

PROJECT

QUICK

Quick Disconnect System

Funding: European (Horizon 2020)

Duration: Nov 2018 - Oct 2021

Status: Ongoing

Total project cost: €599,386

EU contribution: €599,386



Call for proposal: H2020-CS2-CFP07-2017-02

[CORDIS RCN : 218816](#)

Objectives:

The Quick Disconnect System (QUICK) project brings the world leading expertise in mechanical, electrical and control engineering focused on aerospace applications at the University of Nottingham (UNOTT) to design, develop, manufacture, test and qualify up to demonstrator test levels, a quick disconnect system intended to be installed on future energy-optimised aircraft. A novel, highly robust and reliable fault detection and mechanical isolation system will be developed aimed at reducing the risks associated with potentially highly dissipative failure modes that high-performance electrical power generator technologies will require in the near future.

Delivery of the QUICK system will be supported by UNOTT's innovative design and prototyping capabilities and underpinned by UNOTT's internal quality control (QC) and commercial experience. UNOTT has a proven record of working across the range of technology readiness levels (TRL), from fundamental research up to flight demonstrators for aircraft technologies, up to TRL 6. This includes the required simulations and physical hardware testing. UNOTT has world leading laboratory-based test facilities for electrical and mechanical systems including, electrical machines (EM), power electronics (PE) and aircraft electrical systems (see Section BII). Such examples include

- Electric taxiing motor realised up to TRL5
- FIRS3T power electronics for stop/start systems, realised up to TRL7
- AEGART starter-generator and associated PE, realised up to TRL5
- HEMAS actuator systems, realised up to TRL5
- Helicopter landing gear equipment for extraction/retraction and steering
- Various power generations products

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-CS2-2017-CfP07-LPA-01-44 Quick Disconnect System

Lead Organisation:

The University Of Nottingham

Address:

University Park
Nottingham
NG7 2RD
United Kingdom

EU Contribution: €599,386

Technologies:

Aircraft design and manufacturing
Electro-Mechanical Actuators (EMAs)

Development phase: Demonstration/prototyping/Pilot Production

Aircraft design and manufacturing
Power electronics

Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Other specified

Geo-spatial type: Other