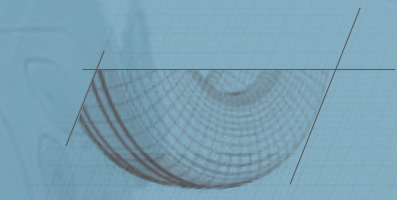


*A FEW INCHES<sup>2</sup>*  
**HELPING**  
**THE WORLD**  
**TO FLY**





**A FEW INCHES<sup>2</sup>\***

The **only contact** an aircraft has with the ground.  
When taking off and landing, or guiding the aircraft while taxiing.

A few inches<sup>2</sup> of **first-class, high-performance** Michelin aircraft tires. From ground to skies.  
**For complete peace of mind.**

\*inches<sup>2</sup>= 6,45 cm<sup>2</sup>

A few inches<sup>2</sup> of **premium, high-tech** Michelin tires that

- land up to **30,000 times a day**
- carry more than **10 million people** every day
- carry up to **35 tons** (300 times their actual mass)
- resist temperatures **from -55°C to +250°C (-67°F to +482°F)** when landing
- land at **speeds of up to 420 kph (260 mph)**
- contain more than **200 premium raw materials**
- taxi **15,000km on ground**, per tire
- are tested **up to 4x** the recommended air pressure to ensure on-board safety

Without these few inches<sup>2</sup>, **nothing is possible.**

**MICHELIN AIRCRAFT TIRES.  
THE FEW INCHES<sup>2</sup> THAT  
CHANGE EVERYTHING.**





**DID YOU KNOW ?**

ANDRÉ MICHELIN WAS A CO-FOUNDER OF THE AÉRO-CLUB DE FRANCE CREATED IN 1898.

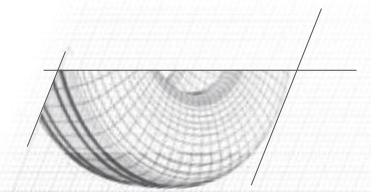
## A FEW INCHES<sup>2</sup> OF PIONEERING HERITAGE

**"EVER HIGHER, THE FUTURE IS IN THE SKIES".**

Thanks to its global reputation, Michelin is internationally recognized as the No.1 tire manufacturer in the world\*. For over 100 years, Michelin has repeatedly stepped up to confront the challenges faced by the aeronautic industry. It has pioneered beyond the frontiers of technology, seeking out new developments and offering its clients greater mobility solutions.

Michelin will continue to rise to the occasion, offering the very best in aircraft tire innovation.

\*source: Reputation institute



1915

The first Breguet Michelin airplane was built

1916

Michelin lays the world's first cement runway

1936

Michelin labeled specialists in suspension systems

1946

Radial tire technology is invented by Michelin

1981

1st Radial aircraft tire certified for a Dassault Mirage III

1983

1st Radial tire certified for a commercial flight, the Airbus A300

1995

Michelin named exclusive supplier for all American space shuttles

2001

Concorde returns to the skies, thanks to Michelin's new Radial NZG technology (Near Zero Growth)

2009

Michelin joins the Solar Impulse project

2015

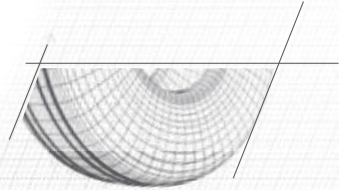
737 MAX certification and first flight of A350 with NZG technology

Michelin continues to enhance its **NZG (Near Zero Growth) Radial technology** for all new aircraft (Airbus, Boeing, Embraer, Bombardier, Dassault, and Textron, to name a few).

This **continuously evolving technology** has positioned Michelin as today's **global leader in Radial aviation technology.**

**ALL MAJOR TECHNOLOGICAL BREAKTHROUGHS IN TIRES HAVE BEEN INVENTED BY MICHELIN.**





## A FEW INCHES<sup>2</sup> UPHOLDING OUR COMMITMENT TO BUSINESS CONTINUITY

### DELIVERING PEACE OF MIND FOR A BETTER FLYING EXPERIENCE.

Our agile manufacturing approach is focused on meeting the needs of our customers, adapting to market growth and maintaining high levels of quality.

At Michelin, our risk management process anticipates, controls and measures efficiency, seeking out relevant solutions for continuous improvement.



Always on hand for customers, with a global footprint incorporating **3 multi-manufacturing plants** (Asia, US, Europe).



All facilities are approved for **new tire supply and retread services**, implementing strict quality requirements across the board for "manufacturing and retreading".



Continually **improving flexibility and response** times in our manufacturing plants to assure a high level of quality customer service.



Superior on-time delivery services, that **anticipate international transportation concerns and client use**, guaranteeing prompt and accurate solutions for our customers' needs.



**Substantial ongoing industrial investment** in keeping with market growth.



**Comprehensive workflow management**, from raw material purchases to final customer delivery, safeguarding against external events and **optimizing business continuity**.

THIS AWARD REPRESENTS HIGH PERFORMANCE AND QUALITY STANDARDS. TO BE CONSIDERED, SUPPLIERS MUST MAINTAIN A 99 PERCENT ON-TIME DELIVERY RATING WITH A 100 PERCENT QUALITY RATING,...

**AMY GOWDER  
LOCKHEED MARTIN**



WITH MICHELIN TIRES,  
OUR CLIENTS GET:

ONLY **1**  
TIRE EVENT  
FOR EVERY  
MILLION  
LANDINGS

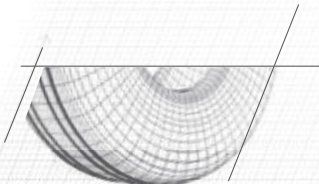
UP TO  
**100%\***  
MORE  
LANDINGS

UP TO **160**  
KILOTONS  
OF CO2  
SAVED  
ANNUALLY

\*NZG radial tires compared to Bias tires

**\$1.5**  
MILLION  
PER YEAR  
IN SAVINGS\*

\*for a fleet of 100 aircraft  
thanks to tires weighing 11kg less  
(For a Boeing B777-300ER)



**A FEW INCHES<sup>2</sup>  
ENCOMPASSING  
GREATER  
PERFORMANCE  
IN A SINGLE TIRE**

**DELIVERING HIGH PERFORMANCE  
AND OFFERING AIRLINES SUPERIOR  
RELIABILITY.**

Thanks to the deployment of leading-edge technologies, MICHELIN Total Performance has a unique way of designing tires that delivers enhanced performance across the board. Setting the highest of standards, Michelin developed the MICHELIN Air X Radial tire range with NZG technology.

Michelin is constantly improving its tire performance to adapt to the specific needs of every aircraft.

**MORE OPERATIONS  
OPTIMIZATION FOR AIRLINES:**

➤ **More maintenance savings**, thanks to greater tire reliability, longevity and resistance against damage.

➤ Thanks to new Radial technology, which negotiates the balance between lower weight tires and more landings, Michelin achieves **better load carrying capacities and more fuel savings**.

➤ **Better turnaround times**, thanks to tires that cool faster after landing and improved rolling resistance when taxiing.

➤ Our tires are **subjected to intense testing** in extreme conditions, which has led us to **significantly enhance our models**.

➤ **Customized tire designs** optimize the operational results of all our clients.





## A FEW INCHES<sup>2</sup> ADVANCING CLIENT SERVICES IN THE AVIATION INDUSTRY

### ***RISING TO THE CHALLENGES OF THE FUTURE BY CONTINUALLY CONNECTING WITH OUR CLIENTS.***

From tire conception to tire maintenance, and thanks to our reliable timely delivery, we offer dedicated services that optimize airline and airframer operations.

Our business is strengthened thanks to our highly responsive support teams, on hand for all customer requirements.

An expert team dedicated to creating added value for airlines, through customized maintenance and operational services, global tire performance and usage reviews, tire management training and excellent emergency response times.

Michelin engineering has **over 40 years' experience working together with diverse aviation stakeholders**, through advising, analyzing and developing specialized tire solutions for greater aviation performance.

Comprehensive **cross-training sessions** are organized with representatives from various aeronautic fields, to **exchange industry knowledge and optimize expertise across the board.**

We create opportunities to customize supply chain solutions, such as improving inventory and fleet management, **to keep customer operations running smoothly.**

Continuous development of our **Digital Aircraft platforms helps us to connect with our clients** and offers us an in-depth understanding of their needs.



7 PROFESSIONAL TESTING FACILITIES VALIDATE NEW DEVELOPMENTS AND CARRY OUT 1,500,000 TEST MEASURES ANNUALLY

## A FEW INCHES<sup>2</sup> OF BREAKTHROUGH INNOVATION

### DELIVERING CUTTING-EDGE TECHNOLOGY, IN ADDITION TO INNOVATIVE AND CREATIVE SOLUTIONS FOR BETTER MOBILITY.

Innovation is at the heart of what makes Michelin different. Leading the way in R&D, Michelin's applied expertise and commitment to excellence produce the very best innovative breakthroughs for our clients, providing them with state-of-the-art developments and solutions for the future.

Michelin's **innovative technology centre** houses over **6,600 people dedicated to R&D** and applies for more than **400 patents** annually.

**Leading R&D investor in the international aviation tire industry**, with the aircraft division investing more into R&D than any other division within the Michelin Group.

**Continuously evolving our tools** designed for conceiving, simulating and conducting user tests for our products, **updating our models** and **staying ahead** in the industry.

**Working alongside aeronautic experts and aircraft builders**, to better understand their needs up to **20 years in advance**, laying technological building blocks to create the **tire of tomorrow**.

"Cross-fertilized" knowledge thanks to **diverse industry experts collaborating together**.

In partnership with Airframers, **Michelin supports all major upcoming aircraft developments** (Airbus, Boeing, Bombardier, Comac, Dassault, Embraer, Gulfstream, Hondajet, Lockheed Martin, Pilatus, Sukhoi, Saab, Textron, etc.).

MICHELIN'S TIRES ARE CREATED USING A VERY SPECIAL DESIGN PROCESS, BASED ON THE LATEST BREAKTHROUGHS AND TECHNOLOGICAL DEVELOPMENTS."

HASSAN SALAH EMIRATES

MICHELIN'S  
**ENVIRONMENTAL  
IMPACT WAS REDUCED**  
THANKS TO A **22%**  
DECREASE IN WEIGHT  
COMPONENTS, WHILE  
**TIRE DURABILITY WAS  
INCREASED**



## A FEW INCHES<sup>2</sup> OFFERING A BETTER WAY FORWARD

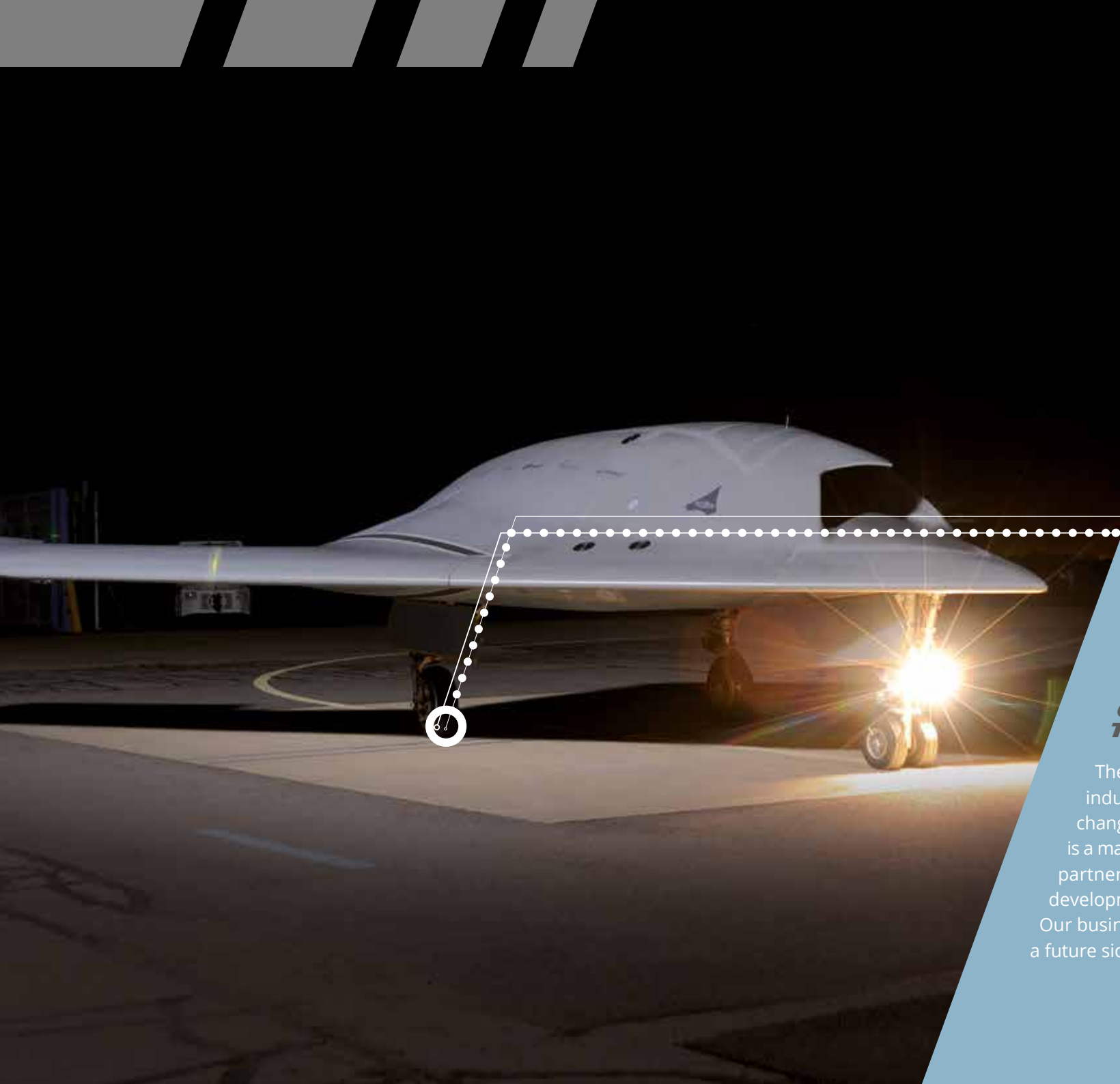
### QUALITY IS OUR PASSION. QUALITY IS YOUR BUSINESS.

Quality and sustainability are Michelin's two fundamental operating principles, driving us to attain superior standards. Our promise of world-class excellence is reflected in the people we employ, the processes we implement, the products we produce, the services we deliver and the performance we achieve.

Through our commitment to quality and sustainability, we contribute towards securing our client's future, both in the skies and on the ground.

- 
- **Certified AS/EN 9100** for Aerospace Quality Management Standards, in addition to **ISO 14001 Environmental Certification** covering all Michelin production sites.
  - **World-wide Quality Guarantee**, thanks to the standardization of industrial processes ensuring global product performance.
  - **All activities are approved and audited by Airframer and other authorities (FAA, EASA, CAAC,...)** to monitor operational standards.
  - Michelin is a **recognized leader in sustainable mobility**, boosting environmental, societal and economic benefits.
  - The company's "Environmental Charter" sets **high expectations for sustainable business development**, following guidelines set out by COP21 & COP22.
  - **Eco-responsible solutions** look to recycle and repurpose used tires, and reconditioning materials **optimizes resources** while still **maintaining the highest possible quality**.





**A FEW INCHES<sup>2</sup>  
EXPANDING  
THE HORIZONS  
OF AVIATION  
PARTNERSHIPS**

**CONNECTING PEOPLE FROM  
GROUND TO SKIES, OPENING  
THE WAY TO THE FUTURE.**

The future of aviation is transforming rapidly, and the industry's global market must rise to respond sustainably to changing travel needs and an increase in air travel. Connectivity is a major challenge, and thanks to our committed industry partnerships we are successfully implementing it in our developments.  
Our business models are also changing, moving towards a future side-by-side with our aviation partners.

- Partnerships with airframers, suppliers and aviation stakeholders are collaboratively developed over the long-term, and help revolutionize industry innovation.
- Collaborative expertise and development of data mining algorithms for landing gear systems.
- Developing connected products to optimize airline operations.
- Involved with the development of Green Taxiing Systems to save fuel and greenhouse gas emissions.
- Participating in innovative sustainable development projects, such as Clean Sky.
- A leader in the military aviation industry, Michelin's entire tire range has benefited from innovative technology developed for military use.

- TRUSTED BY
- AIRBUS
  - BOEING
  - BOMBARDIER
  - COMAC
  - DASSAULT
  - EMBRAER
  - GULFSTREAM
  - HONDAJET
  - LOCKHEED MARTIN
  - PILATUS
  - SUKHOI
  - SAAB
  - TEXTRON
  - ...



**40 YEARS**  
**EXPERIENCE**  
IN AIRCRAFT TIRE  
PRODUCTION

WE WORK ALONGSIDE  
**90%**  
OF THE **TOP 20**  
AIRLINE COMPANIES

**3** EVERY  
**SECONDS**  
OUR TIRES  
TAKE OFF  
AROUND THE WORLD

ALMOST  
**1 IN 2**  
COMMERCIAL  
**AIRCRAFT**  
LAND WITH MICHELIN TIRES

**120** DIFFERENT  
NATIONALITIES  
MULTICULTURAL  
GLOBALLY-BASED TEAM

OVER  
**3 MILLION**  
**RADIAL**  
AIRCRAFT TIRES  
HAVE BEEN MANUFACTURED

AVIATION  
OPERATIONS  
IN **87**  
**COUNTRIES**

**250**  
CUSTOMERS  
PLACE THEIR  
**TRUST IN US**

**Nº1**  
MANUFACTURER  
OF AVIATION  
TIRE PATENTS





***A FEW INCHES<sup>2</sup> CHANGE EVERYTHING.***

*MICHELIN. A TRUSTED PARTNER FOR THE  
LONG-TERM. DELIVERING CUSTOMERS  
PEACE OF MIND.*

<https://aircraft.michelin.com>

