



# Press Release

Berlin  
April 2008

## Project now started

TEMEA – Test Specification  
Technology and Methodology  
for Embedded Real Time Systems  
in the Automobile

[www.temea.org](http://www.temea.org)

TEMEA research project ensures quality of electronic components in the automotive industry

## Standardized Testing Technology for Higher Quality Automotive Software

Under the leadership of Fraunhofer FOKUS and with financial support from the Investitionsbank Berlin, the TEMEA project – Test Specification Technology and Methodology for Embedded Real Time Systems in the Automobile – has now taken up its work. The main aims of the TEMEA project are to meet current and future demands for Quality Assurance in the automotive industry through the development and provision of standardizable testing technologies, and also to substantially lower production costs. Alongside the Fraunhofer Institutes FOKUS and FIRST, the other project partners include IT Power Consultants, Testing Technologies IST GmbH, Fourth Project Consulting and the University of Göttingen. The project will run for three years; first results are expected in fall 2008.

“In spite of intensive efforts on the part of automobile manufacturers and their suppliers, no solutions have yet been found for dealing with problems arising from the testing and Quality Control of increasingly complex, increasingly networked systems,” says Prof. Dr. Ina Schieferdecker, TEMEA project manager at the Fraunhofer Institute FOKUS, talking about the project background. “For instance, test specifications for test systems and test solutions – many of which are proprietary – cannot be reused – neither between the original equipment manufacturer and supplier nor on a cross-project basis within the company. This leads to an unnecessarily high workload in terms of test specification and implementation, inhibits communication between producer and supplier and prevents reuse of existing test artifacts. The bottom line is that the quality of the whole vehicle suffers.”

The approach adopted by the TEMEA project is specially tailored to meet requirements-driven systematic testing of electronic components and their integration in the automobile. Based on the standardized testing technology TTCN-3, the TEMEA project seeks to develop a uniform test specification technology consisting of textual and graphical means of

### FOKUS Fraunhofer Institute for Open Communication Systems

#### Corporate Communications

Dr. Gudrun Quandel

Fon +49 (0)30 3463 7212

Fax +49 (0)30 3463 8212

Mobile+49 (0)171 1995334

eMail [gudrun.quandel@fokus.fraunhofer.de](mailto:gudrun.quandel@fokus.fraunhofer.de)

Kaiserin-Augusta-Allee 31  
10589 Berlin, Germany

[www.fokus.fraunhofer.de/press](http://www.fokus.fraunhofer.de/press)

**Press Release**

**Berlin**

**April 2008**

**Page 2**

description for test specification, a flexibly adaptable test implementation and runtime environment, and a configured testing methodology that will satisfy the needs of suppliers and major manufacturers alike. An approach of this kind – which promises to raise the efficiency of Quality Assurance processes for software-intensive systems through standardizable technology and thus to lower their production costs – is something completely new for the automotive industry. A further special feature of the project is that it also covers current automotive industry standards such as AUTOSAR. The main project areas are

- integrated testing of discreet and continuous behavior,
- cross-platform exchange of test definitions (MiL/SiL/HiL),
- support across the whole testing and integration cycle,
- analysis of real-time and reliability requirements,
- testing of AUTOSAR components, and analysis of test quality.

#### **Information**

[www.temea.org](http://www.temea.org)

#### **Contact**

Dr. Ina Schieferdecker

Fraunhofer Institute FOKUS

Tel +49 (0)30 3463 7241

[ina.schieferdecker@fokus.fraunhofer.de](mailto:ina.schieferdecker@fokus.fraunhofer.de)