

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 556
TO BE ANSWERED ON: 06.12.2023

INDIGENOUS SEMICONDUCTOR DESIGN

556. SHRI P.C. MOHAN:

Will the Minister of **ELECTRONICS AND INFORMATION TECHNOLOGY** be pleased to state:

- (a) whether the Government has taken any steps to promote the development of indigenous semiconductor design and manufacturing capabilities in the country and if so, the details thereof;
- (b) the details of any plan to promote the development of indigenous semiconductor design and manufacturing capabilities in India; and
- (c) the steps being taken by the Government to attract investment in the semiconductor manufacturing sector?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI RAJEEV CHANDRASEKHAR)

(a) and (b): Yes sir. Government is very focused on its important objective of building the overall semiconductor ecosystem and ensure that, it in-turn catalyses India's rapidly expanding electronics manufacturing and innovation ecosystem. Government has approved Semicon India programme with a total outlay of INR 76,000 crore for the development of semiconductor and display manufacturing ecosystem in the country. The programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem. This will serve to pave the way for India's growing presence in the global electronics value chains.

Following four schemes have been introduced under the aforesaid programme:

- i. **'Modified Scheme for setting up of Semiconductor Fabs in India'** for attracting large investments for setting up semiconductor wafer fabrication facilities in the country to strengthen the electronics manufacturing ecosystem and help establish a trusted value chain. The Scheme extends a fiscal support of 50% of the project cost on *pari-passu* basis for setting up of Silicon CMOS based Semiconductor Fab in India.
- ii. **'Modified Scheme for setting up of Display Fabs in India'** for attracting large investments for manufacturing TFT LCD or AMOLED based display panels in the country to strengthen the electronics manufacturing ecosystem. Scheme extends fiscal support of 50% of Project Cost on *pari-passu* basis for setting up of Display Fabs in India.
- iii. **'Modified Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab / Discrete Semiconductors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India'** extends a fiscal support of 50% of the Capital Expenditure on *Pari-passu* basis for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors

(including MEMS) Fab/ Discrete Semiconductor Fab and Semiconductor ATMP / OSAT facilities in India.

- iv. **‘Semicon India Future Design: Design Linked Incentive (DLI) Scheme’** offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design. The scheme provides “Product Design Linked Incentive” of up to 50% of the eligible expenditure subject to a ceiling of ₹15 Crore per application and “Deployment Linked Incentive” of 6% to 4% of net sales turnover over 5 years subject to a ceiling of ₹30 Crore per application.

In addition to the above schemes, Government has also approved modernisation of Semiconductor Laboratory, Mohali as a brownfield Fab.

Chips to Start-up (C2S) Programme has also been initiated with an outlay of Rs 250 Crore for a duration of 5 Years. C2S Programme aims to train 85,000 number of industry-ready manpower specialized in the area of VLSI/ Chip design/ Embedded System Design and leapfrog in ESDM space by way of inculcating the culture of Chip/ System-on-Chip (SoC)/ System Level Design at B.Tech, M.Tech& PhD level and act as catalyst for growth of Start-ups involved in semiconductor design in the country.

ChipIN Centre has also been setup at C-DAC as one-stop centre for providing access to state-of-the-art chip design infrastructure & fabrication services to academia and start-ups across the country.

(c): Following steps have been taken by the Government of India/ India Semiconductor Mission to attract investment in the semiconductor manufacturing sector:

- i. Announcement of Semicon India programme with a total outlay of INR 76,000 crore, which offers 50 % incentives on Pari-passu basis as detailed in para (a) & (b) above.
- ii. Organized Semicon India Conference 2022 and 2023 to sensitize various stake holders of semiconductor industry about Semicon India Programme and the policies of various state governments for semiconductor manufacturing.
- iii. Established collaborative partnership with relevant stakeholders such as MoU with USA, Japan, European Union, Purdue University, IBM India Private Limited.
- iv. Construction on first semiconductor unit under the Semicon India program has commenced in Sanand, Gujarat.
- v. A prominent semiconductor company has begun construction of its largest semiconductor design centre in Bengaluru.
- vi. Another prominent semiconductor company has collaborated with Indian Institute of Science to train a large pool of engineers conversant in semiconductor technologies.
