



## TSMC Announces Move to 20nm Process

*Value driven decisions will provide enhanced computational performance*

**Hsinchu, Taiwan, R.O.C. - April 14, 2010** – Taiwan Semiconductor Manufacturing Company, Ltd. (TWSE: 2330, NYSE: TSM) announced today at its 2010 Technology Symposium that it will skip the 22nm manufacturing process node and move directly to a 20nm technology. The move is value driven to make advanced technology a more viable alternative for its customers.

During his address to nearly 1,500 TSMC customers and third party alliances, Dr. Shang-yi Chiang, TSMC Senior Vice President, Research & Development, said that the move to 20nm creates a superior gate density and chip performance to cost ratio than a 22nm process technology and makes it a more viable platform for advanced technology designers. He also announced that TSMC is expected to enter 20nm risk production in the second half of 2012.

The technology will be based on a planar process with enhanced high-K metal gate, novel strained silicon, and low-resistance copper Ultra-Low-K interconnects. Dr. Chiang also indicated that the company has demonstrated record-setting feasibility of other transistor structures such as FinFET and high-mobility devices.

The technical rationale behind the move is based on the capability of innovative patterning technology and layout design methodologies required at these advanced technology nodes.

“We have reached a point in advanced technology development where we need to be actively concerned about the ROI of advanced technology. We also need to broaden our thinking beyond the process technology barriers that are inherent in every new node,” Dr. Chiang pointed out. “Collaborative and co-optimized innovation is required to overcome the technological and economic challenges.”

### About TSMC

TSMC is the world’s largest dedicated semiconductor foundry, providing the industry’s leading process technology and the foundry’s largest portfolio of process-proven libraries, IPs, design tools and reference flows. The Company’s managed capacity in 2009 totaled 9.96 million (8-inch equivalent) wafers, including capacity from two advanced 12-inch GIGAFABS™, four eight-inch fabs, one six-inch fab, as well as TSMC’s wholly owned subsidiaries, WaferTech and TSMC China, and its joint venture fab, SSMC. TSMC is the first foundry to provide 40nm production capabilities. Its corporate headquarters are in Hsinchu, Taiwan. For more information about TSMC please visit <http://www.tsmc.com>.

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