

PROJECT

## NNEOS

### Nacelle cowl NExt generation Opening System

**Funding:** European (Horizon 2020)

**Duration:** Oct 2019 - Sep 2022

**Status:** Ongoing

**Total project cost:** €1,026,440

**EU contribution:** €718,508



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

[CORDIS RCN : 225291](#)

#### Objectives:

NNEOS (Nacelle cowl NExt generation Opening System)

NNEOS project is born to enable the use of new engines architectures like the UHBR (Ultra-High Bypass Ratio) that require shorter and slimmer nacelles and as a result a new approach to maintainability and accessibility of the engine.

Main objectives of the project:

- Improve safety and accessibility to engine zones for maintenance/repairation through the development of an electromechanical actuator that integrates the functionalities of opening/closing the cowls as well as holding them at the open position during maintenance task;
- Optimize weight and dimensions with a design that favours the integration within the nacelle available space envelope;
- At a system level, provide a potential reduction for the volume required for the equipment by 15%;
- At a system level, the aim is to achieve a 10% weight reduction associated to the system and connections when compared to the current systems being used;
- Contribute to the reduction of the development time of the future engine architectures by 10%, through the optimisation of system integration for the power plant systems Provide a friendly design that is easy to use but ensures a safe operation of the nacelles;
- Bring the technology to TRL6.

#### 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-LPA-01-71 - Innovative Nacelle cowl opening system

#### Lead Organisation:

**Compania Espanola De Sistemas Aeronauticos**

**Address:**

AVENIDA JOHN LENNON 4  
28906 MADRID (GETAFE)  
Spain

**Organisation Website:**

<http://www.cesa.aero>

**EU Contribution:** €718,508

## **Technologies:**

Aircraft design and manufacturing  
Morphing engine nacelle

**Development phase:** Demonstration/prototyping/Pilot Production

**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