

PROJECT

TRANSCEND

Technology Review of Alternative and Novel Sources of Clean Energy with Next-generation Drivetrains

Funding: European (Horizon 2020)

Duration: Oct 2019 - Mar 2022

Status: Ongoing

Total project cost: €348,335

EU contribution: €348,335



Call for proposal: H2020-CS2-CFP09-2018-02

[CORDIS RCN : 225289](#)

Objectives:

TRANSCEND (Technology Review of Alternative and Novel Sources of Clean Energy with Next-generation Drivetrains) is initiated by the research centre NLR in response to the Clean Sky 2 CfP9 under the topic "Alternative energy sources and novel propulsion technology".

The objective of TRANSCEND is to shape the future of green aviation propulsion in 2050, complementing the development plan of Clean Sky 2. TRANSCEND evaluates the environmental impact at aircraft and air transport levels of alternative energy sources and novel propulsion technology for aircraft with entry-into-service before 2050.

In addition, TRANSCEND provides a TRL-based technology roadmap for promising propulsion technologies and a roadmap regarding economic viability and availability for the associated alternative energy sources. Support for TRANSCEND results is generated from the start through the Advisory Board, which consists of representatives of stakeholders for exploitation (e.g., KLM, EASA).

TRANSCEND will base its results on a thorough literature study, complemented with interactions with numerous experts, including three expert workshops. We will evaluate alternative energy sources and novel propulsion technologies, their integration into aircraft, and their diffusion into seat classes into the air transport system. We will generate support of stakeholders and experts through dedicated communication and dissemination.

NLR's strong track record in propulsion technology and, partly in alternative energy sources, NLR's extensive experience in Clean Sky and European innovation (RIAs, IAs) and policy support (in CSAs and nationally), and the broad network of NLR motivates this application. Delft University of Technology (TUD) as TRANSCEND partner adds its expertise, experience, and network in alternative energy sources.

The TRANSCEND total grant request to the JU is €348,335. The project will be conducted in 30 months in close alignment with the topic leader and other stakeholders.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other programmes: JTI-CS2-2018-CfP09-TE2-01-07 - Alternative energy sources and novel propulsion technologies

Lead Organisation:

Stichting Nationaal Lucht En-Ruimtevaartlaboratorium

Address:

Anthony Fokkerweg 2
1059CM AMSTERDAM
Netherlands

Organisation Website:

<http://www.nlr.nl>

EU Contribution: €291,613

Partner Organisations:**Technische Universiteit Delft****Address:**

STEVINWEG 1
2628 CN DELFT
Netherlands

Organisation Website:

<http://www.tudelft.nl>

EU Contribution: €56,723

Technologies:

Alternative fuels
Alternative aviation fuels

Development phase: Research/Invention

Aircraft propulsion
Highly efficient aircraft engine

Development phase: Research/Invention

STRIA Roadmaps: Vehicle design and manufacturing, Low-emission alternative energy for transport

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Environmental/Emissions aspects

Geo-spatial type: Other