

Apply & Innovate 2026: Virtual Development in the Spotlight

Insights into virtual validation, ADAS and data-driven vehicle development at expert forum

Karlsruhe, September 22, 2026 – From September 16 to 17, numerous experts from the automotive and supplier industries as well as from research institutions met in Karlsruhe for Apply & Innovate hosted by IPG Automotive. With over 300 registrations, the expert forum had already set a new record prior to the conference. The event offered insights into current developments and practical application examples in virtual vehicle development. A special emphasis was put on software-defined vehicles, ADAS and automated driving, virtual verification and validation as well as data-driven development and artificial intelligence.

The two-day technology conference encompassed 36 presentations focusing on current development approaches and research results. Topics included shift left, continuous virtual validation, automated test processes and the increasing use of virtual methods in vehicle development.

Ulrich Schulmeister from Robert Bosch GmbH and Klaus Hassel from Dr. Ing. h.c. F. Porsche AG held the first keynote speech. Their presentation titled “A New Way of Collaboration Between OEM and Tier 1 to Push Virtual Development” shed a light on OEM and Tier 1 collaboration as well as its significance for the advancement of virtual development processes. Further presentations showcased practical approaches for vehicle function validation and the development of software-defined vehicles.

Data-based approaches to model customer behavior, the generation of simulation-capable scenarios and the use of generative AI in virtual validation were also amongst the topics covered during the event. In addition, experts presented cloud-based simulation environments as well as continuous scenario-based validation chains for ADAS and AD systems.

The evening event featured a keynote by Dr. Manaswini Rath from KPIT Technologies titled “Building Trustworthy Autonomy and End-to-End AI with World Foundation Model” highlighting the use of AI for credible automated systems. During the evening at the Gartenhalle, attendees also had the opportunity to deepen technical discussions from the first conference day in a relaxed atmosphere.

On the second day of the expert forum, Pierre-Marie Damon from Euro NCAP held a keynote titled “Virtual Testing in Euro NCAP: Current Status and the 2029 Vision” presenting how virtual tests can be linked more closely to established assessment methods in the future. He provided insights into the current status of virtual testing at Euro NCAP as well

as an outlook up to 2029. Complementing this topic, multiple presentations focused on virtual validation of ADAS functions in the context of Euro NCAP as well as on vehicle and ambient condition modeling for simulation-based tests.

On top of the presentation program, Apply & Innovate offered numerous possibilities for networking and discussions. An accompanying trade exhibition, Guided Tours and the Demo Experience on IPG Automotive's site in Karlsruhe rounded off the conference program.

President & CEO Steffen Schmidt draws a positive conclusion: "Vehicle development faces the task of validating increasingly complex systems faster and more reliably. Apply & Innovate shows that virtual development methods contribute significantly to this aim and highlights how important in-person discussions about practical applications and experiences are."

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Images



The expert forum Apply & Innovate 2026 hosted by IPG Automotive offered a platform to discuss simulation, virtual validation and data-driven development methods.

Image: IPG Automotive

About IPG Automotive GmbH

As a global leader in virtual test driving technology, IPG Automotive develops innovative simulation solutions for vehicle development. Designed for seamless use, the software and hardware products can be applied throughout the entire development process, from proof-of-concept to validation and release. The company's virtual prototyping technology facilitates the automotive systems engineering approach, allowing users to develop, test and validate new systems in a virtual whole vehicle.

IPG Automotive is an expert in the field of virtual development methods for the application areas of Autonomous Vehicles, ADAS, Powertrain and Vehicle Dynamics, committed to providing support to master the growing complexity in these domains. Together with its international customers and partners, the company is pioneering simulation technology that is increasing the efficiency of development processes.

By taking real test driving into the virtual world as a complement to on-road testing, IPG Automotive contributes significantly to technical progress and shares in shaping the mobility of tomorrow with regard to comfort, safety, economic efficiency and environmental friendliness.

In addition to the company headquarters in Karlsruhe, Germany, IPG Automotive provides innovative development services to its customers and partners at the Germany-based offices in Braunschweig, Frankfurt, Ingolstadt, Munich and Stuttgart as well as in China, France, India, Japan, Korea, Sweden, the UK and the USA.

Further information at <https://www.ipg-automotive.com/en/press>

Press contact

IPG Automotive GmbH
Ralf Sauer
Fautenbruchstraße 46
76137 Karlsruhe
Tel.: +49 721 98520 203
E-mail: press@ipg-automotive.com
Press area: www.ipg-automotive.com/en/press