



PRESS RELEASE

“Black Box” R&D a Thing of the Past: Automotive Industry Needs to Open Up Its R&D

[August 11, 2015] In recent years global business has definitely picked up for the automotive industry. At the same time, R&D (research and development) departments of automobile OEMs and suppliers are being pushed to the limits by technological and other challenges. Where are the issues? The number of car models with innovative technical features—often from outside the industry—is growing, while innovation cycles are getting shorter. Day-to-day business is uncoupled from traditional R&D. There is a severe shortage of skilled labor. The inclusion of electronics, software, and a growing number of systems is making car manufacturing increasingly complex. Furthermore megatrends are changing the value added structure and even the way the automobile industry views itself. Finally information and communication industries—with their specific electronics, software, and big data competencies—are gradually becoming potential competitors of the automotive industry. In light of these developments, R&D departments in the automobile industry no longer have the luxury of working in a “black box” environment. They need to open up to these new realities as soon as possible. Dr. Wieselhuber & Partner’s (W&P) latest market report, “*Black Box*” R&D: *Challenges for the Automotive Industry*” [*Black Box F&E: Herausforderungen in der Automotive-Branche*“], explains that only by opening up its R&D can the automotive industry combine future oriented strategy and efficient processes with its high-octane structures.

“*Top managers all over are wondering how effective their R&D department really is,*” noted Dr. Peter Fey, industry expert and author of the report. “*Improving the efficiency of your company’s R&D and raising the bar to address the latest megatrends is one thing. But if companies want to be leaders in their industry, they*



occasionally also need to embrace and master key technologies even outside their traditional market.”

W&P has identified eight megatrends directly impacting the requirements for improving effectiveness and efficiency of R&D departments in this market:

- **Electronification & software saturation:** Electronics and software are still the top drivers for boosting efficiency, even though constant adaptation of system and R&E tools will remain necessary.
- **Connected cars:** Cars are now included in the Internet of Things. With data worlds of products, users, and the infrastructure converging, players in this market need to cooperate more closely with companies outside the automobile industry.
- **Changing user behavior:** With its intense desire for mobility, Generation Y has new stipulations for its cars. Content-based services aim to meet these demands and expectations, although traditional R&D is not yet sufficiently equipped to do so.
- **Trends impacted by normative standards:** Developers must learn to integrate products—such as Advanced Driver Assistant Systems—from beyond their traditional portfolio. Development tools and quality assurance tools need to meet these innovative, holistic requirements.
- **Value added features shift:** As development efforts increasingly shift toward suppliers, the demand for experienced developers is not being met quickly enough. Current methods and processes are not yet focused on and adapted to the requirements of customers/OEMs.
- **Globalization & regionalization:** R&D development in networked, decentralized structures is creating new scenarios that require adapted processes. This complicates matters even further.
- **Ecology and sustainability:** As environmental guidelines become stricter, technical feasibility is becoming increasingly difficult to achieve.
- **Increased variety and shorter product lifecycles:** Product variations are stretching the limits of capacity, efficient use of R&D resources, professional R&D



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processes, and powerful quality assurance concepts. Frequently even traditional requirements need to be modified.

Mr. Fey clearly regards top management as the responsible entity for making the strategic and operational changes in R&D that are suggested by these challenges. True success can only be attained if top management defines a clear strategy—based on a comprehensive goal—and raises the bar for efficiency and goal orientation so that both old *and* new challenges can be met:

Graphics will be provided upon request.