An established global player

MTU Aero Engines is Germany’s leading engine manufacturer and a firmly established player in the international aviation industry. The company designs, develops, manufactures, markets, and supports commercial and military propulsion systems for aircraft, helicopters, and stationary gas turbines, and offers full system capability in engine construction.

High power density

MTU offers solutions for the entire life cycle of engines—from development and manufacture through to maintenance.

With its balanced product portfolio, the company is represented in all thrust and power categories for commercial engines. High-pressure compressors, low-pressure turbines and turbine center frames made by MTU rank among the best in their class.

In the maintenance of commercial engines, MTU Maintenance sets global standards with its comprehensive services and innovative repair techniques. MTU Power provides first-rate intelligent maintenance solutions for industrial gas turbines. MTU is the industrial lead company for almost all aircraft engines operated by the German Armed Forces and plays a key role in major European military engine programs.

Engine expertise from a single source
Being close to our customers is important to MTU Aero Engines—and this proximity is ensured by some 10,000 employees from over 60 countries at 15 locations worldwide. Through its subsidiaries and joint ventures, MTU is present in all key regions and markets.

**Technological leader**

MTU Aero Engines has its headquarters in Munich—the largest location in the MTU network. From here, the subsidiaries and the majority of MTU’s research and development activities are overseen. As a technological leader, the company spearheads the development of advanced technologies and engine concepts. To this end, it cooperates closely with all leading engine manufacturers as well as partners from science and research. It is involved in all major German and European technology programs, making a valuable contribution with its innovative products and manufacturing and repair techniques. This makes MTU an indispensable partner and a technological leader that is actively shaping the future of aviation.

**Global presence**

Germany’s leading engine manufacturer operates as a global player. MTU Maintenance is one of the top five service providers in the world for commercial aircraft engines and can draw on 40 years of experience. For the maintenance of industrial gas turbines, MTU Power is the first port of call. MTU leads the field in the area of self-developed high-tech repairs and comprehensive service offers that cover the entire life cycle of an engine. It operates a worldwide network of locations, which guarantees closeness to customers. With its shops in Europe, Asia and North America, the company is a reliable partner for its customers. A network of representative offices, IGT service centers and joint ventures complete its global presence. In addition, on-site service teams carry out maintenance and repair jobs worldwide with short turnaround times.
A strong team

Highly skilled and motivated
The secret to the strength of MTU Aero Engines resides in its employees. Well trained, highly qualified and motivated, they perform their work to the highest standards and secure the company’s success. Dedicated young professionals work alongside seasoned experts, all invaluable assets to the company.

Boost for personal development
Professional and personal training and advanced training courses are a big priority at MTU. They ensure that employees have excellent training and qualifications, and that they have internalized the high quality expectations of the company, its partners and customers, such that they meet these expectations in their daily work and continuously improve their performance. To secure a steady supply of employees with high specialist qualifications, MTU relies on an internal talent recruitment and development policy with advanced in-house training facilities, international internships and direct contact to new talent in universities.

Flexible and fair
MTU sees itself as a partner to its employees, one that acts responsibly and sees the big picture. Fairness, equality of opportunity, flexible working models, comprehensive prevention offers in the field of occupational health are all part of this philosophy, as are modern retirement schemes and measures to help employees balance the demands of family and working life.

Responsibility in action

Eco-efficient engines
Sustainability is an important priority at MTU Aero Engines. The company views its responsibility holistically: not just for the product, but for its development, manufacture and repair. A special emphasis is placed on quality and safety aspects, which are of paramount importance in the aviation sector. MTU can make its biggest contribution to environmental protection with outstanding innovations for eco-efficient engines that help aviation meet its targets of carbon-neutral growth in the medium term and a reduction in CO₂ emissions in the long term.

Innovations for the environment
In manufacturing, maintenance and repair, MTU also pursues environmental goals for clean production practices that use water, energy and materials responsibly and reduce pollution from emissions to a minimum. The MTU experts adapt the new additive manufacturing techniques for use in the production of complex engine components, substantially reducing the amount of materials used, and thereby conserving resources and lowering the environmental impact.

Corporate Responsibility
MTU bases the implementation of its Corporate Responsibility program on internationally recognized conventions. In 2011, it joined the UN Global Compact, a unique initiative to promote sustainability worldwide. As a member, the company is committed to upholding its responsibilities in relation to environmental protection, respect for human rights, fair labor practices, and the fight against corruption. MTU now outlines its key sustainability activities in the non-financial statement section of its annual report, a practice it began in its reporting for the 2017 financial year.
MTU’s roots go back to the dawn of motorized flight.

MTU Aero Engines is a long-established German company whose roots go back to the dawn of powered aviation. In 1934, BMW Flugmotorenbau GmbH was founded in the north of Munich. It is the official legal predecessor of today’s MTU Aero Engines, and the company’s headquarters have remained in the same place. In the course of its eventful history, MTU has passed through a number of different hands under correspondingly different names: significant owners have included BMW, MAN and Daimler-Benz, subsequently DaimlerChrysler. Since 2005, the engine manufacturer has been an independent company listed on the stock market. Over the decades, MTU has repeatedly set technological benchmarks to drive forward the development of aviation. In this way, it has acquired unique expertise over the years. The once national enterprise gradually became an international high-tech company—one that will continue to shape aviation in the future.

Development milestones

The history of MTU is inextricably linked with that of the RB199 engine for the Tornado combat jet. In 1969, the company participates in the development of this engine—in what would turn out to be one of the most successful engine programs in its history. In the 1970s, MTU enters the commercial engine sector with the CF6-50—with General Electric as its partner. The engine is used to power the Airbus A300 and is adapted for numerous further applications. When commercial aviation experiences a perceptible uplift in the 1970s, MTU enters the world of engine maintenance, founding MTU Maintenance Hannover in 1979. In the 1980s, MTU finally makes the step up to become a global player. Together with Pratt & Whitney (P&W), Rolls-Royce, the former FiatAvio and the Japanese Aero Engines Corporation, it founds International Aero Engines (IAE): the V2500 engine for short- and medium-haul jets developed by the partners becomes a bestseller for decades. But MTU also maintains a major presence in the military sector: it has workshares in the EJ200 engine for the Eurofighter, the MTR390 engine for the Tiger combat helicopter and the TP400-D6 engine for the A400M military transport aircraft. In the meantime, the focus on operating costs and the growing environmental consciousness determine the line of approach for the commercial engines of the future. Together with P&W, MTU develops the energy-efficient GTF™ Engine Family.
Key driver of innovation

As air traffic continues to grow, limited resources and increasingly tougher environmental requirements are presenting the aviation industry with major challenges. Forecasts predict an annual growth in passenger air transport of up to five percent. To counterbalance the impact on the environment, aircraft and engines must be even cleaner, quieter and more fuel-efficient. This can be achieved with the development of innovative technologies, which is precisely what MTU is doing. It is this approach that makes the company a technological leader worldwide and a key driver of innovation in the sector.

Quieter, more efficient, cleaner: the GTF engine

Together with Pratt & Whitney, MTU produces the energy-efficient GTF engine. This newly developed engine architecture significantly reduces fuel consumption, carbon dioxide emissions and noise pollution. The GTF features a reduction gearbox that allows all components to run at their respective optimum speeds, thereby increasing overall efficiency. MTU contributes the high-speed low-pressure turbine and the first four stages of the high-pressure compressor to the GTF.

Leading the way with the power of innovation
MTU’s strength resides in its comprehensive engine and systems expertise. The company focuses these strengths on its three core components and on unique manufacturing and repair techniques.

**High-pressure compressor**

1. MTU’s high-pressure compressors rank among the very best. Today’s compressors are manufactured in blisk design, whereby the blades and disk are produced from a single piece. The advantages of this method include greater strength, lower weight and better aerodynamic properties. The high-pressure compressor developed jointly with Pratt & Whitney for commercial applications forms the centerpiece of the innovative Pratt & Whitney GTF™ Engine Family, the members of which power medium- to long-haul airliners.

**Turbine center frame**

2. For engines in the upper thrust category, MTU manufactures turbine center frames. This highly engineered component is exposed to extreme stresses during operation, such as high mechanical loads and high temperatures. The material and design must therefore satisfy the highest of standards; this in turn calls for manufacturing technology at its best.

**Low-pressure turbine**

3. MTU is the world leader when it comes to manufacturing low-pressure turbines that operate at maximum efficiency. Its scope of application is enormous, ranging from conventional models for business jet engines and power turbines for heavy-lift helicopters all the way to large conventional low-pressure turbines for turbofan engines powering medium- to long-haul airliners. MTU’s masterpiece is the high-speed low-pressure turbine, a key component of the GTF engine featuring technology and efficiency that is unique worldwide.
Together with partners from industry and science, MTU is successfully working on making commercial engines even more environmentally efficient.

**The future of aviation**
Germany’s leading engine manufacturer plays an active role in shaping tomorrow’s aviation and is ahead of the game when it comes to defining pioneering development trends and technology requirements. The company works on commercial and military products for tomorrow and on revolutionary propulsion systems to respond to requirements even further down the line. To this end, MTU’s commercial business is focusing its efforts on further optimizing the geared turbofan, while its military road map is oriented toward a new, highly innovative propulsion system for a European fighter jet.

**Technology roadmap**
MTU’s Leading Technology Roadmap charts the company’s planned course through 2030: MTU will refine and optimize its high-pressure compressor, low-pressure turbine and turbine center frame. Key technologies required by these plans are new, lightweight high-temperature materials, additive manufacturing techniques, and virtual design and production.

**Clean Air Engine (Claire) technology agenda**
In its Clean Air Engine (Claire) technology agenda, MTU lays out its goals as well as the options for a commercial engine that will achieve the SRIA (Strategic Research and Innovation Agenda) environmental goals by the year 2050: burn 40 percent less fuel, emit 40 percent less carbon dioxide and cut the noise footprint by 65 percent.

**Pilot concepts for tomorrow and beyond**
MTU is so far the only player in the European aviation industry to draw up concrete ideas for revolutionary propulsion concepts that will achieve aviation’s environmental targets in 2050 and beyond. In this respect, MTU is taking it upon itself to help cut emissions—a major challenge. In addition to exploring hybrid-electric flight, the company is set to test two promising pilot concepts at an early stage. It is also focusing its efforts on alternative fuels known as synfuels, which are critical to meeting the ambitious targets.

**Technology funding programs**
At both national and European levels, MTU actively participates in all major research projects. It is a key partner in the German aviation research program (LuFo), as well as in EU research programs such as Clean Sky. The high degree of networking with industrial partners and the research community, as well as sustained funding from the public sector at national and European levels, are key pillars for the successful development of new technologies.

**Technology network**
Progress requires unconventional ideas and regular injections of fresh momentum. This is why MTU works closely with universities and research institutions around the globe. Its network strategy relies on three pillars: trend analysis and development of visionary engine concepts at the Bauhaus Luftfahrt think tank, concentration of basic research at just a few top-notch institutes and universities and regular exchange of experience with experts within and outside the aviation industry.

Through its committed, dedicated research and development work, MTU secures its technological edge and commercial success over the long term.
MTU 4.0

The company is committed to digitalization—from development, to manufacturing, to maintenance.

MTU Aero Engines has embraced the digital age in all areas of the business. Over the long term, the company plans to roll out intelligent connectivity and virtual modeling across all areas of the value chain. In this way, MTU 4.0 will be created step by step—Germany’s leading engine manufacturer in the digital age.

Technology 4.0

Even in the digital age, real aircraft will be powered by real engines. However, their development is increasingly shifting to the digital sphere. Today, MTU already employs comprehensive simulations throughout the process chain. This allows the company to decisively accelerate the time from the design and development phase through to the manufacturing and market launch of an engine, because it eliminates the need for costly and time-intensive experimental platforms and expensive validation tests in many cases. Instead, digital models are created and increasingly sophisticated simulations are elaborated.

Supply Chain 4.0

Complete transparency throughout the value chain is designed to secure deliveries, minimize inventories and track the progress of production at every moment. The goal is to be able to evaluate problems in the supply chain in real time and develop optimum measures in response by means of extensively connecting systems with suppliers and customers.

Manufacturing 4.0

In modern manufacturing, products and means of production can communicate and connect with each other flexibly. Cyber-physical systems allow components to identify themselves. MTU has already organized job preparation and manufacturing process control into semi-automated production lines. The production system for compressor blisks is the most advanced in the world for engine components of this kind, with processes that are digitally controlled and largely automated.

MRO 4.0

Digitalization is also a major theme in maintenance. With computer assistance, it is possible to identify technical problems in engines long before they can disrupt flight service or cause expensive repairs. Advanced analytics and machine learning techniques will enable the automated analysis of large quantities of data in the future. This will allow exact predictions to be made about the condition of engines on the wing. In this way, the planning of engine overhauls will be facilitated greatly. This reduces maintenance costs and increases airlines’ operational profits accordingly.

Business 4.0

A large number of administrative functions in finance, controlling, HR and IT are being optimized by means of digitalization. MTU introduces user-friendly portal solutions for a broad range of applications. The concept of lifelong learning becomes increasingly pertinent at a time when the half-life of new technologies is radically shrinking. MTU is gearing up for this change with a comprehensive e-learning concept. In addition to a future-ready learning portal, the company is also developing innovative e-learning content for its employees.
Indispensable partner

Partnerships are an essential requirement for MTU’s long-term success.

Thanks to its innovation capabilities and technological strength, the company has established itself as an indispensable partner in the industry. The company is part of a strong network with numerous collaborations at the highest level—from joint research ventures all the way to strategic partnerships.

Research and development
In research and development, MTU pursues close cooperation with institutes and universities. The company’s collaboration with leading German universities has been intensified through the founding of centers of excellence. Together with partners, MTU has also founded the Bauhaus Luftfahrt think tank to investigate various technological and commercial aspects of future aviation.

Manufacturing
Partnership and cooperation also play an important role in supplier relationships. Suppliers provide MTU with first-class materials, machines, products and repairs, without which the high-tech manufacture and repair of engines would be inconceivable. Some 6,300 suppliers serve the MTU sites worldwide.

Programs
MTU participates in commercial engine programs worldwide in partnership with industry leaders such as GE Aviation and Pratt & Whitney. As the world’s largest provider of subsystems, the company successfully contributes its unique capabilities and experience to these collaborations. For military programs, MTU cooperates at European level with all leading industrial partners in the industry. It is the cooperation partner for all major engines flown by the German Armed Forces as well as being a partner in U.S. military programs.

Service
Top quality and outstanding performance—that is what MTU and its partners stand for when it comes to first-class service. MTU operates successful joint ventures in this area, such as a maintenance undertaking with China Southern Airlines, a blade repair undertaking with Lufthansa Technik, and an engine leasing undertaking with the Japanese Sumitomo Corporation. In addition, it is a reliable partner of OEMs in the worldwide MRO network for GTF engines. For the maintenance of these innovative propulsion systems, MTU and Lufthansa Technik founded EME Aero, a joint venture based in Poland. Airlines are also important partners in the commercial maintenance business—they have placed their confidence in the reliable services provided by MTU Maintenance. In military maintenance, it cooperates closely with the German Armed Forces.
Top-class services in all business divisions

30 percent of aircraft fly with MTU technology on board. Today, MTU Aero Engines plays a key role both in commercial OEM business and in maintenance worldwide.

It is a leader in the field of commercial maintenance, with its comprehensive range of engine services. 1,000 shop visits per year for more than 30 different engine types, a worldwide service network for its customers, high-tech repairs developed in house, and the highest quality standards all demonstrate the outstanding strength of MTU Maintenance.

For 85 years, MTU’s military business has been the basis for its system capabilities. It is the leading industrial company for the German Armed Forces and plays a key role in major European military engine programs. In addition, it plays a successful role in programs for the U.S. military.

Drawing on its engine experience, MTU also delivers first-class maintenance services for industrial gas turbines (IGT). MTU Power is one of the world’s leading providers of reliable, flexible and cost-efficient solutions for IGTs in the LM™ series from General Electric.
Superior engine power: MTU’s commercial product portfolio covers all thrust classes.

<table>
<thead>
<tr>
<th>Widebody jets</th>
<th>Narrowbody and regional jets</th>
<th>Business jets</th>
</tr>
</thead>
</table>

From the most powerful engines for widebody aircraft to engines for business jets—MTU is involved in all major programs.

Balanced product and service portfolio

Forecasts predict that global air traffic will almost double by 2036. Consequently, there will be a substantial increase in demand for engines in the long term. MTU Aero Engines is ideally placed to benefit from this rise thanks to its balanced product and service portfolio—from engines for business jets to the most powerful engines for widebody aircraft—and its leading technological position.

Successful collaborations

With its trio of highly engineered components—the high-pressure compressor, low-pressure turbine, and turbine center frame—MTU has established itself as an indispensable partner of the major players in the industry: GE Aviation and Pratt & Whitney. The company’s solid partnerships with OEMs (original equipment manufacturers) are increasingly being broadened to encompass maintenance in the case of next-generation engines, such as the Pratt & Whitney GTF™ Engine Family.

New propulsion technologies set new standards

MTU plays a key role in the development of engines that are more fuel efficient and have a lower noise footprint. In close cooperation with major players in the industry, the company develops new propulsion systems and technologies for the future. A prime example is the innovative Pratt & Whitney GTF™ Engine Family. MTU works systematically on the continued optimization of its components. To further increase efficiency, the pressures and temperatures inside the engine will rise. Among other things, this calls for new materials and coatings. Furthermore, integral designs and new materials are the key to achieving significant weight reductions.
MRO solutions tailored to customer needs

Top maintenance provider
MTU Maintenance ranks among the top five service providers worldwide, with 40 years of experience and having completed over 18,000 shop visits. Moreover, it leads the field in engine-related MRO services. With its global service network, MTU Maintenance ensures that it remains close to customers, and is present in all major growth regions. Its diversified engine portfolio covers all major aircraft models from corporate jets to long-haul aircraft.

Services that meet the highest standards
With PERFORMPlus, MTU Maintenance offers operators of newer engines more flight hours at lower cost. This is achieved with intelligent fleet management, predictive maintenance with engine trend monitoring, high-tech repairs, on-site services and spare engine support. For engines approaching the end of their life cycle, MTU has developed SAVEPlus: smart strategies that are tailored to the remaining flight periods and help to keep costs down.

Preferred partner of airlines, leasing companies and OEMs
MTU is a reliable partner for more than 1,400 customers. This includes some 200 airlines as well as leasing companies and manufacturers. Operators and asset owners benefit from integrated service solutions that cover the entire engine life cycle. As an established OEM network partner, MTU increasingly supports OEMs with standardized maintenance solutions—for Pratt & Whitney GTF™ engines, for example. And, owing to its maintenance expertise, MTU is a preferred joint venture partner for airlines worldwide.

Towards the end of aircraft life, asset owners are looking to get the best possible value from their engines. With VALUEPlus, MTU Maintenance offers its customers effective end-of-life asset management, always finding the right solution—whatever the engine type or parts. And its MOVEPlus solution supports customers with a portable MRO solution across the lifecycle, enabling fast remarketability of assets through easy transfers and predictable costs with simplified MRO. In addition to these integrated service solutions, MTU customers can enjoy a range of tailored offerings with SERVICEPlus.

MTUPlus
- AOG support
- Engine/module MRO
- Inspection, diagnostics and investigation
- On-site and near-wing services
- LRU and parts management
- Engine trend monitoring
- Spare engines

SAVEPlus
- Reduced cost with smart strategies for mature engines

VALUEPlus
- Maximized value with effective end-of-life asset management

PERFORMPlus
- More flight hours at lower cost with customized MRO

MOVEPlus
- Risk mitigation and more revenue with portable MRO

SERVICEPlus
- Spare parts, LRU and OEC
- Parts and accessory repair
- Teardown
- Technical asset management
Committed to the mission

Key role in all major military engine programs

MTU Aero Engines is one of the world’s leading industrial system partners for the military engines that power fighter aircraft, helicopters and military transport aircraft. With its excellent technologies, products and services, it ensures that military customers can count on the full availability of their fleets at all times.

MTU is the industrial lead company for the German Armed Forces and plays a key role in major European military engine programs—such as the EJ200 for the Eurofighter, the TP400-D6 for the Airbus A400M military transport aircraft, and the MTR390 for the Tiger combat helicopter. In addition, it has secured stakes in programs outside of Europe. For the T408 engine for the CH-53K heavy-lift cargo helicopter, the company—in cooperation with GE Aviation—assumed full development responsibility for components in a U.S. military program for the first time.

When it comes to the next-generation European fighter jet planned as part of the Future Combat Air System (FCAS) project, MTU’s expertise and experience make it a perfect engine partner. As such, the company is already working to define a concept for the Next European Fighter Engine (NEFE).

Systems expertise from a single source

At a national level, MTU is the industrial lead company for almost all aircraft engines operated by the German Armed Forces. In addition to the development and manufacture of innovative engine modules and components, its service portfolio also comprises maintenance and a comprehensive range of services. In coordination with customers, it develops service concepts based on their individual requirements and implements them jointly with them. In this way, partners such as the German Armed Forces acquire precious know-how while enjoying end-to-end support throughout the life cycle of an engine.

Cooperation with the German Armed Forces

In 2002, MTU became the first in the market to successfully enter into collaboration with the German Armed Forces, the company’s biggest military customer. At Erding in Bavaria, Germany, MTU experts and specialists from the German Air Force work side by side to maintain the military’s EJ200, RB199 and MTR390 engines. MTU is also the first company to be certified to maintain the TP400-D6 engine for the Airbus A400M military transporter based on civil MRO procedures.

MTU has been a strong partner in military programs both in Germany and on an international level for decades.

<table>
<thead>
<tr>
<th>Fighter aircraft</th>
<th>Transport aircraft</th>
<th>Helicopters</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Fighter aircraft" /></td>
<td><img src="image2.png" alt="Transport aircraft" /></td>
<td><img src="image3.png" alt="Helicopters" /></td>
</tr>
</tbody>
</table>

MTU’s expertise can be found in military engines used to power fighter aircraft, military transport aircraft and helicopters.
Power for industrial gas turbines

Concentrated expertise in maintenance

With its MTU Power brand, MTU is one of the world’s leading providers of reliable, flexible and cost-effective maintenance services for LM™ series industrial gas turbines (IGTs) manufactured by GE. MTU’s experts can lay claim to 40 years of experience and more than 1,300 shop visits. Its international customers are as varied as the diverse applications of the products and include energy producers, navies, and operators of oil rigs and compressor stations. They all benefit from a worldwide service network and MTU’s expertise in the development, manufacture and repair of aircraft engines, the technologies of which are very closely related to their products.

The very best solution for each customer

MTU’s site in Berlin-Brandenburg is a center of excellence for the maintenance, repair and overhaul (MRO) of LM™ series IGTs. It possesses one of the largest, state-of-the-art IGT test cells in the world. To ensure proximity to its customers, MTU Power is further expanding its network of worldwide service centers, and now has a presence in Australia, Brazil, Norway, Thailand and the U.S. MTU Power offers attractive customized service solutions—from individual on-site repairs to comprehensive services from a single source—including lease engines and IGT package services.

OEM for marine and industrial gas turbines

MTU subsidiary Vericor Power Systems LLC in Alpharetta, Georgia in the United States develops and manufactures TF- and ASE-series gas turbines for ships, for mechanical drives, and for power generation. It also offers comprehensive services for these assemblies. The company supplies customers all over the world, including navy fleets such as that operated by the U.S. Navy.

Global operations: MTU Power serves its customers around the clock, 365 days a year.
With its broad portfolio of commercial and military engine programs and maintenance services, MTU Aero Engines is ideally positioned for the future. Partners and customers benefit from MTU’s outstanding systems expertise, which covers the entire life cycle of commercial and military engines—from research and development, to manufacture, maintenance and support, including a comprehensive range of services. The company sets standards worldwide with its lifetime excellence for engines.

Profitable growth that also outstrips market growth is the goal. The basis for sustainable growth is the company’s future-proof engine and service portfolio, stable and long-term customer relationships, motivated employees, and global positioning in growth markets.

“Answering tomorrow’s challenges”: that is precisely what MTU does. It has already secured its participation in the major engine programs of the future. Cutting-edge MTU technology can be found in engines such as the Pratt & Whitney GTF™ Engine Family in the GEnx for the Boeing 787 Dreamliner; and in the GE9X for the new Boeing 777X long-haul aircraft. The company has also positioned itself very well in the military sector with the TP400-D6 for the A400M military transport aircraft and the T408 for the CH-53K heavy-lift cargo helicopter.

When it comes to maintenance, MTU benefits from its activities as a strong independent service provider and also from its close relationships with OEMs, forged when working on new engine programs in which the company has successfully secured a stake.

With its strong culture of innovation, MTU has carved out a leading technological position for itself in major areas and has established itself as a reliable partner in the industry. It invests in a wide range of technological activities, while also working on new products for tomorrow and on revolutionary propulsion systems for even further down the line. MTU is the only player in the European aviation industry to draw up concrete ideas for revolutionary propulsion concepts that will achieve aviation’s environmental targets in 2050 and beyond. In this respect, MTU is taking it upon itself to help cut emissions—a major challenge. It is also focusing its efforts on two pilot projects, hybrid-electric flight and alternative fuels.