

Enhanced Development of Lateral Control Features

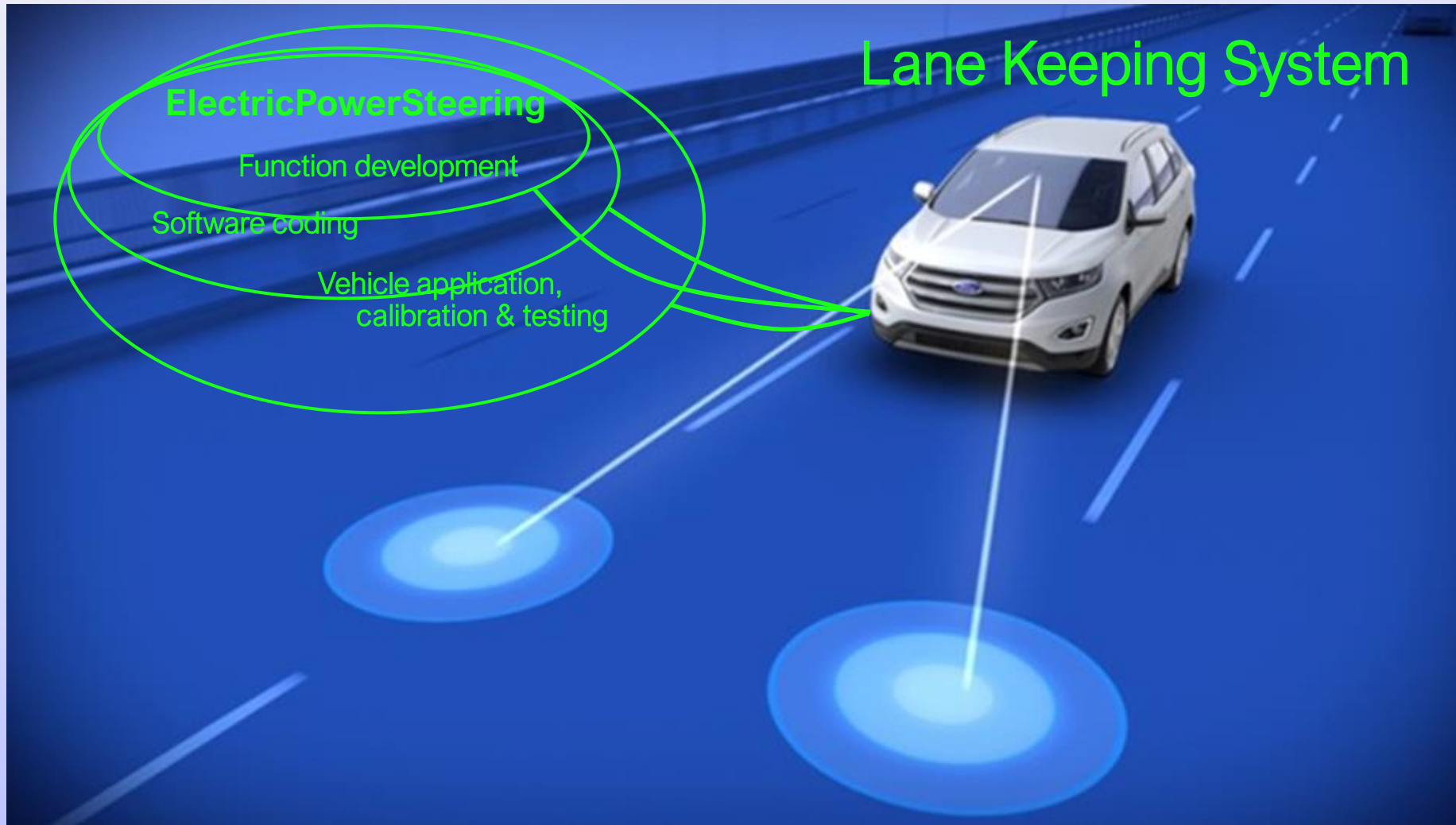
VI-grade Zero Prototype Summit

May 2022

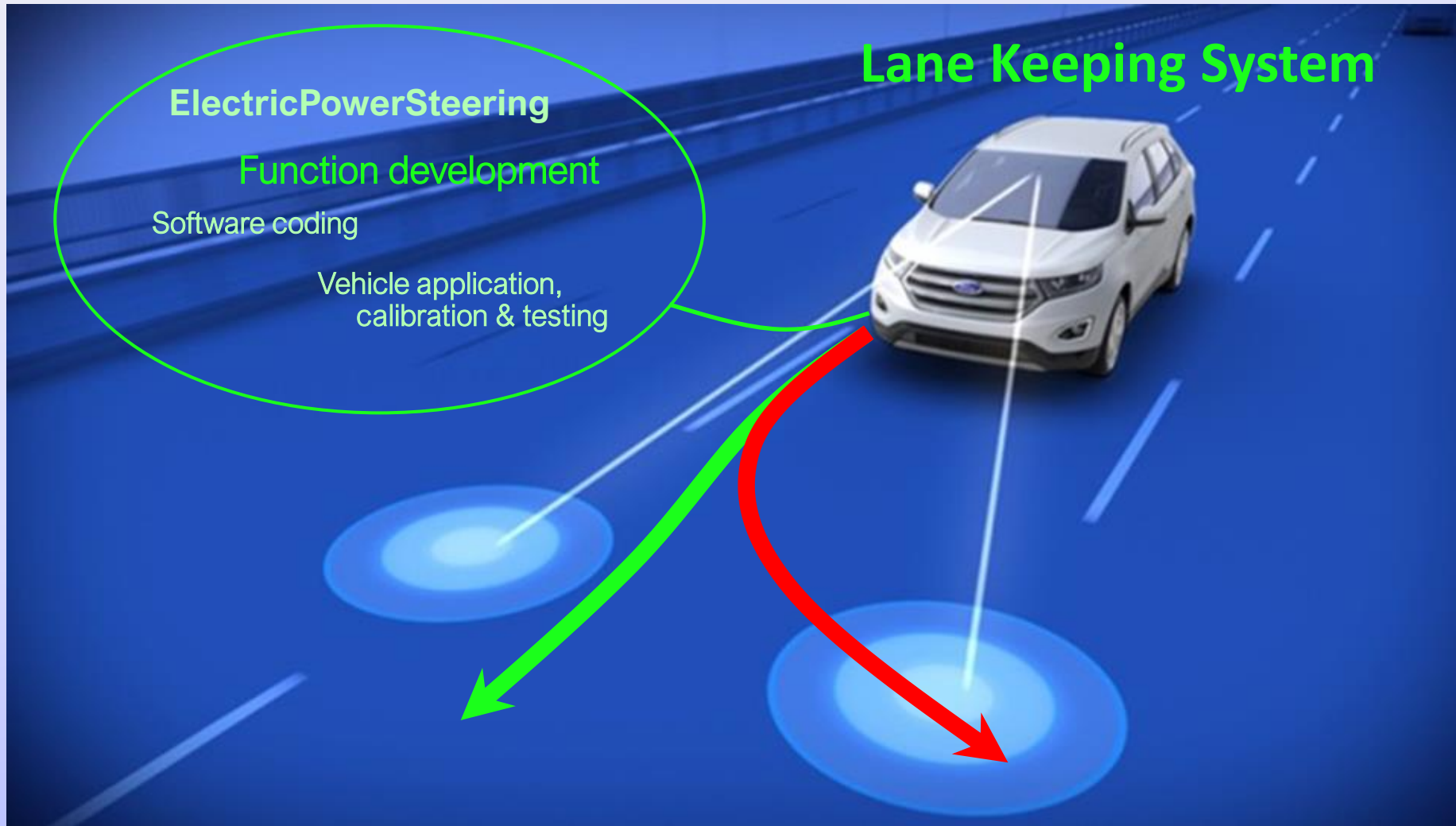
Jens Dornhege - jdornheg@ford.com

The Ford logo, rendered in its classic white script font, is positioned in the bottom right corner of the slide.

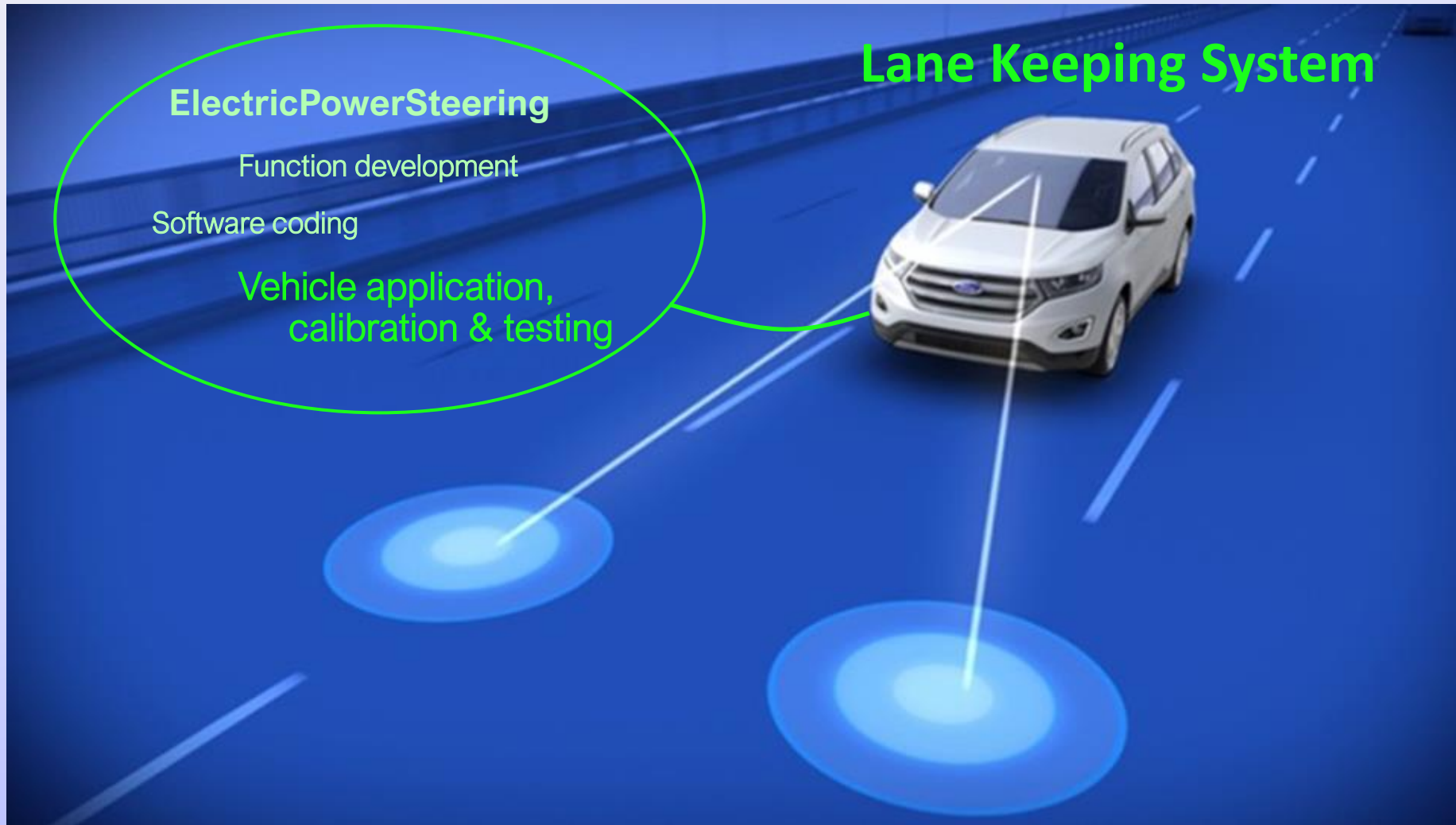
Vehicle Controls - Steering



Chassis Controls - Steering



Chassis Controls - Steering





Vehicle Application



Uncounted situations

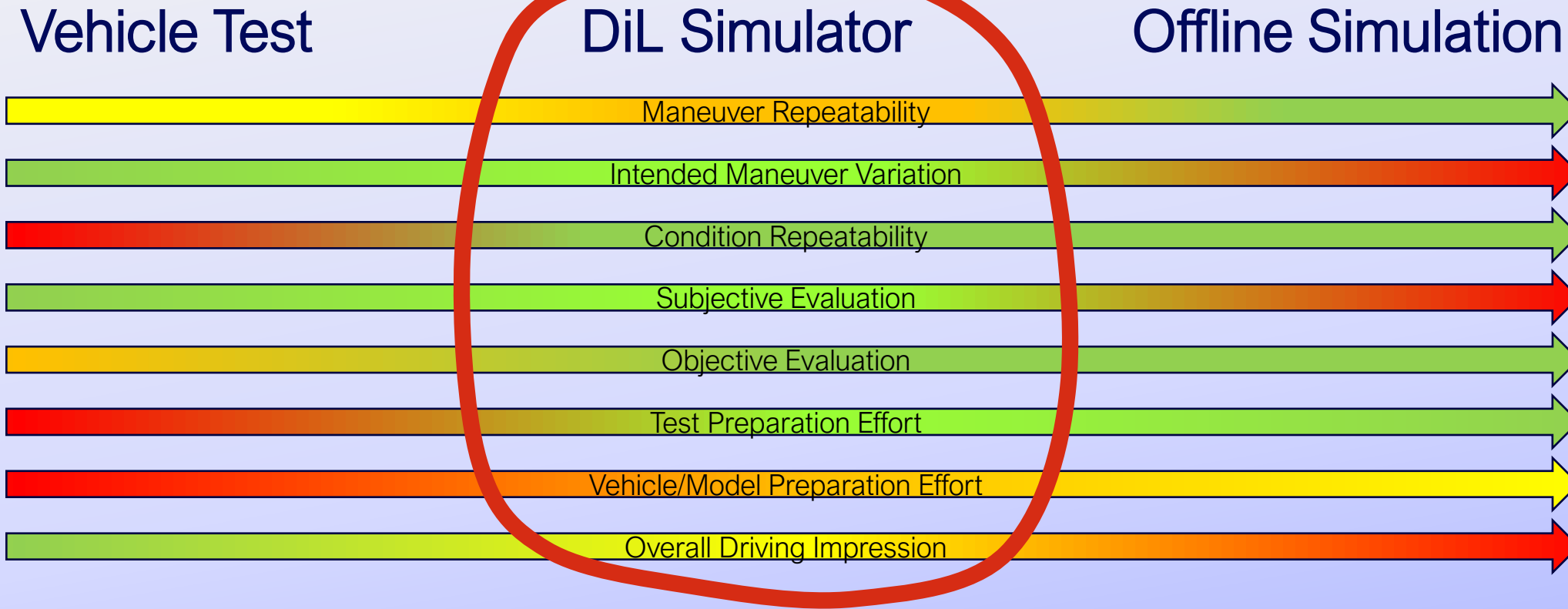
Tracks on proving grounds limited

Public road validation required



Public road release for steering systems under development and travel time to identified test locations complicate comprehensive validation

Evaluation and Test Task

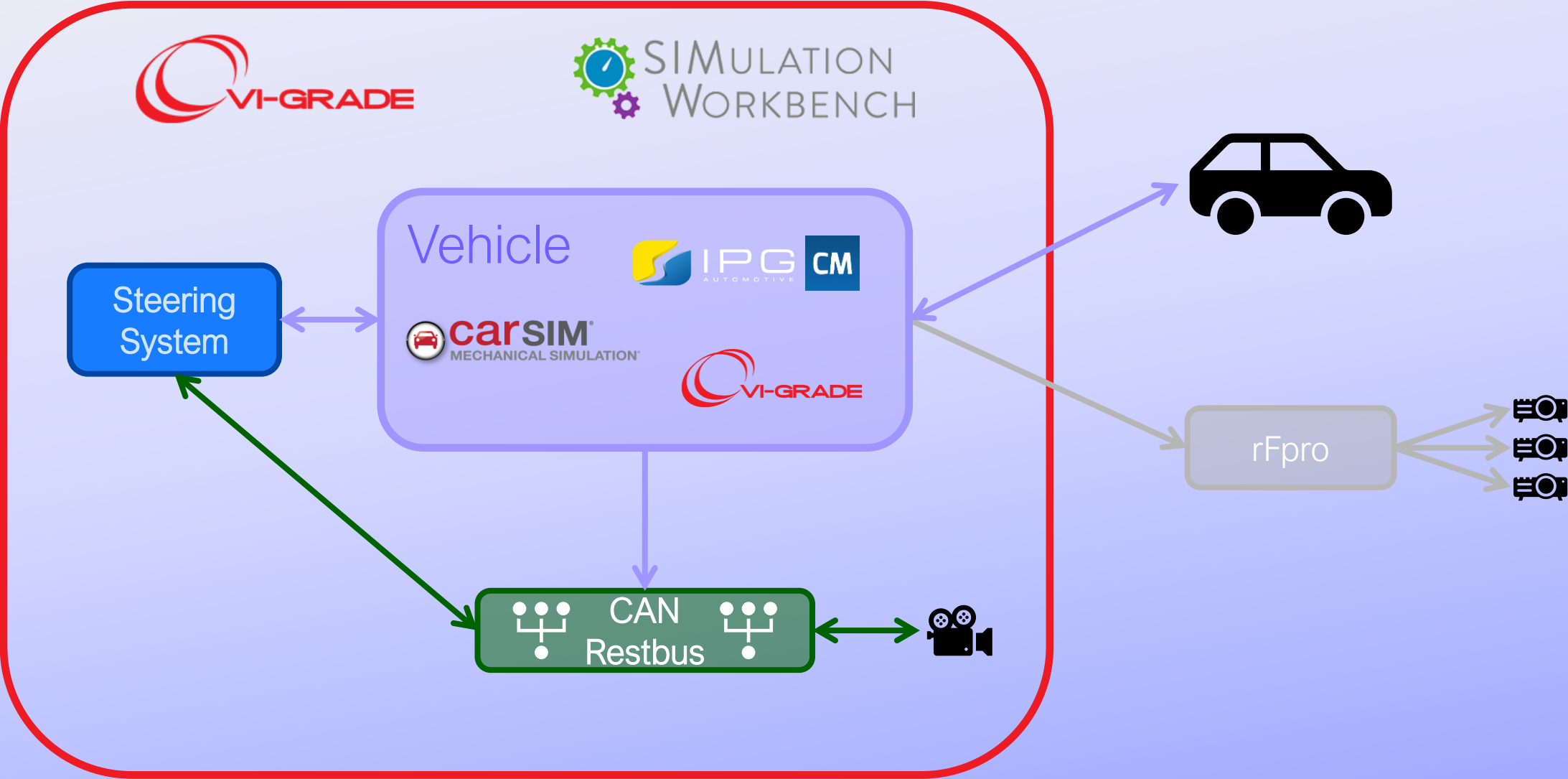


A driving simulator is the perfect bridge to overcome CAE limitations

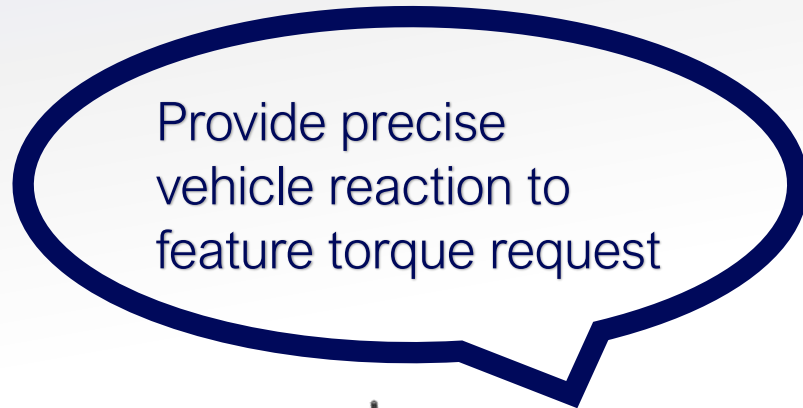
When clear maneuver definition and correlated metrics are available
→ Simulate Offline!

A continuous toolchain between offline and DiL simulation is required!

Simplified Setup Lane Keeping System

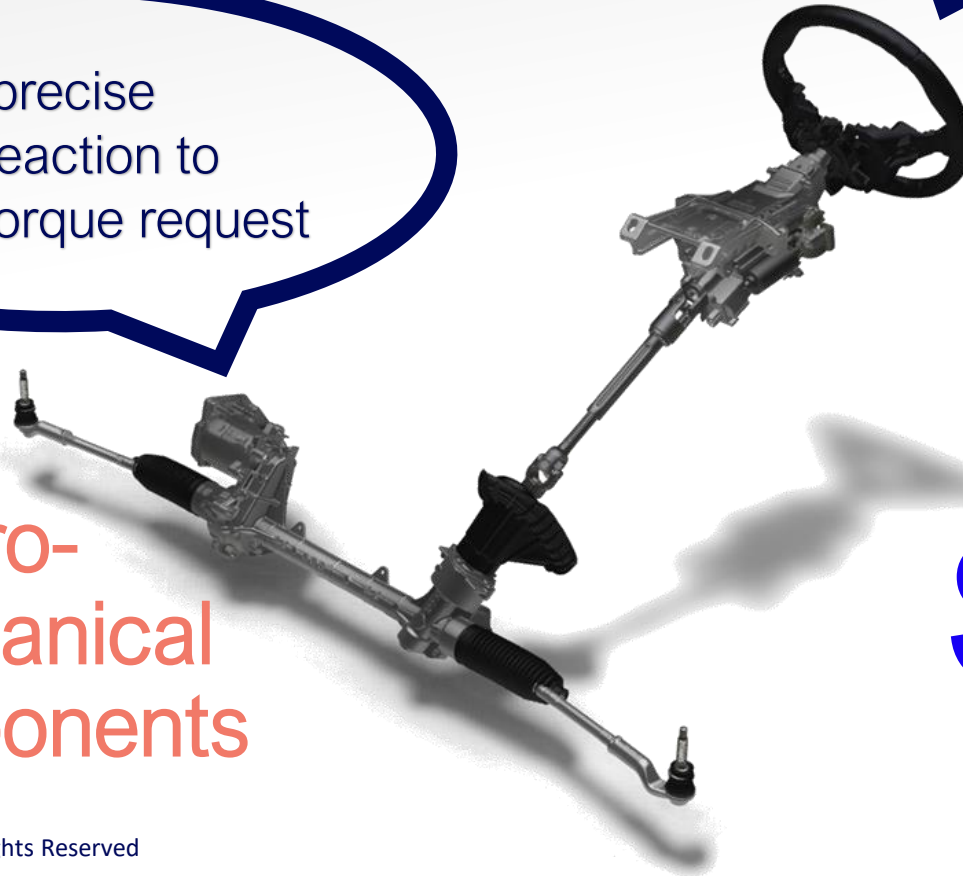


Emphasis on Steering in DiL-Simulator



Mechanical
system

Electro-
mechanical
components



Software

Supplier SiL ↔ Ford Features

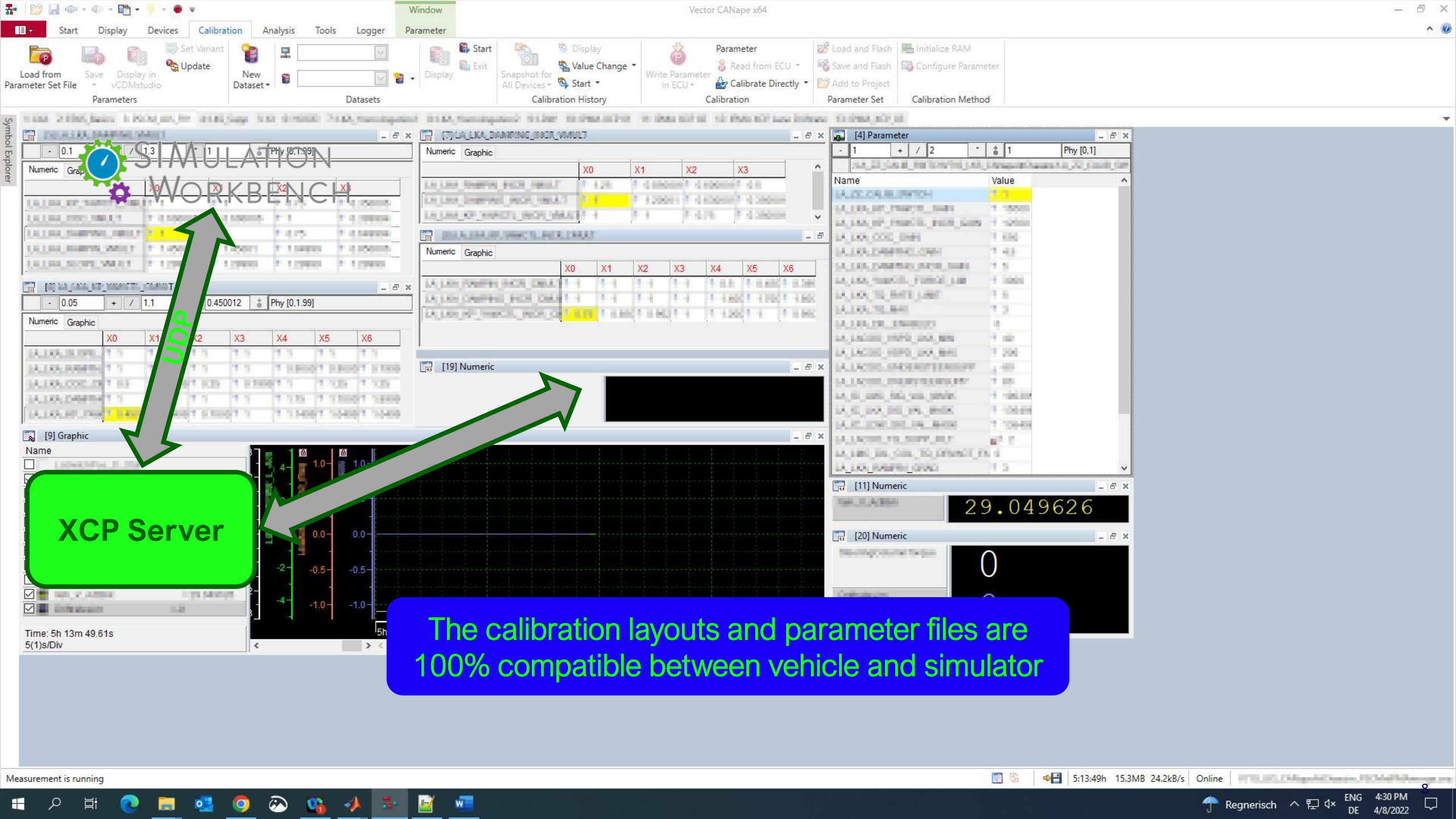
Specialized Tracks



Created
on
demand

Scripted,
parameterized

Simple



XCP Server

The calibration layouts and parameter files are 100% compatible between vehicle and simulator

The DiL Simulator...



**... will allow
immediate
sharing of results
with other regions
having access to a
VI-Grade
simulator**

**... has enabled
efficient LKS
calibration even
before prototypes
were available**

**... supports new
function
development in
short cycles**

Team approach



Sergio Trimboli

Martin Porwoll

Pushpakaran Sanjeevachetty

Erich Lipinski

Manuel Strauch

Marco Wolff

Saurabh Mandpe

US Simulator Team

& many more

Q & A