

Coordinator



Consortium



DC Foundations



Associated Partners



shift2dc.eu



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Shift2DC

SHIFT to Direct Current

Revolutionizing the
way we use electricity.

The **SHIFT to Direct Current (SHIFT2DC)** project introduces a new approach on the way direct current (DC) solutions are used in our power systems by creating smarter, more efficient, and eco-friendly energy systems. Focusing on the integration of DC solutions in four main infrastructures - Datacenters, Ports, Buildings, and Industry - Shift2DC expects to reshape the way we use electricity.

Funded by the Horizon Europe research and innovation program, the Project counts on the expertise of 21 partners and 6 affiliated partners from thirteen countries, and is led by the Portuguese Research & Innovation Institute **INESC-ID**.

Throughout the Project 42 months, the consortia will establish comprehensive guidelines and a roadmap for the widespread application of DC solutions in diverse energy scenarios to develop, test and demonstrate the technical feasibility, cost-benefit, life cycle and environmental impact of the proposed DC solutions in four demonstrators: two across Germany (Datacenter and Industry), one in France (Building), and one in Portugal (Port) to test medium voltage DC (MVDC) and Low Voltage DC (LVDC) solutions.

Shift2DC in Numbers



42 months



21 partners +
6 affiliated



December 2023
to June 2027



13 Countries



4 Demos



11 M€
EU Funding

The Four Demonstrators



Buildings

France

The real-life commercial building demonstrator will be developed in France. The planned DC infrastructure will supply all DC compatible power needs of the building including the connection of PV system, DC/DC EV charging stations, heat pumps, a battery energy storage system as well as the traditional loads.



Data Centre

The Data Centre Demonstrator located at the premises of Bachmann (Germany), will be set up in a container, housing two different compartments both supplied by the same DC distribution grid.



Industry

Germany

The industry demonstrator will be performed at EATON/RWTH, where MVDC connection and protection systems will be demonstrated, and in PHOENIX, where LVAC/LVDC interface will be tested.



Ports

Madeira, Portugal

The Port Demonstrator will be implemented in Funchal (Madeira Island) and has two main objectives: to study the potential of DC in Ports by leveraging a Digital Twin of the Funchal Port and to analyze user perspectives.