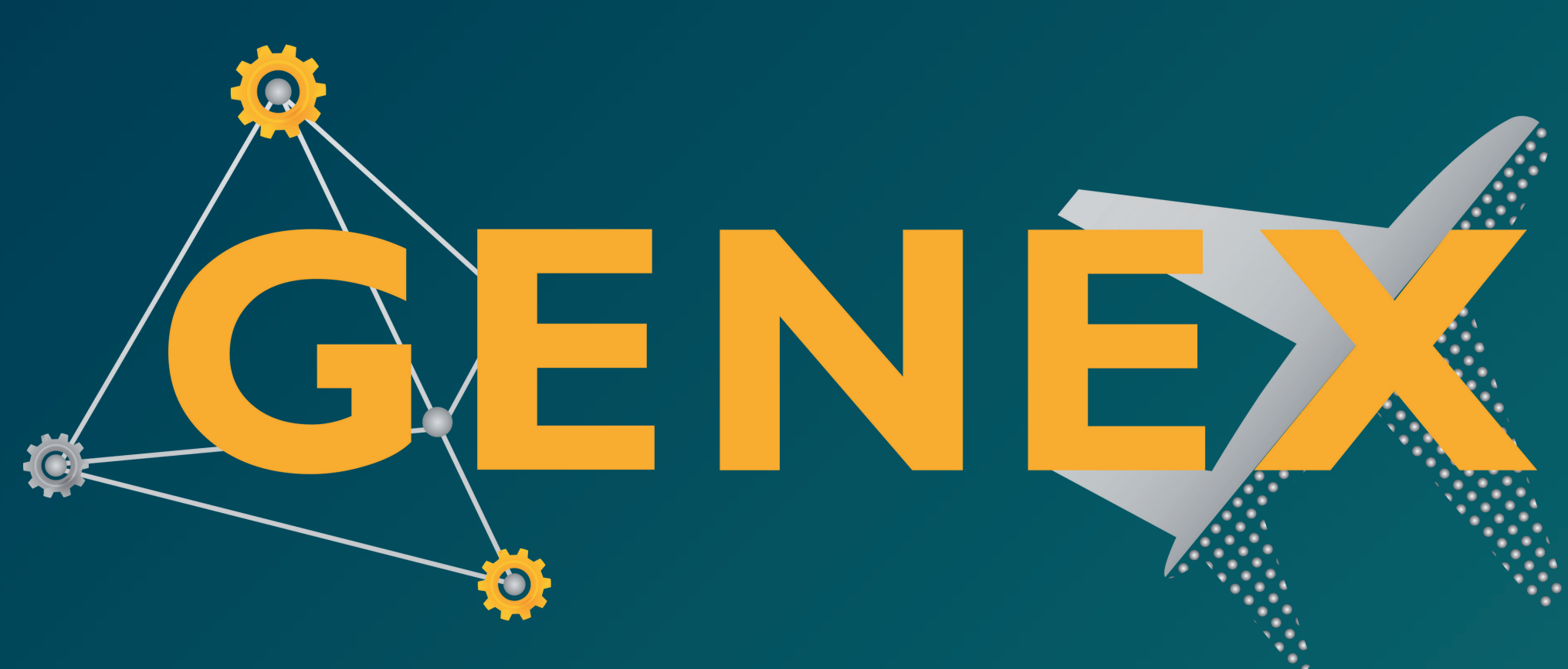




Shaping the future of Aviation Manufacturing

New end-to-end digital framework for optimized manufacturing & maintenance of next-generation aircraft composite structures

A Leap Toward Smarter Aerospace Maintenance, Repair and Overhaul by delivering the Digital Twin Vision

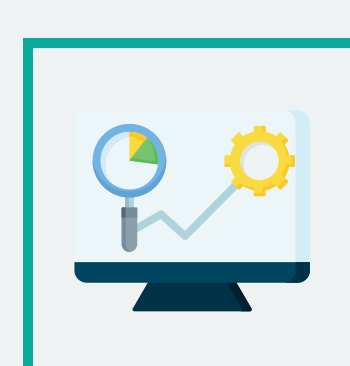
From Concept to Cockpit: The GENEX Digital Framework

Developing a digital twin ecosystem for next-gen aircraft composite structures built on three core technological pillars:



ECO-EFFICIENT COMPOSITE MANUFACTURING

Advanced and efficient manufacturing or recyclable composites



SMART HEALTH & USAGE MONITORING

Integral health & usage monitoring system of aerostructures

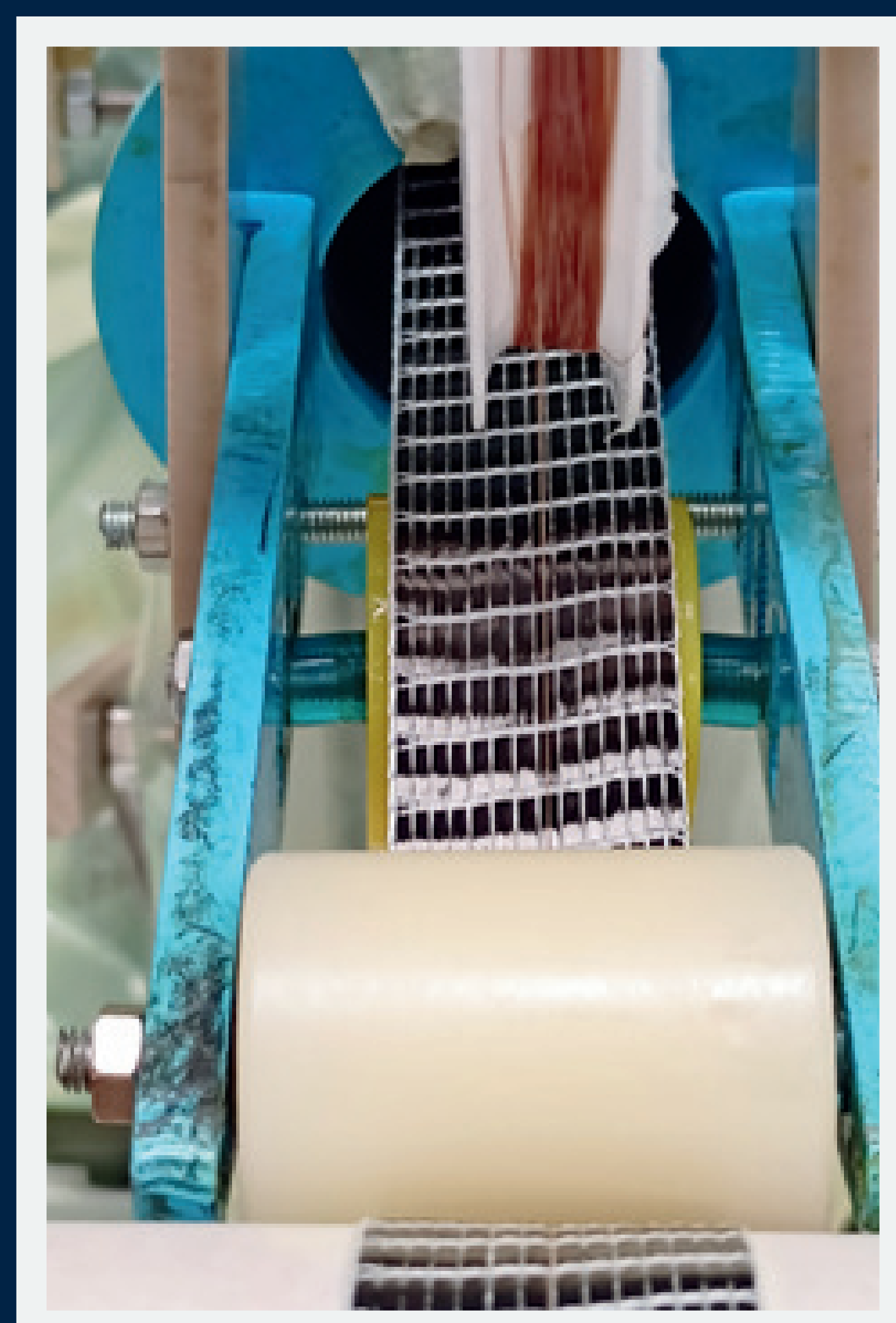


DIGITALLY-ASSISTED REPAIR TOOLS

Digitally-assisted repair processes & tools transforming the composite repairs

Core Innovations

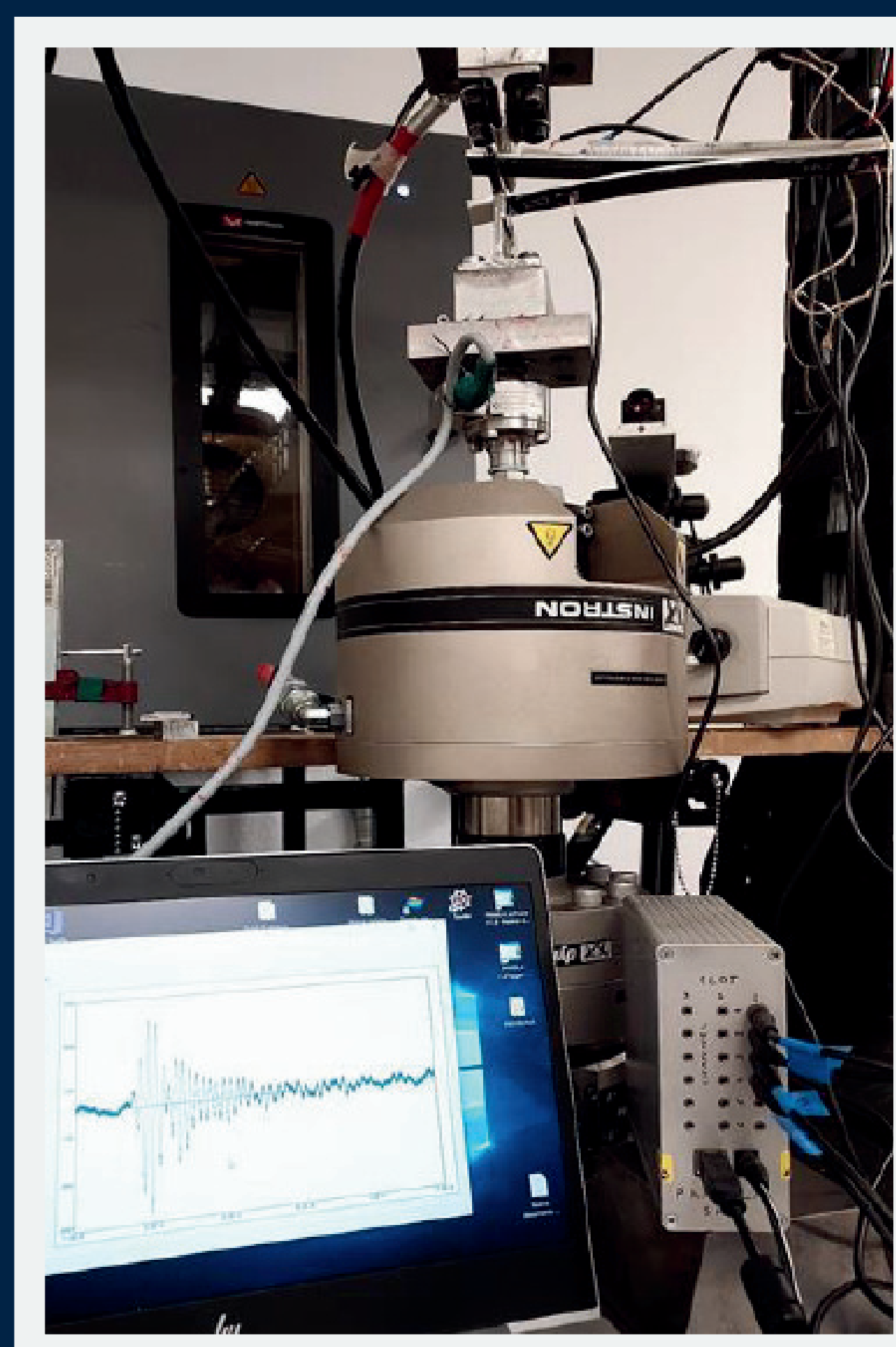
Eco-efficient composites manufacturing reaches new heights



GENEX transforms aerospace with smart, sustainable composites and real-time performance monitoring through cutting-edge 3R-resin technology.

Embedded Fibre optic sensor (FOS)

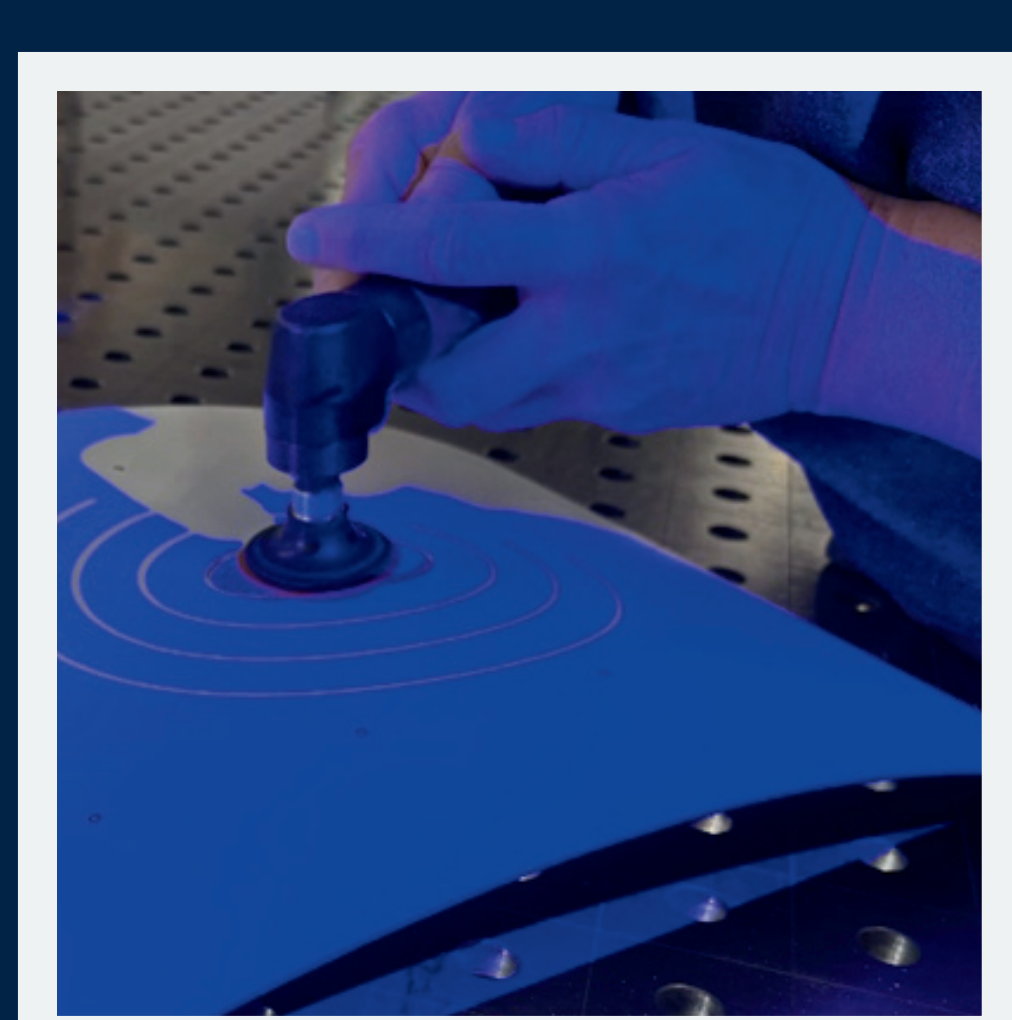
Intelligent Monitoring for Sustainable Aviation



Revolutionizing aviation with real-time insights for safer, smarter, and more sustainable operations.

Monitoring Techniques & Ultrasonic Guided Wave (UGW) inspection

Precision Repairs, Digitally Delivered

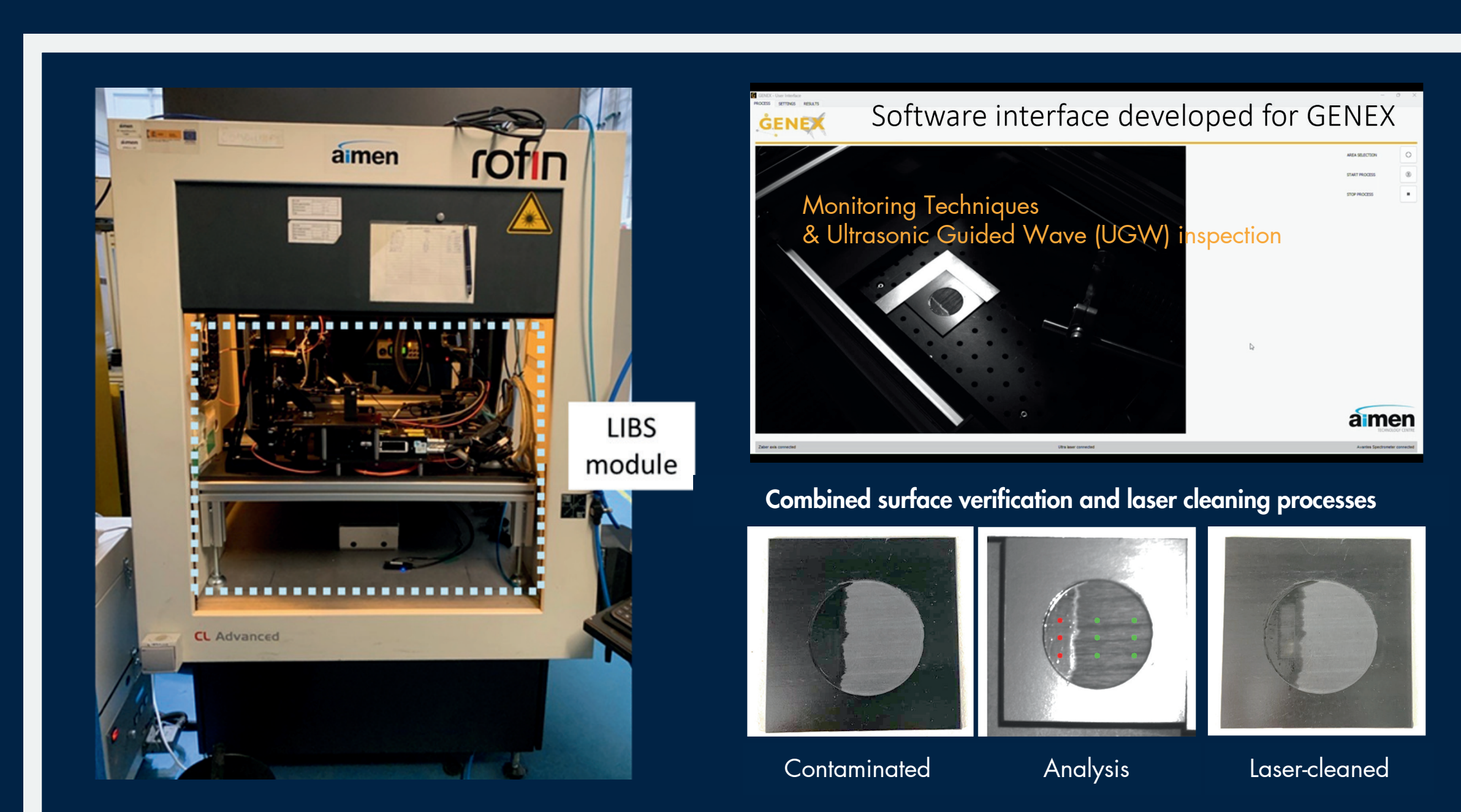


Manually grinding a sample with the VAS system

VAS: Visual Assisted Scarfing system
LIBS: Laser-Induced Breakdown Spectroscopy



Setup of the VAS System projecting onto an Eurofighter Airbrake



Combined LIBS module and laser cleaning. Control and analysis GUI detects contaminated areas

A New Era of Intelligent Aerospace



Watch now!

Digital-Physical Twin: On-line control of the repair bonding process

GENEX OVERALL METHODOLOGY



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