

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION No. 4149
TO BE ANSWERED ON 18.03.2026

**DEMAND FOR SKILLED WORKERS IN ELECTRONICS
MANUFACTURING SECTOR**

4149. SHRI KARTI P CHIDAMBARAM:
ADV. ADOOR PRAKASH:
SHRI SAPTAGIRI SANKAR ULAKA
SHRI ANTO ANTONY:
DR. MOHAMMAD JAWED:
SHRI RAMASAHAYAM RAGHURAM REDDY:
SHRI K SUDHAKARAN:

Will the MINISTER OF ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:

- (a) the total value of electronics exports from India since 2015 and the share of domestic value addition in these exports;
- (b) the total value and volume of imported electronic components particularly semiconductor chips, display units and precision electronics since 2015, year and country-wise;
- (c) the total domestic requirement for such components during the same period, year and sector-wise;
- (d) the estimated demand for skilled workers in the electronics manufacturing sector over the next five years; and
- (e) the current availability of skilled workforce including details of skilling initiatives undertaken, number of beneficiaries trained and finally placed during the last ten years?

ANSWER

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

(a) to (e): Guided by the vision of Hon'ble Prime Minister Shri Narendra Modi for Make in India and Aatmanirbhar Bharat, the Government is committed to developing a comprehensive and globally competitive electronics manufacturing ecosystem in the country.

The strategy aims to deepen manufacturing capabilities from finished products to sub-assemblies, and further to components, machinery and tools, thereby increasing the domestic value addition and also reducing import dependence.

To promote manufacturing of electronic goods, the Government has launched several flagship schemes, including the Production Linked Incentive (PLI) Scheme for Large Scale Electronics Manufacturing (2020), the Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECs) (2020), and the PLI Scheme for IT Hardware (2023).

In addition, the Electronics Manufacturing Clusters (EMC and EMC 2.0) Scheme has been implemented to provide plug-and-play infrastructure with ready land, utilities and common facilities, thereby reducing project implementation time and improving manufacturing efficiency.

For semiconductor manufacturing, the Government launched Semicon India Programme to build manufacturing capability across all the value chain of semiconductors.

Growth in electronics manufacturing:

As a result of these initiatives, electronics manufacturing in India has expanded significantly in the last 11 years (tabulated ahead). Industry estimates indicate that domestic value addition in electronics manufacturing has improved significantly over the years and is currently 18%-20%.

#	2014-15	2024-25	Remarks
Production of electronics goods (Rs.)	~1.9 Lakh crore	~11.3 Lakh crore	Increased 6 times
Export of electronics goods (Rs.)	~0.38 Lakh crore	~3.3 Lakh crore	Increased 8 times
Production of mobile phones (Rs.)	~0.18 Lakh crore	~5.5 Lakh crore	Increased 28 times
Export of mobile phones (Rs.)	~0.01 Lakh crore	~ 2 Lakh crore	Increased 127 times

Import of electronics components:

Electronics manufacturing value chain is extremely complex. It involves multiple processes such as design, manufacturing of active and passive components, assembly, testing, packaging and final production.

Multiple organizations/companies operating in different countries undertake these processes. It may further be noted that over 75% of global electronics trade operates through Global Value Chains (GVCs) which source their components both domestically and internationally. As electronics manufacturing increases in India, our country integrates with GVCs.

The year-wise production and exports of electronics & imports of electronic components (including semiconductors and display module) from 2014-15 to 2024-25 is placed at Annexure-I.

India Semiconductor Mission:

Further, Semiconductors constitute almost 70% share of electronic component imports. Therefore, with a view to developing domestic manufacturing capability across the semiconductor value chain, the Government has launched the Semicon India Programme to promote semiconductor and display manufacturing.

Electronics Components Manufacturing Scheme:

For manufacturing components other than the semiconductors the government launched Electronics Components Manufacturing Scheme (ECMS) in April 2025 with an aim to further deepen the electronics manufacturing, reduce import of components and develop a robust electronics component supply chain ecosystem.

The scheme aims to develop manufacturing of key components which, inter-alia, include Printed Circuit Board (PCB), Display modules, Camera modules, Capacitors, Resistors Electro-Mechanicals, Li-ion Cells for digital applications, etc.

Response to ECMS scheme:

The scheme has received enthusiastic response from industry. A total of 249 applications have been received.

Against the investment target of Rs. 59,350 crores, investment commitments of Rs. 1.15 lakh crores have been received. Taking cognizance of the strong industry response Government also enhanced budgetary outlay of the scheme from Rs. 22,919 crores to Rs. 40,000 crores.

As per the NITI Aayog (Trade Watch Quarterly Report), India's electronics manufacturing is expected to reach USD 500 billion by FY30. This growth is projected to create around 6 million direct and indirect jobs.

Skill development:

To enable skill development in the ESDM sector, MeitY implemented two schemes, namely:

- “Scheme for Financial Assistance to select States/UTs for Skill Development in Electronics System Design and Manufacturing (ESDM) Sector” (Scheme-1)
- “Skill Development in ESDM for Digital India” (Scheme-2)

The scheme concluded on 30.08.2025.

Under both the Schemes, 4,93,919 candidates were enrolled/trained and 3,75,289 candidates have been certified.

The National Institute of Electronics and Information Technology (NIELIT) through its wide network of own centres and Accredited Training Partners/Facilitation Centres, has trained more than 43 Lakh candidates in last 5 years under various Degree/Diploma Level Courses and Skill-Based Courses (Long Term & Short Term), including the Digital Literacy & Cyber Security Programmes across the country.

NIELIT has also launched the NIELIT Digital University (NDU) Platform under MeitY to deliver online and blended skill-based courses in emerging technology areas. This Platform is designed to offer future-ready, industry-aligned programs in emerging technologies such as Artificial Intelligence, Cybersecurity, Cloud Computing, and other frontier domains. This platform also features built-in virtual labs for real-time experimentation in Semiconductor Design, cybersecurity, Cyber Forensics, Industry 4.0, and other emerging domains.

Through the NDU platform, every learner can have access anytime-anywhere to NSQF-aligned courses. So far more than 55,000 candidates have registered through NDU Platform.

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

- i. Under the Chips to Start-up (C2S) Programme, advanced Electronic Design Automation (EDA) tools from leading companies are made available to 315 academic institutions, enabling students and start-ups to undertake chip design, research and training activities. The programme aims to generate 85,000 industry-ready professionals, of which over 68,000 students have already been trained.
- 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. The India Semiconductor Mission (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.
- iv. 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.

Table A: Electronics Production and Exports & imports of electronic components

Years	Electronic Production (in Rs. Cr)	Electronic Exports (in Rs. Cr)	Electronic Component Imports (in Rs. Cr)
2014-15	1,90,366	38,263	32,935
2015-16	2,43,263	39,064	46,772
2016-17	3,17,331	39,980	56,373
2017-18	3,88,306	41,220	65,621
2018-19	4,58,006	61,908	1,10,393
2019-20	5,33,550	82,929	1,15,558
2020-21	5,54,461	81,822	1,12,927
2021-22	6,40,810	1,16,895	1,93,745
2022-23	8,25,000	1,89,934	2,01,921
2023-24	9,52,000	2,41,157	2,84,601
2024-25	11,32,752	3,27,187	3,11,508

Source: Export-MeitY Annual report, DGCIS & MoC trade analytics portal)

Table B: Semiconductor

Financial Year	Imports Value (in Rs. Cr)	Volume (Million)
2014-15	8,798	2,809
2015-16	10,305	3,770
2016-17	11,656	4,432
2017-18	15,051	5,165
2018-19	61,473	10,596
2019-20	71,581	12,188
2020-21	67,497	11,256
2021-22	1,01,739	17,892
2022-23	1,29,702	14,644
2023-24	1,71,483	18,434
2024-25	2,08,612	21,228

Source: DGCIS

Table C: Display module (HSN Code 8524*)

Financial Year	Imports Value (in Rs. Cr)	Volume (Million)
2022-23	15,727	183
2023-24	25,920	409
2024-25	41,192	1,105

Source: DGCIS

**Note: HSN Code 8524 was introduced/created with effect from FY 2022-23.*
