

Call: H2020-CS2-CFP11-2020-01

Title: Development of New digital Microphone-MEMS-Sensors for wind tunnels with open/closed test sections and flight tests

AEROMIC

Advanced MEMS Microphones for aeroacoustic measurements in wind-tunnel test and flight test



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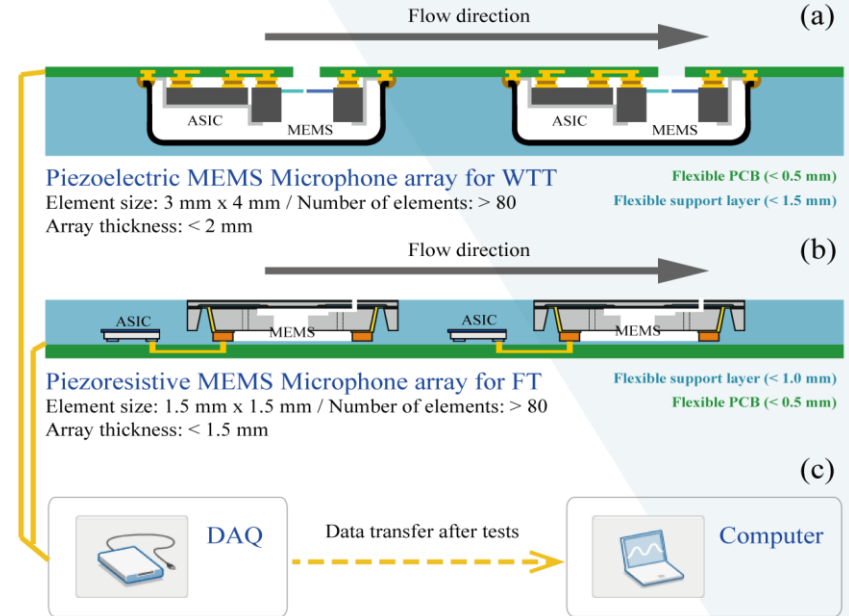
Kurzdarstellung der Konsortialpartner

- Clean Sky 2 Joint Undertaking
- Topic Manager
 - Airbus
 - German Aerospace Center (DLR)
- AEROMIC Consortium Partners
 - Silicon Austria Labs GmbH, SAL (**Coordinator**)
 - Technische Universität Berlin, TUB
 - Vectoflow GmbH, VF
 - USound GmbH, US
 - University Carlos III de Madrid, UC3M
 - Universitetet i Sørøst-Norge, USN



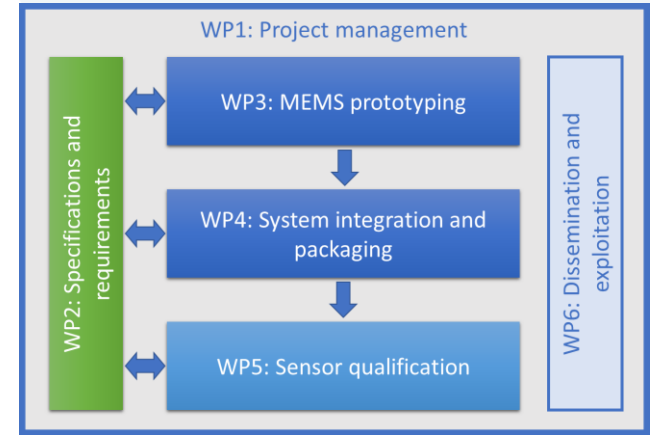
Ziel des Projekts

- AEROMIC aims to
 - develop advanced digital MEMS microphones dedicated to accurate acoustic measurements with high spatial resolution during wind-tunnel and flight tests
 - and build ultrathin flexible microphone arrays suitable for surface unsteady pressure measurements at arbitrary model/aircraft position (including cockpit area).
 - Two types of MEMS microphones (i.e., piezoelectric and piezoresistive) will be developed.



Arbeitsplan/Zeitplan/Umsetzung

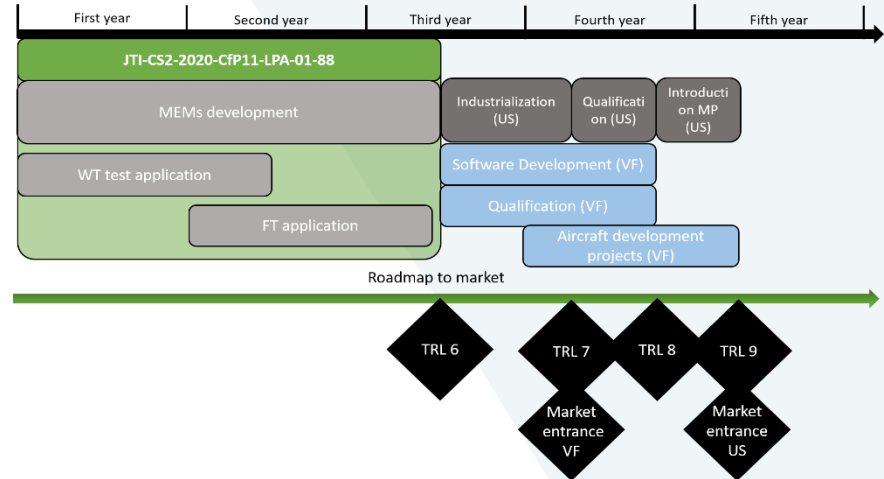
- AEROMIC has been officially started on 1 Jan 2021 and will run for 30 months.** The work plan has been well structured to achieve quick delivery of the first results and allow a gradual validation of the approach for each component, leading to an overall validation of the AEROMIC platform.



Organization	Role & Task
SAL	Coordinator, piezoelectric MEMS microphone development
TUB	WP3&6 leader, piezoresistive MEMS microphone development
VF	WP2&5 leader, WTT and FT, commercialization of measurement instrumentation
US	Task leader, piezoelectric MEMS design, commercialization of MEMS microphones
UC3M	WP4 leader, system integration and validation
USN	Task leader, piezoelectric MEMS fabrication

Angestrebte Verwertung

- Economic exploitation in aviation, automotive, and wind energy sectors
 - MEMS microphones (USound)
 - Aeroacoustic instrumentations (Vectoflow)
- Scientific exploitation
 - Excellence of research in the development of MEMS sensors and aeroacoustic measurement instrumentations (SAL, TUB, UC3M, USN)



SIEMENS



Soler&Patiou
Ventilation Group



SAFRAN
AEROSPACE DEFENSE SECURITY



United Technologies



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