Philips in India: Designing the Future

A combination of consumer, technology, application and channel trends is driving leading semiconductor companies to adopt new strategies to differentiate in today's market. According to Rajeev Mehtani, director of Philips Semiconductors in Bangalore, the proliferation of digital content, penetration of home networking, and the emergence of the anytime, anywhere consumer and product convergence are all influencing changes in semiconductor strategy today. Moreover new product innovations in the automotive segment are increasing the semiconductor content in automobiles.

Bangalore's contribution to Philips has so far been in the development of complete software for DVD players; the development of software for remote diagnostics for Philips Medical Systems; the development of embedded connectivity solutions like USB, PCI-Express, Wi-Fi etc; the development of 50-60% of all software for TVs; and the development of software for MP3 jukeboxes.

India's Growth
India is today becoming the most sought after destination for the electronics industry, and not without reason. It has a market of 1 billion people, of whom more than 45% are less than 20 years old. Also India is the second largest producer of engineers and scientists and has the largest pool of software engineers in the world. With 15 world-class technical universities in India, more than 200,000 engineers graduate there each year.

According to Bob Hoekstra, CEO, Philips Innovation Campus, Bangalore, Philips could leverage on this: "India can be the default software development center for Philips, with one in every three software engineers in Philips already coming from India. Our target is to increase this strength to one in every two software engineers in Philips." He added, "We can increase chip design activities in India as well."

Leading-Edge Design
Stimulating the need for increased IC design activity in India was the recent announcement by Rene Penning de Vries, chief technology officer, Philips Semiconductors, that Philips plans to work on designs in the latest technologies, like 90 and 65 nanometer, in India.

Development in India for Philips initially started with small pieces of work for Philips system requirements. "We started with co-development initially, then moved to subsystem development and now we do system development," said R Janakiraman, who heads the Nexperia-Home development team in Bangalore.

Sanjay Bansal who manages the Nexperia-Mobile development team in Bangalore, added: "We started off by working on basic applications six years back, but now we contribute the majority of the software (multimedia applications, application frameworks, core telecom protocols for 2.5G and 3G, and device drivers) for Nexperia mobile system solutions from Bangalore."

Going Forward
Philips Semiconductors in India constitutes 5% of the hardware design workforce within Philips. This is an area that is being considered for strengthening in the near future. If the hardware force is strengthened, India could become a major contributor in the development of Nexperia system solutions, given its proven capabilities in software development. The other area that is set for growth is the electronics ecosystem in India for Philips that can leverage the capabilities of Indian independent software developers/design houses.

With the limited market in India for electronics products today, the country is mostly used for development. But the future will see a growth in domestic demand in India that will spur local manufacturing. The establishment of many new OEMs and ODMs in India is testimony to this development. Philips is gearing up to this by increasing its business development activities in India.

Recent reports of industry trends in India indicate a three-fold growth in the IC design industry by 2010. Philips' plans for India are in line with this industry trend as well. Penning de Vries announced that Bangalore would be involved in the development of a Nexperia system solution scheduled for tape-out next year. Another initiative on the drawing board is the design of reusable intellectual property. Philips plans to enhance its IP development and productizing capabilities, and expand its work in connectivity peripherals. Riding on its Nexperia-Mobile system solutions, Philips is also hoping to create a mass market for its products in India. One such product is an ultra-low cost (ULC) mobile phone which is specifically targeted at price-sensitive markets like India. The sub-US$20 phone is expected to be a key representation of Nexperia-Mobile at work, offering more features at low cost. Also, Philips intends to launch advanced hybrid TV based on its Nexperia-Home solutions.

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