



RoodMicrotec Newsletter

June 2010 • RoodMicrotec

Attendance of forums bears fruit

This year, two members of RoodMicrotec’s sales team attended the GSA & IET International Semiconductor Leadership Forum in London on 18 and 19 May.

Our regular attendance of various forums is clearly bearing fruit, considering the increasing number of contacts that result from this. This time, too, we talked to a number of fab-less companies that we know from both the UK and Europe. Various partner foundries were also present and, of course, a large number of test equipment suppliers.

In different presentations, the speakers confirmed that the UK market is recovering, as our regional sales representative, Mike Jarvis, had already noticed.

The GSA & IET International Semiconductor Leadership Forum brings together executive management focused on European trends in

semiconductor development and markets. Attendees come from Europe, Asia and the US and comprise professionals from fab-less companies, industry suppliers and integrated device manufacturers, as well as executive leaders including CEOs/Presidents, CFOs, COOs, Vice President of Operations, Engineering and Marketing and Business Development.

We deliver added value by additional services and clever solutions

Thorsten Bucksch, Chief Technology Officer, explains the ways in which RoodMicrotec can reduce its customers’ overall costs.

‘It is essential, and at the same time one of our strong points, that we are able to reduce the overall test time without losing test coverage. It is hard for us to beat our Asian competitors purely on cost, but this gives us a competitive edge.’

He illustrates it as follows: ‘Imagine a test program that has 500 individual steps, and that you find that steps 15, 30 and 35 always show the same error. You can then remove steps 30 and 35. In order not to lose them, you regroup them in a specific qualification program. So you can reduce the number of measurements for the productive program,

while you run the specific qualification program on a sample lot. In this way you can reduce the usual test run for example from 10 seconds to 2.

As semiconductors are very sensitive to changes in technology, in some cases where new technology is used step 15, 30 and 35 are not failing together anymore. In that case you place them back in the productive program.

In addition we use pareto analysis. You take let’s say one million devices and you look at the sequence of the fails. Then you group the order in such a way that the steps that fail most often come first. This sequence gives you valuable information about how to reduce test time, again without losing test coverage.

Furthermore, our burn-in system can shorten the burn-in time significantly. In contrast to many other systems, our system is capable of taking measurements every six hours dur-



ing a 48-hour period without disturbing the burn-in period. If after 12 hours of burn-in no errors have occurred, 12 hours is enough for this specific lot. Perhaps even six hours. This is how we save a great deal of time and therefore cost.

This shows how RoodMicrotec can deliver added value to our customers’ processes at every step. We may not be the cheapest, but with our additional services and clever solutions we can reduce the total cost.

Pareto analysis is a good statistical decision-making technique that is used to select a limited number of tasks that produce significant overall effect. In terms of quality improvement, a large majority of problems (80%) is produced by a few key causes (20%).

Wolfgang Werner: failure analysis expert



Even though Wolfgang Werner (1954) only joined RoodMicrotec in March 2010, he is an old hand in the business.

'After receiving my PhD in *Investigation of reactions at interfaces and near interface areas in Al-contact systems* from Dresden University of Technology in 1984, I stayed on at the university until 1995 in various positions, including head of the material analysis laboratory. In 1996 I joined Infineon, responsible for

quality management and for the last seven years I was head of the failure analysis department at Qimonda/Infineon, responsible inter alia for product failure analysis and in charge of 7 different working groups with 60 employees in total.

- failure localisation with different localisation methods;
- target preparation & imaging with different methods;
- failure & material & surface analysis with different methods.

Within RoodMicrotec I work on the new project management definition, in which the matrix organisation model was chosen. I am also responsible for developing physical analysis services in Dresden. This comprises failure analysis, technology analysis and material analysis. The service concept has three pillars (see graph):

For me, it is a great challenge to develop this complete service concept in Dresden and to work in the new project management organisation. I am convinced that it will enable us to offer even more added value.'



Theory meets practice!

RoodMicrotec offers students the opportunity to work with us on their dissertation or thesis. Our specialists support them from both on a theoretical and a practical level. During the process the students can test their knowledge and make important personal contacts.

The students are free to choose subjects from any field of business for their final paper. We will support them with a plan and nominate a competent advisor to assist them.

'This enables students to get to know RoodMicrotec at an early stage in their career, and us to bind them to us,' said Romy Baur.

Service concept on 3 pillars



Laboratory basics -> preparation techniques

Agenda

June 8 - 10, 2010
SMT/Hybrid/Packaging in Nuremberg (Germany)
RoodMicrotec is in hall 6, booth 115b
Info: www.mesago.de/en/SMT/main.htm

At the two following smaller events, Thorsten Bucksch, Chief Technology Officer at RoodMicrotec, will give a lecture :

June 11, 2010
In German language - Seminar "Bauteilfälle verursacht durch Fehler bei Design, Herstellung, Beschaffung und Anwendung" at the EMPA Akademie in Dübendorf, CH,
details see www.empa.ch

June 22 - 23, 2010
NMI-Event in Warwick, UK "Automotive Electronics",
details see www.nmi.org.uk/events

Colophon

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