



HYBRID-ELECTRIC REGIONAL ARCHITECTURE

“Designing the third-era of Aviation”

About HERA

Aviation has, slowly but steadily, taken the path of decarbonization toward sustainable sources of energy.

In addition, there is a considerable increase in the use of regional AirCrafts (A/Cs) providing effective connections on essential routes without discontinuity. For these reasons, regional aviation is expected to form the foundation of future aerial mobility which is about to change unprecedently.



To achieve 50% of GHG reduction by 2035



Passenger number 50-100
Typical distances < 500 km

HERA aims to identify and trade off the concept of a regional A/C, serving the need for sustainability.

The high-level goals are, first, to develop the required A/C-level technologies and, second, to integrate the required enablers to meet the 50% less technology-based Green House Gas (GHG) emissions. The HERA A/C will include hybrid-electric propulsion based on batteries or fuel cells, as energy sources, supported by Sustainable Aviation Fuels (SAF) or hydrogen burning for the thermal source, to reach up to 90% lower emissions.

HERA Objectives

To define the potential hybrid-electric regional (HER) A/C concept targeting 2035 Entry Into Service (EIS) including key performance, architectures, systems enabling hybrid-electric propulsion, and new power sources.

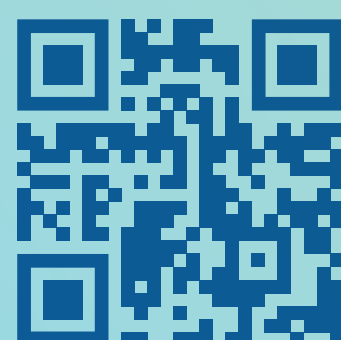
To provide the real-scale demonstrators -in-flight and on-ground- to be performed after 2025 in Clean Aviation supporting the hybrid-electric validation at high Technology Readiness Levels (TRL) of the widest set of solutions useful to support the next development of an actual regional A/C.

HERA Methodology

1 Phase Definition of the HER A/C concept targeting 2035 EIS

2 Phase Definition and assessment of real-scale demonstrators in - flight and on - ground to be performed after 2025.

Connect with HERA



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48 months https://project-hera.eu



CLEAN AVIATION

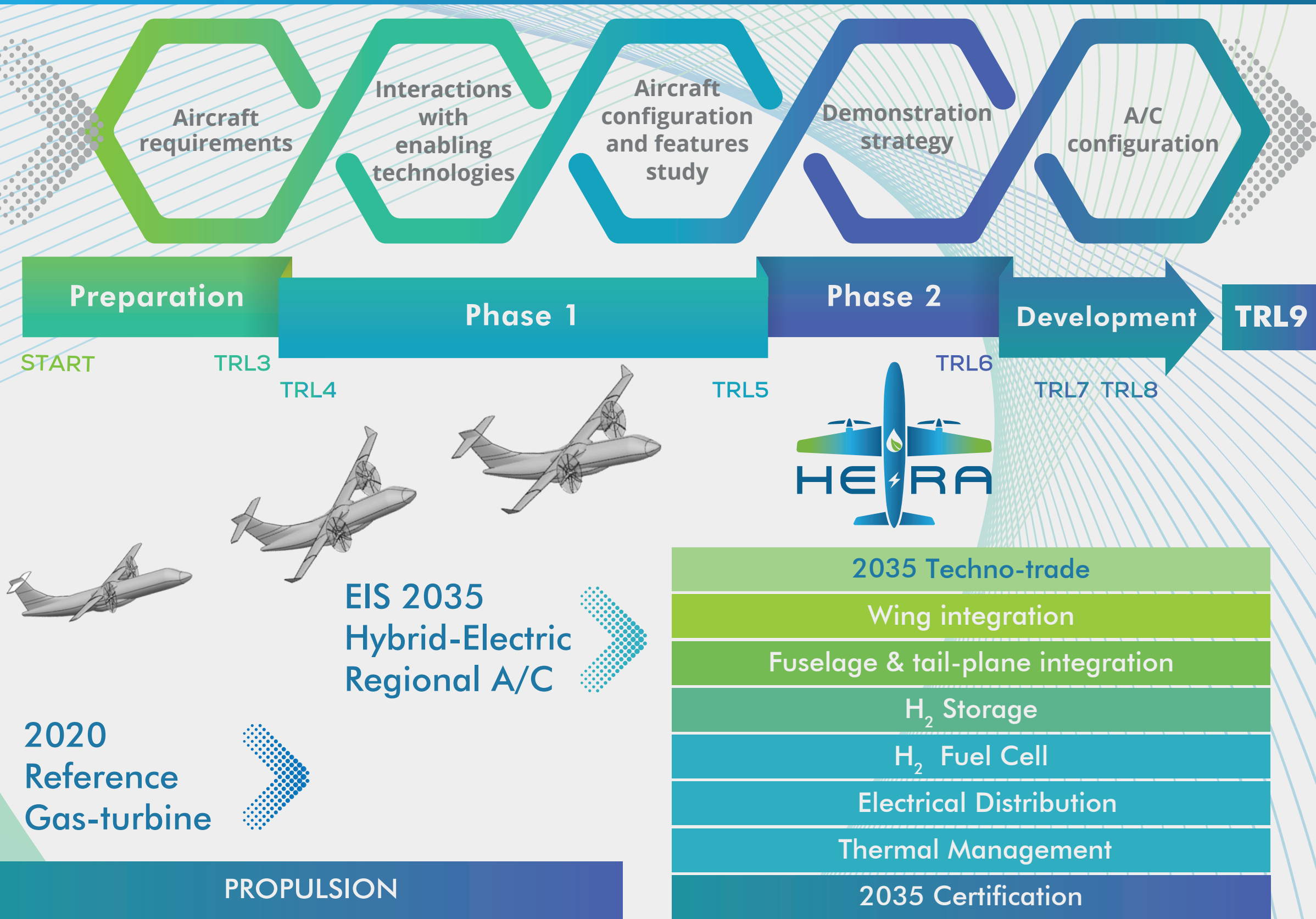


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ROADMAP toward a Hybrid-Electric Regional Aircraft for 2035 EIS



HERA Team

