

## **Panel Debate:**

**"What does Board Test look like in 5-10 years?  
Will Structural test be relevant?"**

Nordic Test Forum

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## **The Panel Session**

# **"What does Board Test look like in 5-10 years? Will Structural test be relevant?"**

- The fields of testing of electronics are changing over time as a result of an (r)evolutionary process
- New test solutions combined with ever changing requirements from a fast developing technologically driven industry emerge over time at a growing pace.
- Mass production, outsourcing, fast increasing complexity of microelectronics and systems pave the way for new strategies in testing of electronics.

# Some Questions

1. **Structural testing:** Very important, but do we see joint efforts (1149.1, 1500, P1687) or are we entering a new “30 year war”?
2. **In-Circuit testing.** Has been reported dying the last 20 years, but as Mark Twain once said:” The report of my death is mildly exaggerated”
3. **AOI/AXI:** Once the darlings of manufacturing testing and seen as the saviors in such testing. Awfully quiet today, where are these techniques today?
4. **Functional testing:** A strong shift towards embedded testing, Thomas Wentzel: We cannot trust external instrumentation. JTAG companies combining structural and functional testing:
  - To survive structural testing or making testing a lot more efficient?

# Some Questions

5. ***Reduce functional testing:***

But companies like NI are growing fast, and embedded functional testing seems to come strong!

6. ***RF testing:***

Is going through a paradigm redressing using FPGA based solutions (NI, FPGA-LabVIEW)

7. ***Get rid of testing of electronics:***

Why not just design and manufacture right?

# Panelists

- Magnus Rönqvist, Syntronic Test Systems
- Jennifer Dworak, Southern Methodist University
- Gunnar Carlsson, Ericsson
- Christophe Lotz, Aster Technologies