

PROJECT

## Modus

# Modelling and assessing the role of air transport in an integrated, intermodal transport system

**Funding:** European (Horizon 2020)

**Duration:** Jun 2020 - Nov 2022

**Status:** Ongoing

**Total project cost:** €1,527,914

**EU contribution:** €998,875



**Call for proposal:** H2020-SESAR-2019-2

[CORDIS RCN : 228456](#)

### Objectives:

The Modus project addresses the topic SESAR-ER4-10-2019 "ATM Role in Intermodal Transport". The main objective is the analysis of the performance of the overall transport system by considering the entire door-to-door journey holistically, and assessing the role of air transport within an integrated, intermodal approach. For this purpose, Modus identifies and assesses (future) drivers for passenger demand and supply of mobility in terms of their impact on passenger mode choice. This enables the development of multiple scenarios of future mobility paths, taking into account aspects such as new regulatory contexts meeting new environmental standards, or new transport operators' business models, covering a time horizon of 2030+.

An integrated modelling approach which includes the development of data-driven models of air and ground passenger transport in Europe is implemented to assess the impact across these scenario on airside and landside processes and capacities. This provides detailed insight in the impact a complementary intermodal alignment or competition may have on the air transport sector.

Using this insight into and modelling results of the future transport system, both quantitative as well as qualitative analyses, including a set of performance and connectivity indicators with specific business and operational targets and constraints, are applied to identify and assess the main gaps and barriers in achieving European (air) mobility goals. Based on these analyses, potential solutions in regard to processes, technologies and changes required to meet high-level European transport objectives are proposed, including, for example, recommending ways how air transport can evolve by efficiently connecting information and services with other transport modes to achieve the e.g. 4 hours door-to-door goal.

### 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:** SESAR-ER4-10-2019 ATM Role in Intermodal Transport

### Lead Organisation:

**Bauhaus Luftfahrt Ev**

**Address:**

WILLY MESSERSCHMITT STRASSE 1  
82024 TAUFKIRCHEN  
Germany

**Organisation Website:**

<http://www.bauhaus-luftfahrt.net>

**EU Contribution:** €221,220

## Partner Organisations:

### Union International Des Chemins De Fer

**Address:**

16 rue Jean Rey  
75015 PARIS  
France

**Organisation Website:**

<http://www.uic.asso.fr>

**EU Contribution:** €179,531

### The University Of Westminster Lbg

**Address:**

Regent Street 309  
London  
W1B 2UW  
United Kingdom

**EU Contribution:** €203,687

### Eurocontrol - European Organisation For The Safety Of Air Navigation

**Address:**

Rue De La Fusée 96  
1130 Bruxelles  
Belgium

### Fundacion Instituto De Investigacion Innaxis

**Address:**

Calle Marques De Lozoya 23 5A  
28007 Madrid  
Spain

**EU Contribution:** €169,625

### Ecole Nationale De L Aviation Civile

**Address:**

Avenue Edouard Belin 7  
31055 31055  
France

**Organisation Website:**

<http://www.enac.fr>

**EU Contribution:** €164,500

### Skymantics Europe SI

**Address:**

C/ CONDES DE ARAGON 18 12 A  
50009 ZARAGOZA  
Spain

**EU Contribution:** €60,312

## **Technologies:**

Aircraft operations and safety  
Big data analytics for management of ATM systems

**Development phase:** Research/Invention

Information systems  
Air traffic management systems

**Development phase:** Research/Invention

**STRIA Roadmaps:** Network and traffic management systems, Smart mobility and services

**Transport mode:** Air transport

**Transport sectors:** Passenger transport

**Transport policies:** Societal/Economic issues

**Geo-spatial type:** Other