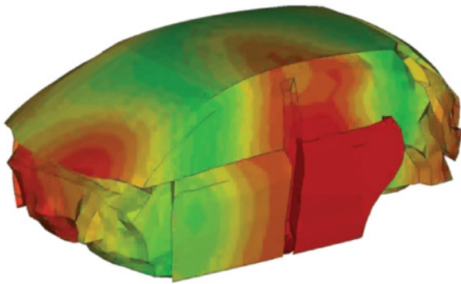


Noise and Vibration Optimization

Acoustic and vibratory behaviour are key in the quality perception of the vehicle. Optimization of NVH (Noise, Vibration, and Harshness) in projects involve a deep understanding of the vibration behaviour of full vehicle and all its subsystems, including the acoustic cavity.



IDIADA has extensive **experience in testing and simulating a variety of vehicles for the optimization of the NVH performance**, with a deep understanding of the methods to obtain a good correlation between simulation and reality.

By coupling finite element with **Multi Body Models**, we can accurately determine accelerations or Sound Pressure levels at specific points affected by suspension forces. Those models in combination with our [Virtual Proving Ground](#) allow the evaluation in a realistic environment of the full vehicle response during the development process.

[NVH](#) disciplines also encompass other systems' optimization like brake squeal simulation, squeak, and rattle of trimmings or aeroacoustics of side mirrors.