Members

The Fraunhofer-Gesellschaft

The Fraunhofer-Gesellschaft, founded in 1949 in Germany, is the world's leading organization for applied research, with over 75 institutes and more than 32,000 employees. Its core business model centers on contract research, contributing €3.1 billion to its €3.6 billion yearly business volume. At least two-thirds of the contract research revenue are equally sourced from industrial contracts and publicly funded projects. The rest is directly funded by the German federal and state governments (institutional funding).*

Fraunhofer AVIATION & SPACE

Fraunhofer AVIATION & SPACE brings together the expertise of over 35 Fraunhofer Institutes to drive innovation in aerospace technologies essential for global mobility, economic connectivity, and environmental monitoring. With its broad portfolio of expertise, Fraunhofer AVIATION & SPACE supports the strategies of the European aviation and space industry and helps to secure and expand its competitive position.

* Figures from 2024

Contact

Dr.-Ing. Simon M. Kothe
Head of Central Office AVIATION
Phone +49 170 9381356
simon.kothe@ifam.fraunhofer.de

Thomas Loosen
Head of Central Office SPACE
Phone +49 2251 18-308
thomas.loosen@int.fraunhofer.de

Fraunhofer AVIATION & SPACE
Cornelius-Edzard-Str. 15
28199 Bremen, Germany
aviation-space@fraunhofer.de
www.aviation-space.fraunhofer.de/en.html

Fraunhofer Match

Fraunhofer Match offers a single point of contact to all Fraunhofer institutes and research units. The aim of Fraunhofer Match is to bring people together, i.e., to matchmake between companies facing technological challenges and expert researchers with suitable solutions from the world of Fraunhofer.

Find out more

Fraunhofer
AVIATION & SPACE

Fraunhofer AVIATION & SPACE

Applied Research for the Aerospace Industry

Space Research at Fraunhofer: Technology Areas

The business unit SPACE offers technological expertise and conducts applied research in a broad portfolio of technology areas:

Communication and Navigation
satellite communication & navigation | antenna technologies | communications security | scientific payloads | laser communication | quantum communication | on-board processing

Protection Technology and Reliability
rescue systems | propulsion engines | protective layers | radiation protection | space reconnaissance | space debris & micrometeorites | quantum sources

Materials and Processes
green propellants | bonding processes | non-destructive testing | shielding effects | microtechnologies | additive & hybrid manufacturing processes

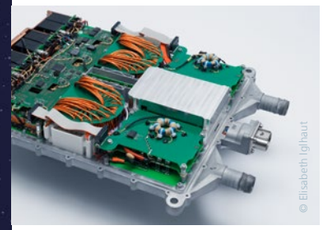
Energy and Electronics
electric propulsion | electronics for radar | total ionising dose & single event effects | coatings | power electronics | electronics for payloads | circuits & systems | power-by-light systems

Surfaces and Optical Systems
coatings | adhesive technology | laser technology | millimetre wave imaging | frequency stabilisation | degradation analysis | reflection properties | optical spectroscopy

Sensor Systems and Analysis
visualisation technologies | printed sensors | radar sensors | layered sensors | detection techniques | LIDAR | on-board radiation sensing | radiation & environmental monitoring | sensor networks

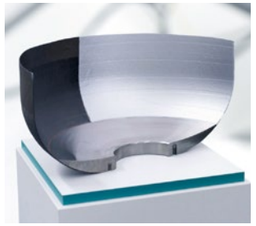
Fraunhofer's space technology is contributing to almost every European space mission.

Application-Oriented Research for Tomorrow's Aviation Industry



Climate-friendly and efficient propulsion

power electronics | turbo machinery manufacturing | hydrogen based propulsion | fuel cells | hybrid electric propulsion | sustainable aviation fuels | high temperature materials | etc.

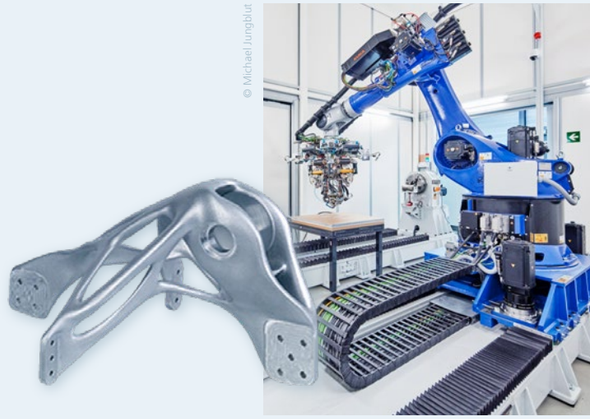


Advanced materials and Circular Economy

high performance materials | avoidance and replacement of critical (raw) materials | bio-based/recyclable materials | recycling and use of recycled materials | EcoDesign & Life Cycle Assessment (LCA) | etc.

Eco-efficient aircraft structures and cabin

lightweight design | assembly of aircraft structures | dismantling of aircraft structures | aircraft systems | efficient cabin air conditioning | environmentally friendly fire protection | green cabin | etc.



Resource-efficient manufacturing

additive manufacturing | CFRP manufacturing technologies | automation and robotics | digital twin | green factory | fast development and ramp-up | etc.