Agenda

1. Our environment
2. Our track record
3. Our expertise
4. Your questions
46,000 Aircrafts

The globally active fleet of 23,000 aircrafts will double by 2036.
Less than 2 billion people out of 7 billion have flown in an aircraft to date.
Up to 6 million components

A passenger aircraft is made up of up to 6 million components.
In 100 Years

is a pilot once forced to shut down an engine.
2.9 liters of kerosene fuel consumption per 100 passenger kilometers.
75% of the noise footprint is reduced by the geared turbofan.
We shape the future of aviation!
MTU pursues a sustainable growth strategy in all of its business segments - based on stable and long-term customer relationships.
Partners and customers appreciate MTU’s excellence.
MTU looks back on many important names from the German industrial history – from 1934 to date

1934
BMW Flugmotorenbau GmbH is founded

1965
MAN takes over BMW Triebwerkbau

1969
MTU 50% Daimler Benz 50% MAN

1989
MTU becomes an affiliate of Deutsche Aerospace, later renamed DaimlerChrysler Aerospace (DASA)

2005
MTU goes public

Today
Shareholder structure
93% Institutional investors
6% Private shareholders
1% MTU-owned shares

Focus on military applications

Focus on commercial applications

July 2018
© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
MTU is an essential partner in the engine value chain

Material suppliers*

Engine component suppliers*

Subsystem/module suppliers*

Engine OEMs*

Airframers*

Airline operations

*selected market participants

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
A balanced portfolio and products in all thrust categories ensure MTU’s long-term success.

Return on investment periods in the commercial OEM business

Cumulated cash flow

Entry into service

Calendar years after market launch

<table>
<thead>
<tr>
<th>GE9X B777X</th>
<th>PW1000G family</th>
<th>GP7000 A380</th>
<th>GEnx B787, B747-8</th>
<th>V2500</th>
<th>A320</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF6-80, LM6000</td>
<td>B747, B767, IGT</td>
<td>A300, A310, A330</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Production | Technology | R&D | Aftermarket | PW2000 | PW4000 | B757, C-17 | B777 |

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
Our track record: partners and customers appreciate MTU’s excellence

<table>
<thead>
<tr>
<th>Commercial OEM business</th>
<th>Military OEM business</th>
<th>Commercial MRO business</th>
</tr>
</thead>
</table>

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
## Our track record: partners and customers appreciate MTU’s excellence

### Commercial OEM business
- Revenues: € 2.5 billion (48%)*
- Decades of partnerships with OEMs
- Balanced product portfolio in all thrust categories
- Order volume secures business into the next decade
- Partnerships with OEMs increasingly include maintenance

### Military OEM business
- Revenues: € 0.4 billion (8%)*
- European and U.S. engine programs
- Full system capability
- Leading partner of the German Armed Forces
- Service packages precisely tailored to the requirements of military partners

### Commercial MRO business
- Revenues: € 2.3 billion (44%)*
- Services: maintenance, leasing and asset management
- Global network
- Direct customer business, partner of OEMs and airlines
- 18,000 shop visits in 36+ years
- More than 1,400 customers, including over 200 airlines

### Revenue and EBIT

<table>
<thead>
<tr>
<th>OEM</th>
<th>MRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>€ 2.9 billion*</td>
</tr>
<tr>
<td>EBIT adj.</td>
<td>€ 0.4 billion*</td>
</tr>
</tbody>
</table>

* Basis: Fiscal 2017

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
Our track record: partners and customers appreciate MTU’s excellence

<table>
<thead>
<tr>
<th>Commercial OEM business</th>
<th>Military OEM business</th>
<th>Commercial MRO business</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Commercial OEM image" /></td>
<td><img src="image2" alt="Military OEM image" /></td>
<td><img src="image3" alt="Commercial MRO image" /></td>
</tr>
</tbody>
</table>

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
In the commercial OEM business, 30% of today’s aircraft have MTU technology on board and MTU is growing faster than the market as a whole.

### Commercial OEM business

<table>
<thead>
<tr>
<th>Business jets</th>
<th>Regional jets</th>
<th>Narrowbodies</th>
<th>Widebodies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues will <strong>triple</strong> in 10 years</td>
<td>Market share will <strong>increase</strong> from 0% to 90%</td>
<td>Excellent market position will <strong>further improve</strong></td>
<td>New market segments have <strong>opened up</strong></td>
</tr>
</tbody>
</table>

**Above-average growth**
Our track record: partners and customers appreciate MTU’s excellence

Commercial OEM business  Military OEM business  Commercial MRO business

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
The military OEM business has been the basis for MTU's system capability – for more than 80 years now

Military OEM business

Growing responsibility and increasing complexity

MTU founded as BMW Flugmotoren GmbH

Bo-105

RR250

Tornado

RB199

Eurofighter

EJ200

MTU390

TP-400

Tiger

A400MP400

BMW132

J79

Phantom79

Ju52

Growing responsibility and increasing complexity

Military OEM business

MTU founded as BMW Flugmotoren GmbH

… 1930s 1940s 1950s 1960s 1970s 1980s 1990s 2000s 2010s 2020s…
Our track record: partners and customers appreciate MTU’s excellence

---

**Commercial OEM business**

**Military OEM business**

**Commercial MRO business**

---

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
MTU is one of the world’s leading service providers with the largest portfolio and the strongest growth rates in the market

Commercial MRO business

**Direct customer business**
- Efficient flowline production in Hannover
- Analysis, consulting and engine expertise
- Customized and flexible solutions

**OEM partnerships**
- Advanced GP7000 tested
- Standardization and industrialization of processes
- Reduction of costs and sharing of investments

**Airline partnerships**
- Partnership with China Southern Airlines
- MRO know-how: processes, systems, people
- Best practice in a best-cost environment

July 2018
© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
In 2017, MTU achieved record sales and earnings once again – we keep our promises

2017 financial figures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2016</td>
<td>FY 2017</td>
<td>FY 2016</td>
<td>FY 2017</td>
</tr>
<tr>
<td>4,733*</td>
<td>5,036*</td>
<td>504</td>
<td>412</td>
</tr>
<tr>
<td>1,914</td>
<td>2,285</td>
<td>182</td>
<td>322</td>
</tr>
<tr>
<td>2,401</td>
<td>2,469</td>
<td>322</td>
<td>412</td>
</tr>
<tr>
<td>1,914</td>
<td>2,285</td>
<td>182</td>
<td>322</td>
</tr>
<tr>
<td>2,401</td>
<td>2,469</td>
<td>322</td>
<td>412</td>
</tr>
</tbody>
</table>

* Consolidated values

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.

July 2018
Our expertise

MTU possesses unique capabilities and has a wealth of know-how.
MTU possesses unique capabilities and has a wealth of know-how

**Expertise**

**Technology**
We are continuously expanding our technological lead by identifying and setting revolutionary trends

**Processes**
We deliver on time, with the right quality and at reasonable costs – digitalization opens up further potential for MTU, sustainability is our basic principle

**Partnerships**
We enter into sustainable partnerships – an essential prerequisite for MTU's long-term success

**People**
We boast more than 10,000 engine experts – innovative and competent

**Locations**
Through our 14 locations worldwide, we are close to our customers

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
Boasting comprehensive system expertise, MTU focuses on five core engine competencies - three core components and on unique manufacturing and maintenance processes.

1. High-pressure compressor (HPC)
2. Low-pressure turbine (LPT)
3. Turbine center frame (TCF)
4. Manufacturing
5. Maintenance
The geared turbofan is setting new standards - together with our partners, MTU will continue to expand its technological leadership in the future

Technology – today and tomorrow

The geared turbofan today

16% reduction in fuel burn

Approx. 75% reduction of the noise footprint

Fewer emissions

CO₂ / NOₓ

MRO cost savings
25% fewer stages, 45% fewer blades, lower operating temperature

The next-generation geared turbofan (EIS 2030+)

Lowest fan-pressure ratios at very high bypass ratios

BPR 14-20*

Very high overall pressure ratio

OPR 60+ **

within the highly integrated compressor system

Temperature-resistant lightweight materials

High-speed, highly efficient expansion system

Source: P&W | * BPR = Bypass Ratio | ** OPR = Overall Pressure Ratio

July 2018
© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
We deliver on time, in the right quality and at reasonable costs - digitalization opens up further potential for MTU, sustainability is our core principle

Processes

Research & Development
- In-depth understanding of the system
- Our aim is to continuously improve the products
- 1,000 engineers, 6 centers of competence and 17 university cooperations

Program Management
- Long-term partnerships
- Business secured for the next generation
- Balanced portfolio with content in all thrust categories

Production
- Highly automated and best-cost
- Total volume to double in the next 5 years
- 6,300 suppliers

Service
- Many years of experience with the customer in the center of consulting competence
- Optimization of operating costs, maximum asset utilization and recycling and remarketing, reduced risks
- Cutting-edge technologies

Sustainability & digitalization

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
As a technology leader, MTU uses digitalization primarily to further optimize processes and tools, i.e. to continuously increase efficiency and reduce costs.

Digitalization

Business 4.0

Technology 4.0

MRO 4.0

Production 4.0

Supply Chain 4.0
As a company, we take responsibility for our products, employees, customers, the environment and our society

Sustainability

Product responsibility

Responsibility toward employees

Environmental protection

Sustainable business practices

Commitment to society

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
We create sustainable partnerships – an essential prerequisite for MTU’s long-term success

<table>
<thead>
<tr>
<th>Research &amp; Development</th>
<th>Production</th>
<th>Programs</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 6 centers of competence</td>
<td>• 6,300 suppliers</td>
<td>• Pratt &amp; Whitney</td>
<td>• Airline customers</td>
</tr>
<tr>
<td>• 17 cooperations with universities</td>
<td>• Long-term partnerships</td>
<td>• General Electric</td>
<td>• OEM networks</td>
</tr>
<tr>
<td>• National and EU research projects</td>
<td>• Double sourcing</td>
<td>• Rolls-Royce, Safran, Avio, ITP</td>
<td>• Airline joint ventures</td>
</tr>
<tr>
<td>• Technology network</td>
<td></td>
<td>• Air forces</td>
<td>• External vendors</td>
</tr>
</tbody>
</table>

- Risk minimization
- Increase in efficiency
- Complementary technology
- Revenues/market access

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
We boast more than 10,000 innovative and competent engine experts

More than 60 different nations work under the umbrella of MTU Aero Engines

Approx. 20 years is the average job tenure of MTU's workforce (in Germany)

Approx. 80% of the total workforce are engineers or technicians*

350 apprentices at German locations

July 2018

© MTU Aero Engines AG. The information contained herein is proprietary to the MTU Aero Engines group companies.
We are innovative and competent

customer-oriented
committed
high-tech
connected
results-oriented
excellent
reliable
sustainable
efficient
With our 14 locations worldwide we are close to our customers
For questions relating to...

...our company

...our commercial engine business

...our commercial service portfolio

...our military engine business

...our military service portfolio

...our technological expertise

...the sustainability of our products

...our financial figures

...job opportunities at MTU

Click the relevant icon for more information
Let’s shape the future together!
Thank you.
Proprietary Notice

This document contains proprietary information of the MTU Aero Engines AG group companies. The document and its contents shall not be copied or disclosed to any third party or used for any purpose other than that for which it is provided, without the prior written agreement of MTU Aero Engines AG.