

Best Paths

Transmission for sustainability

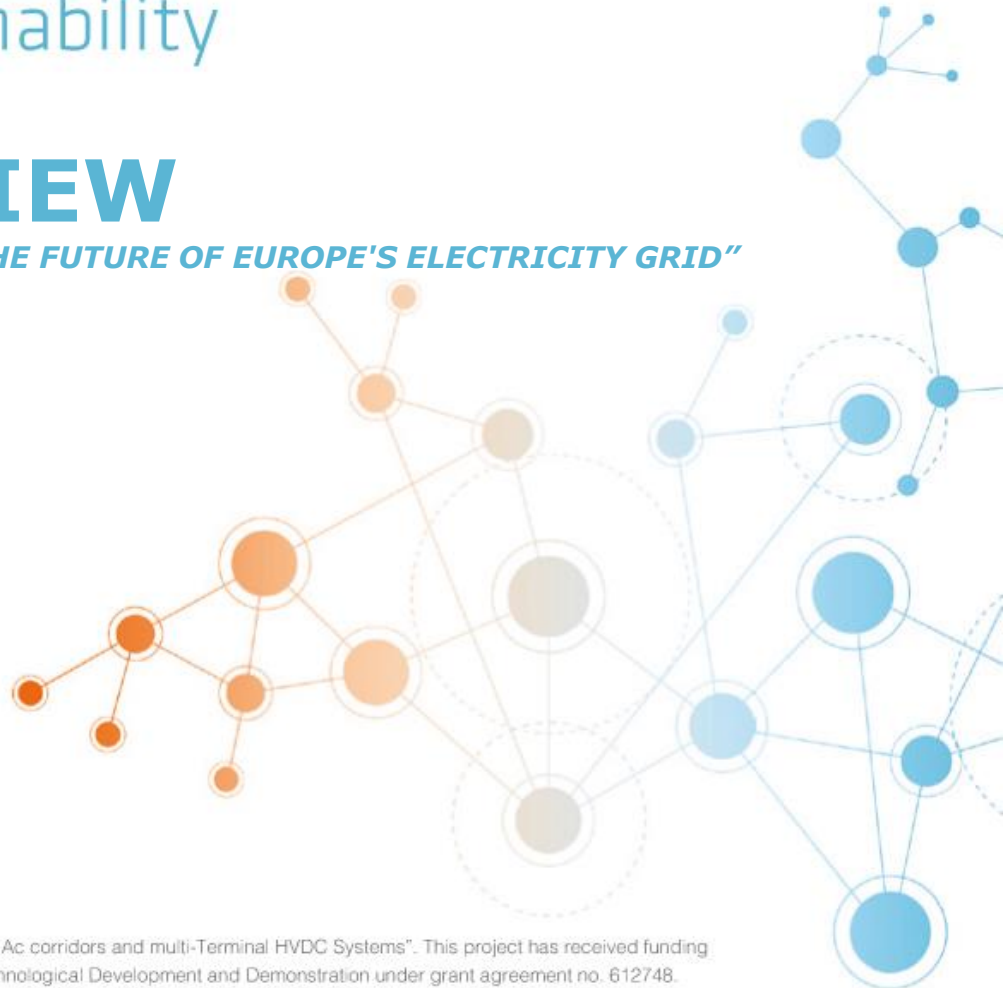
PROJECT OVERVIEW

"INNOVATIVE NETWORK TECHNOLOGIES AND THE FUTURE OF EUROPE'S ELECTRICITY GRID"

BEST PATHS DISSEMINATION EVENT

BERLIN, 26 OCTOBER 2016

Vicente J. González López
Project Coordinator
Red Eléctrica de España



BEST PATHS stands for "BEyond State-of-the-art Technologies for rePowering Ac corridors and multi-Terminal HVDC Systems". This project has received funding from the European Union's Seventh Framework Programme for Research, Technological Development and Demonstration under grant agreement no. 612748.



BEST PATHS PROJECT

BEyond **S**tate-of-the-art **T**echnologies for re-**P**owering **AC** corridors and multi-**T**erminal **HVDC** **S**ystems

Duration	October 2014 – September 2018 (4 years)
Project budget	Total budget: 62.8M € EC contribution: 35.5M €
Project composition	5 Large-scale demonstrations 2 Replication projects 1 Dissemination project
Project coordinator	Vicente González López Red Eléctrica de España (REE)



BEST PATHS: OBJECTIVES

BEST PATHS seeks to validate the technical feasibility, costs, impacts and benefits of **novel grid technologies**, through **five large-scale demonstrations**, to allow better integration of renewable energies into Europe's energy mix.

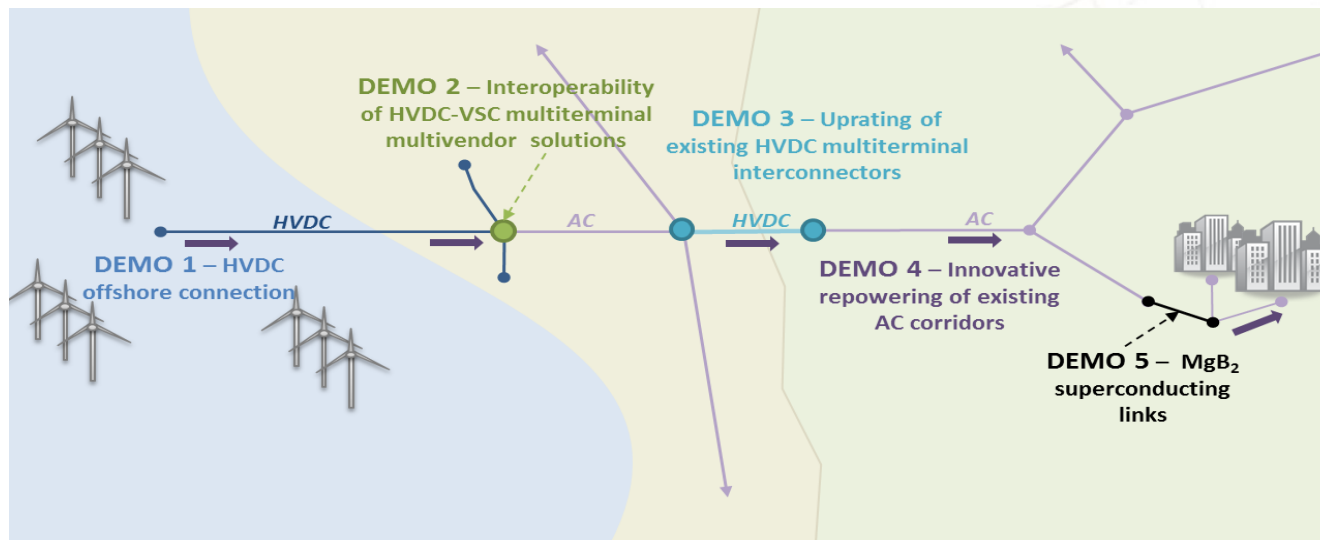
The demonstrations aim to:

- Deliver solutions that allow for transition from High Voltage Direct Current (HVDC) lines to HVDC grids;
- Upgrade and repower existing Alternating Current (AC) parts of the network;
- Integrate superconducting high power DC links within AC meshed network.

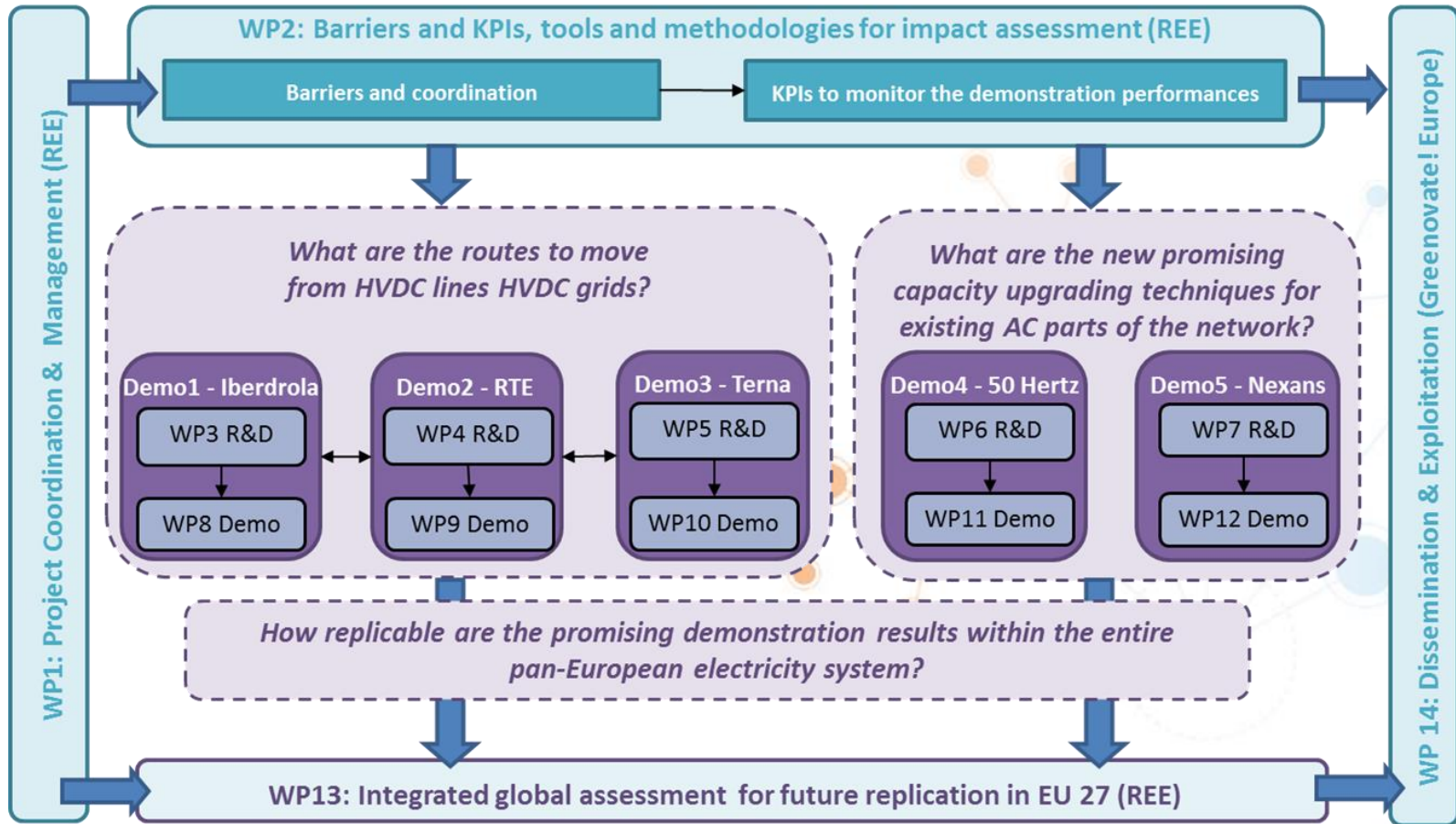
The experimental results will be integrated into European impact analyses by 2018, to show the scalability of the solutions and benefit replication across the pan-European transmission network and electricity market.

LARGE SCALE DEMONSTRATIONS

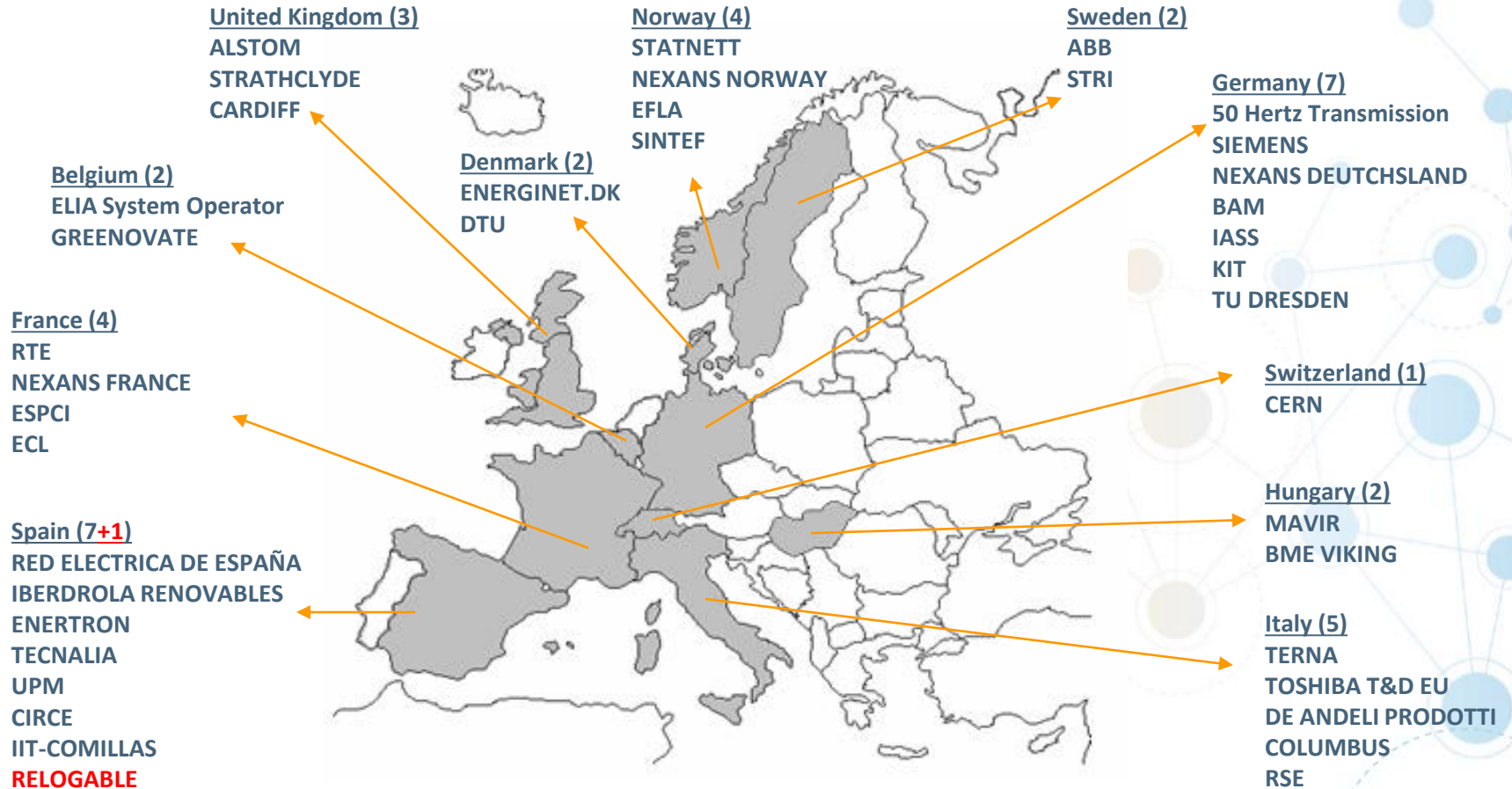
1. HVDC in offshore wind farms and offshore interconnections
2. HVDC-VSC multivendor interoperability
3. Upgrading multiterminal HVDC links
4. Innovative repowering of AC corridors
5. DC Superconducting cable



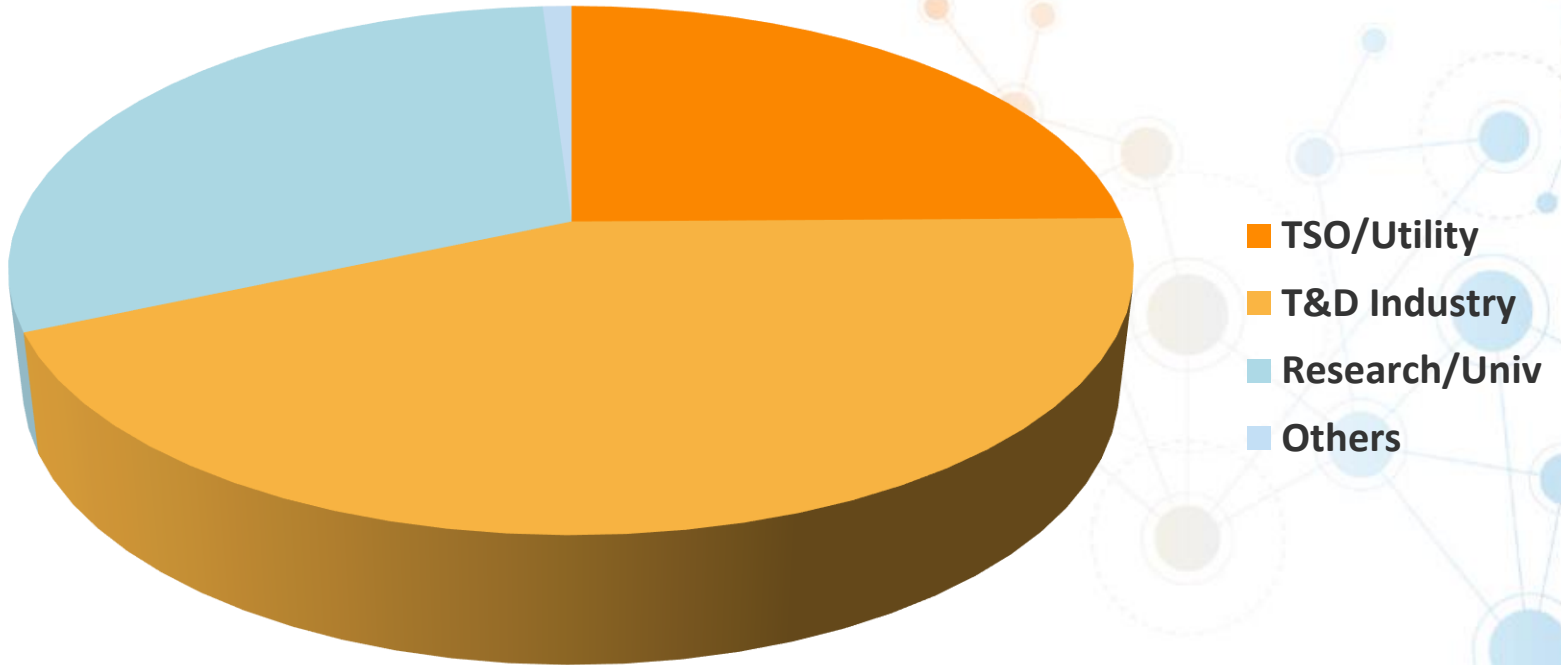
PROJECT STRUCTURE



CONSORTIUM



EC FUNDING DISTRIBUTION



PROJECT KEY FACTS

- ❖ **Project approach:** The scope addresses relevant issues in the whole electricity supply chain: from the off-shore wind farms to feeding highly populated areas, including DC and AC technologies
- ❖ **Project focus:** It is centered in the coming steps for grid evolution, like upgrading and refurbishment existing assets (both AC and DC), HVDC multiterminal option and new solutions (materials and technologies) for ultra high capacity DC links or feeders.
- ❖ **Project size:** Best Paths is the largest project ever supported by FP7 within the field of power grids.
- ❖ **Project structure and management:** Individual demonstrations running in parallel, strong management coordination and valuable joint impact assessment for project results.



CONTACT

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