



CONTACT INFORMATION

Airport Logistics and Air Cargo

- Aircraft operation on ground
 - Data recording and statistical analysis for accuracy control of landing, taxiwaying and parking
- Groundhandling
 - Simulation of the total ground transportation and handling processes on airports, capacity assessment, optimization of ground time
- Cargo network
 - Market analysis, hub and network design, control of feeder and distribution services
- Cargo handling
 - Analysis of demand, specification of requirements, process mapping, site and facility planning, monitoring of implementation
- Security
 - Improvement, coupling and integration of security checks as necessary part of handling processes

Fraunhofer-Aviation Group

Coordination

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AVIATION COMPETENCES





Fraunhofer-Aviation Group -

Part of the Fraunhofer Transport Alliance

The Fraunhofer Transport Alliance offers technical and conceptual solutions for public and industrial clients and assists for the transfer into application. The Alliance creates a new choice in R&D in transportation by bundling of existing potentials and broad system-related competency contributed by its 19 member research institutes.

Fraunhofer-Aviation Group concentrates specific know-how, experience and research capacity of individual Fraunhofer-institutes. The spectrum of research topics covers aircraft, operation, passenger, regulation & policy and cargo & logistics.

Aircraft

Theme which deals mainly with the so-called airframe is subdivided into

- Materials Technology and Mechanical Engineering
- Aircraft physics
- Safety and Security of the airframe and payload
- Eco and societal requirements addressing life cycle, MRO themes and pollution
- Engine-MRO

Operation

ATM and organization, transport Intermodality

Onboard systems supported in the areas

- Hardware testing for ATA equipment including avionics, procedures and standards around these elements
- Power and dynamics
- Aircraft energy, fuels and onboard consumables
- Simplification and the verification of system architectures

Passenger

The comfort and well being of the passenger and of course the crew are prioritized in this unit. Services:

- Psychophysical measurements under realistic cabin environment conditions (noise, light, thermal comfort, air quality, low pressure)
- Realistic full scale ground validations
- Fraunhofer Flight Test Facility FTF brings the cabin to full operational envelope using an Airbus A310, for instance low pressures just above 150hPa inside a 30m low pressure chamber

Regulation & Policy

- Innovation in aviation
Processes of innovation in the aviation sector, pathways for new technologies
- Climate Policy
Policies to enable growth in activity while reducing emissions
- Economic analysis of the aviation industry
Microeconomic analysis of the impact of regulation and policy on aviation growth and emissions
Macroeconomic analysis of the contribution of the aviation sector to national economies
- Noise
Evaluation of noise regulation for airports
Evaluation of noise from aviation activity
- Greenhouse gas and local air emissions
Assessment of aviation emissions and contribution to climate change
Scenario analysis of future developments
- Demand for Aviation
Analysis of factors driving the demand for aviation freight and passenger services
Scenario analysis