



Round table: what do user need?

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Key facts

- Price per elementary function is continuously decreasing thanks to integration and scaling
- Technology is getting more and more challenging
- => wafer fab cost more and more (3B\$ for up to date techno)

- Trend: production rationalization
 - *Less wafer fab*
 - *Fabless*
 - *End user with most advanced products*

- Need to access advanced device analysis
 - *We have seen the right tools and techniques during this workshop!*

What can we do?

- Changes are more economic related than technique related
 - *Lab with EBEAM, LVP, TRE, TRI, Nanoprobing, Sample prep (chip access), SQUID, SCM, MFM, EFM, CAFM Testers and Softwares + Team and Skills*
 - *Tools to deal with technical challenges started to be “too” expensive*
- Advanced tools and techniques outsourcing
 - *Who can afford the investment?*
 - *Business model*
 - Services (ROI issue)
 - Time share (are you ready?)
 - ...
 - *Rationalization*
 - Perform the investment according to
 - Core challenges (company level)
 - Existing facilities (services or potential outsourcing)
 - Stop the investments (and close the lab!)

What can we do?

- Mutualization
 - *Business model*
 - Not service based
 - Improve company tool ROI
 - *Gentlemen agreement*
 - *IP and competition issues*
 - *Tool manufacturer (better 1 than 0!)*
- Lobbying
 - *DFA (allows analysis with simple tool)*
 - *Can we do again JTAG?*
- Other ideas? Suggestions? Comments? Working plan?