GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 1496
TO BE ANSWERED ON: 12.12.2025

PROGRESS UNDER SEMICONDUCTOR MISSION

1496. SHRI SANJAY SINGH:

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

(a) despite a ₹76,000 crore outlay under India Semiconductor Mission and approved projects totaling around ₹1.60 lakh crore in investments, details on funds which have actually been disbursed and utilized till date;
(b) steps taken by Government under India Semiconductor Mission to address projected shortage of 250,000 to 350,000 skilled semiconductor manufacturing professionals by 2027;
(c) current number of semiconductor professionals employed in India across design, manufacturing, testing and packaging; and
(d) the quantified targets for domestic production of semiconductor-grade raw materials such as silicon wafers, high-purity gases, specialty chemicals in next five years, current production vs import data?

ANSWER

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

(a) to (d): India's semiconductor development strategy is inspired by Hon'ble Prime Minister's vision of Atmanirbhar Bharat and Make in India, Make for the World.

As a part of this strategy and given the foundational nature of semiconductor industry for the economy, the Government launched the 'Semicon India Programme. It aims to develop the complete ecosystem including design, fabrication, assembly, testing and packaging.

In less than 3 years, ten (10) units have been approved which include Silicon fab, Silicon Carbide fab, advanced packaging, memory packaging, etc. These would cater to chip requirements of sectors such as consumer appliances, industrial electronics, automobiles, telecommunications, aerospace, power electronics, etc.

As per industry estimates, around 20% of global semiconductor design manpower is in India. Further, industry estimates also indicate that around 1.25 lakh design engineers are working in semiconductor design in India.

Government has adopted a comprehensive approach for building talent pipeline in semiconductors:

1. Chips to Start-up (C2S) Programme**:** To encourage India's young engineers, Government is providing latest design tools (EDA) to 395 universities and start-ups.

   Using these tools, chip designers from more than 46 universities have designed and fabricated 56 chips at Semiconductor Laboratory (SCL), Mohali.

   Training in chip design has also been provided to more than 67,000 students, and researchers so far.

2. All India Council for Technical Education (AICTE) has launched the following courses:
   (a) B. Tech in Electronics Engineering (VLSI Design)
   (b) Diploma in Integrated Circuit (IC) manufacturing, and
   (c) Minor Degree in Electronics Engineering (VLSI Design and Technology)
3. A Skilled Manpower Advanced Research and Training (SMART) Lab has been setup in NIELIT Calicut with an aim to train 1 lakh engineers nation-wide. More than 62 thousand engineers have already been trained.
4. ISM has also partnered with Lam Research for conducting a large-scale training programme in nanofabrication and process-engineering skills. These would further augment skilled workforce for ATMP and advanced packaging. The program aims to generate 60,000 trained manpower in next 10 years.

   FutureSkills PRIME program is a collaborative initiative of MeitY and National Association of Software and Service Companies (NASSCOM) aimed at making India a cutting-edge digital talent nation. Key features are:

   - Skilling, reskilling, and upskilling in emerging technologies such as Semiconductors, Artificial Intelligence, Big Data Analytics, etc.
   - Courses are developed in the consultation with industry to align with actual employment needs
   - Portal can be accessed anytime-anywhere to earn skill certificates in line with their aptitude and aspirations
   - Accessible online at https://futureskillsprime.in/

Encouraged by Government policies and growth of electronics and semiconductor manufacturing in India, the entire ecosystem is now getting developed.
Companies involved in specialised gases, materials, components, warehousing, etc. are also scaling up their operations in India.

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