

PROJECT

## InductICE

# Efficient, Modular and LightWeight Electromagnetic Induction Based Ice Protection System

**Funding:** European (Horizon 2020)

**Duration:** Jul 2016 - Jun 2019

**Status:** Complete

**Total project cost:** €252,578

**EU contribution:** €252,578



**Call for proposal:** H2020-CS2-CFP02-2015-01

[CORDIS RCN : 205684](#)

### Objectives:

The general goal of the Project is to reach an efficient, modular and lightweight electromagnetic induction based ice protection system, which uniformly heats the wing leading edge surface.

One of the main objectives of the induction based ice-protection system is to achieve at least a 95% heating efficiency. In addition to efficiency, ice-protection system speed is essential in order to act on time and accurately without excessive on-board system consumption. Therefore, another one of the objectives of this project is to improve the speed, while providing a precise and targeted control of the generated heat facing the drawbacks of current on-board ice-protection systems. Finally, the weight of the whole solution must be minimized, essential in on-board aircraft systems. The final objective is to reach an ice-protection system with at least the same weight as current on-board ice-protection systems or on the contrary, the sum of its weight and its impact on on-board resources due to its high heating efficiency must be at least equal to current ice-protection solutions.

### 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)

### Lead Organisation:

#### Ikerlan - Technological Research Centre

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Spain

**Organisation Website:**

<http://www.ikerlan.es>

**EU Contribution:** €252,578

### Technologies:

Aircraft design and manufacturing  
Electromagnetic induction based ice protection system

**Development phase:** Research/Invention

**STRIA Roadmaps:** Vehicle design and manufacturing

**Transport mode:** Air transport

**Transport sectors:** Passenger transport, Freight transport

**Geo-spatial type:** Other