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# RoodMicrotec Newsletter

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## What will the future bring?

In this newsletter, we ask the external speakers who appeared at our seminar on 21 October 2010 what they consider to be the current trends in the semiconductor industry. We are grateful for their contributions, which range from simple statements to more extensive comments by professor Vierhaus.

We wish all our readers a prosperous New Year, both privately and professionally. RoodMicrotec has started the New Year very positively, and we anticipate another year of sales growth.



## Professor Heinrich Theodor Vierhaus at the Cottbus Technical University in Germany

**After more than 40 years of almost exponential performance growth, semiconductor technology now seems to have reached a degree of 'maturity'.**

One reason is that you just cannot shrink a transistor below the size of an atom. Another reason is that we now have enough computing power on a single chip for almost every application. Also, the most advanced technologies are no longer located in Europe, but have moved to Asia. This is because production in nanotechnologies is economical only for very large volumes of specific ICs, which are found in mobile communications and consumer electronics. Europe, on the other hand, is strong in plant automation, automotive electronics, and transportation systems. In other words, Europe produces goods

which are sold based on superior performance and reliability, but not due to their low price. Test is a key issue in system reliability, and IC production testing will remain a key issue. However, test technologies that secure long-term system reliability are becoming more important. We believe that there is a demand for test technology that can first be used in production testing, but can also be re-used for tests in the field of application during the lifetime of a system. Fault diagnosis and maybe even built-in self-repair may be the next steps.

This means that companies that focus on test technology may have to rethink their products and services. Fortunately, we still have a number of top university groups in Europe that are very experienced and highly motivated to continue to do research into advanced test technologies.

On behalf of the Computer Engineering Group at Brandenburg University of Technology Cottbus we wish RoodMicrotec lots of success in the new year, and we hope that its customers will be fully satisfied with its products and services.

## Agenda

Colloquium 'International Dresden Barkhausen Award 2010' in Dresden  
4 February 2011 – 1:00 pm to 6 pm.

Prof. Peter Jacob works as a scientist at EMPA Switzerland and has also been a consultant for RoodMicrotec since 2007.

He has been selected for this award for his research on ESD (electro static discharge) risks within the increasingly complex robotic manufacturing equipment of semiconductor and other microstructure devices. But research is not the only ground for which he gets this award: transferring this knowledge into practical applications and making it available to the industry and training courses and seminars on the subject are also recognized. This has been very successful; RoodMicrotec offers such tool-related ESD risk evaluations to her customers.

For more information see [www.mfd-dresden.de](http://www.mfd-dresden.de)



## Professor Peter Jacob of EMPA in Switzerland

**We find more and more often that failure analysis is not limited to the devices, but that there is a ‘deeper’, system-related problem.**

In other words, failure analysis increasingly relates to questions of circuitry, applications and reliability. One of the reasons for this is the trend to miniaturise devices, packages and system boards and to save costs by reducing sample size and derating margins. Since this leads to stronger operational conditions, the interference between systems and components becomes more sensitive.

## Robert Kraus, CEO of Inova Semiconductors

**Robert Kraus agrees that the automotive sector is clearly recovering from the dip it went through in 2008, but that is not all.**



The car infotainment segment in which Inova operates shows overproportional recovery and an extremely positive outlook: cars are increasingly being equipped with electronic displays and camera-based driver assistance systems – the latter is forecast to show 400% growth in Europe and North America over the next 5 years.

The company aims to offer excellent quality at competitive prices and is about to establish its APIX technology as a global standard. RoodMicrotec Stuttgart tests all of Inova’s APIX products in a close partnership the companies have set up. Robert Kraus: ‘It is not just about doing business, we work hard together on being globally competitive with products ‘tested in Germany’.



## Helmut Keller, SAE Managing Director & Chairman Europe

**Helmut Keller, mainly focuses on automotive.**

In this sector he sees excellent opportunities, especially in the luxury/premium segment because of growing export to Asia and the ever-increasing amount of built-in electronics in luxury cars, providing two sources of growth. This is big business for the semiconductor industry and it will certainly give an impulse to the growth and profitability of the industry.

## Bruno Benedetti from Landis+Gyr in Switzerland

**‘Landis+Gyr’s tagline is: Manage energy better.**

Our partner RoodMicrotec translates that into Supply Chain Management: balancing supply and demand to avoid material shortages and extra costs, allowing us to run our business smoothly, also in 2011!



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