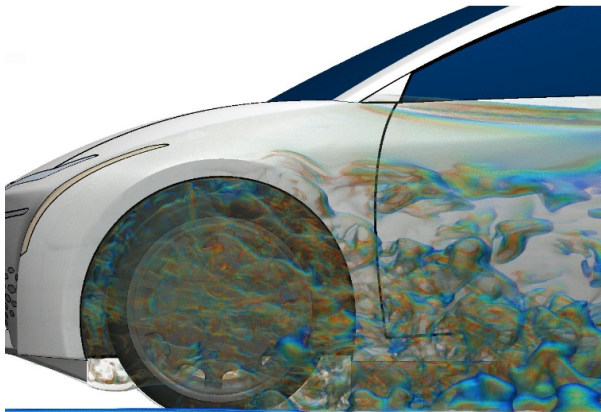


Body Performance

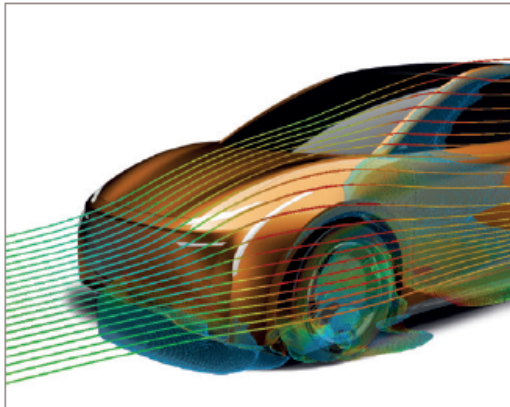
Applus IDIADA has more than 30 years' experience in body performance, providing comprehensive services. We support customers in their projects, from concept phase to start of production.

- Reliable partner for **complete support in the virtual vehicle development process**, from specification to production
- Extensive experience in a **variety of vehicle types**
- Seamless **integration between CAE and testing**
- **Multidisciplinary international team** of experienced engineers and project managers
- **Worldwide international presence** and collaboration with over 200 clients

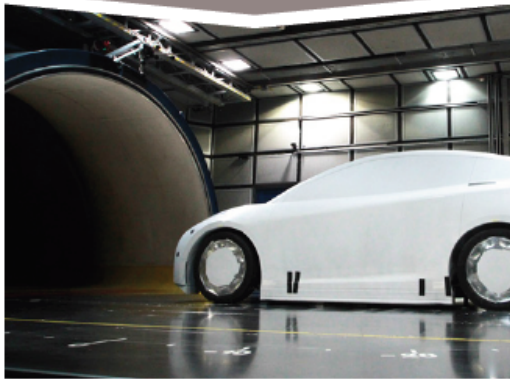


At IDIADA, we provide **seamless integration between simulation and testing engineering** which adapts to clients' requirements. Our **multidisciplinary team** is involved in various R&D projects where we provide **world-leading innovative solutions**.

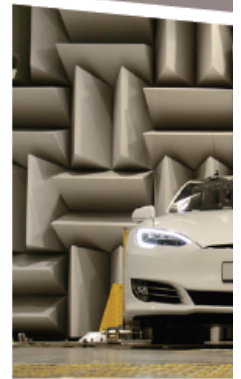
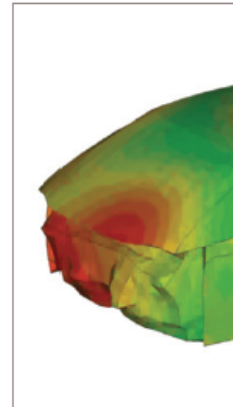
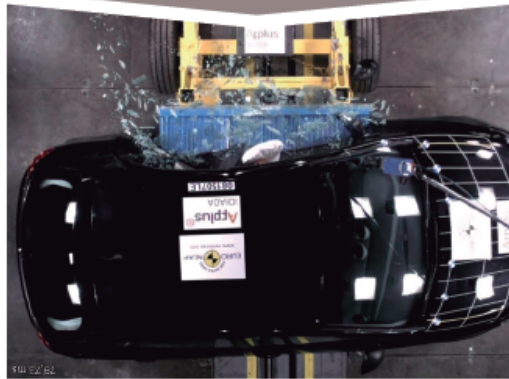
Integrated testing:



Aerodynamics & CFD



Passive Safety



Capabilities:

Passive Safety:

- Crashworthiness
- Occupant protection
- Pedestrian protection

Strength and Fatigue:

- Static and dynamic stiffness analysis
- Fatigue analysis: Load history from test or simulation data, static and dynamic simulation
- Thermal analysis

Noise Vibration and Harshness:

- Trimmed body vibrations
- Interior noise prediction
- Panel contribution and sensitivity analysis
- Brake noise phenomena

Fluid Engineering:

- Thermal management
- Aerodynamics
- HVAC systems
- Aero-acoustics
- Internal combustion engine
- Brake cooling
- Multiphase simulation

Advanced Material Engineering:

- Characterization of composite new kinds of materials
- Materials adapted to performance

Commercial Vehicles:

- ECE R66 Roll Over Resistance
- All previous capacities are also available and adapted for commercial vehicles

Software:

- SOLVERS: MSC Nastran, Abaqus, FE-Safe, Adams, VPS (Pam-Crash), Radioss, LS-Dyna, Msc Hyperform
- PRE and POSTPROCESSOR: Ansa / Meta, Hyperworks, Animator, Generator

