

Why MODUS ?

MODUS Hispanica S.L. is the leading service provider for the holistic validation method by, **testing automotive products in the reality of the entire system**, focusing on the European market conditions.

MAIN ACTIVITY :

Testing by durability runs for

- **SYSTEM VALIDATION**
of total vehicle
- **MODULE VALIDATION**
of modules & components

SUBJECT :

Anticipatory analysis of product quality & reliability by neutral, highly experienced experts, evaluators & engineers.

OBJECT :

Passenger cars, motorbikes & light commercial vehicles.
Production, pre-production & prototype vehicles.

VALIDATION EXPERIENCE :

38 mio. km 1993 – 2008
23 mio. km SYSTEM VALIDATION
15 mio. km MODULE VALIDATION

25 mio. km GPS documented

⇒ test route knowledge

⇒ stress analysis

+ databases : - tyre & brake wear
 - fuel & oil consumption

⇒ **SPECIALIZED
& EXPERIENCED**

MODUS method

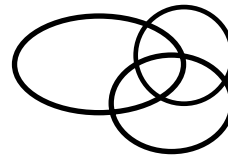
SMALL & FLEXIBLE company

INTEGRATIVE system
using MODUS-tool PISTE

- Real world
- Entire vehicle
- Holistic method
⇒ coincidences
- Representing average
European customer conditions
- Neutral & objective



Interaction / overlaps
between
integrated systems



*Easy & fast
communication*



"Validation in the real world under all circumstances gives chances for coincidences, accessing weak points of automotive products."

Managing Owner of Modus
Dipl. Ing. Jürgen Bauer

Client benefit

Costly quality repairs totalling 10% of OEMs' annual revenues resulting in a loss of quality image for reliability, customer satisfaction and confidence is the consequence.

The integration of results stemming from an early warning system validation reflects a high benefit and more value - polishes a company image and increases customer satisfaction.

Benchmark testing shows the difference of quality to competitive models.

Supplier integration during the validation process leads to higher quality at a pre-series stage.

- **Anticipated results**
- **Increased efficiency**
- **Reduced costs**
 - Less warranty claims
 - Less recall actions
- **Increased customer satisfaction**
- **Reinforced brand image**



MODUS services

MODUS Hispanica S.L. provides automotive validation, engineering & consulting services:

SYSTEM VALIDATION

"Total vehicle validation in the real world"

**DURABILITY
FUNCTION
QUALITY
RELIABILITY**

- Driving
- Evaluation of functionality
- Measurements
- Engineering analysis
- Reporting
- Consulting assessment

MODULE VALIDATION

- Brakes : comfort & effectiveness
- Dynamics & handling : slalom/lane change
- Engine
- Transmission
- Powertrain : accelerations (AMS)
- Exhaust system
- EOBD
- Steering system
- Navigation system
- Tyres
- Chassis evaluation & tuning

OTHERS

- Vehicle management for field survey
- Press launch support
- General testing support
- Consulting
- Project management



MODUS facilities

MODUS Hispanica S.L. provides its services all over Europe to take into consideration different climate, road & traffic conditions & various local driving habits.

Permanent sites

SPAIN Conil, Jerez, Mojacar
GERMANY Wiesbaden-Igstadt
SLOVAKIA Banska-Bystrica
FRANCE Salon-de-Provence

Temporary sites

SPAIN Sierra Nevada, Calar Alto
Madrid, Tenerife
SWEDEN Alvsbyn, Lulea
FINLAND Rovaniemi
GERMANY Munich
FRANCE Avignon
ITALY Rome, Nardo



Global Clients

Toyota, BMW, GME-Powertrain, Opel, Daewoo, Daihatsu, Hyundai, KIA, KTM, Nissan, Yamaha, Akebono, Aisin, BBA-Friction, Bosch, Brembo, Continental, Goodyear, Delphi, Hankook, Kumho, TRW, TMD-Friction, ZF-Lenksysteme, Mitsubishi, Porsche.

www.automodus.info

MODUS HISPANICA



**YOUR PARTNER
FOR
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