industry	Belgium
FGH	Forschungsgemeinschaft für Elektrische Anlagen und Stromwirtschaft e.V.	Germany	TenneT	TenneT TSO B.V.	Netherlands
GE	Alstom Grid UK Ltd (Trading as GE Grid Solutions)	United Kingdom	Tractebel	Tractebel Engineering S.A.	Belgium
Iberdrola	Iberdrola Renovables Energía, S.A.	Spain	TU Delft	Technische Universiteit Delft	Netherlands
KTH	KTH Royal Institute of Technology	Sweden	UniAbdn	The University Court of the University of Aberdeen	United Kingdom
KU Leuven	Katholieke Universiteit Leuven	Belgium	UPV	Universitat Politècnica de València	Spain
MEU	Mitsubishi Electric Europe B.V.	Netherlands	USTRAT	University of Strathclyde	United Kingdom
MVOW	MHI Vestas Offshore Wind AS	Denmark			
Prysmian	Prysmian	Italy			





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APPENDIX

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MAIL info@promotion-offshore.net WEB www.promotion-offshore.net

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PROJECT COORDINATOR

DNV GL, Kema Nederland BV
Utrechtseweg 310, 6812 AR Arnhem, The Netherlands
Tel +31 26 3 56 9111
Web www.dnvgl.com/energy

CONTACT

Sebastian Menze
Stiftung OFFSHORE-Windenergie
Oldenburger Str. 65
26316 Varel
+49 (0) 4451 95 15 205
s.menze@offshore-stiftung.de

PARTNERS

Kema Nederland BV, ABB AB, KU Leuven, KTH Royal Institute of Technology, EirGrid plc, SuperGrid Institute, Deutsche WindGuard GmbH, Mitsubishi Electric Europe B.V., Affärsverket Svenska kraftnät, Alstom Grid UK Ltd (Trading as GE Grid Solutions), University of Aberdeen, Réseau de Transport d'Électricité, Technische Universiteit Delft, Statoil ASA, TenneT TSO B.V., German OFFSHORE WIND ENERGY Foundation, Siemens AG, Danmarks Tekniske Universitet, Rheinisch-Westfälische Technische Hochschule Aachen, Universitat Politècnica de València, Forschungsgemeinschaft für Elektrische Anlagen und Stromwirtschaft e.V., Dong Energy Wind Power A/S, The Carbon Trust, Tractebel Engineering S.A., European University Institute, Iberdrola Renovables Energía, S.A., European Association of the Electricity Transmission & Distribution Equipment and Services Industry, University of Strathclyde, ADWEN Offshore, S.L., Prysmian, Rijksuniversiteit Groningen, MHI Vestas Offshore Wind AS, Energinet.dk, Scottish Hydro Electric Transmission plc



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