

PROJECT

CLAIRPORT

Clean Sky 2 - Airport Environmental Impact Assessments for Fixed-wing Aircraft

Funding: European (Horizon 2020)

Duration: Oct 2017 - Dec 2021

Status: Ongoing

Total project cost: €549,190

EU contribution: €549,190



Call for proposal: H2020-CS2-CFP05-2016-03

[CORDIS RCN : 211580](#)

Objectives:

CLAIRPORT is cross-positioned in Clean Sky 2 and part of Clean Sky 2 TE, with the aim to quantify the environmental impact at airport level of technologies developed in Clean Sky 2 for fixed-wing aircraft. This impact includes noise on ground and population exposed to noise, and emissions and their contribution to air quality. Quantifications are carried out for real European and generic airports, and timescales 2015/2020/2035/2050. Relevant improvements in airport operations from SESAR/SESAR 2020 are taken into account.

CLAIRPORT also aims to impact target stakeholders through customised communication means. Two innovative means are investigated: a noise simulator enabling people to realistically experience sound and visuals of an aircraft flyover in a virtual reality environment, and a serious game addressing the relationship between air traffic volume and environmental impact using reference aircraft versus Clean Sky 2 aircraft.

Building on the concept successfully applied in the earlier Clean Sky TE, CLAIRPORT's concept is twofold:

1. for communication it determines stakeholders who are impacted by its results
2. it sets the quantification process

This process compares, for each airport and timescale, the environmental performance of two scenarios: one is a flight schedule with reference aircraft and the other is the same flight schedule with Clean Sky 2 aircraft replacing their reference to assess the full potential of Clean Sky 2. In each case air traffic is realistically simulated and the simulation results are input to noise and emission models.

CLAIRPORT expects to impact Clean Sky 2 TE (by complementing the other assessments), Clean Sky 2 JU and Clean Sky 2 Members (by monitoring Clean Sky 2 achievements), EC and EU Member States (by assessing the level of success towards the ACARE 2050 and Horizon 2020 goals), the research community (by indicating opportunities for further research), and the local community (by making Clean Sky 2 benefits tangible).

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:

Stichting Centrum Voor De Ontwikkeling Van Transport En Logistiek In Europa

Address:

Van Nelleweg 1
3044 BC Rotterdam
Netherlands

Organisation Website:

<http://www.cetle.org>

EU Contribution: €549,190

Technologies:

Aircraft operations and safety
Future-proof airport

Development phase: Validation

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport
Societal/Economic issues, Environmental/Emissions

Transport policies: aspects

Geo-spatial type: Infrastructure Node