GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION. NO. 3034
TO BE ANSWERED ON: 19.03.2025

INDIA SEMICONDUCTOR MISSION

3034. SHRI VE VAITHILINGAM:

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

(a) the current status of the implementation of the five semiconductor projects approved under the India Semiconductor Mission (ISM) including their expected timelines for completion;
(b) the specific measures undertaken by the Government to address the skill gap in the semiconductor manufacturing sector including collaborations with Indian Institute of Technology (IITs), private colleges and international training facilities;
(c) the strategies in place to develop a local talent pool skilled in the production of speciality materials, gases, substrates and related equipment for the semiconductor ecosystem;
(d) the expected outcomes of the Rs. 76000 crore outlay under the ISM in terms of creating a diversified and resilent semiconductor supply chain; and
(e) the steps being taken by the Government to ensure timely execution of the approved projects and their alignment with India's goal of achieving self reliance in the semiconductor industry?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI JITIN PRASADA)

(a), (d) and (e):Government has approved Semicon India programme with a total outlay of Rs 76,000 crore for the development of semiconductor and display manufacturing ecosystem in the country,which provides:

i. Fiscal support of 50% of the project cost on *pari-passu* basis for setting up of Silicon Complementary Metal-Oxide-Semiconductor (CMOS) based Semiconductor Fabs in India.

ii. Fiscal support of 50% of Project Cost on *pari-passu* basis for setting up of Display Fabs in India.

iii. Fiscal support of 50% of the Capital Expenditure on *pari-passu* basis for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors (including Micro-Electro-Mechanical Systems) Fab/ Discrete Semiconductor Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / Outsourced Semiconductor Assembly and Test (OSAT) facilities in India.

iv. Product Design Linked Incentive of up to 50% of the eligible expenditure subject to a ceiling of ₹15 Crore per application and also "Deployment Linked Incentive" of 6% to 4% of net sales turnover over 5 years subject to a ceiling of ₹30 Crore per application for incentivising chip design.

The development of Semiconductor ecosystem in India will substantially increase domestic value addition in electronics manufacturing, reduce import dependency and integrate India electronics manufacturing ecosystem with global supply chains. Government has approved

five (5) semiconductor manufacturing projects with cumulative investment of around Rs. 1,52,000crore under the programme. The approved projects are under various phases of implementation and are expected to be completed in 4-6 year timeframe.

(b) and (c):Following measures have been taken by the Government for development of skilled manpower:

1. All India Council for Technical Education (AICTE) has launched the new curriculum for B. Tech in Electronics Engineering (Very Large-Scale Integration (VLSI) Design and Technology), Diploma in Integrated Circuit (IC) manufacturing and Minor Degree in Electronics Engineering (VLSI Design and Technology), as a step towards creation of Talent pool in Semiconductor domain.

2. Government has launched the Chips to Startup ('C2S') programme which plans to train 85,000 industry ready workforce at about 113 participating institutions in VLSI and Embedded System Design. More than 43,000 engineering students have been onboarded for training at 113 organizations under C2S Programme till date.

3. A Skilled Manpower Advanced Research and Training (SMART) Lab has been setup in NIELIT Calicut in 2022 with an aim to train one lakh engineers nation-wide within 5 years in VLSI and Embedded System design. More than 42,000 engineers have been trained nationwide using the SMART Lab.

4. Further, the following collaborations/ partnerships have been entered into by India Semiconductor Mission (ISM) to encourage skill development:

   (i) MoU between ISM with IISc and Lam Research: To train ~60,000 Indian engineers in the upcoming 10 years through Lam Research's Semiverse platform.

   (ii) MoU between ISM and IBM: To facilitate Indian students/professionals to build a broad skill base by gaining access to laboratories and research focal centers and establishing internship and fellowship programs.

   (iii) MoU between ISM with Purdue University: To promote the cutting-edge research and development and commercialization thereof, curating skilled talent pool and investment opportunities in India enabling the Indian professionals to explore their potential in the semiconductor and display space.

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