

HECATE

Hybrid Electric regional Aircraft distribution Technologies.

Description and objectives

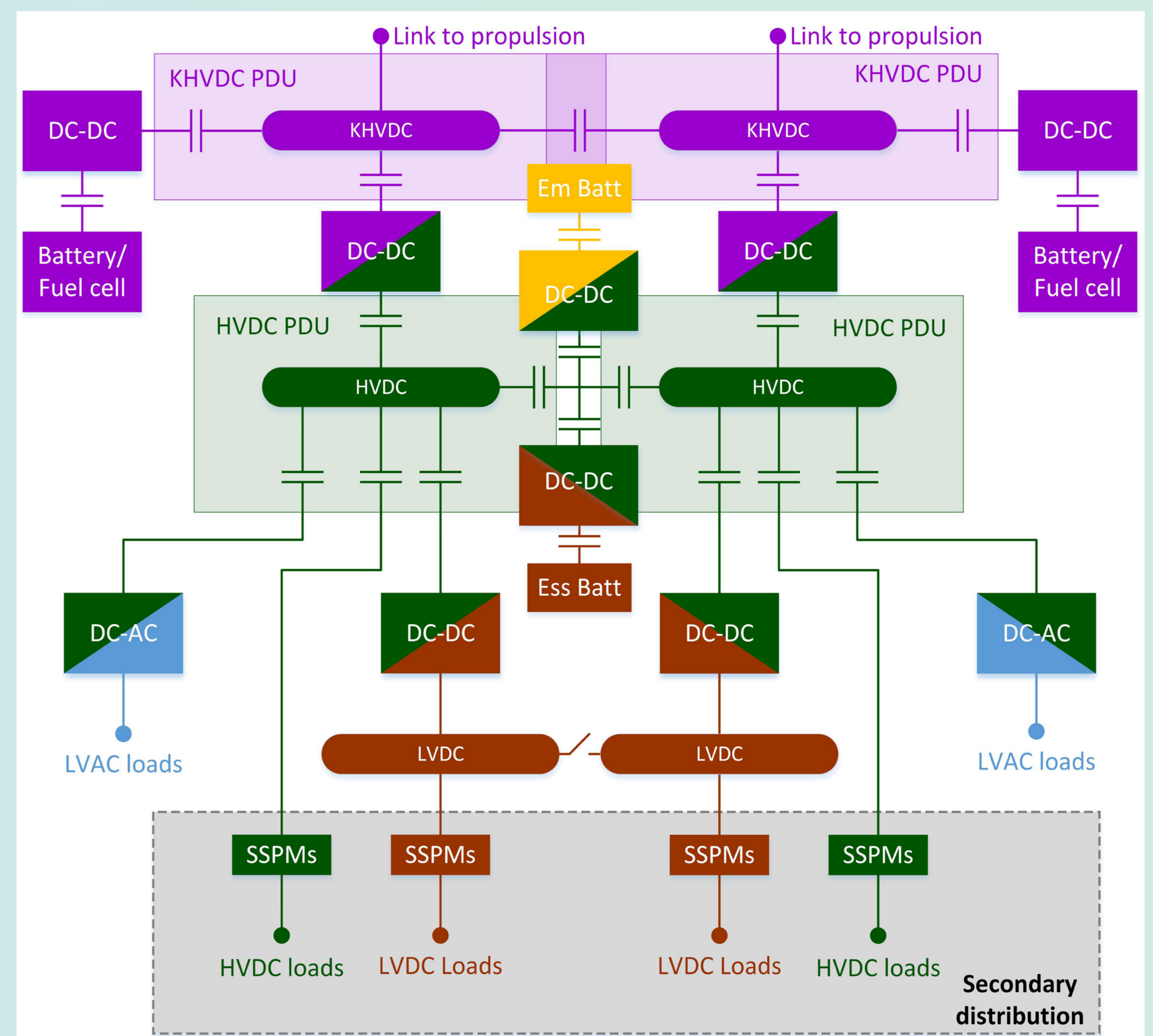
HECATE project targets the development of technologies for power distribution networks that can safely handle the high-power and high-voltage levels needed for future hybrid-electric aircraft platforms.

Next steps ahead

Fully aligned with Clean Aviation research agenda and its overarching objective of decreasing net emissions of greenhouse gases by no less than 30%, HECATE technologies will transition to Clean Aviation phase 2 to be further progressed towards a flight demonstrator.

Progresses in the last three years

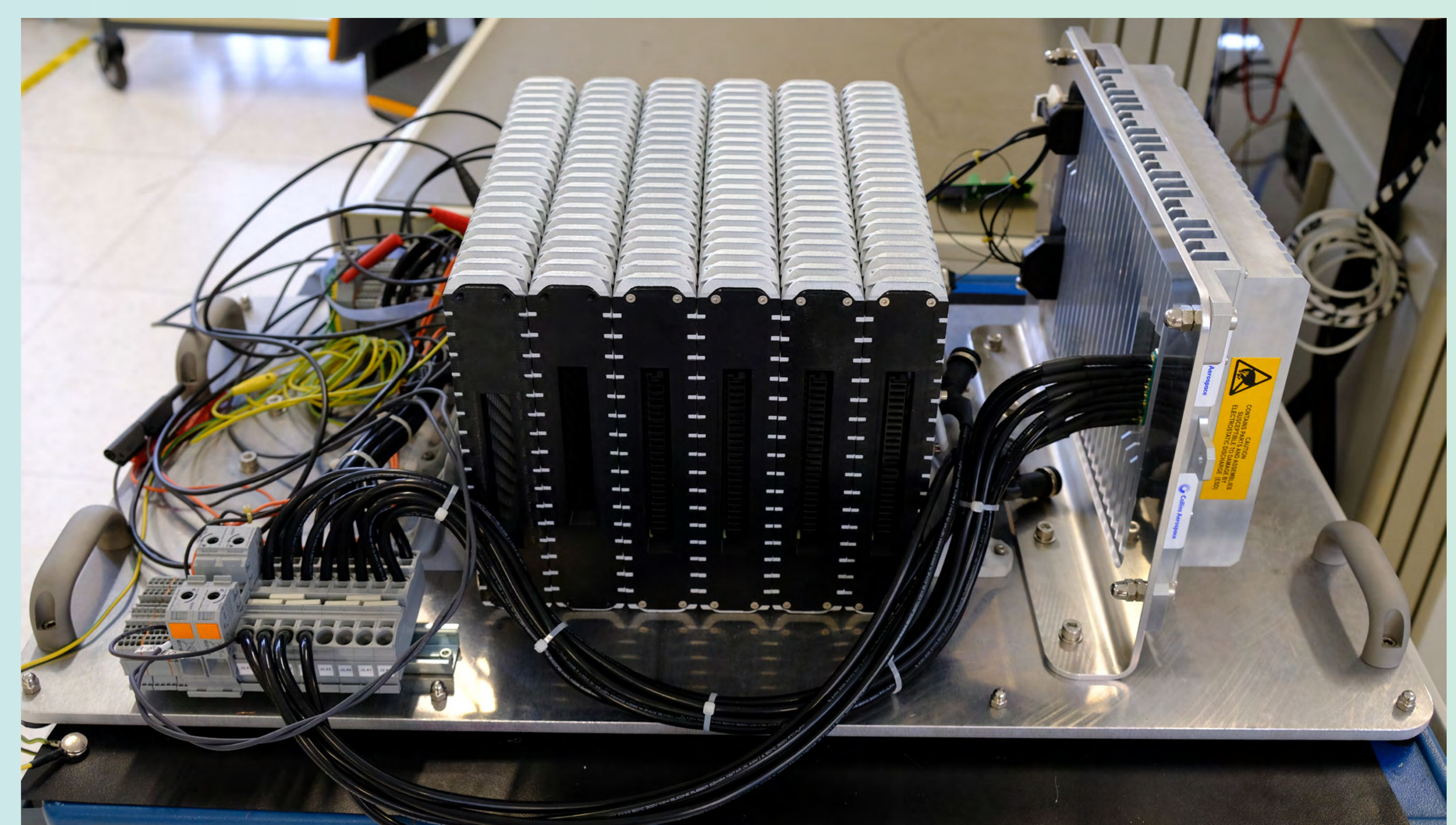
- Definition of the top-level requirements, the electrical distribution architecture, and the certification challenges towards a viable commercial use.
- Definition of an adequate Verification and Validation (V&V) strategy for final integration, testing at a representative test bench in line with the design phase, and maturation of TRL for the different technology bricks.
- Conclusion of the design phase and manufacturing of prototypes for the different components, and successful achievement of their associated Critical Design Reviews (CDRs) and Test Readiness Review (TRR).
- Integration and testing of all different enabling electric-power distributions technology bricks at Copper Bird achieving a TRL5 for HECATE electrical architecture.



HECATE electrical power system (EPS) architecture (©HECATE PROJECT).



HECATE technologies at Copper Bird (©Safran Electrical & Power).



HECATE SPDU Unit & HVDC power converter (©COLLINS AEROSPACE).

PARTICIPANTS
38

PARTICIPATING COUNTRIES
11

€M OF EU FUNDING
34

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