Multimodal passengers of the future – passenger needs, expectation

Modus project

Workshop ‘Passenger-centred Mobility’
ART/ACARE/CAMERA
Online, June 16, 2021

Modus

SESAR JOINT UNDERTAKING

Founding Members

EUROPEAN UNION EUROCONTROL

This project has received funding from the SESAR Joint Undertaking under the European Union’s Horizon 2020 research and innovation programme under grant agreement No 891166.

Modus Objectives and Consortium

The high-level objective of Modus is to analyse how the **performance of the overall European transport** system can be optimized by considering the entire **door-to-door journey holistically** and considering air transport within an **integrated, intermodal approach**.

Understand
in a better way how ATM and air transport can better contribute to improve passengers' intermodal journeys and how this translates into an enhanced performance of the overall transport system

Explore and model
the connection and dependence between ATM/ air transport and other transport modes, with a special focus on the interplay between short and medium air and rail connections

Identify
the main barriers in achieving European (air) mobility goals and how air transport can evolve by efficiently connecting information and services with other transport modes to achieve the 4 hours door-to-door goal and a seamless journey experience for passengers.

Modus consortium

Website: https://modus-project.eu/

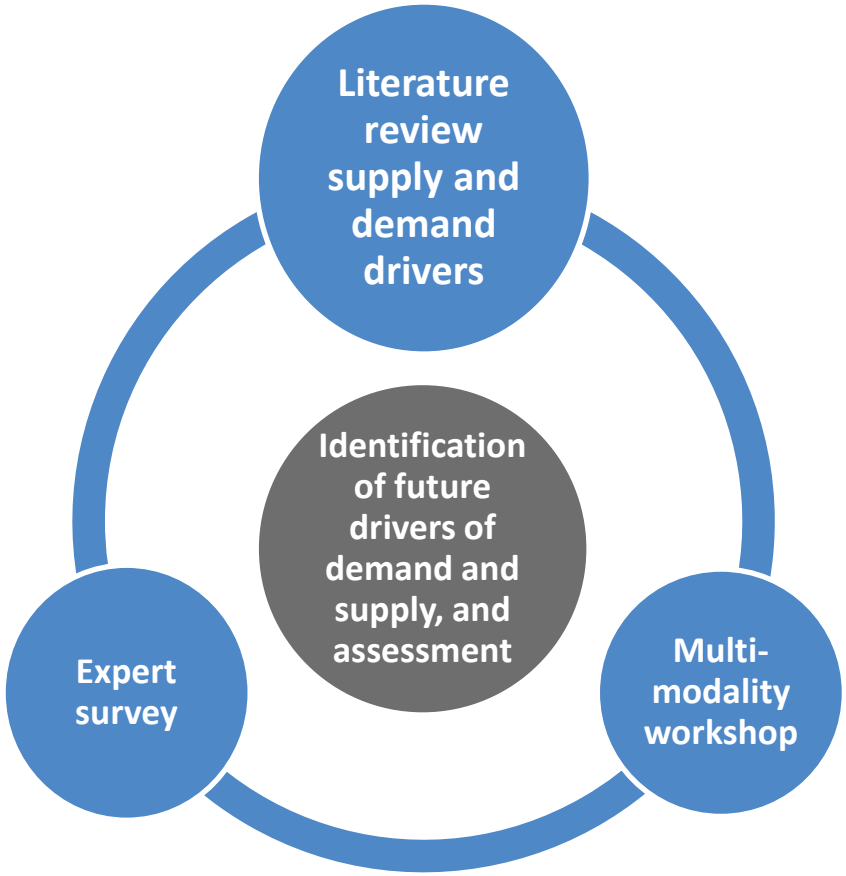
Call: ATM Role in Intermodal Transport (H2020-SESAR-ER4-10-2019)
Grant no. 891166
Duration: June 2020 – November 2022

Drivers of Multimodal Passenger Demand

Manifold challenges ahead!

- Enabling a **seamless passenger journey**, including multiple providers and information
- Meeting **environmental goals** and facilitating a sustainable transport system
- Identifying and developing **new business models** that enable a multimodal transport system
- Tackling the **implications and changes** resulting from **COVID-19**
- Rethinking the use of current **infrastructure** and future challenges
- …

Modus approach: Supply and demand analysis



Selected Passenger Demand Drivers

Social
- Population change (size and age)
- Health concerns
- Motive of travel

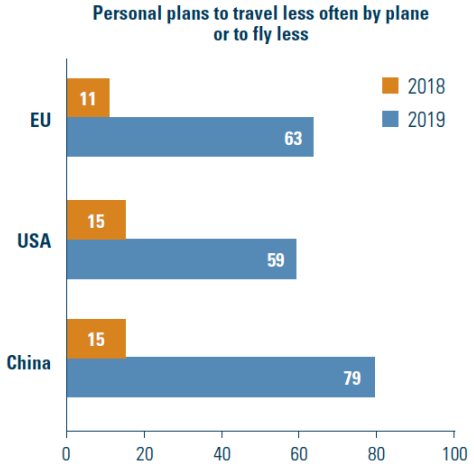
Technological
- Communication technologies
- Connectivity
- Artificial intelligence (AI)

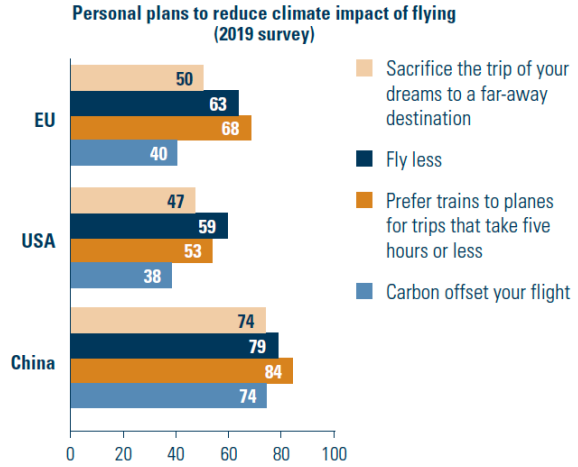
Economic
- Change in disposable income
- Intermodal cooperation and ticketing; MaaS

Environmental
- **Environmental attitudes and willingness to change behaviour**

Political
- Regulatory change - passenger rights, various modes

Mobility
- Transport time
- Change in tourism patterns
- Interoperability





Source: Modus D3.1, Bauhaus Luftfahrt Yearbook 2019; EIB 1st and 2nd climate survey, https://www.eib.org/en/surveys/index.htm

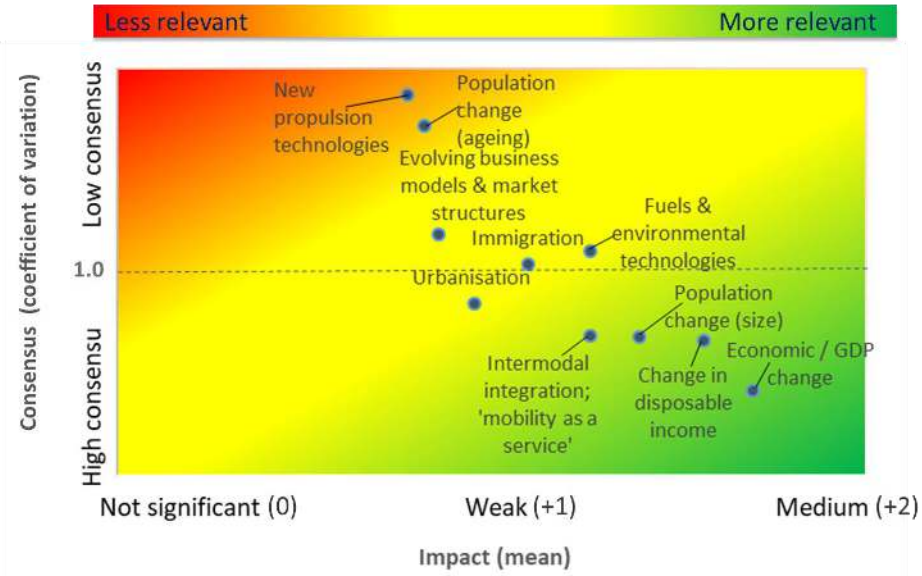
Expert assessment: Impact on air travel demand

Supporting **economic factors** as strong drivers for future demand

Intermodal integration and **Mobility as a Service** shaping the future transport system

Passenger **environmental attitudes and environment-related regulation** are expected to boost rail supply and demand further

Assessment of drivers for air travel demand



This analysis only includes those factors which are considered to lead to an increase in air travel demand by the experts; factors assumed to have a negative impact are not depicted here since there is very low consensus across experts in regard to factors.

Source: Modus D3.1

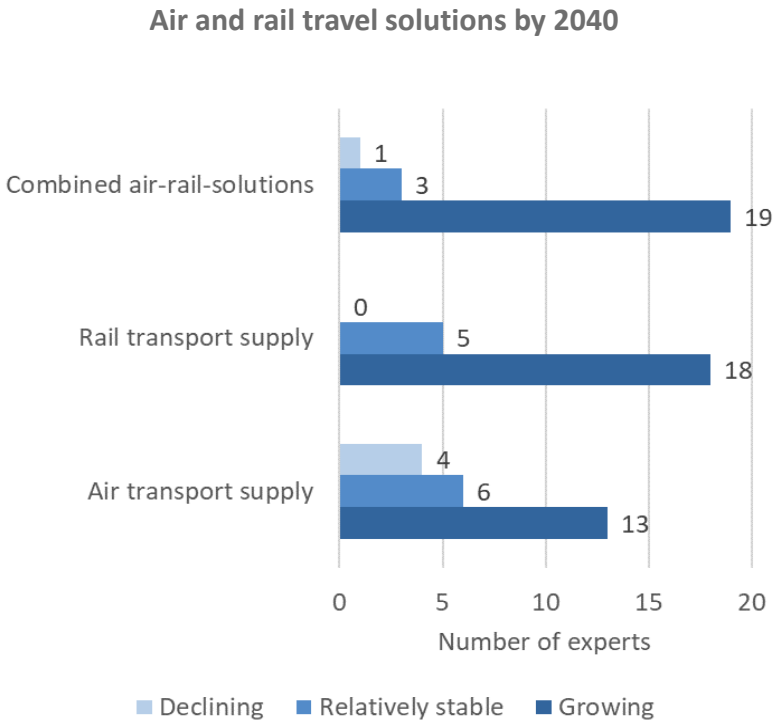
Expert assessment: Future mobility solutions

Rail transport playing a major role in **future multimodal transport**

More investment in **combined air-rail solutions** expected

Travel for **business purposes** expected to grow less than for leisure

Covid-19 recovery: experts expect faster recovery for rail sector compared to air



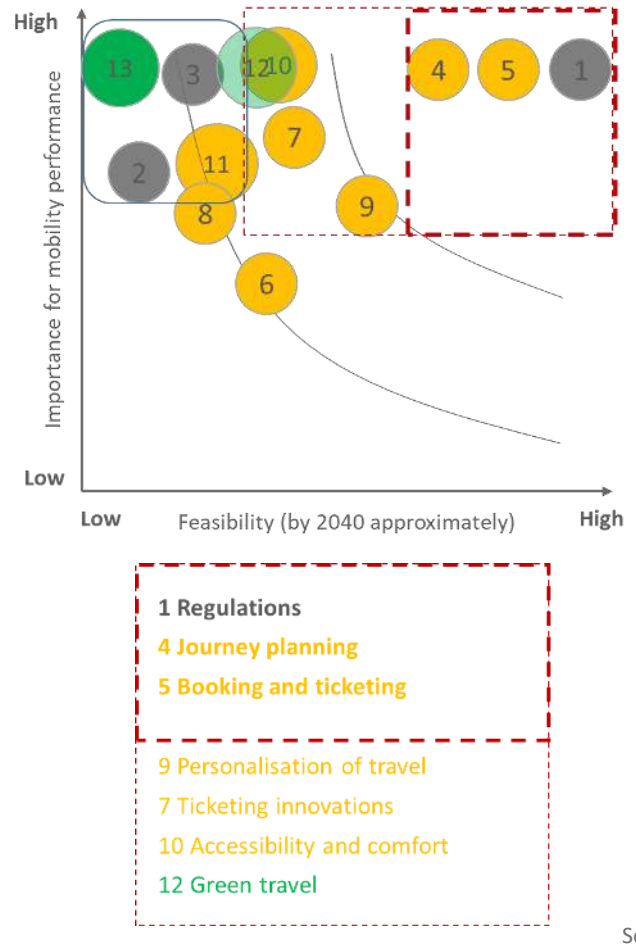
Source: Modus D3.1

Modus Multimodality Workshop

Moving towards a **truly multimodal European transport** system

- **Data as key enabler** for improvement (sharing across providers, security and privacy, initiation of shared platforms).
- Focus on **regulations** which are an important foundation to introduce multimodal solutions.
- **Passenger focus of utmost importance** when considering infrastructure needs, business models, and door-to-door journeys.

Future passenger needs and potential improvements

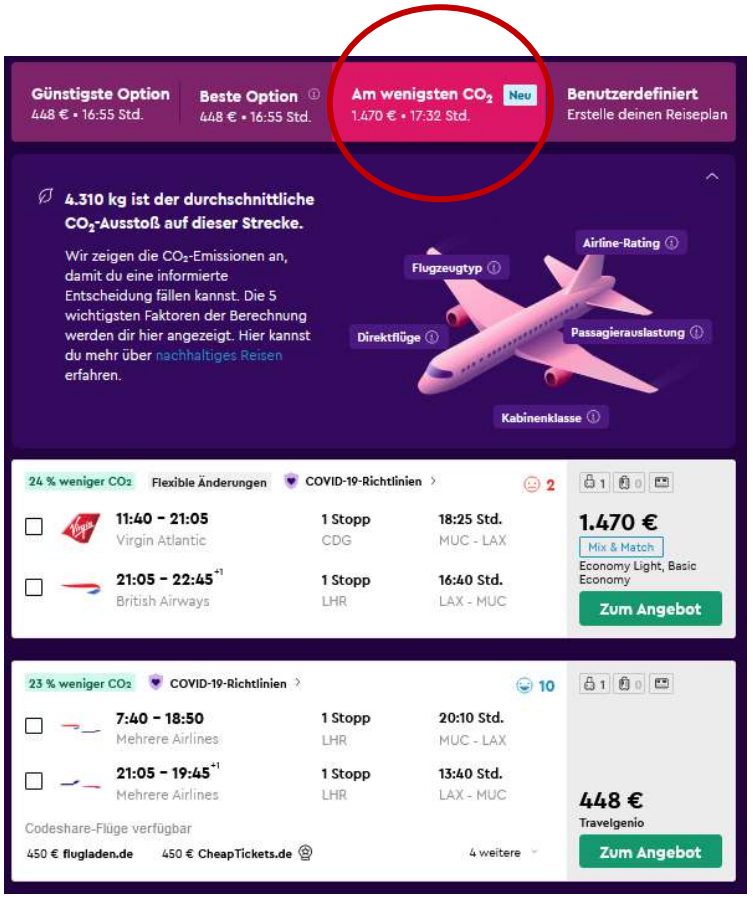


Source: Modus D3.1

Impact on the (Future) Transport System

Possible effects of **changing environmental awareness** and **regulations** on demand for air transport

- Carbon off-setting approaches
- Substitution away from air to rail
- Less air travel on short-haul routes
- Moving towards more efficient complementarity between air and rail



Source: https://www.momondo.de/flight-search/MUC-LAX/2020-12-15/2020-12-22?sort=co2_a

Modus Contact

If you have any questions or like to **learn more about Modus**:

Modus Website

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Thank you very much for your attention!

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Stay in touch with us www.modus-project.eu

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