GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 2962
TO BE ANSWERED ON: 17.12.2025

INFRASTRUCTURE AND ECOSYSTEM REQUIREMENTS FOR SEMICONDUCTOR FABRICATION UNIT

2962. SHRI P C MOHAN:

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:
(a) whether the Government has assessed the infrastructure and ecosystem requirements for establishing semiconductor fabrication units in Bengaluru given its strategic role in chip design and R&D;
(b) the key infrastructure and ecosystem requirements for establishing semiconductor industries across the country;
(c) whether Bengaluru currently meets these requirements to attract large-scale semiconductor investments;
(d) whether any proposals have been received from private or international players to set up semiconductor fabs or ATMP units in Karnataka; and
(e) the steps being taken by the Government to develop dedicated semiconductor clusters in and around Bengaluru along with timelines and incentives to attract investment and support startups?

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

(a) to (e): The semiconductor development strategy of Government of India is inspired by Prime Minister Shri Narendra Modiji's vision of Atmanirbhar Bharat and Make in India, Make for the world.

Semiconductor manufacturing involves very complex processes requiring high purity materials and high precision manufacturing. It requires highly reliable & redundant power supply, ultra-pure water, robust effluent treatment, gas and chemical handling systems.

Further, building a robust semiconductor chip design ecosystem necessitates access to cutting-edge EDA tools and design flows, IP cores, and prototyping infrastructure.

Availability of skilled design engineers and a strong talent pool is another critical requirement for building a robust semiconductor ecosystem.

In view of the above complexities, the Government announced the Semicon India programme to develop semiconductor manufacturing units ranging from design, fabrication, assembly, testing, packing, and module manufacturing.

Under this programme, the Government provides fiscal support of 50% of the eligible project cost/capex. Details of the programme available on https://www.ism.gov.in/

To avail the incentive, eligible various companies apply under the Semicon India programme. They do so after evaluation of infrastructure support, ease of doing business measures implemented by the States and semiconductor policy in various states.

The government has so far approved 10 manufacturing units including 2 fabs and 8 ATMPs/OSATs with an investment of Rs 1.6 Lakh Crore under Semicon India Programme so far.

Further, under DLI, 24 chip design projects are supported through startups, representing Rs 920 crore in project value.

Eleven (11) out of these 24 design projects are located in the State of Karnataka as indicated in **Annexure-I**.

94 companies have also been provided free access to EDA tools for designing the chips enabling ~47 lakh hours of design tool usage.

Out of these, 45 companies are in the State of Karnataka as indicated in **Annexure-II**.

In addition to the above, Government has also launched Chips to Start-ups program (C2S) programme with the objective to develop 85 thousand skilled manpower in the semiconductor sector.

The ChipIN Centre has been established at C-DAC Bangalore as a centralized national facility providing comprehensive chip-design and fabrication resources under the Deign Linked Incentive (DLI) Scheme and Chips to Start-up (C2S) Programme.

Approximately, 1 lakh students from 300 organizations have been enrolled and 255 training sessions on design flow have been conducted in partnership with leading companies.

Out of these, 33 organizations are in State of Karnataka as indicated in **Annexure -III**.

Further, in line with the Hon'ble Prime Minister's vision to make India a global hub for Electronics System Design and Manufacturing (ESDM), the Government notified the Electronics Manufacturing Clusters (EMC) and EMC 2.0 Schemes.

These schemes aim to develop world-class electronics manufacturing infrastructure in the country. They support dedicated clusters with shared facilities such as ready industrial plots, Ready Built Factory (RBF) sheds and plug-and-play infrastructure to attract investment and generate employment.

Under these schemes, the Government has approved two Electronics Manufacturing Clusters (EMCs) and one Common Facility Centre (CFC) in Karnataka.

The EMCs are located at Kotur–Balur Industrial Area in Dharwad district (Project cost of ₹179.14 crore) and Kochanahalli village in Mysuru taluk (Project cost of ₹221.54 crore).

In addition, a CFC with a project cost of ₹48.53 crore has been approved at Hebbal Industrial Area, Mysuru.

List of these EMCs and CFC is at **Annexure - IV**.

*****

Annexure-I

List Design Projects in Karnataka

1. Fermionic Design Pvt. Ltd.
2. Morphing Machines Pvt. Ltd.
3. Calligo Technologies Pvt. Ltd.
4. Sensesemi Technologies Pvt. Ltd.
5. Saankhya Labs Pvt. Ltd.
6. Aryabhata Circuits and Research Labs Pvt. Ltd.
7. BigEndian Semiconductors Pvt. Ltd.
8. C2i Semiconductors Pvt. Ltd.
9. MMRFIC Technology Pvt. Ltd.
10. Sophrosyne Technologies Pvt. Ltd.
11. Aagyavision Pvt. Ltd.

Annexure-II

List of companies supported for EDA tools

1. Fermionic Design Pvt. Ltd.
2. Morphing Machines Pvt. Ltd.
3. Calligo Technologies Pvt. Ltd.
4. Sensesemi Technologies Pvt. Ltd.
5. Saankhya Labs Pvt. Ltd.
6. BigEndian Semiconductors Pvt. Ltd.
7. Stteereng Silicon Pvt. Ltd.
8. TriSpace Technologies Pvt. Ltd.
9. MemSmart Pvt. Ltd.
10. Silicon Support Solution (OPC) Pvt. Ltd.
11. Quanfluence Private Pvt. Ltd.
12. SandLogic Technologies Pvt. Ltd.
13. Aryabhata Circuits and Research Labs Pvt. Ltd.
14. Chipspirit Technologies Pvt. Ltd.
15. Tsilicon Pvt. Ltd.

16. Aagyavision Pvt. Ltd.
17. Terminus Circuits Pvt. Ltd.
18. Semiksha Semiconductors Pvt. Ltd.
19. IntSemi Technologies Pvt. Ltd.
20. Sophrosyne Technologies Pvt. Ltd.
21. iSOC Semiconductors Pvt. Ltd.
22. C2i Semiconductors Pvt. Ltd.
23. Linesemi Technology Pvt. Ltd.
24. Nanojoules Semiconductors Pvt. Ltd.
25. CIMware Technologies Pvt. Ltd.
26. PrimeSOC Technologies LLP
27. Ciliconchip Circuit Pvt. Ltd.
28. Memrym Solutions India Pvt. Ltd.
29. MAXVY Technologies Pvt. Ltd.
30. Trellisign Tech. Pvt. Ltd.
31. Semicon Design Technologies Pvt. Ltd.
32. Signalchip Innovations Pvt. Ltd.
33. Signitude Pvt. Ltd.
34. XtremeSilica Technologies Pvt. Ltd.
35. Selenean Technologies Pvt. Ltd.
36. Leadsoc Technologies Pvt. Ltd.
37. CoreIC Technologies Pvt. Ltd.
38. Univision Technology Solutions Pvt. Ltd.
39. MMRFIC Technology Pvt. Ltd.
40. Sophic Silicon Technologies Pvt. Ltd.
41. Sudarshana Semiconductors Pvt. Ltd.
42. Aritrak Technologies Pvt. Ltd.
43. Ananant Systems Pvt. Ltd.
44. Maieutic Semiconductors Pvt. Ltd.
45. Xsoc Technologies Pvt. Ltd.

Annexure-III

List of Organizations provided training on design in Karnataka

1. Indian Institute of Science Bangalore
2. Cambridge Institute of Technology, Bengaluru
3. BMS College of Engineering, Bengaluru
4. REVA University, Bengaluru
5. PES University, Bengaluru
6. Acropotis Technology & Research
7. KLE Technological University, Hubballi
8. International Institute of Information Technology Bangalore
9. Indian Institute of Technology Dharwad
10. M/s Morphing Machines Pvt. Ltd
11. M/s TSilicon Design Pvt. Ltd
12. M/s Chipspirit Technologies Pvt. Ltd
13. M/s Sandlogic Technologies Pvt. Ltd

14. M/s IntSemi Technologies Pvt. Ltd
15. M/s Semi-Ksha Semiconductor India Pvt. Ltd.
16. Amrita School of Engineering Bengaluru
17. NIT Surathkal
18. New Horizon College of Engineering, Bengaluru
19. IIIT, Dharwad
20. Sri Krishna Institute of Technology, Bangalore
21. Acharya Institute of Technology, Bangalore
22. Dayananda Sagar Academy of Technology & Management, Bangalore
23. S J C Institute of Technology, Chickballapur
24. Dayananda Sagar College of Engineering (DSCE), Bangalore
25. School of Engineering and Technology, Christ University, Kengeri Campus, Bangalore
26. Alliance University, Bangalore
27. RV College of Engineering, Bengaluru
28. Siddaganga Institute of Technology, Tumakuru
29. Akshaya Institute of Technology, Tumkur
30. Ramaiah University of Applied Sciences, Bangalore
31. Shri Madhwa Vadiraja Institute of Technology and Management, Udupi
32. MVJ College of Engineering, Bangalore
33. B M S Institute of Technology and Management, Bengaluru

Annexure-IV

List of EMC and CFC in Karnataka

1. Hebbal Industrial Area (Plot No. 336/4 & 336/5), Mysore
2. Kotur-Balur Industrial Area, Dharwad District
3. Kochanahalli (V), Mysuru (T)

******