



sonaca 
GROUP

2018



Sonaca Group:
close to your
business!

Sonaca Group has achieved significant growth in 2018, across all its manufacturing sites. Overall, revenues amount to over 900 M\$, exceeding expectations and firmly anchoring its position as a top 10 global aerostructure manufacturer.

Concomitant ramp-ups of major platforms across several production sites in North America have caused operational difficulties in 2018, with associated pressure on margins. Thanks to Group-wide support, US teams have successfully achieved required production growth. The focus now remains on continuously improving service to our customers.

Sonaca Group combines many differentiating strengths: a global industrial foot-print efficiently combining customer proximity and low-cost country presence, a very broad set of skills, a broad portfolio of customers and significant workshare on all growing platforms.

In 2019, Sonaca Group will further intensify synergies with its US subsidiary and will continue to expand its offer to bring its full set of capabilities to all its customers.

Sonaca Group management has developed a 3-year roadmap "Focus 20-21" to maintain excellent operational performance across all sites, unleash full value of synergies and capture broader opportunities. This strategic plan describes in detail the objectives and action plans for all departments and sites for the next 3 years (2019-2021).

The following pages succinctly present an overview of the Sonaca Group capabilities and main ambitions of "Focus 20-21" roadmap.

Sonaca Group will continue to grow as a global player in the Aerostructure sector and will remain a trusted and reliable partner, supporting efficiently the continued success and growth of its customers.

Focus 20-21



Pierre Sonveaux
Chairman of Sonaca Group

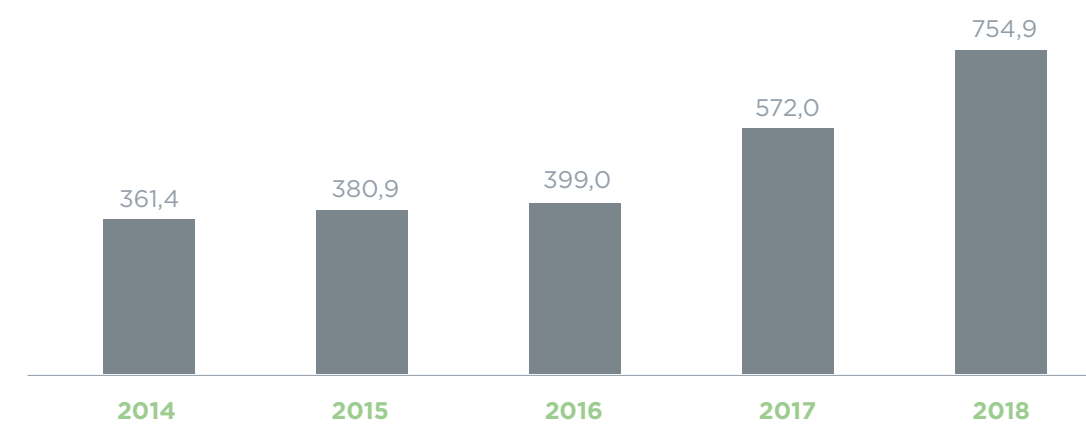
Bernard Delvaux
CEO of Sonaca Group

SONACA GROUP OVERVIEW

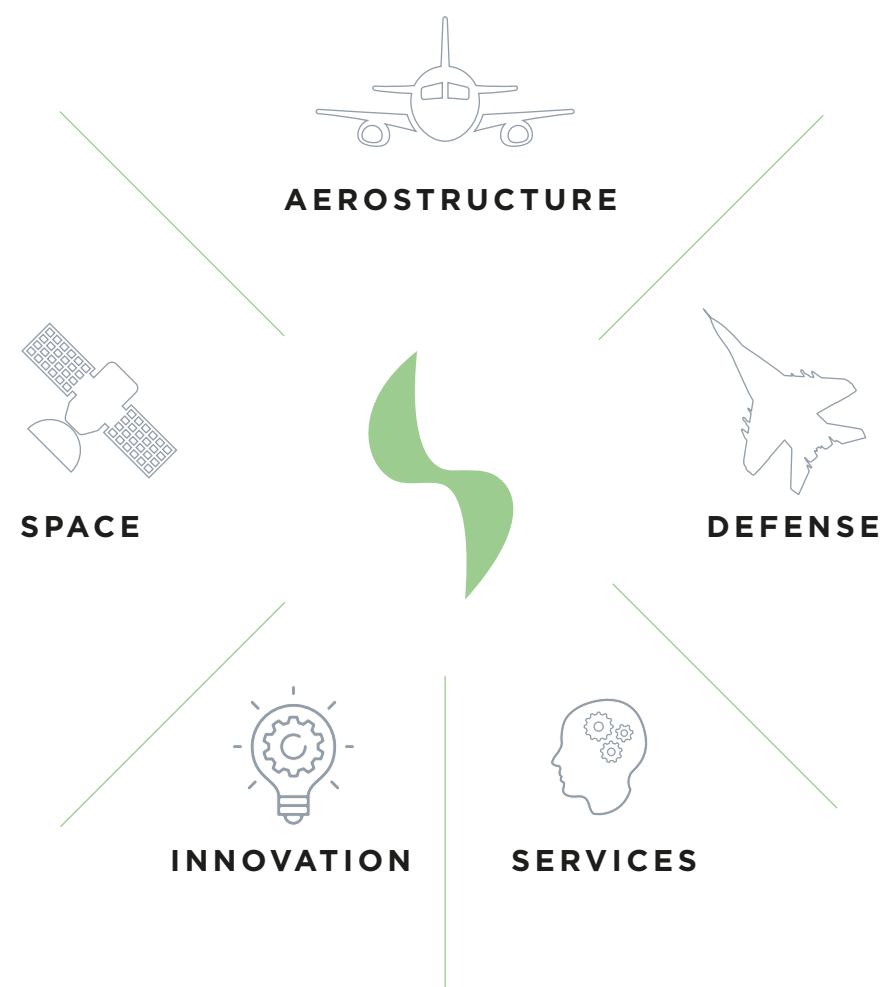
—
TOP 10
aerostructure player

—
4630
employees

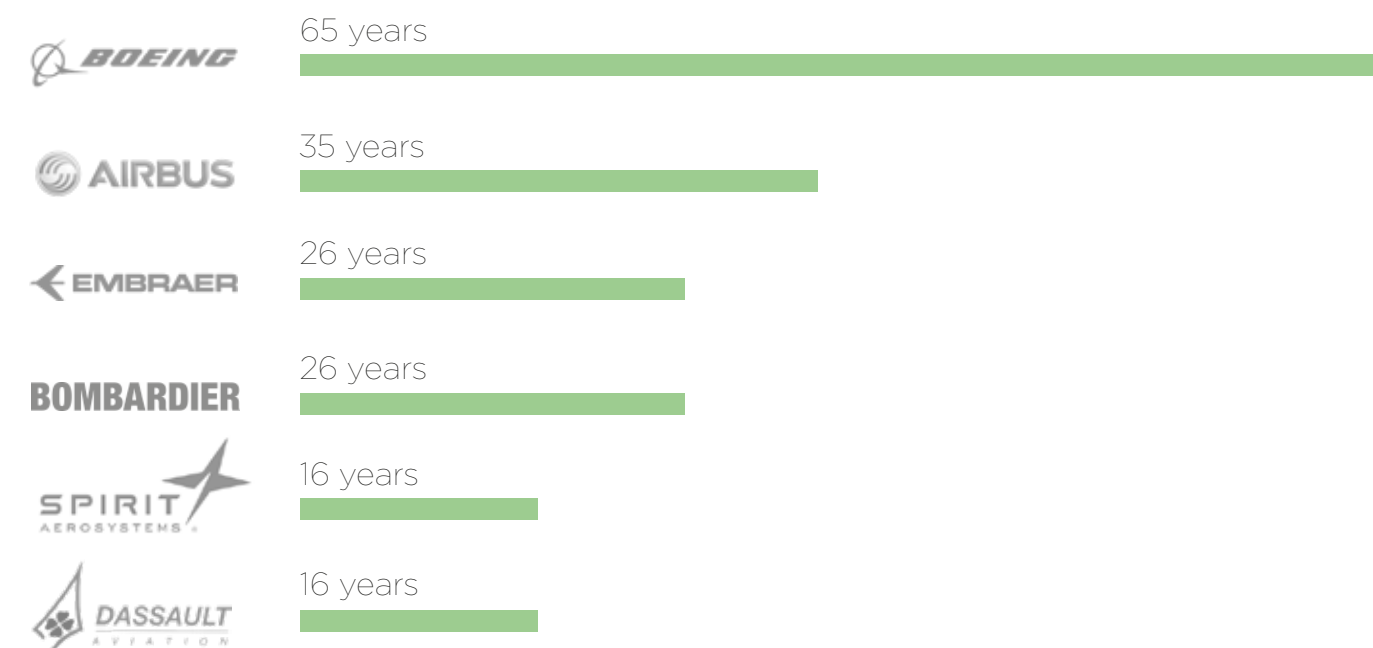
Revenues *in millions of euros*



Sonaca Group: active in five business lines!



Lasting relationships with customers...



Broad customer portfolio...



Present on all
growth platforms in
commercial aviation!





RELIABLE & COMPETITIVE
OPERATIONS

Sonaca Group has successfully expanded its best cost footprint



sonaca
CHINA



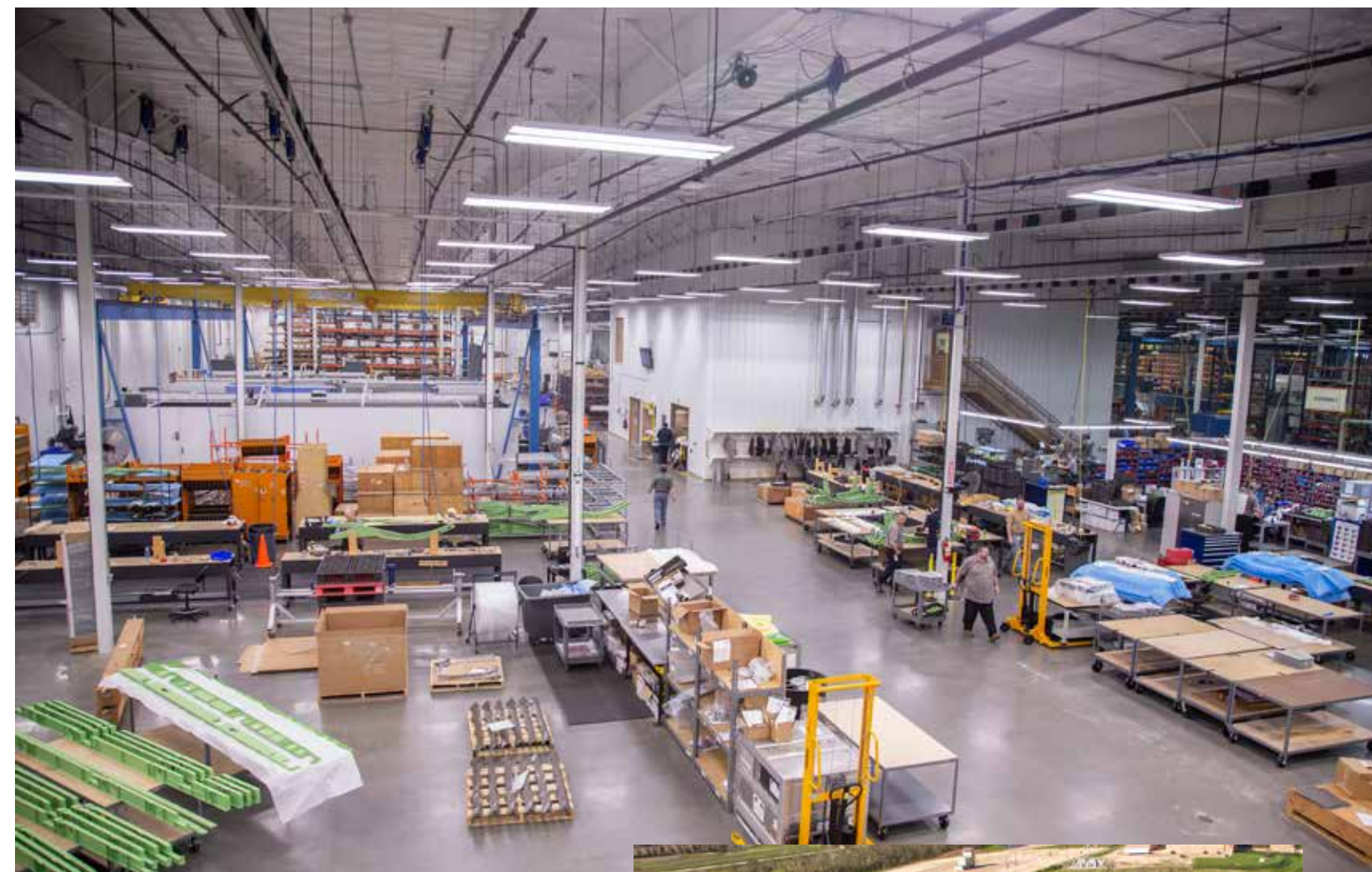
sonaca
TRANSILVANIA



sonaca
BRASIL



lmi aerospace
MEXICO
SONACA GROUP



LMI ready for rate increase!

Overhead and inside views of expanded LMI Aerospace's machining facility in Washington, Mo.





7th time SQIP awarded in 2019.

Slat A 320:
«best in class»,
on time/quality
delivery!



« Bavius » and « Makino » machines are making A350 parts with high metal removal rates, high accuracy and superior finish.

Recent acquisition:
high speed
machines for
aluminium parts

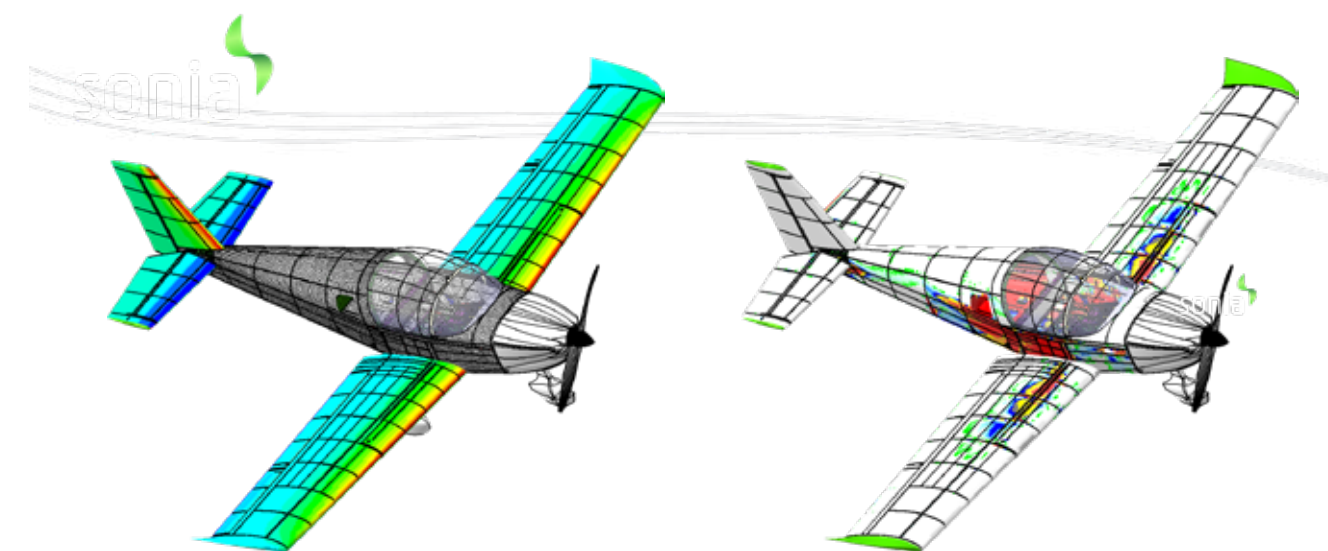


THE BEST WAY
TO PREDICT THE FUTURE
IS TO INVENT IT!



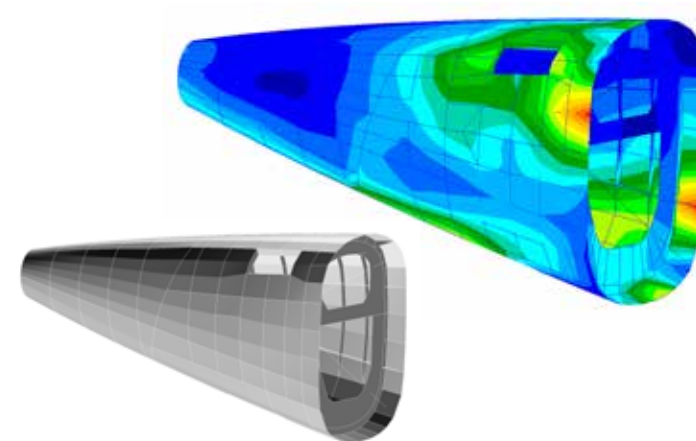
Slat and Flap certification for the 195 E2 and 175 E2 Embraer regional jet (Gosselies).

Engineering in Belgium



SONIA Engineering suite supporting the SONACA 200 certification (Gosselies).

Engineering in USA



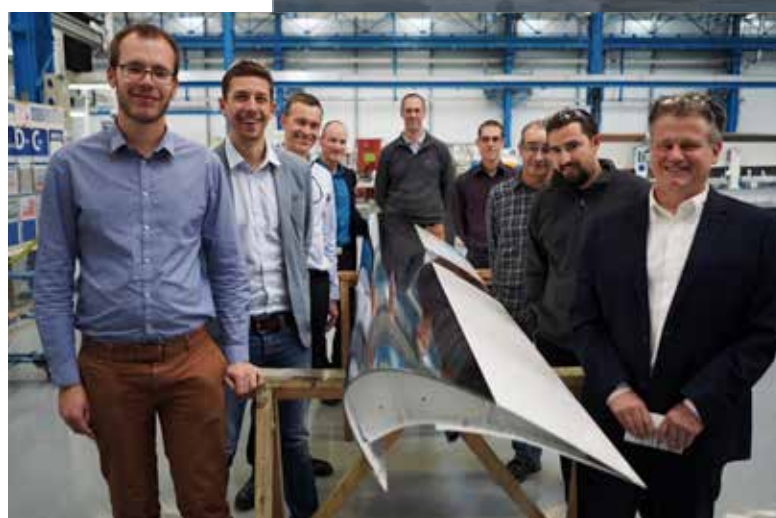
LMI Engineering provides engineering, test and certification services on the Mitsubishi Regional Jet tail cone program. Assembly work is completed at LMI's plant in Saint Charles, MO.



LMI Aerospace Engineering Services employees participate in a design review of the Aerion AS2 supersonic aircraft.

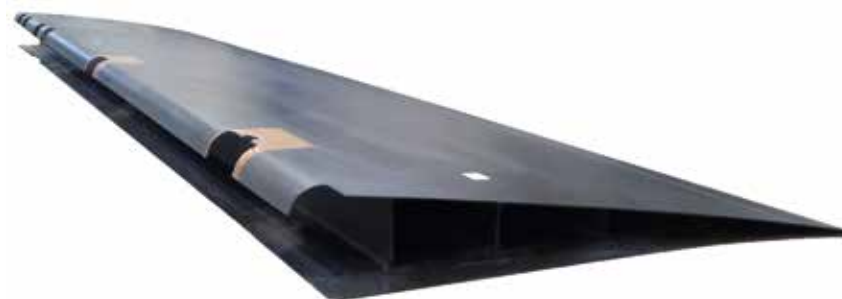


Highly integrated and cost-efficient Composite flap (two composite parts in ATL/SQRTM).



ATL-SQRTM full composite slat with Electrical Wing Ice Protection System (EWIPS).

Innovative products (R&T)



One shot composite aileron (SQRTM process and automated tape lay-up, ATL).

Sonaca Engineering Services: support to innovation

Modified tracks for flight tests in order to reduce noise generated by slats during Take-off and landing phases.



Manufacturing Engineering and tooling support for composite structures of an innovative new light helicopter developed by Kopter.



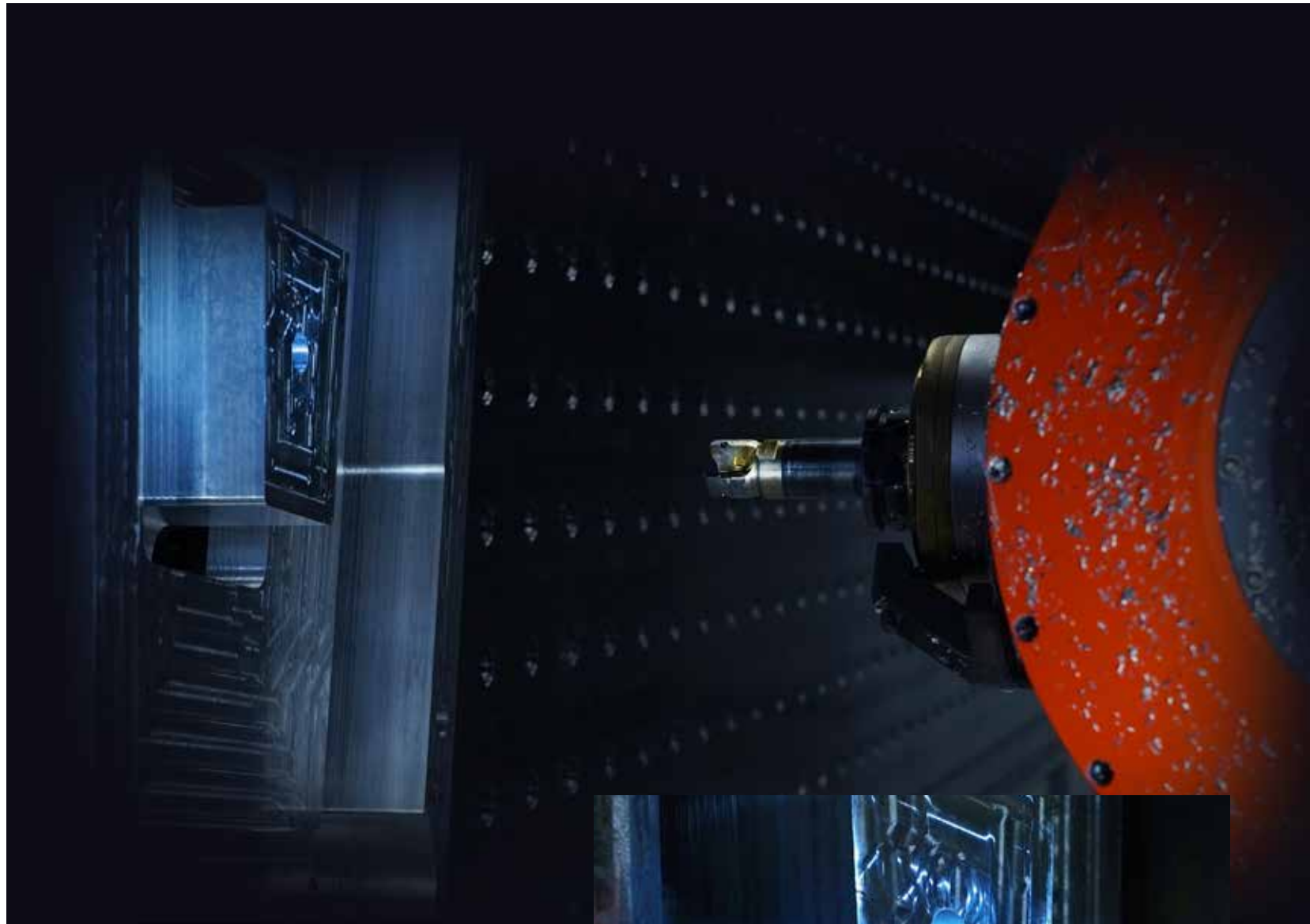
Sonaca Group, actively involved in space applications for three decades!

First Base Cover delivered to Ariane Group as part of the Ariane 6 Program.

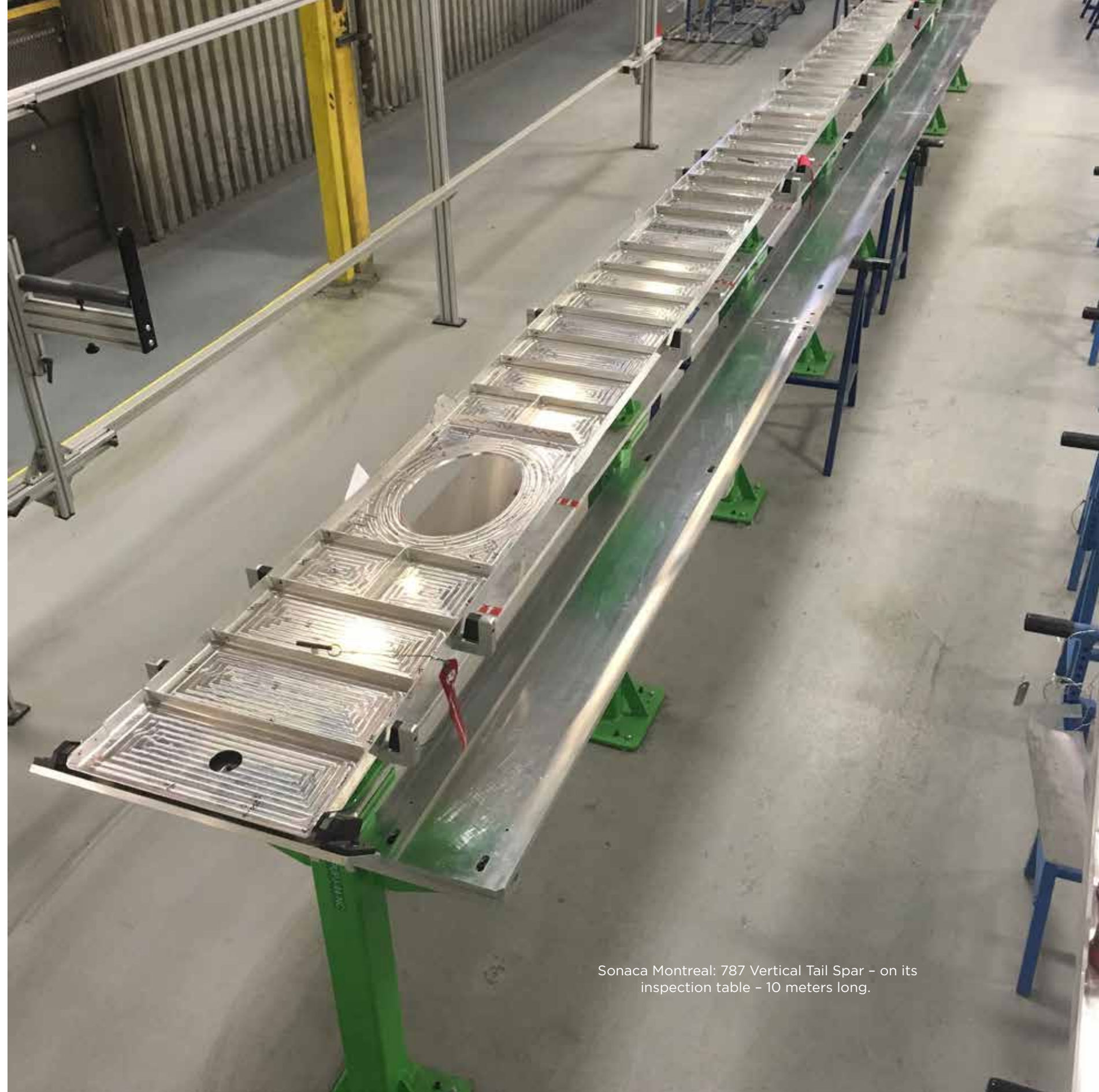




COMMERCIAL
SUCCESSSES



Sonaca Gosselies: high speed machining up to 33.000 rpm of 5-axis complex high precision structural parts for the Airbus A350 wing.



Sonaca Montreal: 787 Vertical Tail Spar - on its inspection table - 10 meters long.



FOCUS 20-21

Design and Build: focus on core capabilities!



Sonaca Gosselies: Outboard Flap Embraer E2 190, highly complex composite/metallic assembly.



Sonaca Gosselies: complex slat assembly: A350. Over a thousand slats (all programs) leave the sonaca plants every month.

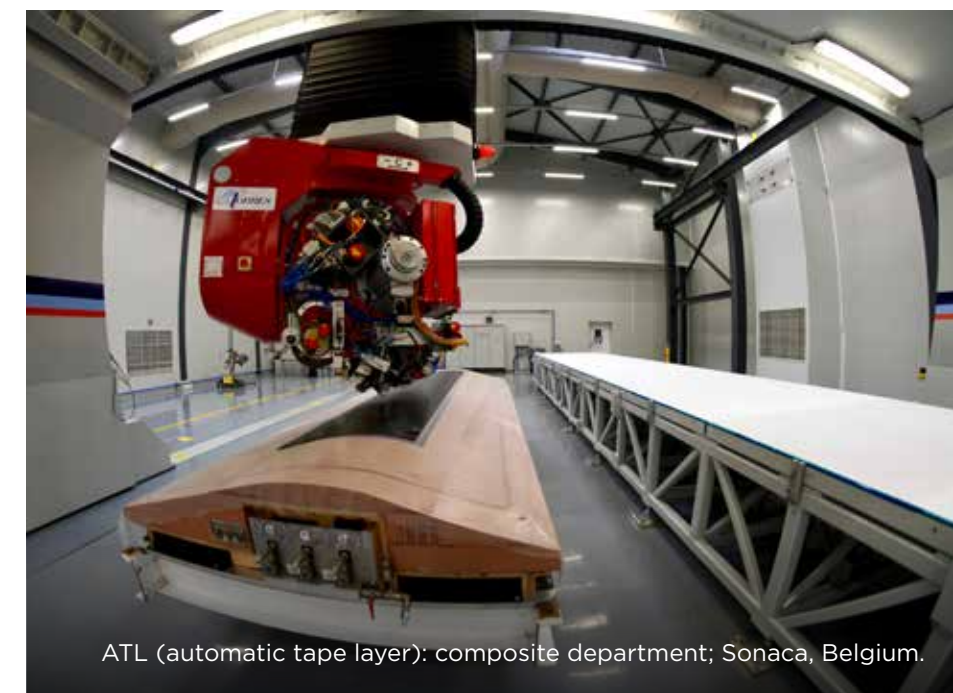


Sobraer, Brazil: complex assembly of rear fuselage Legacy 500.

Build to print: metallic and composite parts



A new OKUMA 5-axis machining cell at LMI Aerospace in Washington, Mo.



ATL (automatic tape layer): composite department; Sonaca, Belgium.



An LMI Aerospace employee in Washington (Mo) performs blending on a R3/R4 fitting.



Large sheet metal and machined parts



Sonaca Gosselies: stretching machine, 2500 tonnes - capable of stretching large wing leading edge part and fuselage panels.



Sonaca Montreal: Global 5500 Wing Stringer being loaded into a high-speed extrusion mill made by MODIG.



Sonaca Brasil, assembly of the Honda Jet pylon.

Complex assemblies



LMI Cottonwood Falls (KS), Boeing assemblies.



You fly, we CARE! (Components Airframe Repairs Engineering)

A qualified Sonaca operator puts the finishing touches to the repair of a slat 1 of an Airbus A330, following an in-service damage. This is a complex repair designed and justified by Sonaca's design office. Sonaca Aviation Services, certified EASA Part 145 and FAA 14 CFR Part 145, receives damaged components from airlines (bird strikes, hail, collisions with airport maintenance vehicles, etc), designs specific repairs when necessary and performs the repair work, for a safe, reliable and timely return to service.

Providing cost effective and innovative solutions in design, manufacturing, training and sustainment to Defense OEMs and Air Forces...

... through
sonaca



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... through

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& SONACA GROUP



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Sonaca aircraft
takes off with first
deliveries!



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Innovation: Earth Observation

The first step of the future High Altitude Platform System (HAPS) equipped with Artificial Intelligence has been tested successfully.





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