

DECEMBER 6, 2005

News Analysis

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Intel's Eager Passage to India

The semiconductor giant will devote more than \$1 billion to R&D in India. Will an exploding market inspire it to manufacture chips there?

http://www.businessweek.com/technology/content/dec2005/tc20051206_475674.htm

India's role in research and development for chipmaking giant Intel (INTC) is already big. And it's about to get bigger. The world's largest semiconductor maker runs a 500,000-square-foot facility in Bangalore and has 2,800 employees, or more than 3% of its global staff of 85,000, in India. Intel said Dec. 5 that it will spend \$800 million to expand research operations in India in the next five years, compared with \$700 million invested there in the last decade. Intel's investment arm will launch a \$250 million venture-capital fund aimed at Indian companies.

"This investment demonstrates Intel's long-term commitment and builds on the foundation we have created during our 10 years operating in India," Intel Chairman Craig Barrett said on Dec. 5. "India has evolved into one of the world's leading technology centers." As committed as Intel is to India, the company has yet to announce plans to actually manufacture semiconductors there.

REMAINING HURDLES. That's in contrast to Intel rival Advanced Micro Devices (AMD), which has announced a technology-sharing agreement with SemIndia, a consortium of Indian investors that aims to break ground on a \$3 billion chip factory in the country by 2007. Broadcom (BRCM), a maker of communications chips, is also in talks with SemIndia to become involved in the project.

India is keen to follow in the footsteps of neighboring China and add chip manufacturing to its economic mix. Many companies have scouted manufacturing locations there, and many have tapped India's considerable engineering resources to bolster R&D efforts.

But India has yet to turn out any silicon wafers, says analyst Joanne Itow of Semico Research, a Phoenix-based consultancy, because of ongoing concerns about its ability to support so complex a manufacturing operation. "India certainly has a great deal of growth potential, and it has a well-educated labor force," Itow says. "But it still has some progress to make in relation to infrastructure and land development. There are some concerns about electricity and water supply. But these are not hurdles that India can't clear."

HUNGRY CONSUMER MARKET. India's government wants a chip factory in the country so badly, in fact, it's willing to take partial ownership in the facility. Some reports suggest that the federal government could contribute some \$230 million to the SemIndia project.

Chipmakers may be well advised to take the manufacturing plunge into India. The market is big and growing fast. Consumers in India will buy 5 million PCs, 70 million wireless phones, and nearly 4 million DVD players this year, according to forecasts by Semico.

A study by In-Stat, a market-research firm based in Scottsdale, Ariz., suggests that demand for electronic goods is growing faster in India than in China -- and that India is the fastest-growing end market for electronics. Worth \$11.5 billion in 2004, India's market is expected to be worth \$40 billion by 2010, growing about 23% annually. That's compared with 19% annual growth expected in China for the same period.

DEREGULATION BOOST. To be sure, China's electronics market is about 23 times the size of India's. Sales of electronics in China accounted for nearly \$272 billion in 2004, and will by 2010 account for 30% of the world's demand. Market size goes a long way to explaining why China already has 47 chip factories, or "fabs," up from only 28 in 2000, according to El Segundo (Calif.)-based market-research firm iSuppli. That number could grow to 57 within four years.

Still, the trends in India look increasingly alluring to the biggest names in tech. Cisco Systems (CSCO) CEO John Chambers reckons India may "challenge" China in terms of business revenue for Cisco in three to four years. The world's largest maker of networking gear is drawn in part to the deregulation that's fueling investment in India's Internet (see BW, 11/28/05, "Cisco Sold on India").

Wireless-phone manufacturers have led the charge to set up manufacturing plants in India. Finnish wireless giant Nokia (NOK), as well as South Korea's Samsung and U.S.-based Motorola (MOT), have all announced plans to set up manufacturing in India. Taiwan's FoxConn International, which manufactures phones under contract for such companies as Nokia and Motorola, is also said to be eager to invest in a manufacturing plant in India.

Having a chip-manufacturing facility close to that market will in time make a good deal of sense.

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