GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
STARRED QUESTION NO. *148
TO BE ANSWERED ON: 13.12.2023

SELF-RELIANCE IN SEMICONDUCTOR MANUFACTURING

***148. SHRI RAVI KISHAN:**
SHRI RAVINDRA KUSHWAHA:

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGYbe pleased to state:

(a) the details of the measures taken to make India self-reliant in semiconductor manufacturing; and

(b) the details of dependence with respect to semiconductors in India?

ANSWER

MINISTER OF ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI ASHWINI VAISHNAW)

(a) to (b): A Statement is laid on the Table of the House.

SATEMENT REFERRED TO IN THE REPLY TO LOK SABHA STARREDQUESTION NO. *148 FOR 13.12.2023, REGARDING SELF-RELIANCE IN SEMICONDUCTOR MANUFACTURING

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(a): Government is very focused on its 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 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 Semi-Conductor Laboratory, Mohali as a brownfield Fab.

Further, Government of India has also taken initiatives for Skill Development and building R&D ecosystem in the country. A Future Skill: Talent Development Committee was constituted for providing the recommendations to the Government for making India a global hub for semiconductor talent.The "Semicon India Future Skills Talent Committee Report" submitted by the Committee was forwarded to Department of Higher Education for revisiting curriculum for semiconductors domain. Accordingly,All India Council for Technical Education (AICTE) has launched the model curriculum for UG, Diploma, Minor Degree in Semiconductor domain on 18.02.2023 as a step towards creation of Talent pool in Semiconductor domain.

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.

(b): As a result of several initiatives taken by the Government and efforts of the industry, the domestic production of electronic goods has increased substantially from INR 1.90 lakh crore (USD 29 Billion) in 2014-15 to INR 8.22 lakh crore(USD 101 Billion) in 2022-23 at a Compound Annual Growth Rate (CAGR) of approx. 20%. As a result of this growth in electronics manufacturing sector and semiconductor being major part of all electronic products,the semiconductor market in India has also witnessed proportionate growth over the last few years. Under India Semiconductor Mission, the first semiconductor unit by Micron was approved in June, 2023. Construction of this unit has started. Ecosystem partners have also started setting up units in India.

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