Overview

International symposium and expert forum on the long-term development of aviation

Which central developments and challenges does the aviation sector face in the future? Together with 250 national and international scientists and industrial experts we will address and discuss key challenges but also envisaged developments and innovations, which will shape aviation in the long term. Centred on dedicated research focus areas we will come up with technological findings, new ideas and concepts for Aviation 2050.

During the Plenary Session “Aviation 2050 – Changes Ahead” on day 1 of the symposium key developments in society, transportation and business will be addressed to highlight the enormous change potential for the air transport sector until 2050.

On day 2 of the symposium a multitude of technologies and concepts will be presented in two parallel session streams. Organized in four topical sessions invited speakers together with Bauhaus Luftfahrt experts will share their expertise and insights in key technologies and developments.

Session 1: Operations – Enabling Further Growth of Aviation will explore key mobility trends and prospects impacting the air transport sector. Providing insights into long-term ground and air transport concepts the boundary conditions are set for the operational evolution of air transportation.

In Session 2: Long-term Perspectives for Renewable Fuels in Aviation are put in the center of the presentations and discussions with renowned experts in this field. Looking at the long-term perspectives, the potentials and limitations of new technologies and fuel pathways are examined.

Radical changes and improvements on the power and energy system of an aircraft are core of Session 3: Aircraft Energy Technologies and Power Systems for 2050. Within the scope of this session not only electric and hybrid propulsion systems will be presented but also radical pathways to drastically improve internal combustion engine designs.

The integration of new system technologies and the potential of new aircraft architectures will be at stake in Session 4: Novel System Concepts Enhancing Aircraft Efficiency. New concepts for aircraft designs might open up additional efficiency potentials for future products.
### Conference Agenda

#### Plenary Session  
**Aviation 2050 – Changes Ahead**

How to expect disruptions and radical changes in a system, which is operated on a global basis and has been optimised over the last seven decades? In our plenary session innovators and experts from other transport sectors will share their ideas and insights on how boundary conditions and/or new business models might change the way we do the aviation business in the long run.

This symposium will also provide the opportunity to reflect on a decade of novel technologies and impulses from Bauhaus Luftfahrt, this unique research organisation which was founded in 2005. Please be invited to take a look back while leaping far forward into the future of aviation during our ceremony celebrating 10 years of Bauhaus Luftfahrt, featuring high level political and industrial representatives.

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<tr>
<th>Start</th>
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<th>Lecture Title</th>
<th>Speaker(s)</th>
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<tr>
<td>13:00</td>
<td>13:15</td>
<td>Welcome</td>
<td>M. Hornung (Bauhaus Luftfahrt)</td>
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<td>13:15</td>
<td>13:45</td>
<td>Opening Speech – Policy</td>
<td>F. J. Pschierer (Bavarian State Minister of Economic Affairs and Media, Energy and Technology), invited</td>
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<tr>
<td>13:45</td>
<td>14:15</td>
<td>Opening Speech – Industry</td>
<td>R. Martens (MTU Aero Engines)</td>
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14:15 | 18:30 | **Plenary Session**  
**Aviation 2050 – Changes Ahead** | Chairman: M. Hornung (Bauhaus Luftfahrt)                                  |

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<tr>
<td>14:30</td>
<td>15:00</td>
<td>Mobility in 2050 - Trends &amp; Scenarios</td>
<td>R. Baron (Arthur D. Little)</td>
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<tr>
<td>15:00</td>
<td>15:30</td>
<td>Disruptive Technology Developments</td>
<td>N. N. (Delft University of Technology)</td>
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<td>15:30</td>
<td>16:00</td>
<td>Future Business Models</td>
<td>F. Hofmann (BMI Lab)</td>
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<td>16:00</td>
<td>16:30</td>
<td>Coffee Break</td>
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<tr>
<td>16:30</td>
<td>17:00</td>
<td>Radical Concepts for Aviation</td>
<td>J. B. Bevirt (Joby Aviation)</td>
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<td>17:00</td>
<td>17:30</td>
<td>Co-creation and Local Manufacturing: How Local Motors See the Future of Making</td>
<td>D. Declercq (Local Motors)</td>
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<td>17:30</td>
<td>18:30</td>
<td>Panel Discussion</td>
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19:30 | OE   | **Evening Event:**  
10 Years Bauhaus Luftfahrt |                                                                             |

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<tr>
<td>20:00</td>
<td>20:30</td>
<td>Dinner Speech</td>
<td>T. Enders (Airbus Group)</td>
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Future growth of mobility will challenge the transportation system including aviation. Focusing on Asian Megacities, the session will explore key mobility trends and prospects. Long-term ground and air transport concepts are presented to enable growth and meet future societal needs.

### Session 2 Long-term Perspectives for Renewable Fuels in Aviation

Renewable fuels are expected to play a key role in facilitating future aviation’s sustainable low-carbon growth and energy supply security. With a focus on long-term perspectives, the potentials and limitations for large-scale deployment of various options are discussed.
Enhancing aircraft efficiency well beyond today’s standards will require novel system concepts and architectures. New functionalities and new ways of integrating them into the aircraft will open new pathways for further performance improvements.

**Session 3**  
**Aircraft Energy Technologies and Power Systems for 2050**  
Ambitious goals to reduce the environmental footprint of aviation are the drivers to investigate novel energy and power systems for propulsion and supply of on-board systems. Solutions beyond evolutionary development of turbo-engines are evaluated as well as the fully-electric aircraft.

**Session 4**  
**Novel System Concepts Enhancing Aircraft Efficiency**  
Enhancing aircraft efficiency well beyond today’s standards will require novel system concepts and architectures. New functionalities and new ways of integrating them into the aircraft will open new pathways for further performance improvements.
Conference venue
Ludwig Bölkow Campus at IABG Industrieanlagen-Betriebsgesellschaft mbH
Einsteinstraße 20, 85521 Ottobrunn near Munich, GERMANY

Map of the local area

Hotels near by

Stay to Munich Hotel & Serviced Apartments
Zusestraße 1, 85649 Brunnthal, +49 (0)89-689 066 066
welcome@stay2munich.de, www.stay2munich.de

Distance to venue: 1.5 km
Price per room/night: from € 95.00
30 rooms are pre-reserved in this hotel. Please mention the following code for your booking: Bauhaus08105

Limmerhof Hotel und Gaststätten GmbH
Münchener Str. 43, 82024 Taufkirchen,
+49 (0)89 614 320
info@limmerhof.de, www.limmerhof.de

Distance to venue: 4.5 km
Price per room/night: from € 81.00

Your return to Munich Airport

Free shuttle to Munich Airport provided on October 9th, 16:30 hrs (reservation required on registration form)
2nd Bauhaus Luftfahrt Symposium

Registration
To confirm your participation please send the registration form to symposium@bauhaus-luftfahrt.net

Contact
Bauhaus Luftfahrt e. V.
Phone +49 (0)89/3074849-0
www.bauhaus-luftfahrt.net

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