

PROJECT

MAGLEV

Measurement and Analysis of Generator bearing Loads and Efficiency with Validation

Funding: European (Horizon 2020)

Duration: Oct 2019 - Nov 2021

Status: Ongoing

Total project cost: €1,009,345

EU contribution: €1,009,345



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

[CORDIS RCN : 225393](#)

Objectives:

The project (MAGLEV) objective is to make a significant contribution to the new class of bearing relief generators. This contribution will be developed by building a demonstrator machine. Technical methods will be developed to reduce misalignments and vibrations of the generator, enabling operation at higher power density and efficiency compared to the existing solutions.

MAGLEV will develop cutting edge IP, which could change the world of electrical machines completely if successful and should be able to secure and enhance EU industries' competitiveness.

MAGLEV includes challenging tasks such as measuring shaft instantaneous position and bearing loadings accurately in dynamic operating conditions at high speed, developing a control technology to emulate the loads on the generator with a bearing relief system, the commissioning of the demonstrator machine, obtaining test data, and validating the simulation results with test data.

Close and efficient communication with the Topic Leader is one of the key success factors in MAGLEV.

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-SYS-03-20 - Demonstration and test of low-loss, high reliability, high speed, bearing-relief generators

Lead Organisation:

Romax Technology Limited

Address:

Romax Technology Centre University Of Nottingham Innovation
Nottingham
NG7 2TU
United Kingdom

Organisation Website:

<http://www.romaxtech.com>

EU Contribution: €538,530

Partner Organisations:

Rheinisch-Westfaelische Technische Hochschule Aachen**Address:**

Templergraben
52062 Aachen
Germany

Organisation Website:

<http://www.rwth-aachen.de>

EU Contribution: €470,815

Technologies:

Road vehicle design and manufacturing
Novel gearbox concepts

Development phase: Research/Invention

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Multimodal transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Other specified

Geo-spatial type: Other