

# ARC

ACOUSTIC RESEARCH CONSULTING



NVH TEST &  
DEVELOPMENT  
**SERVICES**

2023/24  
BROCHURE

[WWW.ACOUSTIC-RESEARCH-CONSULTING.CO.UK](http://WWW.ACOUSTIC-RESEARCH-CONSULTING.CO.UK)

# THE ARC PROCESS

Our team of highly skilled NVH and Audio Engineers offer services throughout the entire development and launch cycle of automotive projects. From up-front competitor benchmarking and target setting through to concept reviews and R&D. ARC also offers services relating to physical prototype assessments and analysis followed by post-launch support in the form of Quality and Manufacturing concerns.



## NVH Research & Development

From the assessment of individual components, large-scale assemblies and new materials, our team are experts in NVH R&D and DoE.

## NVH Benchmarking & Target Setting

Objective and Subjective assessment of competitor vehicles allowing for accurate and relevant target setting, ensuring that your product meets the required NVH quality.



## Prototype Assessment & Analysis

Once prototype vehicles are built, ARC offer NVH services to measure and assess the acoustic performance characteristics. This can then be compared to target performance levels with palliative measures developed and evaluated.

## Post-Launch Production & Quality Concerns

Following product launch, ARC offer acoustic support services to manufacturing and quality departments, in order to quickly identify and rectify field NVH concerns.



# OUR SERVICES

## ■ Class-Leading Acoustic Engineering & Development Services



At Acoustic Research Consulting, we have many years of experience in NVH Engineering, working alongside some of the world's most prestigious brands. We offer turn-key solutions to our clients, from benchmarking and target setting to full scale NVH development projects.

### ■ Dynamic Assessment

- Road Noise
- Wind Noise
- Powertrain Noise & Vibration
- E-Motor Noise & Vibration
- Ride Comfort
- Whole Body Vibration

### ■ Cabin Refinement

- Reverberation Time (RT60)
- Cabin Isolation
- Powered Ancillary System NVH
- HVAC Acoustic Refinement

### ■ Benchmarking

- Competitor Benchmarking
- Target Setting
- Subjective & Objective Assessment

### ■ NVH Development

- Psychoacoustic Analysis
- Modal Testing
- Root-Cause Analysis
- Palliative Assessment
- Data Analysis & Post-Processing
- Audio System Architecture Design
- Loudspeaker & Cabinet Optimisation
- Audio System Tuning

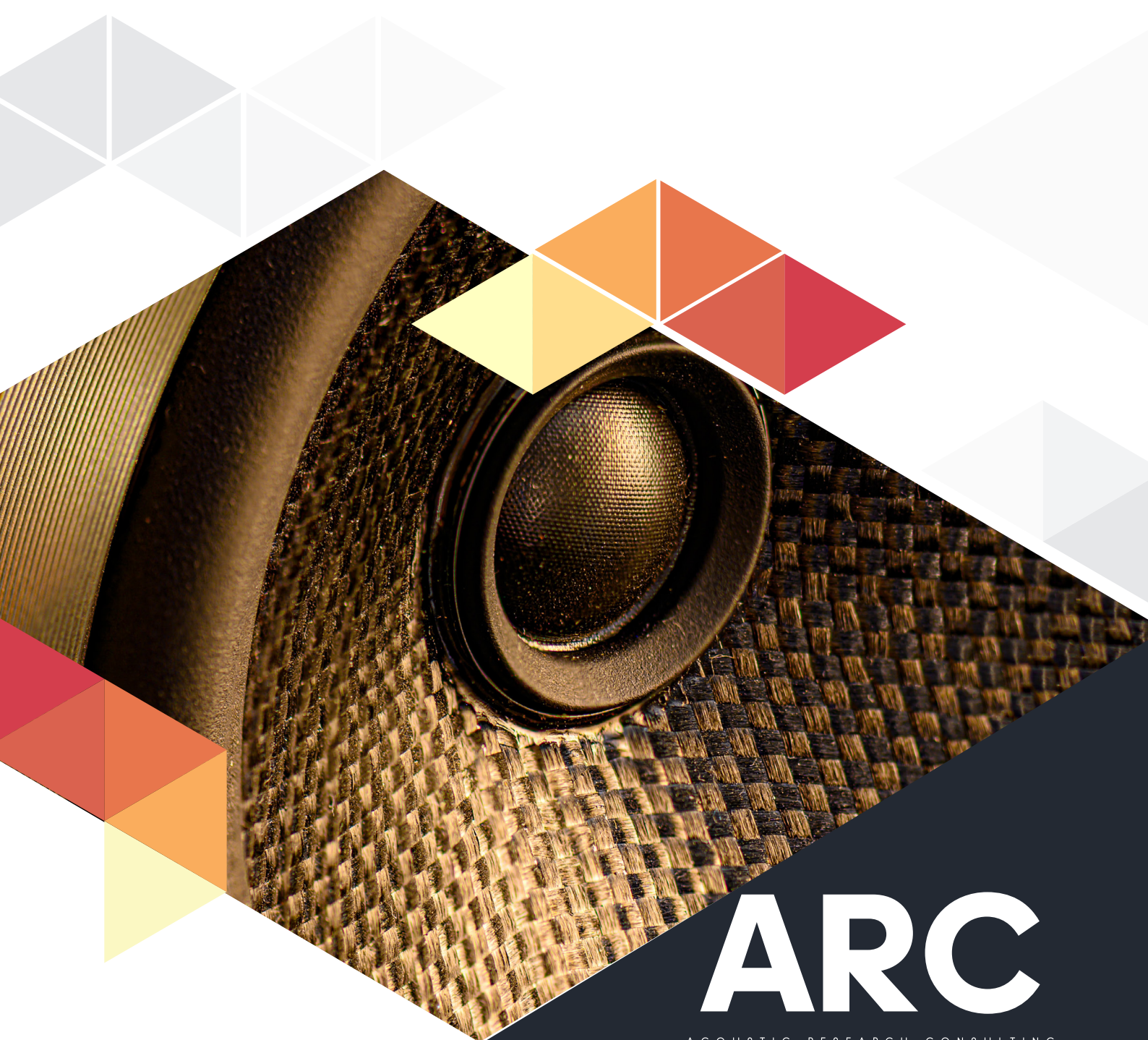
### ■ Quality & Manufacturing

- Objective Acoustic Measurements
- Noise Detection
- Noise Source Analysis





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## CONTACT US:



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