Braking Point

Dear Reader,

By the year 2020, autonomous cars will be a common sight on our roads, with their drivers free to relax and read a newspaper or send a few emails – at least that is the brave new world envisioned by various car makers and suppliers. We have every right to doubt this optimism, as decades of research are still required before humans can be replaced behind the wheel.

What are putting the brakes on the introduction of automated driving are not so much the underlying technology, the costs and the infrastructure. Questions of customer acceptance as well as the legal and political framework have not been finally decided, but at least they are on the agenda. Far more serious are the technical obstacles in detail, which necessarily lead to a more conservative assessment of the roadmap towards autonomous driving. More than ever before, the focus is on the functional safety of some of the systems involved.

In concrete terms, it is the semiconductor chips that are currently causing the greatest headaches for car manufacturers. At the moment, OEMs have to rely on products from consumer electronics, which are not necessarily suitable for tough continuous operation in vehicles. This also applies in particular to the safety-relevant functions in the cameras used for driver assistance systems, and quality managers in the automotive industry are already sounding the alarm. ATZ and its sister magazine ATZelextronik have looked at this subject in detail. The cover story of this issue of ATZ provides an interesting overview of the topic. Throughout the year, ATZelextronik will often examine the problem of the functional safety of consumer electronics in vehicles.

One thing is certain: the integration of consumer electronics into cars will require the automotive industry to refocus on quality standards. Interestingly, it is the semiconductor manufacturers above all who are warning of the risks. They have formed a ZVEI working group aimed at defining the categories relevant to development and production in a dialogue with OEMs in order to identify potential risks as early as possible and in a targeted manner. Initially, this process will not speed up the introduction of automated driving but will slow it down. But it is nevertheless an important one, as otherwise it will be the customers themselves who will refuse to accept autonomous vehicles.

Best regards,

Dr. Alexander Heintzel
Editor in Chief
Wiesbaden, 20 March 2015