EXECUTIVE SUMMARY

The SCARLET project will develop and industrially manufacture superconducting cable systems at the gigawatt level, bringing them to the last qualification step before a commercial installation, with the key objectives being:

- Development, industrial manufacturing, type test, and demonstration of full-scale high-temperature superconducting cables cooled with liquid nitrogen for a bipolar 1 GW link (±50 kV/10 kA)

- Design of offshore superconducting links cooled with liquid nitrogen for bipolar 1 GW power transfer (±50 kV/10 kA)

- Development, industrial manufacturing, type test, and demonstration of full-scale MgB_2-based superconducting cables cooled with liquid hydrogen for a bipolar 1 GW link (±25 kV/20 kA)

- Simulation of comprehensive electric system use cases, their protection requirements, and design and demonstration of a protecting fault current limiter module able to handle a nominal current of 10 kADC

The purpose of the Data Management Plan (DMP) is to contribute to good data handling by describing what research data the project expects to use, data handling principles, and an assessment of what data can be shared with the public or why data cannot be open. Furthermore, it gives instructions on naming conventions and metadata structure.

Ethical aspects related to data collection, generation and sharing have been considered. All datasets will be uploaded, stored and handled in accordance with national and European rules on data protection and privacy. Metadata will be added to all datasets, and instructions on how to upload, store, publish and preserve research data is provided in this document.

The SCARLET project will use Zenodo, a trusted and OpenAire compliant data repository to comply with the FAIR data principles.

Each public dataset will be given a persistent identifier (Digital Object Identifier, DOI), supplied with relevant metadata, and linked to the project acronym, full project name and grant agreement number. Publications and underlying research data will be linked, and a Creative Commons licence will regulate reuse of the SCARLET research results. Data security arrangements are defined.

The DMP is a living document and will be updated as the project proceeds. The final version of the DMP will be made available at the end of the project. It will include instructions for how to access and reuse open research data from this project.