EDA Forum02: Combined view of technology and economics

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Held 5-6 December 2002 in Hannover, Germany, EDA Forum 2002 attracted more than 80 decision-makers (mostly from Europe) from EDA and the micro-electronics industry. The edacentrum association organized the forum as part of its mission to overcome the design gap by collaborative actions among system and semiconductor companies, EDA vendors, and research institutes.

In contrast to pure technical workshops, EDA Forum focuses not only on technical challenges but also on business-related topics to optimize the return on EDA investment. Therefore, edacentrum organized the forum into two parallel tracks—one for technical issues, the other for economics issues—followed by a unified panel discussion.

Keynote speaker Richard Newton (University of California, Berkeley) began the forum with a discussion on the next big advance in chip-level design productivity, which he identified as "lift the gate-level platform and do platform-based design."

Rob Rutenbar (Carnegie Mellon University) was the keynote speaker for the technical session dedicated to analog and mixed-signal design automation, which is of special interest to the automotive- and communica-tion-centric European audience. He identified the growing importance of analog design due to the increasing percentage of mixed-signal SoCs. He claimed that almost 90% of analog designs today are automatically synthesizable using small libraries of predefined topologies and brute-force optimization strategies for sizing. Other speakers added that real synthesis is far more than sizing. Mixed-signal design automation would become interactive, which would require significant research. All the speakers agreed that analog modules are now only reusable as soft IP.

Raul Camposano (Synopsys), keynote speaker for the second technical session, presented a new methodology for assertion-based verification, including all hierarchical levels. In his view, the key drivers of verification will be deep-submicron effects. Other speakers identified software verification as a key challenge and pointed out the value of verification for ensuring first-time success.

The economic sessions covered topics such as design processes, benchmarking and productivity, and return on investment in EDA. Major findings included the correlation of design capabilities and profitability with market value and the long-term value of EDA investment.

Jacques-Olivier Piednoir (Cadence Europe), another keynote speaker, identified consortia and standards, including companies' interoperability, as keys to first-time success: "If real men have fabs, wise men have EDA [partners]," he said.