

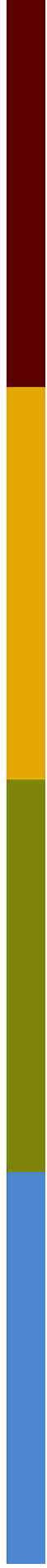
Next step

Objective targets are met with Hardware in loop testing

But how to optimize between ride & comfort?

By introducing subjective evaluation by humans.

To reduce the development time even more.



Driving Simulators

For the past 35 years, Driving Simulators have focused on Human Factors:

- Driver Training
- Ergonomics/Human Machine Interface
- Safety (crash avoidance)

With the increasing accuracy the latest generation Driving Simulators are suitable for:

- Vehicle Dynamics
- Product Development
- Design Comparisons
- Benchmarking
- Hardware-in-the-loop evaluations



Mercedes-Benz Simulator Sindelfingen

Application:

Driving and Handling simulator with 12 m lateral stroke (0.8g acc., 8 m/s)

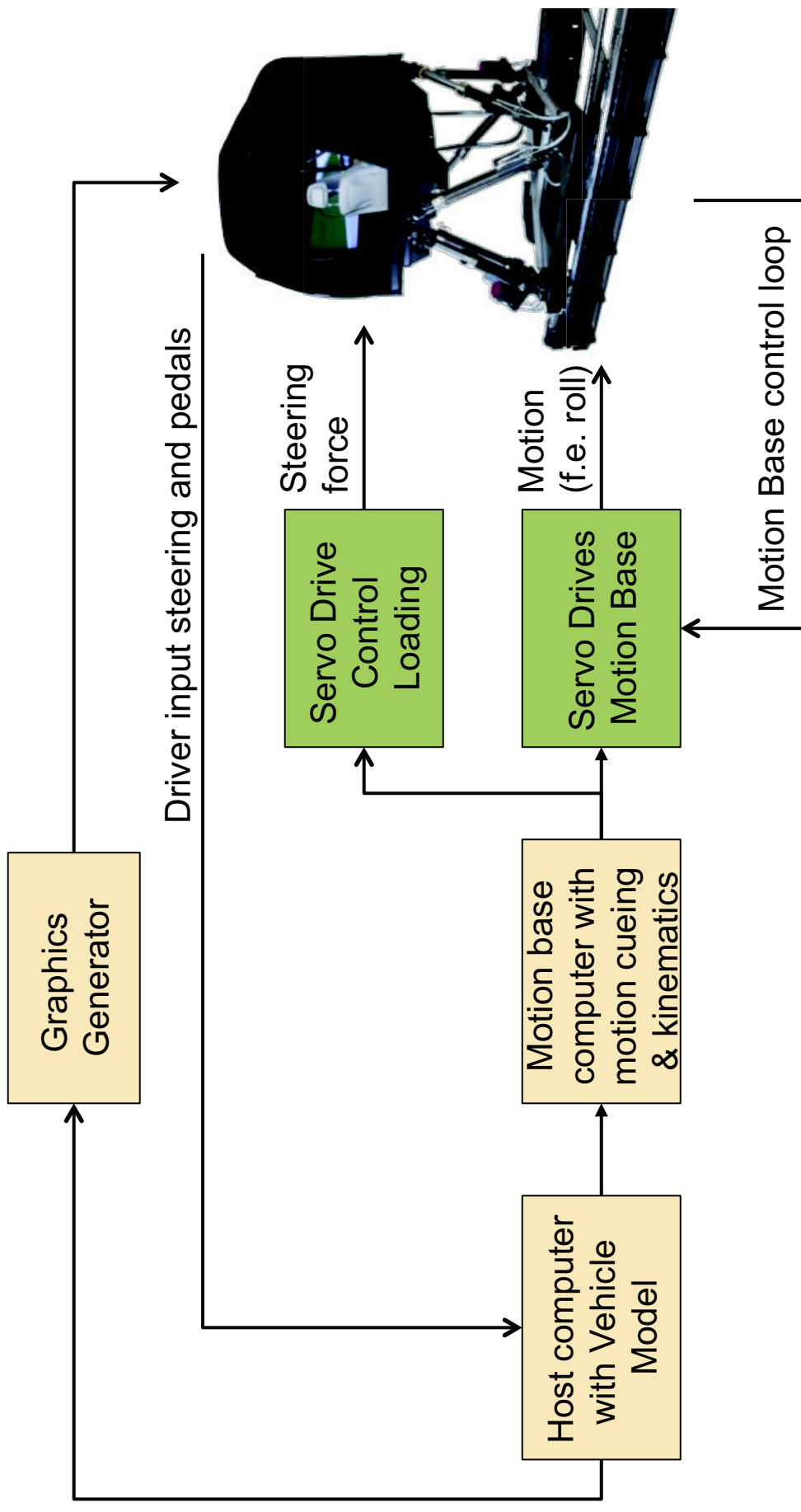
System:

Motion base with ultra high speed and force (80kN each) with integrated buffer.
Actuators and the high level control for lateral rail are Moog content.



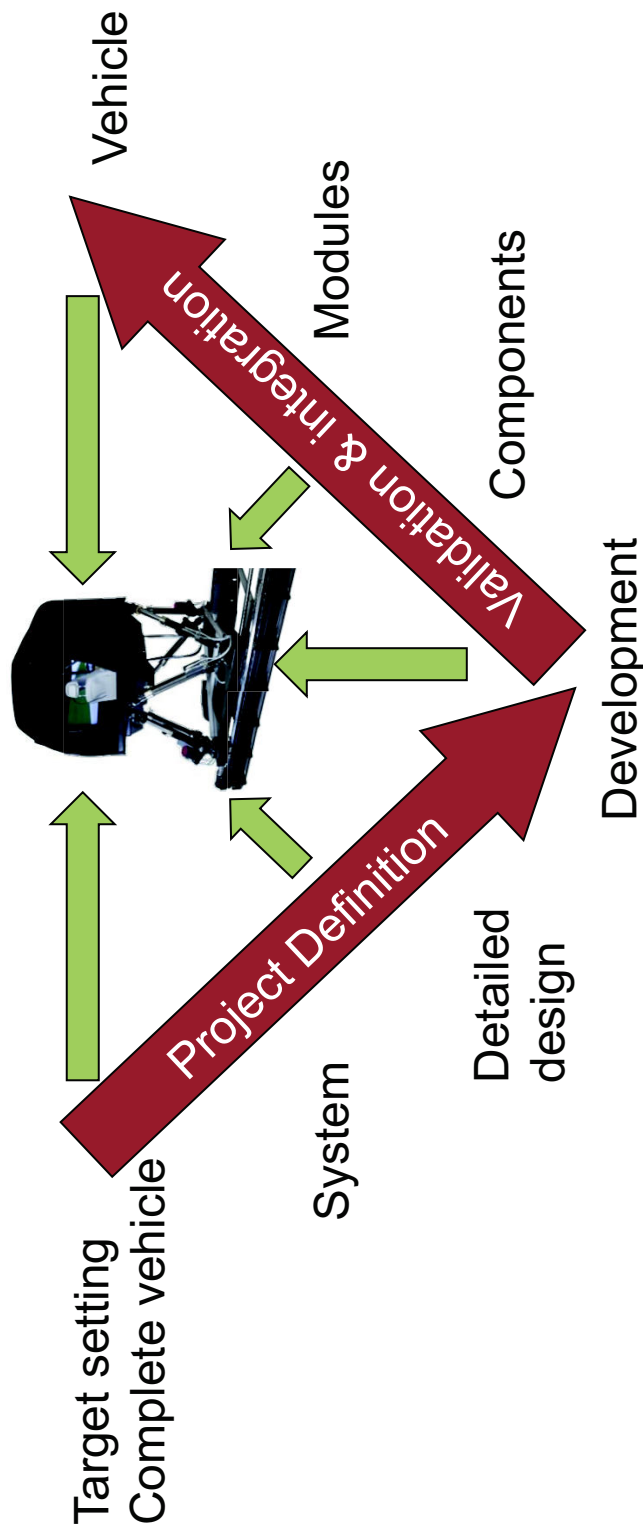
Courtesy of Delmia AG

Overview Driving Simulator Control System



Advantages Human in the loop

- Human evaluations during all stages of development process
- Design optimization with immediate driver feedback
- Safe for hardware and (inexperienced) drivers
- No proto types needed
- Objective benchmarking



Combination Human and Hardware in the loop

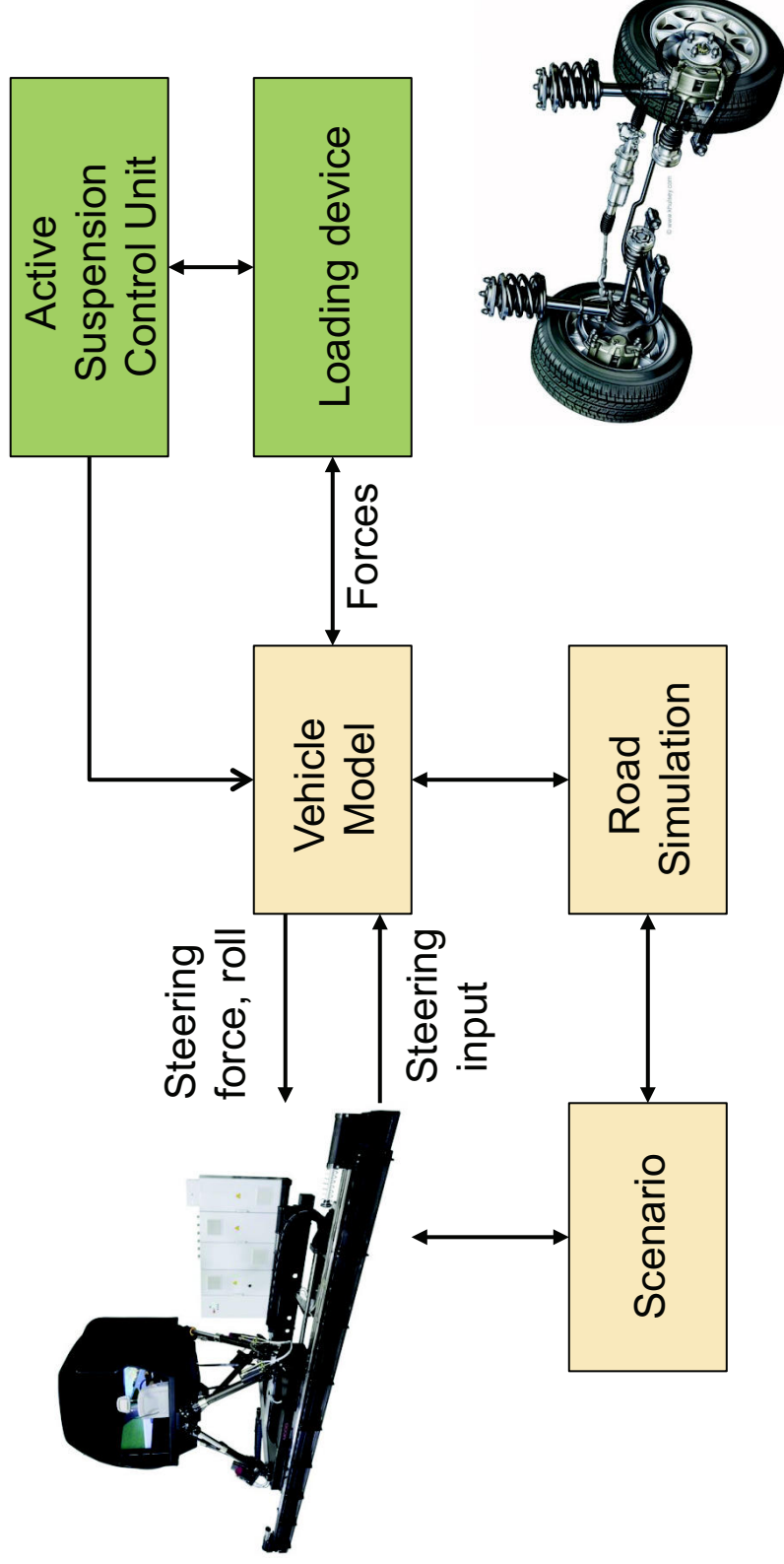
Purpose: setting active suspension

- Driving simulator
- High performance hydrostatic actuators
- Additional actuators for down force simulation



Human & hardware in the loop: active suspension

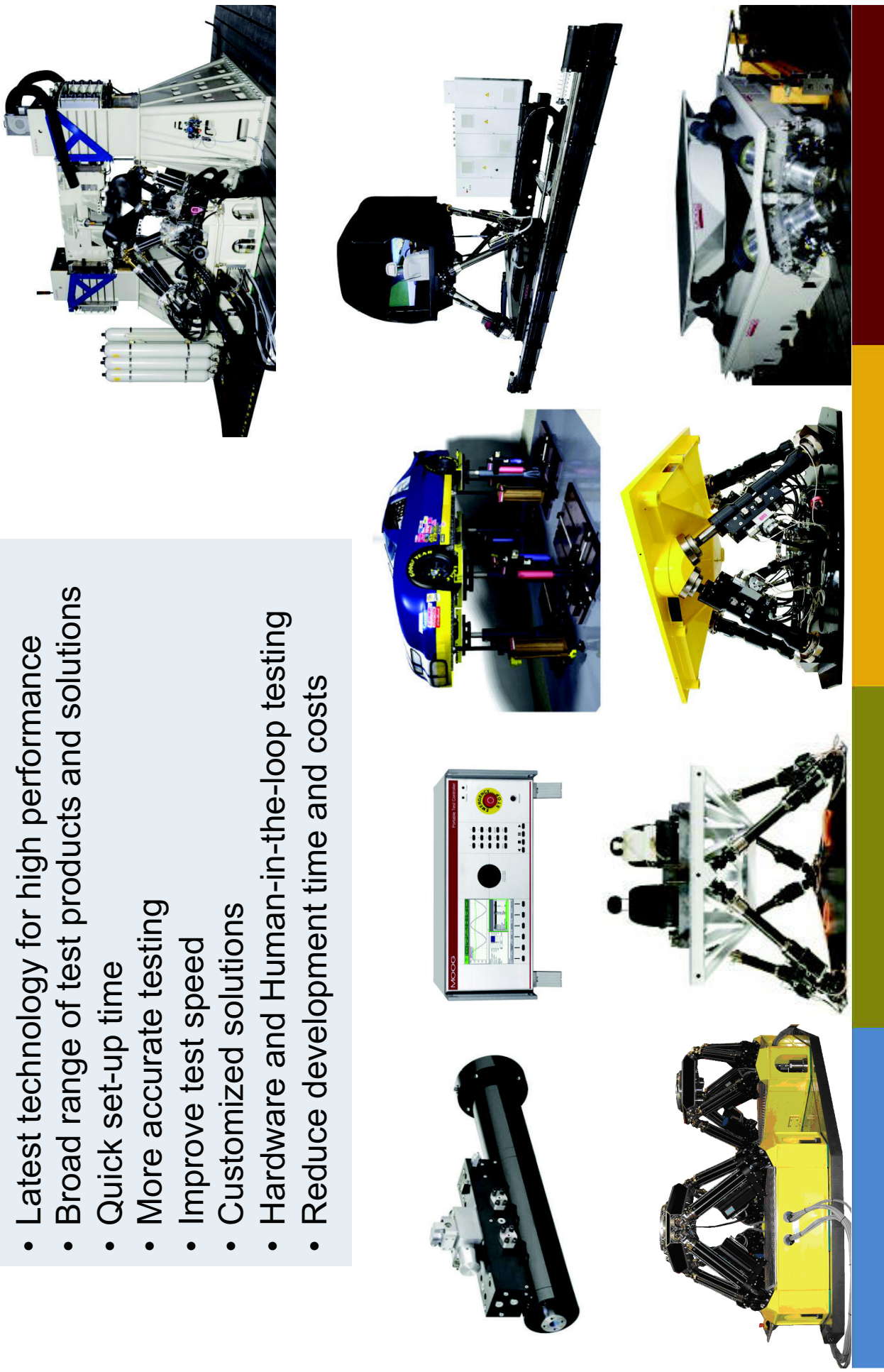
- Optimizing Active Suspension Control Unit algorithms
- Test suspension actuator system



Next generation testing

- Latest technology for high performance
- Broad range of test products and solutions
- Quick set-up time
- More accurate testing
- Improve test speed
- Customized solutions
- Hardware and Human-in-the-loop testing
- Reduce development time and costs

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Moog Simodont Dental Trainer



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Einde

Hartelijk dank voor uw aandacht

