

# Technology to drive change towards a sustainable aviation



World leaders in aeronautical engines and products





# Our purpose is the motivation that drives us.

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State-of-the-art aeronautical technologies,  
products and services for a better future.

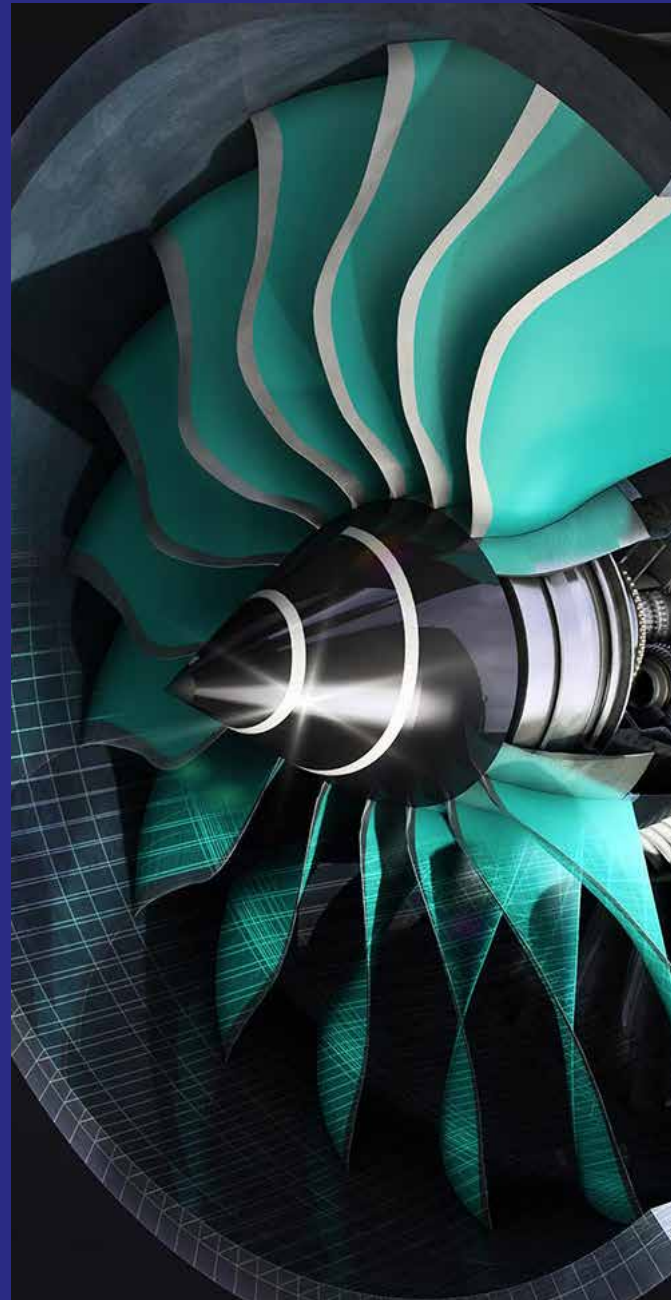




**Develop the technology to drive change in the aerospace sector, towards a more sustainable mobility.**

**World leaders  
in aeronautical  
engines and  
components.**

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**Ninth largest aircraft engine and components company in the world.**

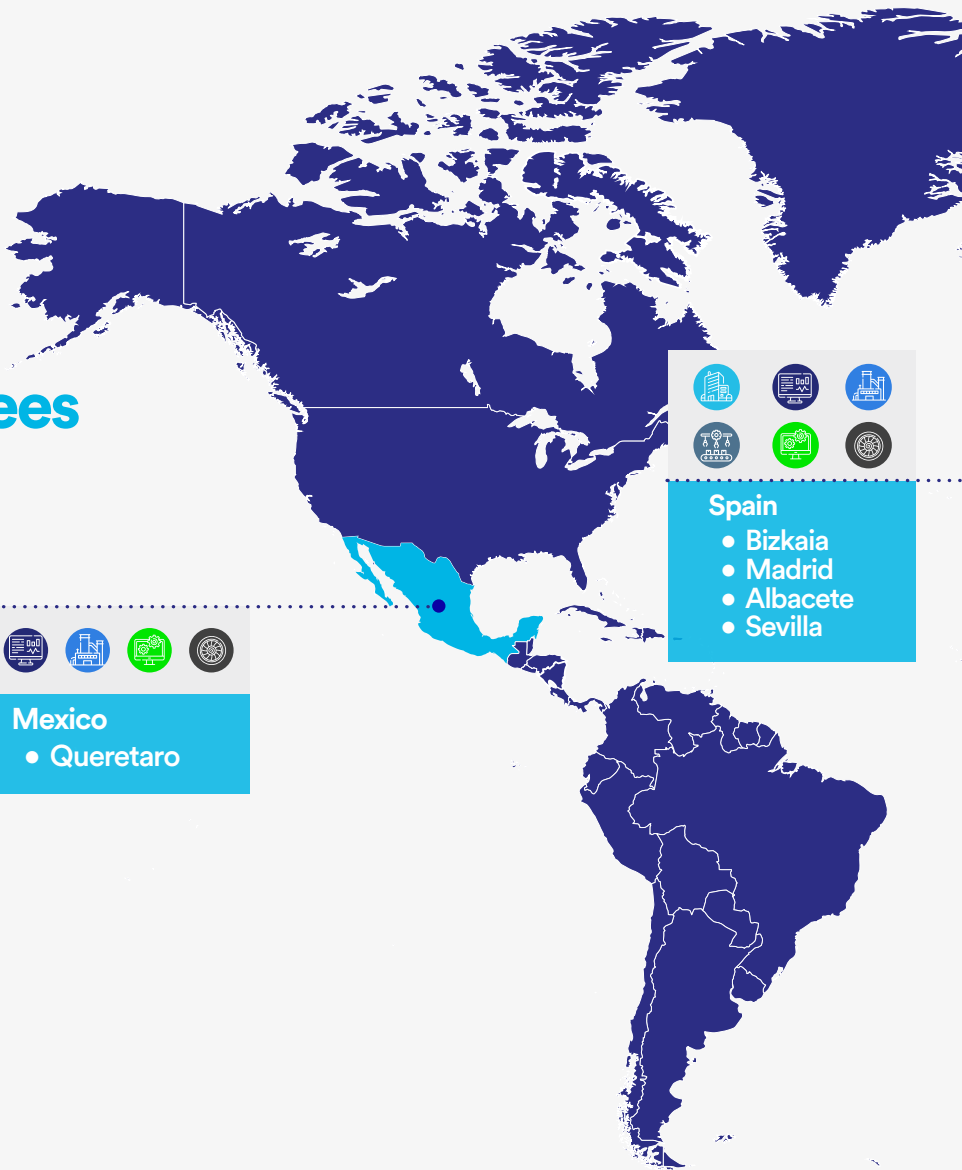
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**Present in more than half of the world's double-aisle aircraft and relevant market share in single-aisle and business aviation.**

# Global player.

5 countries

4.200 employees



**Mexico**  
• Queretaro



**Spain**  
• Bizkaia  
• Madrid  
• Albacete  
• Sevilla



Headquarters



Engineering



Manufacturing



Assembly



In service support



Engine testing



UK

- Hucknall
- Lincoln
- Whetstone



Malta

- Hal Far



India

- Hyderabad

## Founding members of the EU Clean Aviation programme●

Making European aviation  
carbon neutral by 2050, with a  
public-private investment of 4.1  
billion euros.



# Leading the path towards a better tomorrow.●

Committed to carbon neutrality by 2050 as partners in the United Nations Race to Zero campaign.

The "RACE TO ZERO" logo, with the text in white capital letters on a dark blue background, featuring a white glow effect behind the text.

RACE TO ZERO

### Products

New engine architectures to  
improve efficiency and enable the  
use of sustainable aviation fuels.

### Our activities

Aiming at net zero carbon  
operations by 2030.





# SUSTAINABLE DEVELOPMENT GOALS

# ESG

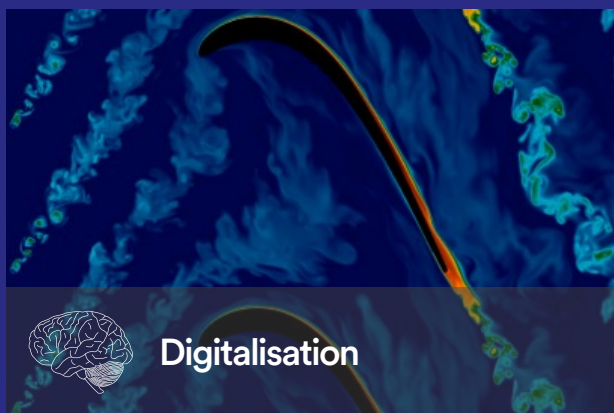
is a key element  
of our market  
positioning.



- Climate change
- Pollution and waste
- Circular economy
- Product innovation
- Product safety
- Prosperity
- Human rights
- Employee well-being and safety
- Equality, diversity and inclusion
- Skill for the future
- Corporate governance
- Integrity and compliance
- Risk management
- Transparency to stakeholders
- Privacy and cybersecurity

# Proprietary technology and cutting-edge capabilities.

Broad technology portfolio for civil aviation and defense.



# Partners in the world leading efficient and sustainable civil aviation programmes.

## Civil aviation

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Tier 1 to the main aircraft engine manufacturers. Responsible for the design, development, production and assembly of engine subsystems and components for all market segments: double-aisle, single-aisle, regional and business aviation.

## Defense

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Original Equipment Manufacturer (OEM) in the main European defense programmes, in the design, development, production, certification, in service support and maintenance of the EJ200, TP400 and MTR390-E engines.  
FCAS engine technology leaders in Spain.

## Industrial turbines

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Partners in the two most relevant industrial application of aero-derivative gas turbine programmes in the market, the LMS100 and LM2500.

# Civil aviation. Key programmes.

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## Double-aisle

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Airbus **A350XWB-900**

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Airbus **A350XWB-1000**

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Boeing **787 Dreamliner 8/9/10**

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Airbus **A330neo**



## Single-aisle and regional

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Airbus **A320neo**

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Airbus **A220**

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Embraer **E2**

**Second Generation Jets**



## Business aviation

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Gulfstream **G600**

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Gulfstream **G280**

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Gulfstream **G500**

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Bombardier **Challenger 300/350**

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Gulfstream **G400**

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Embraer **Praetor 500/600**

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Dassault **Falcon 6X**

Cessna **Citation Longitude**

# Civil aviation.

Shaping technology towards a more sustainable aviation.

Double-aisle

**+25%**  
fuel efficiency



Single-aisle and business aviation


**-20%**  
CO<sup>2</sup> emissions







## Double-aisle

<b>Trent XWB</b>	Airbus A350 XWB	
<b>Trent 7000</b>	Airbus A330neo	
<b>Trent 1000</b>	Boeing 787 Dreamliner	
<b>Trent 900</b>	Airbus A380	
<b>Trent 500, 700, 800</b>	Airbus A340-500/-600 Airbus A330 Boeing 777	

## Single-aisle

<b>PW1000 G</b>	Airbus A220/A320neo Embraer E2 Second Generation Jets	
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## Business aviation

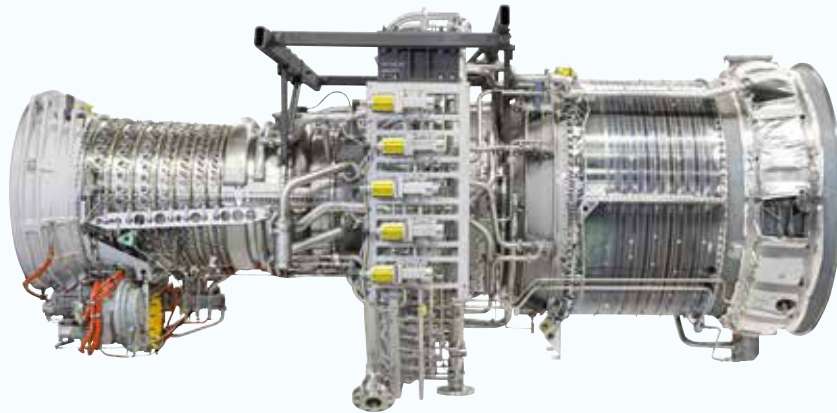
<b>PW800</b>	Gulfstream G600 Gulfstream G500 Gulfstream G400 Falcon 6X	
<b>HTF7000</b>	Bombardier Challenger 300/350 Gulfstream G280 Embraer Praetor 500/600 Embraer Legacy 450/50 Cessna Citation Longitude	
<b>CFE738</b>	Dassault Falcon 2000	
<b>TFE731</b>	Hawker 750/900XP Bombardier Learjet 40/45 Dassault Falcon 900 Gulfstream G150	

# Industrial turbines.

Supporting electricity generation, marine and mechanical propulsion.

## GE LM2500

Fuel flexibility, including hydrogen



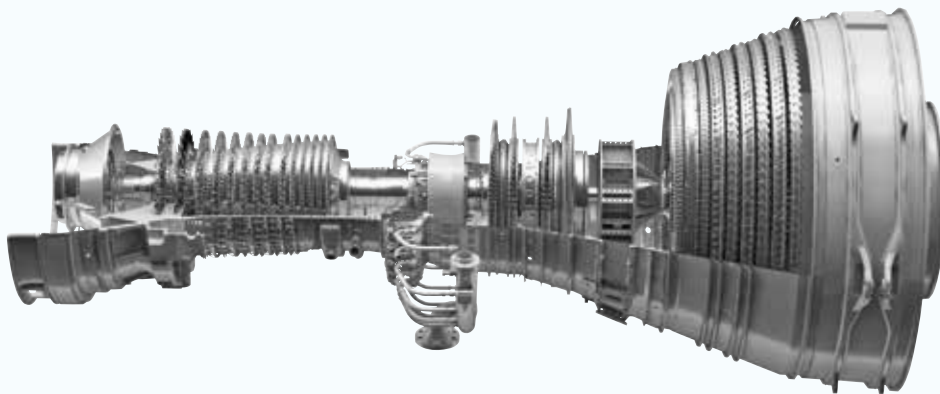
Solid solution for grid stabilisation in renewable energy generation



## GE LMS100



Versatility, accessibility and quick availability



# Defense aviation.

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Original equipment manufacturer (OEM) in the main European defense programmes.

## European defense programmes

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**Eurofighter Typhoon**



**Airbus Military A400M**



**Airbus Helicopter Tiger HAD**

## Fighter jets and trainers

EJ200

Eurofighter



F414

Boeing F/A-18 Super Hornet



F135

Lockheed Martin JSF



J85-5-21

Northrop F-5 T38 Talon



## Transport

TP400

Airbus A400M



## Rotorcraft

MTR390-E

Eurocopter Tiger



CT7- 8F5

NH Industries NH90



# Defense aviation.

# FCAS engine technology leaders in Spain

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## Thrust technology for the new generation fighter aircraft:

- Innovative manufacturing processes
- Development of new aerodynamic materials
- Simulation technology
- Smart and predictive maintenance
- Energy management
- Very low observability

**Developing FCAS's low pressure turbine, advanced heat exchangers and the multi parametric and thrust vectoring nozzle.**

**Key partner for engine integration.**



# Products and capabilities.

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## TIER 1

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- Key engine subsystems: design, manufacture, assembly and validation
- Engineering and experimental services
- Make to print of key components

## Original Equipment Manufacturer (OEM)

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- Whole engine engineering
- Engine assembly and tests
- In service support and maintenance
- Design and certification authority



**Turbines**



**Compressors**



**Nozzles**



**Structures**



**Externals and aerostructures**



**Combustors**

# In service support.

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ITP Aero offers in service support solutions beyond MRO services.

**Fulfilling a key role in the aeronautical and defense markets and ensuring the highest quality standards, including global reach with 24 hour assistance, fleet management and training.**

- Full engine MRO
- ECTM (Engine Condition Trend Monitoring)
- Engineering services
- Customer support
- Fleet management
- Supply chain solutions





### Business aviation

### Defense applications

### Commercial and public helicopters



PW814/815



TPE331



CT7-5/7/9



EJ200



F404-400



CT7-8/T700



M250-SERIES



TFE731



TP400



MTR390-E



RR300

# Experimental services.

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Bespoke solutions based on proprietary technology development and experience as a world leading aeroengine manufacturer.

## TESTS

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- Vertical and horizontal spin pit (burst, over speed and fatigue LCF-HCF)
- Bird impact
- Fan Blade Out (FBO)
- Trailing Blade Integrity (TBI)

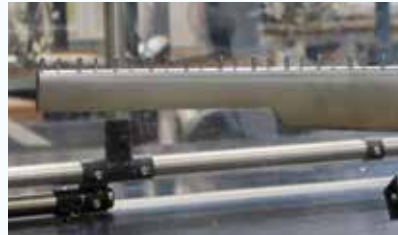


## Engine test facilities



- 360° test-cell engineering
- Customer tailored services
- In-house test beds in Spain, UK, Mexico and Malta

## Instrumentation



- Complete engine instrumentation

## Data acquisition system



- Fully scalable data acquisition system
- Proven experience as engine test bed operator

## Rigs



- Design, manufacture and assembly of aerothermal, combustion, mechanical integrity and seal rigs.

## Component testing



- Design and operation of in-house component testing
- Proprietary compressor testing facility
- Custom design and manufacture of component testing facilities

