



Semiconductor Ecosystem INDIA

Main Stakeholders

POLICYMAKING

1. MeitY (Ministry of Electronics & Information Technology)
2. ISM (India Semiconductor Mission)
3. NITI Aayog
4. DOE (Dept. of Expenditure)
5. DST (Dept. of Science & Technology)
6. DSIR (Dept. of Scientific & Industrial Research)
7. ANRF (Advanced National Research Foundation)

RESEARCH ORGANISATIONS

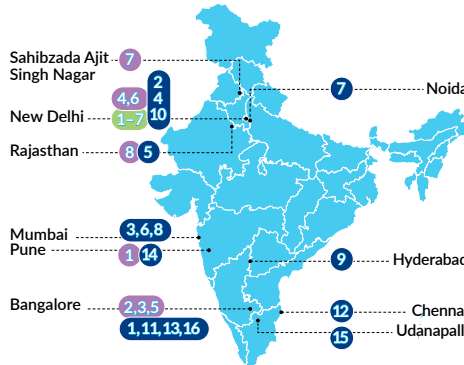
1. C-DAC (Centre for Development of Advanced Computing)
2. IITs (Indian Institutes of Technology)
3. JNCASR (Jawaharlal Nehru Centre for Advanced Scientific Research)
4. CSIR (Council of Scientific & Industrial Research)
5. IISc (Indian Institute of Science): CeNSE (Centre for Nano Science and Engineering)
6. IISERs (Indian Institutes of Science Education & Research)
7. SLC (Semiconductor Laboratory)
8. CEERI (Central Electronics Engineering Research Institute)

INDUSTRY ASSOCIATIONS

1. IESA (India Electronics & Semiconductor Association)
2. ICEA (India Cellular & Electronics Association)
3. AIAI (All India Association of Industries)

INDUSTRY (NON-EXHAUSTIVE)

4. CDIL (Front-end)
5. CEERI (Central Electronics Engineering Research Institute)
6. CG Power & Industrial Solutions (OSAT)
7. HCL Group (OSAT)
8. ISMC Analog Fab (Front-end)
9. MosChip Technologies (Design)
10. Sahasra Semiconductor (OSAT)
11. Saankhya Labs (Design / 5G)
12. Shakti (open-source processor ecosystem developed by IIT Madras)



13. Signalchip (Chip design for telecom)
14. SPEL (OSAT)
15. Tata Group (Front-end)
16. Tejas Networks (Chips design for defense & telecom)

Funding Instruments

Government initiatives

- Semicon India Programme (2021-2027): \$10B [7]
- Production linked Incentive PLI 2.0 [8]
- Capital subsidies, land incentives and power/water concessions for semiconductor manufacturing
- Electronic Manufacturing Clusters (EMC 2.0)
- Programs like MeitY's TIDE 2.0 [9], Nidhi-PRAYAS [10], and SAMRIDH [11] offer seed funding and mentorship for Startup Accelerators & Incubators

Private and strategic funding

- Venture capital – mostly used to promote fabless startups, design houses and IP creators
- Corporate and strategic investments – e.g. ISMC Analog Fab [12], Vedanta-Foxconn JV [13]
- International collabs – joint ventures or technology licensing

India Semiconductor Mission (ISM) [14]

- Facilitates capital support and technological collabs
- Supports R&D grants, academia-industry collab and skill development in chip design and semiconductor technology

Chip Strategy

Toward a global top five position by 2029 [1]

- Revised National Policy on Electronics (NPE 2019) [2]
- Manufacturing Incentives (Semicon India Program, capital expenditure for fabs)
- PLI – Production linked incentive scheme [3]
- Modified electronics manufacturing cluster scheme (EMC 2.0) [4]
- DLI [5] Design linked Incentive - support to fabless start ups
- Initiatives to develop highly skilled workforce (e.g. Chips-to-Start ups – C2S) [6]
- Global Alliances and Diplomacy – collaboration with global partners, e.g. USA, Japan, South Korea, Taiwan, EU

R&D Emerging Priorities

India has made progress in R&D, but its semiconductor sector needs a targeted approach with dedicated research centres and stronger collaboration among academia, industry, and start ups.

A proposed solution is a \$8B India Semiconductor Research Centre (ISRC) over 2023-2028, focused on four pillars: (I) Advanced Silicon, (II) Packaging R&D, (III) Compound/Power Semiconductors, and (IV) Chip Design and EDA.

Relations with the EU

Memorandum of Understanding EU-IN – Nov 2023 [15]

Establishes working arrangements on semiconductor ecosystems, focusing on supply chain and innovation under the framework of the EU-IN TTC.

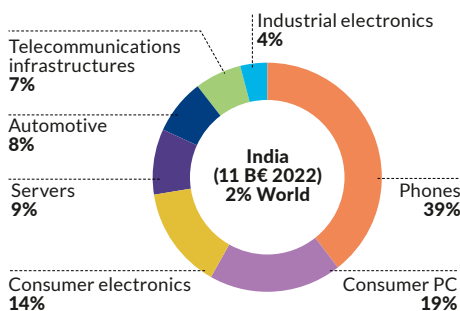
EU-IN Trade and Technology Council (TTC) – Feb 2023 [16]

Structured around three working groups: (I) Strategic Technologies, Digital Governance, and Digital Connectivity; (II) Clean and Green Technologies; (III) Trade, Investment, and Resilient Value Chains. Latest Joint statement – Feb 2025. [17]

EU-IN Strategic Partnership: A Roadmap to 2025 – July 2020 [18]

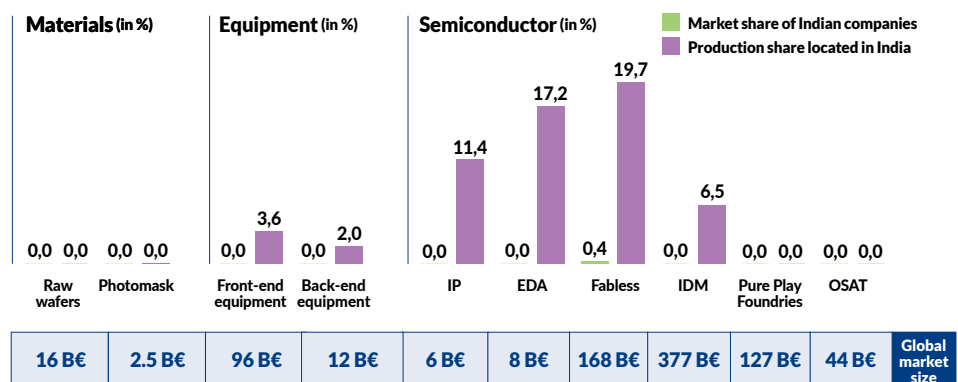
Highlights key areas of cooperation relevant to semiconductors, including: Foreign Policy; Trade & Investment, Business & Economy; Information & communication technology; Research & Innovation; Artificial Intelligence.

Demand by Application



The distribution is the average for South-East Asia.
Source: DECISION Etudes & Conseil

Market and Production Share



Source: DECISION Etudes & Conseil