

WELCOME

From alternative automobile engines and driving assistance systems through topics such as aerodynamics and lightweight construction, emissions, production and assembly – there are many starting points on the path to sustainable mobility in the advancement of automobiles. One of the central aspects in this context is networked cars that are linked to the internet, transport infrastructure and their surroundings.

With the focus area titled “Connected Cars – how individualized does the car of the future still need to be”, the 15th International Stuttgart Symposium for Automotive and Engine Technologies is undoubtedly approaching a future-oriented issue that is sure to gain increased attention in the coming years. For this reason, I am very glad to sponsor this event being organized by the Research Institute for Automotive Engineering and Vehicle Engines in Stuttgart.

Cars that are able to communicate with one another in order to avoid accidents, recognize traffic signs or, for example, notify the driver about excessive speeds or report damages to a repair shop via an online service – car networking can make driving safer, more comfortable and more affordable. Connected cars can likewise serve as the centerpiece of intelligent networking for various modes of transport and become the key to sustainable mobility in the future.

I am convinced that the Stuttgart International Symposium, as one of the most important discussion forums in the area of automotive and engine development, provides a suitable framework for discussing opportunities related to expanded vehicle networking. However, the challenges related to this must also be dealt with considering the fact that expanded data usage and the opening up of previously closed systems increase demands for the dependability and safety of these applied concepts. Apart from identifying the opportunities and the challenges of increased vehicle networking, this year's symposium will surely serve as a basis for generating new ideas.

I would personally like to give my heartfelt thanks to everyone who contributed to organizing and executing this event. I also hope that all participants will benefit from exciting discussions, take part in interesting lectures and leave with new ideas for their work.

Winfried Kretschmann
Prime Minister
of the State of Baden-Wuerttemberg

RESEARCH AND DEVELOPMENT IN AUTOMOTIVE AND ENGINE TECHNOLOGY

Mobility practices in our society are changing hand in hand with the demands on automobiles. In an era of increasing air pollution, growing scarcity of fossil fuels, their rising prices and expanding digitalization, current automobile concepts are changing and advancing. The car of the future has to be efficient, environmentally friendly, safe, comfortable, digitally networked and automated. At the same time, it also has to satisfy individual needs, appeal to the driver emotionally and provoke a desire to embrace a car as one's own. All of this entails a balancing act that is posing a great challenge for the automotive industry.

Experts from the industry and the research sector will report on and discuss these and many more issues at the

15th Stuttgart International Symposium for "Automotive and Engine Technologies" on 17 – 18 March 2015.

One of the updates for the 2015 symposium is the expansion of the previous focus areas of automotive technology, automobile engines and automobile electronics. The Fraunhofer Institute for Manufacturing Engineering and Automation IPA participates at the Symposium with a series of events on the topic of automotive process and production technologies for the first time. With this, the program will span the entire process of automobile production from research and development to manufacturing itself.

The Symposium will provide plentiful opportunities for exchanging technical and professional ideas, be it at the discussion rounds within the sessions, at the podium discussion, at the accompanying professional exhibition or in a social context during breaks and the evening event.

We look forward to welcoming you in Stuttgart, the birthplace of the automobile, and wish you an exciting, interesting and memorable time at the 15th Stuttgart International Symposium.

Prof. Dr.-Ing. Michael Bargende

Prof. Dr.-Ing. Hans-Christian Reuss

Prof. Dr.-Ing. Jochen Wiedemann

15. Internationales Stuttgarter Symposium

Automobil- und Motorentechnik

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