



HVDC-WISE

THE OPERATOR'S FORUM



HVDC-WISE is supported by the European Unions' Horizon Europe program under agreement 101075424.

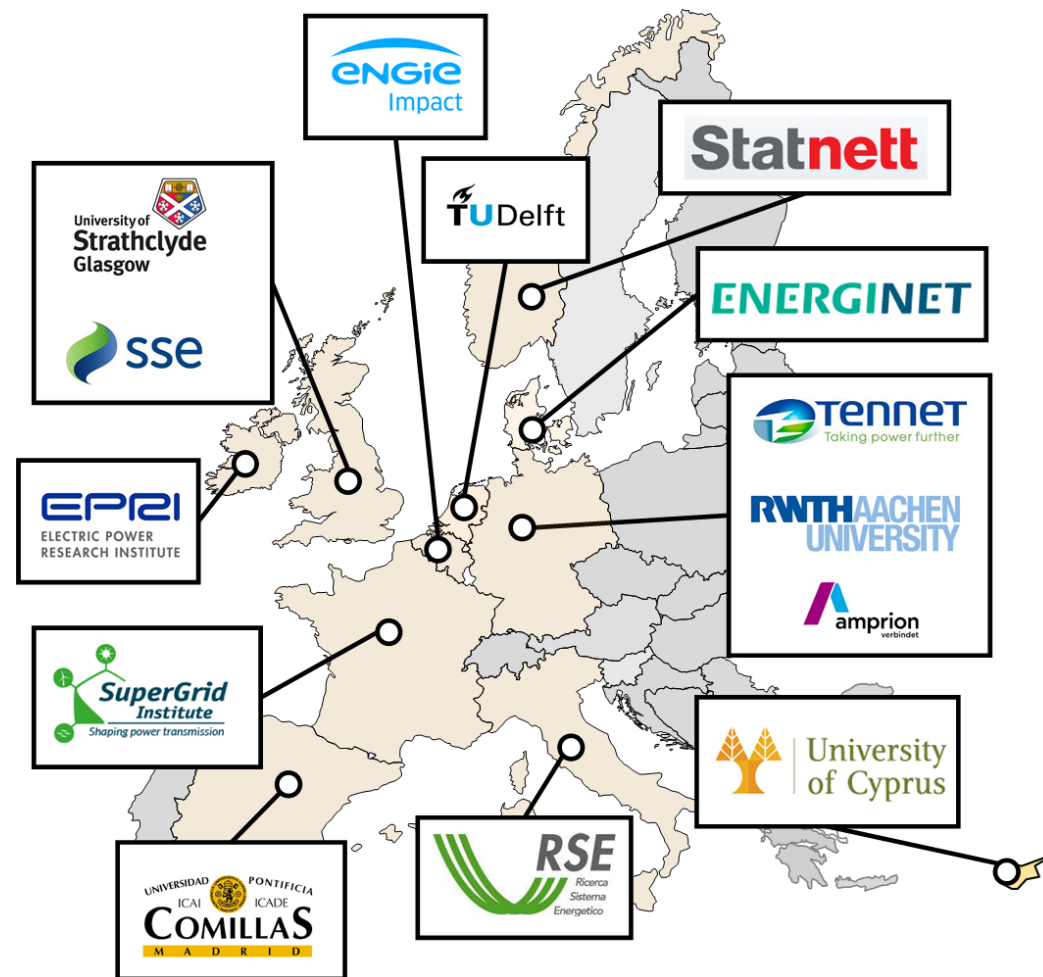
UK Research and Innovation (UKRI) funding for **HVDC-WISE** is provided under the UK government's Horizon Europe funding guarantee [grant numbers 10041877 and 10051113].

PROJECT INTRODUCTION



HVDC-based grid architectures for reliable and resilient **WideSprEad** hybrid AC/DC transmission systems

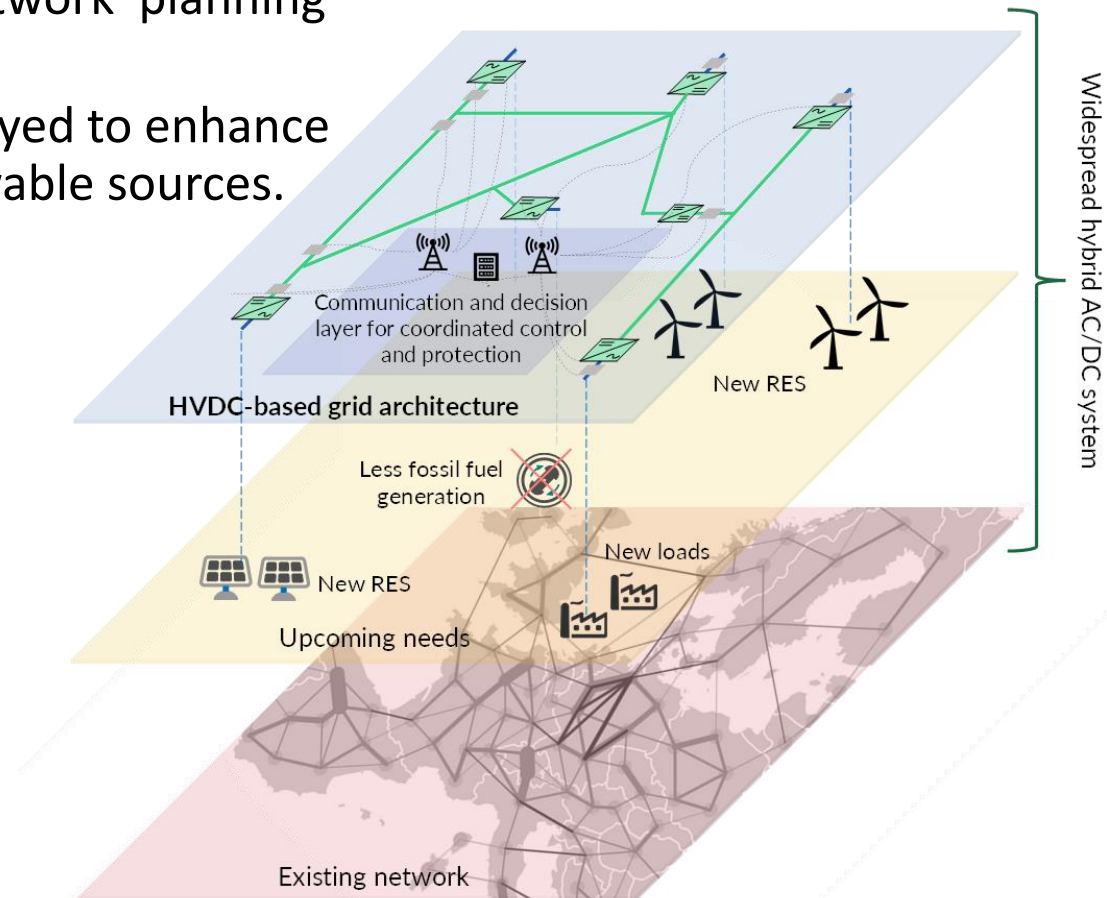
- Duration : 42 months (Started on 1st October 2022)
- 14 partners from 10 different countries



GENERAL OBJECTIVE

The goal of HVDC-WISE is to contribute to the development of hybrid AC/DC transmission grids by :

- Creating new reliability and resilience (R&R)-oriented network planning and analysis tools.
 - Identify HVDC-based grid architectures that can be deployed to enhance system R&R and facilitate the integration of new renewable sources.
- HVDC-based grid architecture concepts are the combination of:
- HVDC configurations
 - Technological components
 - Operation algorithms (C&P)
 - Deployment plan



PROJECT INTRODUCTION

HVDC-WISE aims to leverage the full potential of HVDC to enhance the Resilience and Reliability (R&R) of transmission systems (including reducing the inherent risks of HVDC), via their effective planning and operation



Resilience
and Reliability
(R&R)

WORK BREAKDOWN STRUCTURE

Phase 1: Definitions, expectations and solutions
(grid architectures and R&R-oriented planning toolset)

Phase 2: Value demonstration



WP2 : Requirements, opportunities, frameworks, and demonstration needs for R&R of future AC/DC systems



WP3 : Concept architectures for reliable and resilient AC/DC systems



WP4 : Enabling technologies for future AC/DC hybrid systems



WP5 : Simulation tools for R&R-oriented planning and operation of hybrid AC/DC power systems



WP6 : R&R-oriented network expansion planning methodology: application to use cases



WP7 : Validation of control and protection concepts on EU representative use cases

Two transversal WPs



WP1 : Project management



WP8 : Pathways towards hybrid AC/DC grids: dissemination and exploitation

THANK YOU!

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Innovate UK supports **HVDC-WISE** project partners through the UK Research and Innovation Horizon Europe Guarantee scheme.