

# Press Release

Nuremberg,  
April 30, 2010

## **The Latest Research at the EuroID – The Center for Intelligent Objects ZIO presents Smart Objects in health care, UHF-tags in maintenance procedures and RFID in real-time acquisition**

For years the Center for Intelligent Objects ZIO has been combining research and development of cutting edge technologies and their successful commercial application to business practice. ZIO is presenting selected highlights of this work on Stand A 21.

In tune with EuroID's primary focus on health care, the exhibit and lecture on the OPAL Health project in the user forum on 04 June at 12pm will be of great interest to trade visitors. Based on the Fraunhofer IIS's s-net™ wireless sensor network technology, OPAL Health uses Smart Objects for the continuous positioning and active monitoring of medical devices and blood supplies. OPAL Health can be seamlessly integrated into clinical information systems and has been undergoing routine clinical trials at the University Hospital in Erlangen since 2010. The system was developed as part of the SimoBIT program funded by the Federal Ministry of Economics and Technology. Other partners in the project are T-Systems, Vierling Communications, delta-T, the Department of Medical Computer Science at the University of Erlangen-Nuremberg, Erlangen University Hospital and the Fraunhofer SCS.

The new Ultra Low Current WakeUp Receiver developed by Fraunhofer IIS will also be on display at the stand. WakeUp Receivers are extremely low-power integrated radio receivers that constantly monitor the radio channel and, on receipt of a specific "wake up" sequence, produce a digital control signal to wake up a standard radio module, for example. This means wireless nodes with a long service life and at the same time very low response times - below 32ms - are now possible.

Another topic will be a new UHF tag developed in a joint venture between Lufthansa Technik Logistik, the HARTING Technologie-gruppe and ZIO to meet the aviation industry's stringent maintenance requirements. This tag creates the conditions necessary for the permanent identification of components both inside and outside the aircraft cabin. This "permanent parts marking" technique is currently in the final stages of certification for the airline industry and should go into serial production this summer. "The new tag will not only optimize logistical and service processes but also help open up a range of new service offerings and thereby create real competitive advantages," says Dr. Alexander Pflaum, Director of the Center for Intelligent Objects.

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Fraunhofer IIS's RFID real-time acquisition system, which evaluates bulk-scanning accuracy, will also be on display. Visitors to the stand can watch a demonstration of real-time acquisition and also see, for example, how important it is to put RFID tags in the right place on objects on a pallet.

Visitors to the stand can also take a look at ZIO's Innovation Radar and take part in a quiz to see how much they know about the latest developments in the AIDC industry. Subscriptions to ZIO Innovation Radar worth €3,000 can be won. ZIO's Innovation Radar regularly subjects all the innovation reports from the industry to close scrutiny and in particular assesses whether they can actually deliver what they promise.

The Center for Intelligent Objects ZIO can call on the researchers and developers from the Fraunhofer Institute for Integrated Circuits IIS for their technologies and skills in developing hard- and software for Smart Objects and AIDC. With their expertise in issues relating to markets and applications, the staff of the Fraunhofer Center for Applied Research on Supply Chain Services SCS can assist companies with the successful introduction of technology.

ZIO's Director, Dr. Alexander Pflaum, will be at the stand between 10 and 12 o'clock on May 5 to answer questions and discuss the center's work.

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*The Fraunhofer Center for Applied Research on Supply Chain Services SCS has many years of experience in developing highly innovative solutions for excellent supply chains and offers a successful mixture of independent scientific research and business practice application. Director of Fraunhofer SCS is Prof. Dr.-Ing. Evi Hartmann, Head of the Chair of Logistics at the Friedrich-Alexander-University Erlangen-Nuremberg. The Fraunhofer-Gesellschaft is an independent, neutral, scientific research organisation with 17,000 members of staff in Germany.*