Govt's Rs 76K-cr Plan to Create Semiconductor Ecosystem and Employment

JAIRAJ SRINIVAS, ,DG & FOUNDER, CIMEI

Union Cabinet cleared a comprehensive Rs 76,000-crore ($10-billion) package to build a much-needed semiconductor ecosystem in the country. The incentives will be extended to a range of new units -- greenfield chip fab and display fab units, apart from compound semiconductor and ATMP (assembly, testing, marking, and packaging) facilities. The package also gives a fiscal push to the fledgling homegrown semiconductor product design companies (fabless players). And backing this effort is support to universities to train 85,000 engineers under the "chips to start-ups" programme.

Semiconductor and display fab units under the scheme will offer financial support of up to 50% of the project cost. This will be given to eligible players that have the technology, as well as the capacity to execute such high capital and resource incentive projects. The government is targeting the setting up of two semiconductors, as well as display fab units. To encourage the setting up of compound semiconductor units (which make chips that are used in mobile chargers, electric vehicles, and telecom radios) and ATMP (assembly, testing, marking, and packaging) facilities, the government will offer fiscal support of up to 30% of capital expenditure to the approved units. The government expects over 15 such units to come up in this space.

Mr. Ashwini Vaishnaw, Communications and Electronics & IT minister, said that the policy will attract potential global players and the incentives are better than other competing countries, such as South Korea, the US, and Taiwan to set fab plants. "The large available design ecosystem in India will be the greatest advantage. We already have 25,000 design engineers in India.

Domestic fabless players to get support via design-linked incentive By Jairaj Srinivas Founder & DG Confederation of Indian MSME in ESDM & IT

We will be giving 50 per cent capital incentive for semiconductor fab and display fab a similar incentive which in at par with global market. But Indian policy is offering something extra -- a clear 20-year roadmap for generating and nurturing talent and making sure that as the industry grows,

there is a sufficient number of required talents."

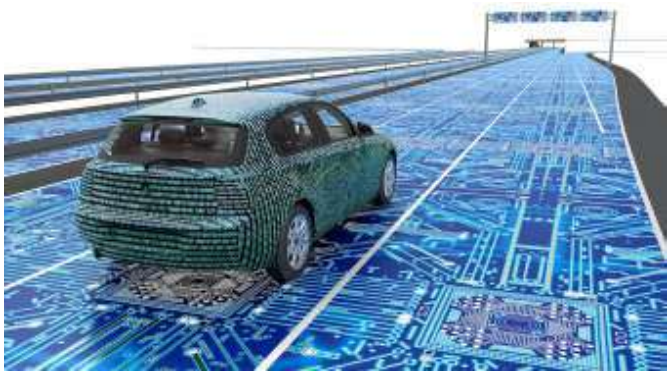
CIMEI the PAN India Tradebody welcomes the package, we feel that in less than a decade, a new era in electronics manufacturing and will form a vital pillar of the government's Atamanirbhar Bharat vision, in addition to driving growth and innovation, increased job creation, and will address the global supply chain crisis."

The DG CIMEI says, "We have already initiated a consortium to build a strong Components Manufacturing Ecosystem. We are confident that such announcement will strengthen our

commitment towards the Ecosystem. This will enable India to become an electronics hub and encourage corporates to start manufacturing in India. It is a big step to bring India on the world map of the semiconductor industry as it will pave the path for the industry to broaden the horizon of research, manufacturing and export. In the long term, issues like a sudden surge in demand for semiconductors will also be addressed. This move will also make the Indian manufacturers globally competitive to attract investment in the areas of core competency and cutting-edge technology."

The Large part of the government funding will go towards setting up fab and fab display plants. According to estimates, the investment required for an advanced technology chip plant (producing 28-nanometre chips and above) costs 3-4 billion USD in the US, while a modern fab display plant may need a $3-billion investment. With half the investment coming from the government, nearly 60 per cent of the package may be spent on funding these megaprojects. Another $2 billion will go towards funding compound semiconductor plants that require an investment of around $250 million each and OSAT (outsourced semiconductor assembly and test) operations."

The package includes support to homegrown chip product design companies (fabless companies) that also sell the product by manufacturing it at third-party units. Under the design-linked incentive (DLI), product design-linked incentive of up to 50 per cent of eligible expenditure and product deployment-linked incentive of 4 per cent-6 per cent on net sales for five years will be offered. The government is looking to offer this support to at least 100 domestic companies; Expecting at least 20 such companies to hit revenue of Rs 1,500 crore in next five years.



The new policy is the government's regular attempt to create a semiconductor ecosystem in the country. In 2007, Intel showed interest but moved to China and Vietnam instead because the Indian government's policy and incentives were not thought through. In 2013, the government approved two proposals, one by the Jaypee group with a promise to subsidise the project cost. The promoters failed to raise finances and the projects were aborted. Even now also after this announcement Intel has announced plans to pour US$7 billion into building a new chip packaging facility in Penang, Malaysia. For many decades Intel has been enjoying special status in India by receiving various Financial, administrative and commercial benefits from India specially from state of Karnataka.

"While appreciating the Government commitment to promote Semiconductor FAB in India we feel that whole industry has only a few small players with total revenue of not more than $30 million. Designing a chipset is expensive and costs $2-10 million and venture funds don't fund such industry. The government incentive will give a huge boost to grow our business." Says Team CIMEI, "Indian chip design firms go to Taiwan to get their chip manufactured and costs are high."

The government through its various expressions of interest floated late last year and this year to gauge interest from global players for fabs has already targeted chip manufacturers. They include Taiwanese majors Taiwan Semiconductor Manufacturing Company, VIA Technologies, and United Microelectronics Corporation, US giants Intel, Micron Technology, NXP Semiconductors, and Texas Instruments, Japanese players Fuji Electric and Panasonic, European chipmakers Infineon Technologies and STMicroelectronics, and South Korean SK HYNIX and Samsung. Domestic players like the Tatas and Vedanta have also been approached for OSAT and display fabs, according to sources.

The key to success is building the infrastructure -- abundant water and continuous power supply, and dust-free environment -- an area in which India needs to improve a lot.