

Semico: SoC market growing at 9% CAGR

By Ann Steffora Mutschler, Senior Editor -- 10/29/2007

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The system-on-chip (SoC) method of creating silicon solutions holds great promise for the future of the semiconductor industry and ASIC markets in particular, with revenue for this market projected to grow from \$37.4 billion this year to more than \$56 billion in 2012, a compounded annual growth rate approaching 9 percent, according to Phoenix, Ariz.-based **Semico Research**.

Rich Wawrzyniak, senior analyst at Semico noted that the SoC market was considered 'A Brave New World' in ASIC design just a few short years ago when such designs were state-of-the-art and cutting-edge and took all the resources most companies had just to complete. "Today, the market has moved on from the concept of the 'single SoC on a single chip' to actually creating 'multiple system(s) on a single chip' – moving into 'A Braver New World!'," he added in a statement.

Semico believes the industry is poised at the tip of this iceberg, especially when it will be possible to instantiate many 10's -- if not 100's -- of CPU cores on a single die in the very near future; which is already happening today in a few instances, the firm says.

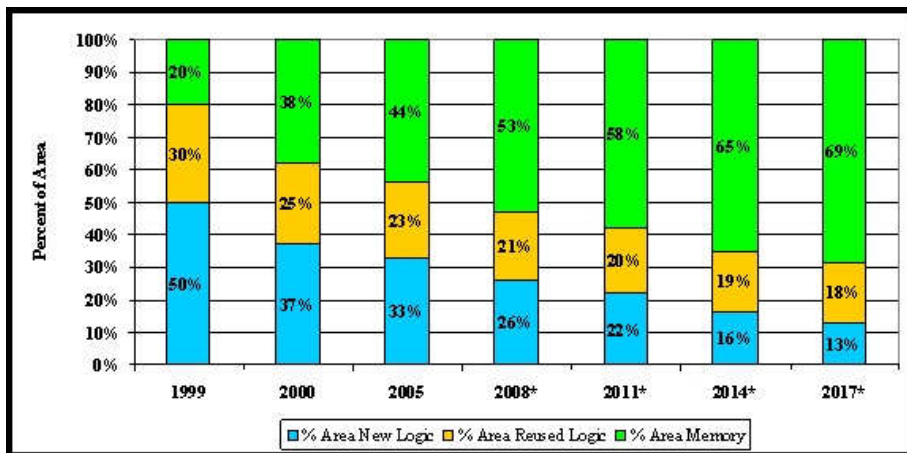
The portioning of die area relative to memory and logic will play out over the next several years, which Semico says takes into account the current trends in SoC design regarding the usage of embedded memory and logic.

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Memory content on an average part will represent approximately 60 percent of the SoC die area in 2012 with the trend towards devices with multiple CPU and DSP cores being an important driver over the short and medium term and that the current issues of utilizing all the transistor budget possible at 65 and 45 nm will become of less importance.

Semico Roadmap for Die Area Partitioning 1999 to 2017



Semico reminded that market requirements will dictate what features and functions will be necessary to make products competitive in the marketplace and that issues of logic reuse versus new logic will be solved to a large degree by market pressure and not as much by technical shortcomings over the long term.

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