

Chassis Development

IDIADA is a leading partner in the global automotive industry, offering an extensive range of engineering services for chassis development, from design to simulation and performance evaluation and tuning.

- We have more than 20 years' experience in chassis engineering and testing in suspension, steering, brake and tyre systems

- A dedicated multidisciplinary international team of over 200 professionals with extensive know-how in chassis engineering
- Worldwide chassis engineering and testing facilities
- Permanent bases in Spain (HQ), UK, Germany, CZ, Italy, China, India, Brazil

ENGINEERING SERVICES IN COMPLETE DEVELOPMENT PROJECTS



Chassis Design

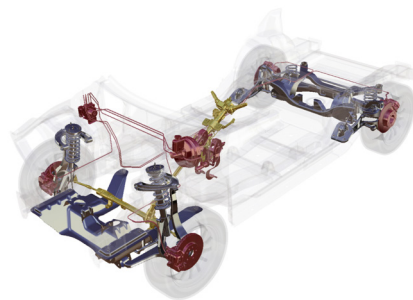
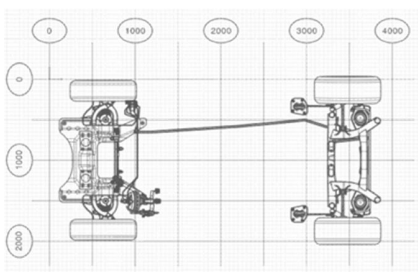
First-class design engineering services with leading competences for complete chassis development projects.



CONCEPT

PROTOTYPE

SERIES



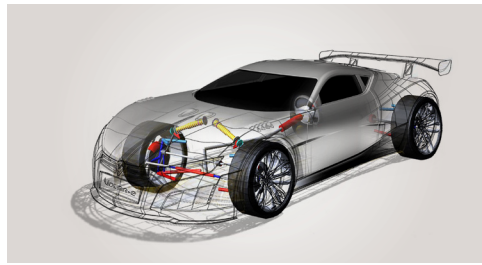
- Design benchmarking
- Conceptual 3D design
- Packaging & integration
- Brakes syst. dimensioning
- DMU & design review

- Design for prototyping
- Technical specifications
- Supplier selection support
- Structural analysis
- Prototype building

- Design for production
- Supplier management
- BOM management
- Quality & problem solving
- Derivatives and localizations

Vehicle dynamics simulation

IDIADA has experts devoted to the virtual development of chassis systems and vehicle dynamics. We use the most advanced CAE techniques to define, integrate and validate systems and components from the early stages of development, even before any physical vehicle is available.



VEHICLE MODELLING

- Expertise with several simulation codes (multi-body and parametric)
- Model generation and validation with measurement data
- Integration of active control systems (XiL)
- Tyre measurement and tyre model generation (MF-Tyre & FTire)

DRIVER-IN-THE-LOOP

- Class-leading driving simulators (Vi-grade DiM250 and compact)
- Adaptation and integration of RT vehicle models for DS
- Evaluation of active control systems (safety, performance)
- Professional drivers with specific experience
- IDIADA virtual tracks (ISVPG)

VIRTUAL CHASSIS DEVELOPMENT

- Integration of CAE in the chassis development process, from concept to sign-off
- Target setting based on systematic objective/subjective correlation tools
- Target cascading from full vehicle down to component level
- Chassis optimization and virtual tuning

Performance evaluation and tuning

We also provide full vehicle characterization and development using state-of-the-art instrumentation as well as the most advanced analysis techniques.



VEHICLE TESTING SOLUTIONS

- Comprehensive subjective evaluation
- Full vehicle objective characterization
- Subjective-objective correlation
- Dedicated tuning team
- KnC characterization
- Brake dynamometers
- Tyre characterization
- Chassis components characterization (dampers, springs, bushings, etc.)

PERFORMANCE AREAS

- Handling and steering
- Braking systems
- Ride comfort
- Tyres
- NVH
- Electronic chassis control systems

CONTACT INFORMATION

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