## **Zuken Plays Key Role in Innovation Award Win for Electric Vehicle Research Collaboration**

19 December 2014 – Munich, Germany and Westford, MA, USA – Zuken is pleased to announce that the electric vehicle research project in which they are a partner – EM4EM (ElectroMagnetic Reliability and Electronic Systems for Electro Mobility) – has won a European innovation award.

The project was presented with the CATRENE Innovation Award for "Most Innovative Project in 2014" at the European Nanoelectronics Forum 2014, held last month in Cannes, France. CATRENE (Cluster for Application and Technology Research in Europe on NanoElectronics) is an EU-funded research program.

The results coming out of the CATRENE EM4EM project are pre-conditions for the next generation of electric vehicles and will allow European companies in the automotive industry to secure and expand while preserving or even increasing employment in Europe. Each partner in this interdisciplinary consortium brought requirements and specific expertise that have resulted in effective solutions.

Peter Koch, CATRENE Programme Director Applications

Zuken is the EDA industry representative on the three-year EM4EM project dedicated to tackling electromagnetic compatibility (EMC) problems in electrically-driven cars. Zuken has the lead on the "Advanced EMR Design for Smart System Integration" component, which focuses on modelling and analysis methodology. The project brings together 17 partners from three countries, including Audi, Daimler, Bosch, Infineon, Continental, NXP and ELMOS Semiconductor.



Zuken is a partner in the EM4EM project which won the CATRENE Innovation Award for "Most Innovative Project in 2014"

Zuken plays an important role in this research by advancing new technology concepts for EMC-related modelling of power and ground systems for control unit structures and for incorporating power-ground related noise in signal integrity simulation. EMC issues in electric vehicles can become critical due to the high currents and voltages required by electric vehicle engines, while control units operate in the millivolt/milliwatt range but must co-exist without disturbance close to the engine.

Our project was commended by the judges because of its systematic approach. We went from the project level into the specification phase and then from car, system, subsystem, and finally down to package and chip level. This type of systematic approach is vital to achieve results that can be implemented across the whole electric vehicle sector. We structured the R&D activities according to the V model, which is common in the automotive sector. The project outcome will significantly enhance our analysis capabilities in future.



Ralf Bruening, Senior Consultant High Speed Design, and Zuken's project leader for EM4EM.

The project work organization conformed to Automotive SPICE, a quality standard for which Zuken is accredited. The results of this project will be implemented into Zuken's electronic design and wiring system solutions to create unique benefits for Zuken's automotive customers.

Zuken has recently expanded its automotive sector activities by establishing a global Automotive and Transportation Competence Center in Germany. In October 2014, Zuken introduced its E3.Harness Analyzer product that offers efficient collaboration for the automotive harness industry as the first tool resulting from this Automotive initiative.

For more information, see www.zuken.com/high-speed-pcb-design or www.catrene.org

You can read a blog post about Zuken's involvement in EM4EM at www.zuken.com/em4em.

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For a downloadable Word document and press images visit the press kits area of the press center www.zuken.com/presskits.

## **About Zuken**

Zuken is a global provider of leading-edge software and consulting services for electrical and electronic design and manufacturing. Founded in 1976, Zuken has the longest track record of technological innovation and financial stability in the electronic design automation (EDA) software industry. The company's extensive experience, technological expertise and agility, combine to create world-class software solutions. Zuken's transparent working practices and integrity in all aspects of business produce long-lasting and successful customer partnerships that make Zuken a reliable long-term business partner.

Zuken is focused on being a long-term innovation and growth partner. The security of choosing Zuken is further reinforced by the company's people—the foundation of Zuken's success. Coming from a wide range of industry sectors, specializing in many different disciplines and advanced technologies, Zuken's people relate to and understand each company's unique requirements. For more information about the company and its products, visit www.zuken.com