

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 2852
TO BE ANSWERED ON: 05.08.2026

PROGRESS OF DOMESTIC SEMICONDUCTOR MANUFACTURING PLANTS

2852. ADV. ADOOR PRAKASH:

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

- (a) the details of progress made in establishing domestic semiconductor manufacturing plants;
- (b) the status of projects approved under the semiconductor manufacturing incentive scheme and the expected timelines for operationalization;
- (c) the details of steps being taken by the Government to address challenges in semiconductor production, such as skilled workforce shortages and supply chain constraints; and
- (d) the impact of global trade restrictions on India's semiconductor manufacturing sector?

ANSWER

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

(a) to (d): Inspired by the Hon'ble Prime Minister's vision of AtmaNirbhar Bharat, Government adopted structured and targeted policy initiatives for the development of electronics manufacturing across the entire value chain including semiconductors.

The semiconductor industry is a foundational industry. All sectors of the economy such as industrial, consumer, defence, telecommunication and automotive etc depend on semiconductors. This sector offers transformative capabilities by driving technological innovation, economic growth, and strategic self-reliance.

Recognising the importance of semiconductors, the Government launched Semicon India Programme in January 2022 for setting up of semiconductor fabs, display fabs semiconductor packaging and also for promotion of Indian designed chips.

Under Semicon India Programme, Government has approved 12 manufacturing projects with total investment commitments of about ₹1.64 lakh crore. Out of these 12 projects, commercial production has already commenced from three plants. The details of the programme and approved project details are available at www.ism.gov.in.

Semiconductor design:

Government is providing financial as well as infrastructure support (including free access to Design tools) to Startups and MSMEs through Design Linked Incentive (DLI) Scheme within the Semicon India Programme. Twenty-four (24) semiconductor design projects have been approved for financial support and 105 startups/MSMEs for Electronic Design Automation (EDA) tool support under DLI Scheme. The details of the scheme and list of beneficiaries are available at <https://chips-dli.gov.in/DLI/HomePage>.

Strengthening Semiconductor Supply Chain:

To further improve and strengthen the supply chain, the Government has actively engaged with relevant countries and their companies. To provide enabling platform for B2B collaborations for securing supply chain partnerships, Government has signed following MoUs with various countries:

- i. **MoU with USA** for establishing semiconductor supply chain and innovation partnership.
- ii. **MoC with Japan** for “Semiconductor Supply Chain Partnership” to strengthen cooperation between Japan and India towards the enhancement of semiconductor supply chain.
- iii. **MoU with European Union** to deepen cooperation on semiconductor ecosystem, its supply chains and innovation and leverage complementary strengths.
- iv. **MoU with Singapore** to establish the “India-Singapore Semiconductor Ecosystem Policy Dialogue,” aimed at enhancing cooperation in semiconductor supply chains, R&D, business partnerships, and workforce development.
- v. **MoU with Netherlands** to strengthen and enhance cooperation in the field of semiconductors and related emerging technologies.
- vi. **JDOI with Germany** on Semiconductor Ecosystem Partnership to strengthen technological cooperation, promotion of investments, trade facilitation, industry linkages, and development of resilient semiconductor ecosystems.

The approved applicants also tie up with various global and local supply chain partners to ensure long term supply of the chemicals, gases and other raw materials.

Initiatives for strengthening the Skilled Workforce:

Govt has also taken the various steps to develop a strong semiconductor talent pipeline through academic programmes, industry partnerships and national skilling initiatives:

- i. Government launched Chips to Startup (C2S) programme to provide industry ready manpower in chip design. Under this programme, access to cutting-edge chip design tools has been provided at no cost. The access to these tools are provided to 320 organizations. So far, the usage of these chip design tools has exceeded 240 lakh hours. The State-wise list of organizations supported for EDA tools by the ChipIN Centre under C2S Programme is at https://c2s.gov.in/EDA_Tool_Support.jsp
- ii. A Skilled Manpower Advanced Research and Training (SMART) Lab has been setup in NIELIT Calicut with an aim to train 1 lakh engineers in the domains of VLSI, Embedded Systems and IoT. More than 1 lakh candidates have already been trained.
- iii. Further, under the FutureSkills PRIME programme, implemented by MeitY in partnership with NASSCOM, online courses are offered for skilling, reskilling and upskilling in emerging technologies including semiconductors. Portal can be accessed at <https://futureskillsprime.in>, anytime-anywhere to earn skill certificates in line with their aptitude and aspirations.
- iv. The project titled "Setting up of Semiconductor Assembly & ESD Training Laboratory at NIELIT Guwahati", has been approved by MeitY. The project aims to establish a state-of-the-art Semiconductor Assembly, Testing, Marking and Packaging (ATMP) training facility to support the growing semiconductor manufacturing ecosystem, particularly the upcoming semiconductor manufacturing initiatives in the North Eastern Region.

v. MeitY is implementing a semiconductor skilling programme using the SEMulator3D platform to strengthen India's semiconductor talent pipeline. The programme is being implemented through the Indian Institute of Science (IISc) Bengaluru, in collaboration with Lam Research. The initiative offers an industry-aligned, simulation-based curriculum covering device fabrication, process optimisation and virtual fabrication, bridging the gap between academic learning and semiconductor manufacturing. Through this collaborative initiative, IISc has so far trained 3,950+ students and 110+ faculty members from academic institutions across the country.

vi. A MoU has been signed between India Semiconductor Mission (ISM) and Purdue University, Indiana, USA to establish Purdue University as a flagship academic partner and collaborator with ISM and Government of India for skilled workforce development and joint R&D in the broad field of semiconductors and microelectronics.

vii. MoU between ISM and NAMTECH: This MoU aims to build India's semiconductor workforce pipeline by training approximately 5,000 professionals over the next five years. MoU involves developing structured certification programs jointly endorsed by ISM to ensure national and international recognition; facilitating faculty exchange and global collaboration through ISM-linked partners; creating student internship and apprenticeship opportunities across ISM-supported fabs, ATMPs, OSATs, and design houses.

Semicon2.0:

To build on the success of Semicon India Programme and to provide long term support to this sector, Government has recently approved Semicon2.0. The Semicon2.0 has dedicated pillars for development of supply chain (Equipment, chemicals, gases, materials etc), research and development for advanced technologies and also for talent development for design and manufacturing.
