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# Sematech CEO tips '300mm-prime' effort

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The semiconductor industry is exploring new ways to extend 300mm fabs and push out the need for 450mm plants, including the development of so-called 300mm-prime tools, according to the top executive of chip-making consortium International Sematech.

Mike Polcari, president and chief executive of Sematech, said the semiconductor industry is looking at various options to boost productivity, increase yields and reduce costs over the next several years.

During a presentation at the Semico Impact conference early this week (Jan. 24), Polcari outlined three different options to accomplish these goals: slow the two-year process technology cycle; move to next-generation 450mm fabs; and improve the current 300mm technologies.

One option is shifting from 300mm to 450mm fabs. At least on the ITRS roadmap, 450mm fabs could appear in the 2012 to 2014 time frame. Intel Corp. is pushing hard for the next-generation, 450mm wafer size.

450mm fabs do provide productivity improvements, he said, but the question is cost.

Another option is to improve the current 300mm infrastructure with new and faster tool technologies. In fact, a 20 percent compound fab improvement per generation is equivalent to a wafer size change, he said.

The movement towards the improved 300-mm infrastructure is what the Sematech executive called 300mm-prime. This apparently involves new and improved 300mm tools, which could broaden the manufacturing base into high-mix, high-volume models, he said.

Others believe the IC industry should delay the shift towards 450mm fabs. Mike Splinter, president and chief executive of Applied Materials Inc., recently warned that the semiconductor equipment industry is not ready to move full speed ahead and develop next-generation, 450mm tools due to a funding shortfall in the overall business.

- Mark LaPedus
EE Times

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