

# Environmental research — Rotorcraft NOISE



## Contractor

NLR

## Consortium Members

SINTEF AS,  
Anotec Engineering

## Contract period

27/05/2020 - 26/05/2024

## Budget

900 000 €

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## Main objectives

To support the full scope of noise monitoring activities required by the **European Environmental Noise Directive (END) 2002/49/EC** as well as the impact assessment of future aircraft noise policies, an adequate noise modelling capability that encompasses all types of aircraft is required.

**The current international guidance** on aircraft noise modelling (e.g., ICAO Doc 9911, ECAC Doc 29, or Directive 2015/996) is limited to fixed-wing aircraft and does not cover rotorcraft, drones and new urban mobility aircraft. Defining a validated noise modelling methodology for these transport modes is therefore a high priority for the EU.

**The objective** of this Horizon2020-funded project has been to develop and validate a full-fledged noise modelling capability for all rotorcraft, representative of today's and of future operations. This includes the underpinning modelling methodology, the corresponding modelling software and the experimental datasets required to address the intended coverage, thereby increasing the European modelling capability for a wide range of future aviation policy assessments.

**The experimental tests** include large helicopters to complement previous campaigns.

**The upgraded tool** can be used by Member States, EASA, the European Commission, ICAO, research centres and the academia.

**The framework contract** is implemented through 3 specific contracts.

## Impacts & benefits

The expected research results will be used for the assessment of aircraft noise footprints, in particular for the extension of current helicopter noise models towards ensuring the coverage of current types of helicopters within the European fleet and the extension of prevailing modelling approaches to new aircraft concepts.

*EASA-managed projects address research needs of civil aviation authorities and are geared to generate mid-term benefits after the successful completion to enhance safety, security, and sustainability.*

