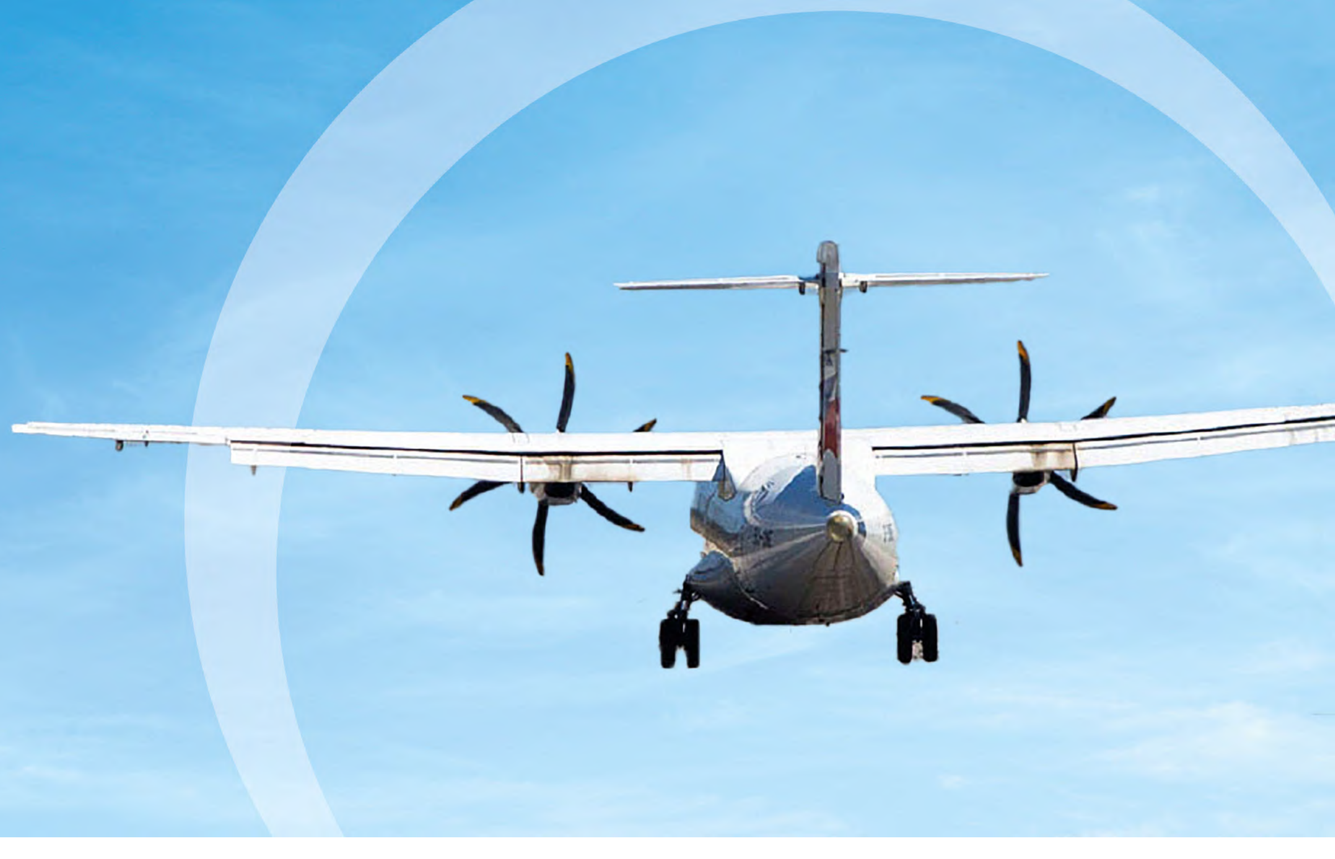
HECATE

NEW HIGH-VOLTAGE ELECTRIC POWER DISTRIBUTION TECHNOLOGIES
for Regional Aircraft



CONTEXT AND OBJECTIVES

HECATE aims to deliver transformative technologies to electrical distribution for future Hybrid Electric Aircraft:

- High-power, high-voltage and certifiable electrical distribution for electrical architectures.
- Technology enablers at TRL5 in hybrid-electric propulsion for regional platforms with potential use for other aerospace domains (UAM, SMR, etc.)
- Contribute to the reduction of aircraft greenhouse gases toward the objectives of -30% net GHG emission reduction by 2035 and of zero emissions by 2050.

Each subobjective is supported by specific contributing partners.

01
Development of a holistically optimized electrical architecture
10 of our partners committed

02
Technology brick development to TRL5
22 of our partners committed

03
Mitigation of HV phenomena and EMI
9 of our partners committed

04
Development of digital twins
8 of our partners committed

05
Achieve a certifiable electrical distribution architecture
6 of our partners committed

06
Technology roadmap toward near and long term electrical architectures
9 of our partners committed

APPROACH

- Definition of the electrical distribution architecture and specifications.
- Development and maturation of transformative technologies in the electrical distribution.
  — *Supported by transversal activities: digital twins and EMI/EMC*
- Demonstration and integration at COPPER bird ground test.
- Road mapping, impact, scalability to future platforms based on acquire know-how and LCA.
  — *Readiness of technologies toward CA Phase 2 and commercial exploitation*

Project requirements & architecture definition → **Transversal activities** → **Technology bricks** → **COPPER bird integration & demonstration** → **Roadmapping to 2035 impact, scalability and LCA** → **CA: Phase 2** / **Commercial exploitation**

CONSORTIUM

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DISCOVER MORE

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Co-funded by the European Union

Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or Clean Aviation. Neither the European Union or the granting authority can be held responsible for them.

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