# Mandate for Implementation Working Group on Direct Current Technologies

Adopted by the Steering Group on

18 February 2026

The **IWG Direct Current Technologies** (DCT) is established by the SET Plan Steering Group (SG) to support the implementation of the SET Plan in this technology area. The scope of the IWG DCT working group is to support the research, innovation and implementation in the domain of **future electric power systems, using direct current technologies**. It supports direct current technologies at all voltage levels: for transmission, distribution and behind the meter applications. It works under the supervision of the SG to whom it reports regularly. To carry out its tasks, the IWG will benefit from the expertise, support and tools provided by the Commission (e.g., Joint Secretariats (CSAs), the SET Plan information system - SETIS, the Clean Energy Technology Observatory project) and the knowledge the experts of the group contribute.

Presently **the IWG-DCT** does not have a corresponding European Technology and Innovation Platform (ETIP) but **operates as a single entity** encompassing on the one hand a **core group of country representatives**, including also the European Commission, and on the other hand (currently) **two technical subgroups[1], including industry, research and academia stakeholders focussing respectively on HVDC and LVDC**, jointly acting as an ETIP.

**The IWG oversees the development of a 'Common Implementation and Investment Plan' (CIIP).** The CIIP consists of:

1. a Thematic Vision (TV),
2. a Strategic Research and Innovation Agenda (SRIA),
3. an Implementation and Investment Commitments (IIC).

**In this context, the IWG shall:**

1. Develop a **Thematic Vision for the technology area** of Direct Current Technologies, establishing ambitious and achievable short-term (up to 2030), medium-term (up to 2040), and long-term (up to 2050) **goals on the development, manufacturing and market uptake** of this technology in Europe.

*The **IWG Country representatives core group will develop** this Vision **in close collaboration with its technical subgroups** by May 15, 2026.*

*It shall be based on solid evidence and foresight, and outline short-, medium- and long-term goals. The goals may include corresponding targets where relevant, such as but not limited to: technological performance, maturity and progress to commercialisation; manufacturing capacity in Europe; intellectual property metrics; and emissions reductions.*

*The resulting Thematic Vision will be submitted to the SG for discussion and endorsement. The SG can identify if additional evidence or analysis is required.*

[1] The Technical subgroups currently include European associations representing Europe's grid technology providers, wire and cable manufacturers, transmission system operators, (medium)-low-voltage direct-current grids actors, wind energy industry, as well as individual experts from companies, academia, private or national research centres active in these fields, and representatives of the Horizon Europe BRIDGE initiative.

2. Oversee the stakeholder community's development of a European **Strategic Research and Innovation Agenda (SRIA)** which aims to achieve the vision.

*The IWG Country representatives core group will entrust the **development of a SRIA to its technical subgroups**, by October 15, 2026.*[2]

*The SRIA shall identify the **specific R&I priorities and activities, corresponding KPIs and the level of funding needed** in Europe to achieve the Thematic Vision's goals. Where appropriate, the SRIA should also include **recommendations on enabling framework conditions for manufacturing and market uptake** (e.g., regulatory, fiscal, standardization) that should accompany and help realize the Thematic Vision's goals. This process may benefit from the input of the CETPartnership, Driving Urban Transitions Partnership, the European Energy Research Alliance, etc.*

*The resulting SRIA shall be well-aligned with the Thematic Vision and submitted to the SG for discussion and endorsement. The SG can identify if additional evidence or analysis is required.*

3. Identify and collect **Implementation and Investment Commitments (IICs)** based on national and EU priorities.

*The IWG Country representatives core group will organise and steer the discussion among all relevant actors (EC, MS, industry, research organizations, academia) on how to best implement the endorsed SRIA, in order to develop the Implementation and Investment Commitments by Q1 2027.*

*It will aim to build the broadest possible consensus on a **common implementation approach (e.g., priorities, timing, resources)** and will facilitate **agreement on the allocation of efforts between public and private actors** and **identify their respective investment R&I commitments.***

**Monitoring and reporting** on the progress of the **Common Implementation and Investment Plans (CIIP).**

The CIIP shall include a description of indicators for monitoring progress and identifying bottlenecks. This exercise will be based on the guidance devised by the Commission to ensure a level of comparability across the working groups. The IWG will then annually assess the progress made in the implementation of the CIIP by the different actors via the harmonised annual SETIS exercise. The Steering Group and the European Commission can identify potential gaps, lagging areas, and new/emerging issues in order to suggest a revision of the CIIP.

[2] In some rare cases, IWGs might not have corresponding ETIPs. In these specific situations, the IWG can involve other stakeholder organisations involved in the SET Plan (i.e., partnerships, industrial association, dedicated technical sub-group of the IWG) to act as an ETIP, until a formal ETIP is set up and endorsed by the Steering Group or another structure is formally tasked to act as such by the Steering Group.