


Austrian R&D-Strategy and Initiatives for the Aeronautics Sector

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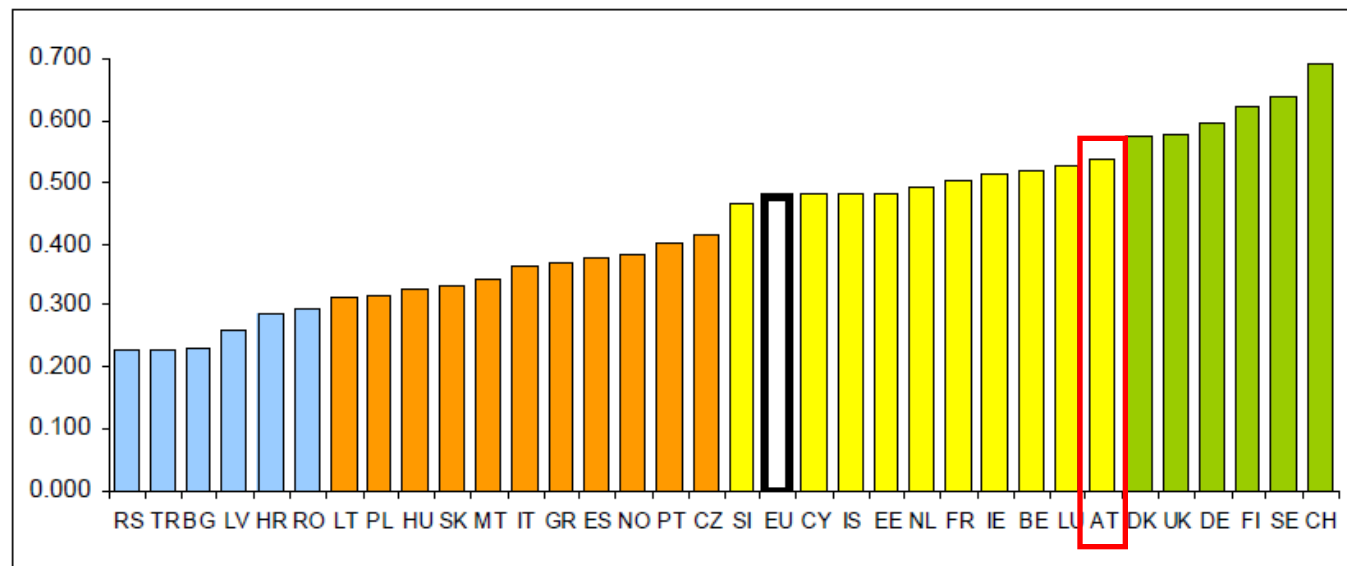
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- 1. The Austrian aeronautics landscape**
 - 2. The Austrian RTI aeronautics strategy**
 - 3. TAKE OFF - the national aeronautics research and technology programme**
 - 4. Austrian catalogue of aeronautics competencies**

The Austrian Aeronautics Landscape

Research and Development in General in Austria

- **Ranked 6** in OECD Innovation Score Board 2009
- R&D-quote 2010: **2.78% of GDP (€ 7.81 B)**

FIGURE 2: INNOVATION PERFORMANCE (2009 SUMMARY INNOVATION INDEX)



Data for the underlying indicators are for 2005 (3.4%), 2006 (34.5%), 2007 (13.8%) and 2008 (48.3%). The SII scores are shown in Annex E.

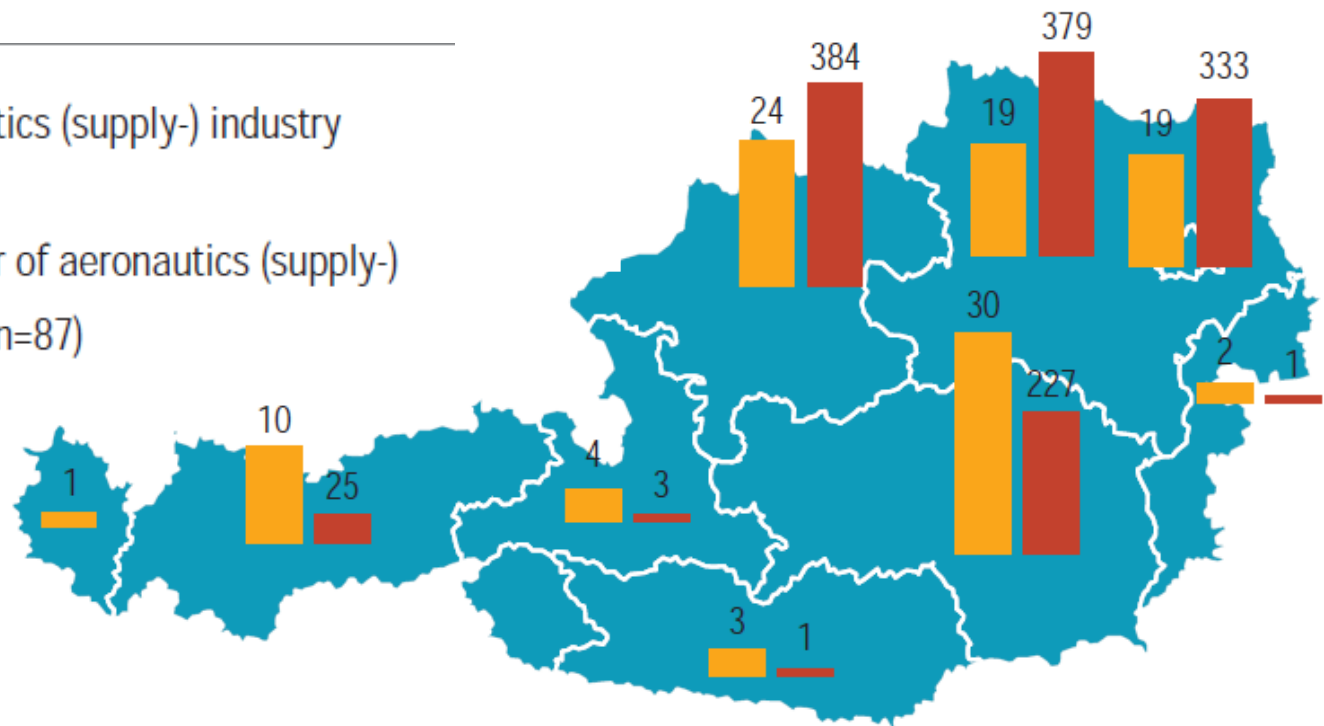
Figures about the Austrian Aeronautics Landscape

Screening of aeronautics sector

- 240 companies, 75% SMEs
- 13% employees in R&D

■ Number of aeronautics (supply-) industry
(n=112)

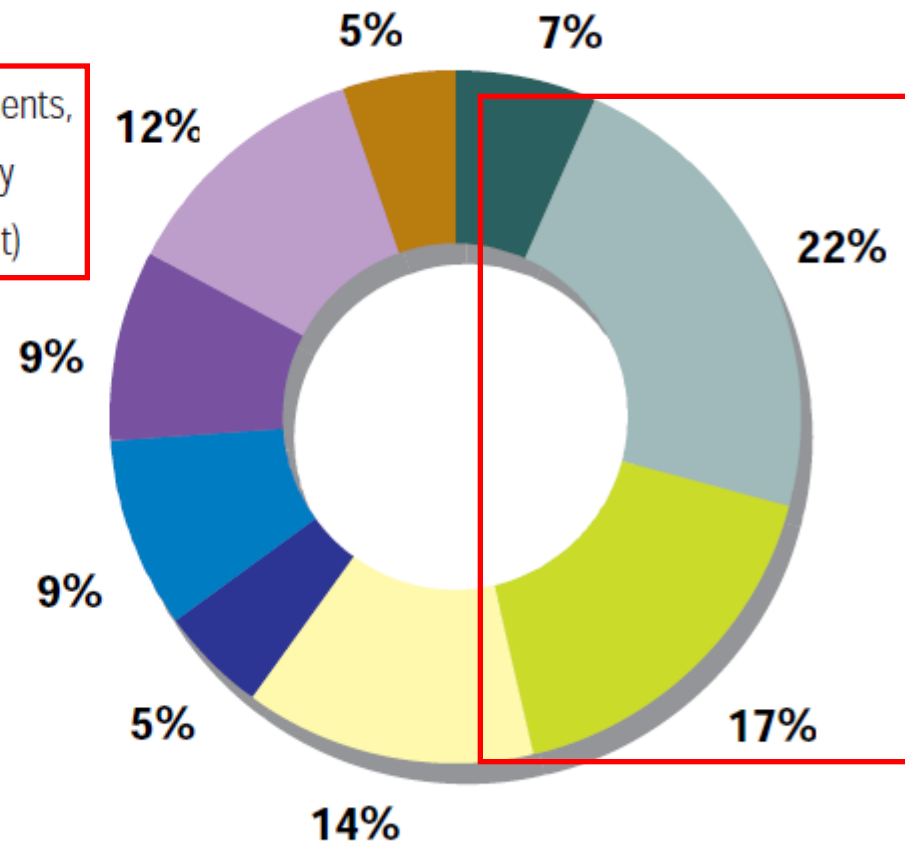
■ Cumulative turnover of aeronautics (supply-) industry in Mio. € (n=87)



Companies according to the Segments

- MS 1: General aviation
- MS 2: Complex aircraft structures and components, innovative materials and production technology
- MS 3: Cabin equipment (including infotainment)
- MS 4: Equipment, aircraft electronics/avionics
- MS 5: Intelligent aircraft infrastructure, ground testing and testing equipment
- MS 6: air traffic infrastructure
- MS 7: Aircraft basic systems
- MS 8: Propulsion
- MS 9: Others

n = 112, multiple entries



Austrian Aircraft and Austrian Contribution to international Aircraft Programmes



Austrian Contribution to the Boeing 787



Ranked 15th!

 austriamicrosystems

TTTech

 **BÖHLER**
SCHMIEDETECHNIK

FACC

Foto: Boeing / Grafik: Österreichische Forschungsförderungsgesellschaft



Austrian Contribution to the Airbus A380





The Austrian RTI Aeronautics Strategy

Research - Technology - Innovation

Austrian RTI-Strategy for Aeronautics

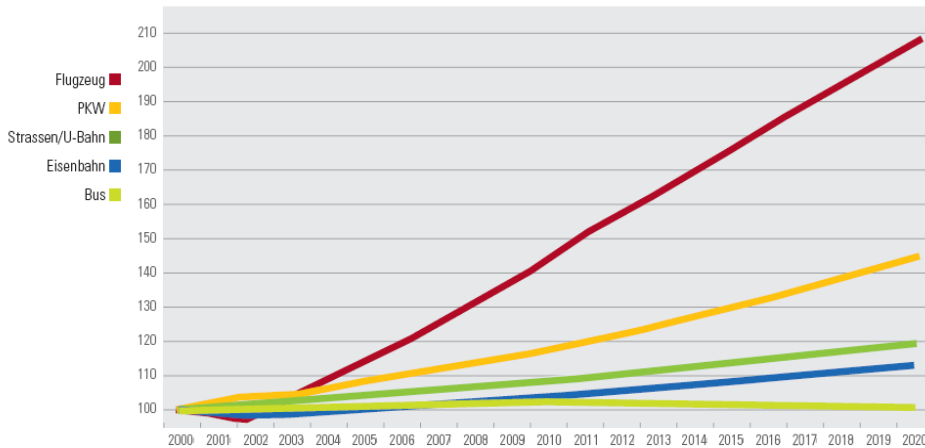


- 2006
 - Initiative
- 2007
 - Development
- As of 2008
 - Implementation

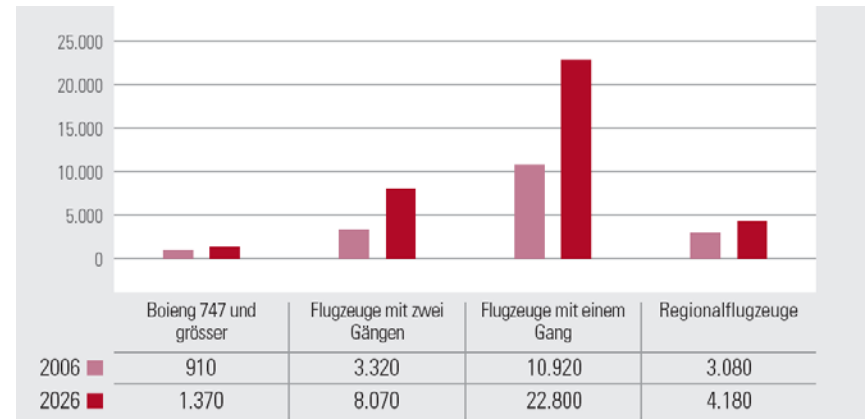


Analysis of General Trends in Aviation

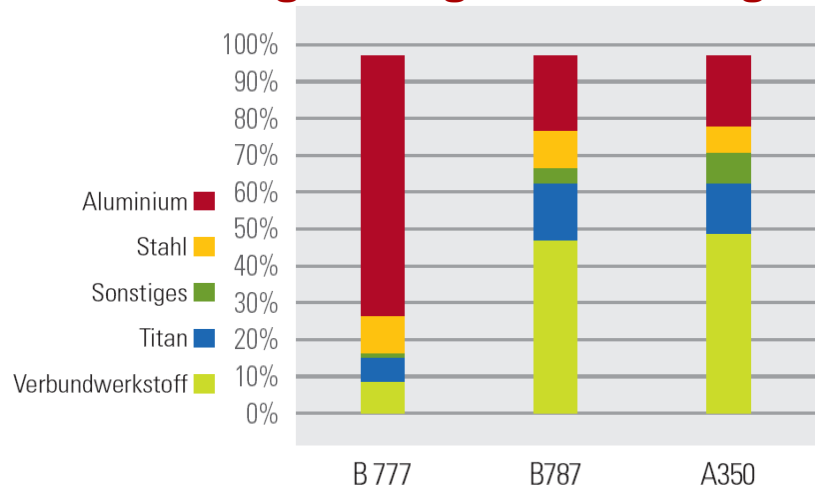
Increasing Need for Mobility



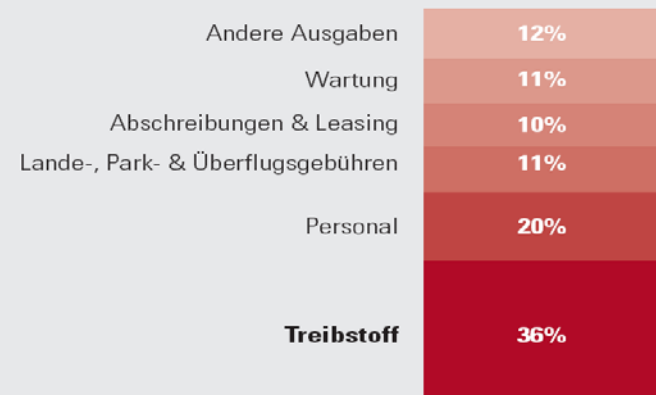
Increasing Demand for more Aircrafts



Application of light-weight Technologies



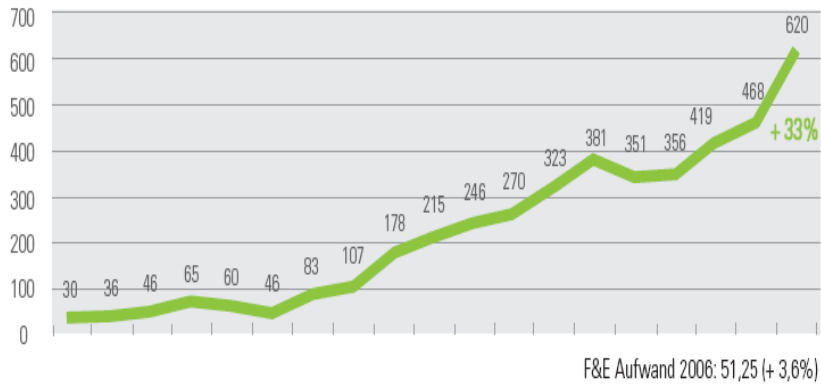
Change of Cost-Structure in Aviation



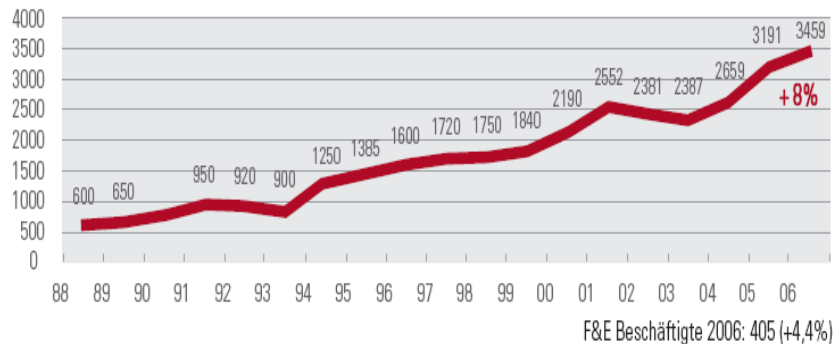
Specific Situation of the Aviation Sector in Austria

Aeronautics/Supply/Industry

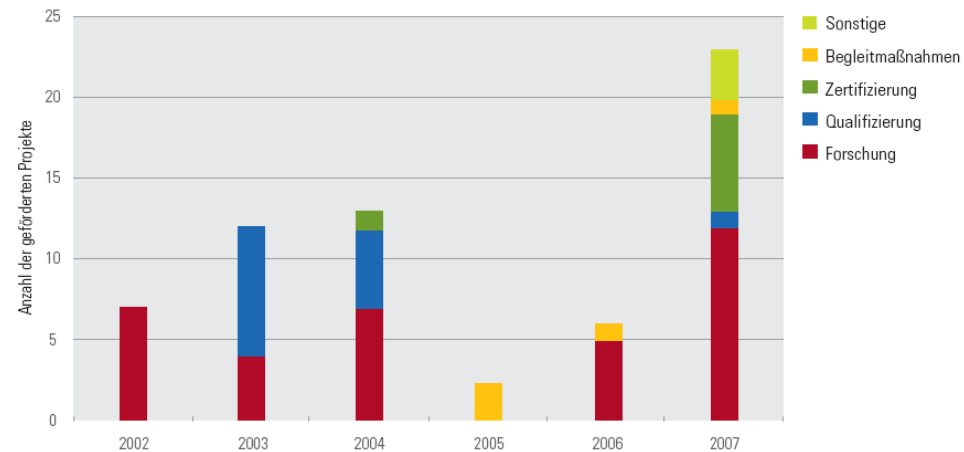
Umsatz (M EUR)



Beschäftigte



R&D-Aeronautics-Funding



Main Goals of the Austrian RTI Aeronautics Strategy



GOAL 1

Co-ordination and expansion

AIR TRANSPORT SECTOR (OR AERONAUTICS SECTOR)

GOAL 2

Extension and development
of technological expertise

AERONAUTICS INDUSTRY

GOAL 3

Updating and opening up
of new applications

AIR TRANSPORT

According Goal 2



Aeronautics/Supply/Industry

- 3 system-integrators (+ 1)
- 4 tier-1-suppliers (+ 1)
- 12 supply control operators (+ 6)
- 3 x sales
- 2 x number of employees
- ~ 70 companies with aviation as core business

A horizontal banner with a red background and white text. The text reads 'Air Transport System'. Above the banner is a green-tinted image showing a globe with flight paths and a landscape with a body of water.

Air Transport System

- Using national added value potentials
- Application of „SESAR-technologies“
- Developing Austrian key technologies
- Becoming
 - Environmentally-friendly
 - safe
 - secure
 - Time efficient
 - Cost efficient

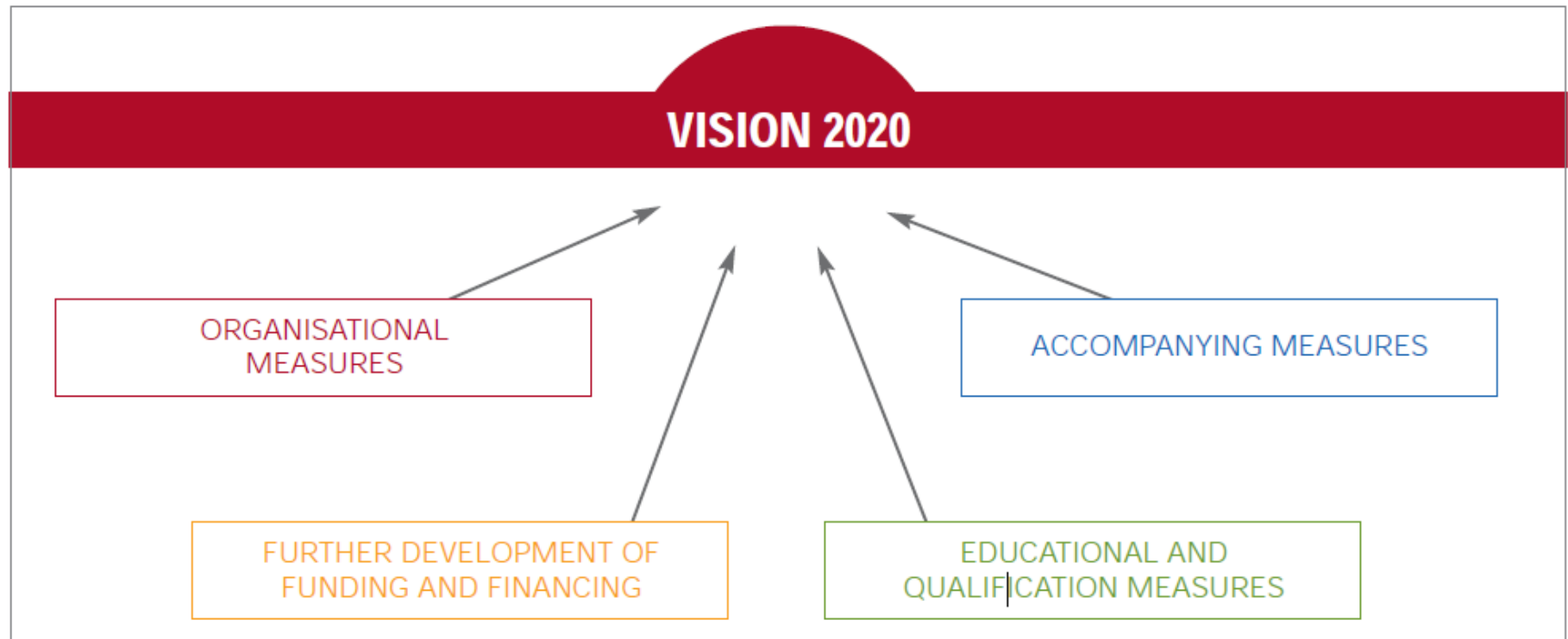
According Goal 1


Aviation Sector

Strengthening 6 Segments


- General Aviation
- Complex aerostructures and components, innovative materials and manufacturing techniques
- Cabin interior components (incl. infotainment)
- Aircraft equipment and avionics
- Intelligent aircraft infrastructure and test equipment
- Linked air transport infrastructure and ATM


Strategic Measures for the Implementation of Vision 2020





TAKE OFF - The National Aeronautics Research and Technology Programme

- 
- A horizontal banner with a green and yellow abstract pattern, possibly representing a globe or flight paths.
- 1) Competitiveness
 - 2) Safe, efficient, climate protecting and comfort-oriented air transport system (ACARE!)
 - 3) Qualified researchers and technicians, ambitious co-operative research projects
 - 4) Strengthening international image of Austrian research and development

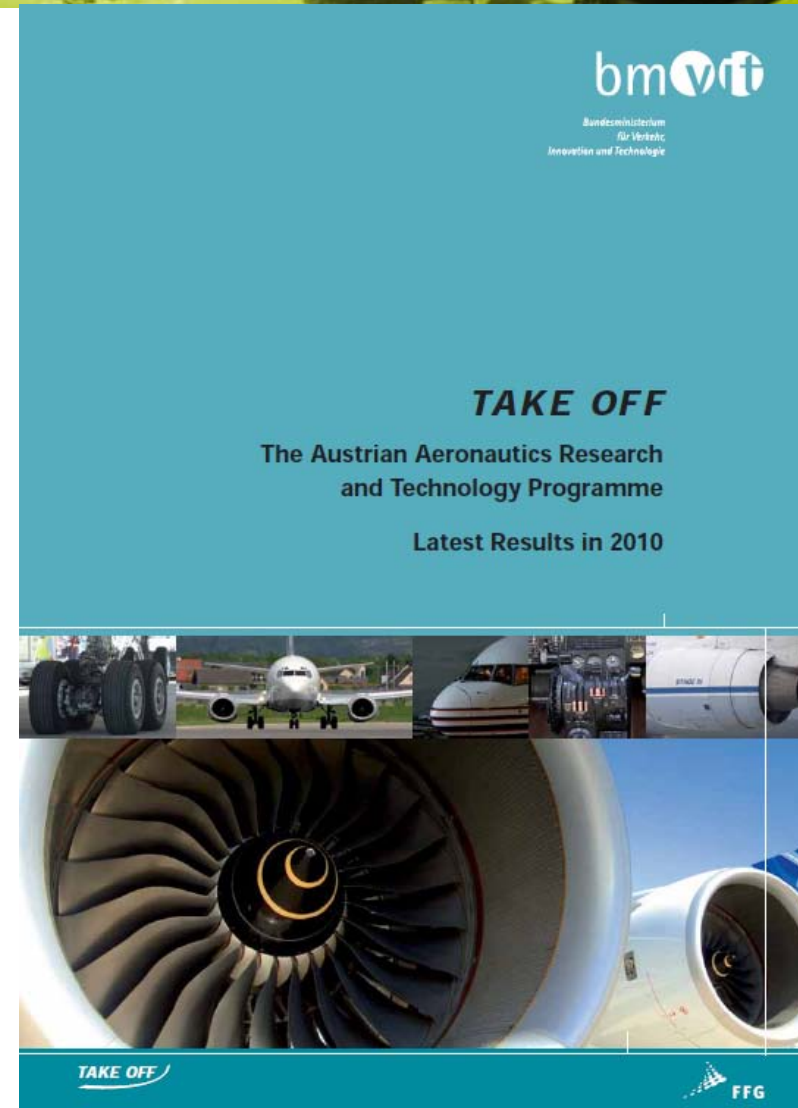
- 
- A horizontal banner with a green gradient background, overlaid with faint, glowing white lines that resemble circuit traces or flight paths.
- 1) Complex aircraft structures and components
 - 2) Aircraft propulsion
 - 3) Cabin equipment
 - 4) Aircraft electronics/avionics
 - 5) Intelligent aircraft infrastructure, test-equipment
 - 6) Air traffic infrastructure and control applications

Results

TAKE OFF 2002 - 2010



- € 49 M funds
- 124 projects
- Grouping of topics
- Cooperation industry-science
- Qualification, certification
- Networking
- International activities (Eranet AirTN)
- Dissemination of results



- 1) Common Projects
LH₂-Storage, Titanium Chip Removal, Profit
- 2) Common funding Germany/Austria
€ 36.1 M
- 3) German partners
e.g. Airbus Germany, DLR, EADS Germany, Diehl Aerospace GmbH, Fraunhofer e.v., Premium Aerotech, Eurocopter Germany, Diehl Aircabin, General Electric

Austrian Catalogue of Aeronautics Competencies

The Aeronautics Industry in Austria



- Catalogue of Austrian companies and competencies
- Published in March 2011
- Available on AirTN Stand 6
- Available as well on www.aeronautics.at



THE AERONAUTICS INDUSTRY IN AUSTRIA

www.aeronautics.at




Tyrol 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS	Salzburg 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS	Upper Austria 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS	Lower Austria 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS	Styria 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS	Carinthia 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS	Vienna 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS	Burgenland 1. ATLAS 2. ATLAS 3. ATLAS 4. ATLAS 5. ATLAS 6. ATLAS 7. ATLAS 8. ATLAS 9. ATLAS 10. ATLAS
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Successful Measures in Aeronautics



- 1) Sector has common vision through RTI-strategy
- 2) Creating community based on research and technology programme and events
- 3) Focus on industry and science
- 4) Focus on leading companies and SME
- 5) Network activities on the national and the international level
- 6) Thourough overview of aeronautics sector

A horizontal banner with a green and yellow abstract pattern, possibly representing a globe or network.

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