



Łukasiewicz
Institute
of Aviation

**ACOUSTIC
TESTING**

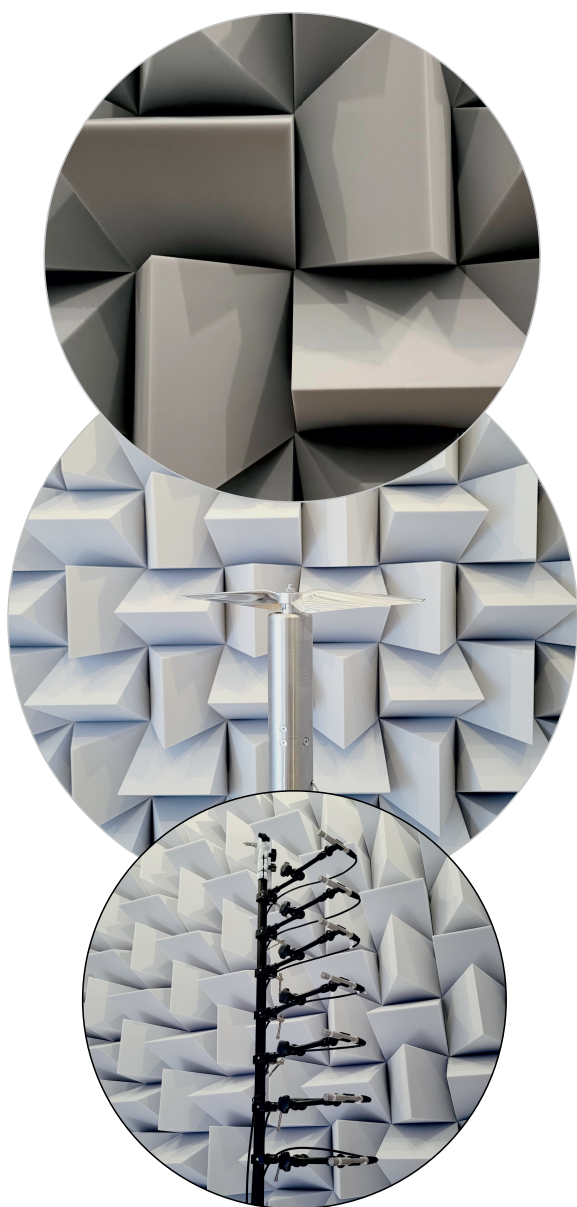
CHARACTERISTICS

Łukasiewicz – Institute of Aviation offers advanced acoustics and aeroacoustics testing capabilities supported by specialized measurement infrastructure, including a 90 m³ anechoic chamber and a portable low-noise data acquisition system. Research activities are carried out within R&D projects, including the design, optimization and validation of new technical solutions.



KEY FEATURES

- An anechoic chamber for acoustic testing at frequencies above 170 Hz.
- High-precision microphones and a low-noise 14-channel data acquisition system [up to 51.2 kHz].
- Analog and digital modules for electrical, aerodynamic and environmental analysis.
- Noise directivity measurements using a dedicated microphone positioning system.
- Acoustic power measurements in accordance with ISO 3745.
- Dedicated test bench for rotors and propellers [diameters of up to 50 cm].
- In-flight UAS/UAV noise measurements in accordance with EASA guidelines.
- Detailed analysis of acoustic and aeroacoustic data.
- Experimental validation of computational simulation results.
- Test bench design and dedicated test procedures tailored to customer needs.



The Łukasiewicz Research Network – Institute of Aviation offers a wide range of specialized research, engineering services and products. We provide comprehensive solutions, ranging from dedicated analyzes, simulations, engineering design, through the selection, testing and certification of materials and structures, to rapid prototyping and additive manufacturing.

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