

NVH vehicle development

Applus IDIADA is an independent partner for the automotive industry with extensive capacity for the management and resolution of NVH development projects.



DESCRIPTION

Applus IDIADA is an independent partner for the automotive industry with extensive capacity for management and resolution of NVH development projects. Tools for testing and simulation, a highly experienced team, integration within a whole-vehicle performance department and management network for global development projects provide us with unique characteristics to carry out successfully global NVH projects.

Applus IDIADA offers a wide range of activities that allow taking into account the NVH performance at any stage of the vehicle development project:

- Vehicle concept and target definition
 - Benchmark measurement programs
 - Establishment of project targets – Target book
 - Analysis of design concepts
- Development and testing
 - Design validation plans
 - Subjective assessments
 - Measurements and troubleshooting for the full-vehicle NVH performance
 - Interior noise and vibration measurements:
 - Road noise
 - Wind noise
 - Powertrain noise and vibration

- Squeak and rattle
- Exterior noise measurements:
 - Regulation fulfilment
 - Source contribution analysis
- Measurements and troubleshooting for the system and sub-system NVH performance
 - Combustion noise
 - Intake and exhaust noise and vibration measurements
 - Door slam
 - Brake noise - squeal and judder
 - Tire noise
 - Noise from HVAC units, etc.
- Measurements to support to CAE development and correlation:
 - Body-in-white and trimmed body modal analysis
 - NTF and dynamic stiffness measurements
 - Noise and vibration isolation measurements
 - Structural acoustic cavity modes
- NVH target validation
- Troubleshooting and tuning
- Component validation
- Exterior noise development