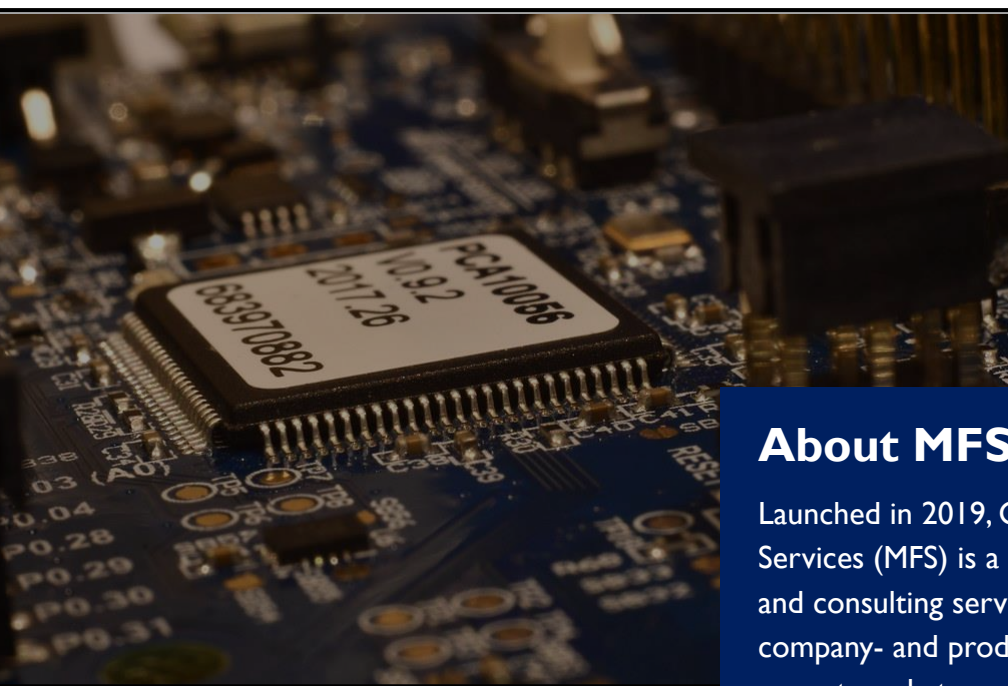


India's semiconductor manufacturing sector is poised for significant growth, driven by government initiatives, increasing domestic demand, and global supply chain diversification. As the country aims to reduce its reliance on imports and establish itself as a major player in the global semiconductor industry, substantial policy support by government has led to increased investments in domestic production.



## About MFS

Launched in 2019, CII's Market Facilitation Services (MFS) is a bespoke market research and consulting service that undertakes company- and product-specific research on export markets and investment destinations, for both outbound and inbound companies.

## Scope of Analysis

### NAICS 3344 (Semiconductor and other electronic component manufacturing)

The North American Industry Classification System (NAICS) is an industry classification standard developed by the USA, Canada and Mexico for the purpose of collecting and analysing statistical data on the business economy. NAICS 3344 is the code for companies involved in the manufacture of semiconductors and other electronic components. The products within this category include capacitors, resistors, microprocessors, printed circuit boards, electron tubes, electronic connectors and computer modems.

#### Sub-categories:

- 334412 Bare Printed Circuit Board Manufacturing
- 334413 Semiconductor and Related Device Manufacturing
- 334416 Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing
- 334417 Electronic Connector Manufacturing
- 334418 Printed Circuit Assembly (Electronic Assembly) Manufacturing
- 334419 Other Electronic Component Manufacturing

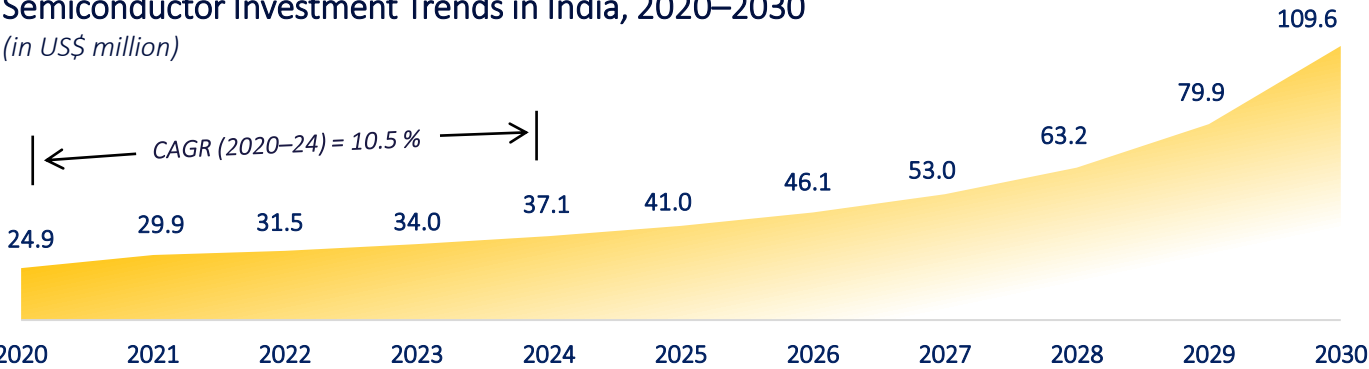
# Market Overview

India’s manufacturing ecosystem presents significant growth potential for the semiconductor industry, attracting increasing investments from industry leaders. Over the last five years, expenditure in the sector increased at an average compound annual growth rate (CAGR) of 10.5%, reaching a total of US\$ 37.1 million in 2024.

This growth is driven by the rising adoption of semiconductors across diverse applications, including automation in manufacturing and enhanced connectivity through next-generation mobile devices. Expansion across various end-use sectors further strengthens India’s position as a key player in the global semiconductor industry.

Looking ahead, the industry is expected to experience an accelerated growth rate, fueled by the entry of global semiconductor manufacturers, increased research activities, and the expansion of manufacturing capacity to meet growing domestic and international demand.

Semiconductor Investment Trends in India, 2020–2030  
(in US\$ million)

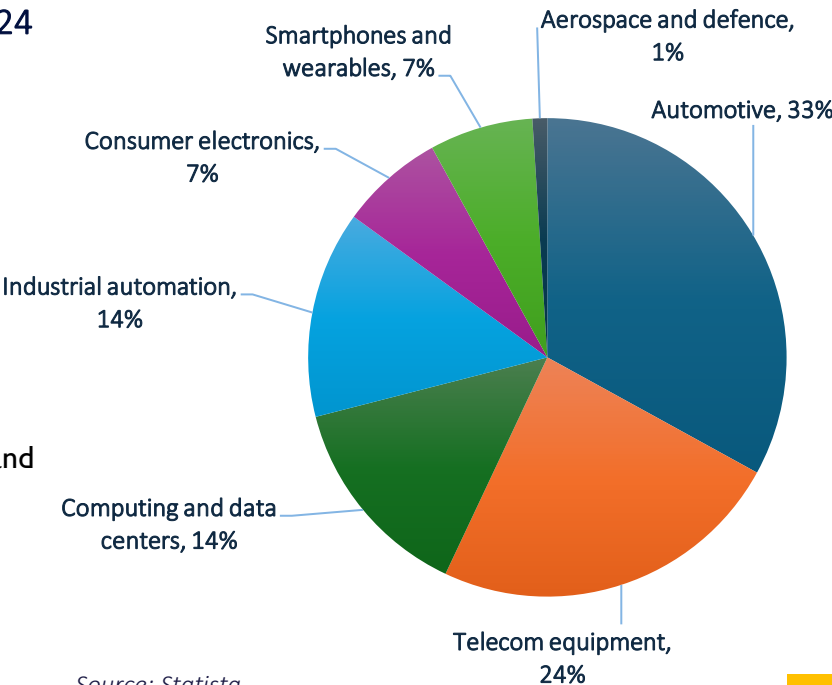


Source: Insight Partner

## End-Use Sectoral Contribution to Semiconductor Industry in India, 2024

### Drivers in accelerated growth of semiconductor manufacturing:

- Electric vehicles
- Autonomous driving
- Adoption of 5G
- Shift to smart manufacturing
- Increase in demand of smaller, faster and more efficient chips
- Shift towards AI-based processes/operations in various applications



Source: Statista

## India Export Overview

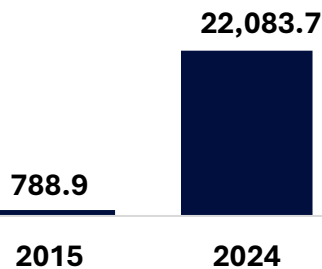
For trade analysis, multiple 4-digit HS codes are used to cover the diverse product segments within the semiconductor market. These include telecommunication devices, flat panel displays, diodes, capacitors, resistors, printed circuit boards, photovoltaic cells, electronic integrated circuits and respective parts and accessories. The key HS codes considered for this analysis are 8517, 8524, 8529, 8532, 8533, 8534, 8541, and 8542.



### HS 8517

CAGR 45%

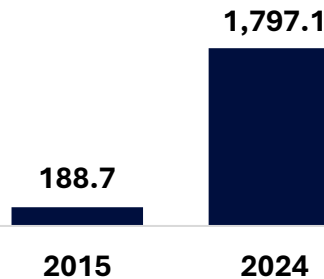
Telephone &amp; its apparatus



### HS 8541

CAGR 29%

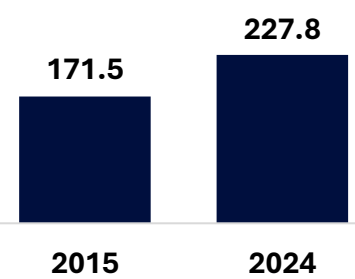
PV panel and diodes



### HS 8529

CAGR 3%

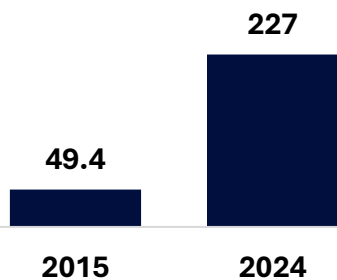
Parts of flat display



### HS 8542

CAGR 19%

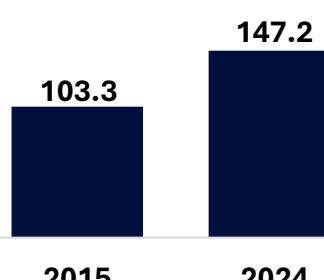
IC Chip



### HS 8532

CAGR 4%

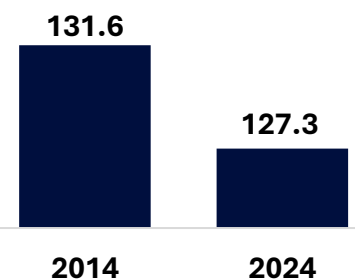
Capacitor



### HS 8534

CAGR -0.4%

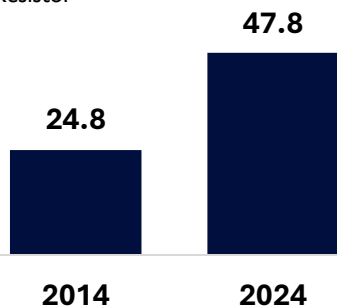
PCB



### HS 8533

CAGR 8%

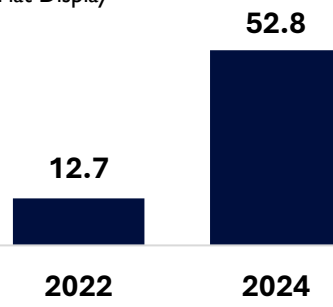
Resistor



### HS 8524

CAGR 17%

Flat Display



- Foreign investments in the telecommunications sector have boosted exports from India, mainly in finished goods.
- Exports of PV panels and cells have also increased, with maximum exports to the US.

## Government Initiatives

- ❑ Launched under the **Make in India** initiative, the **India Semiconductor Mission** is a **US\$ 10 billion incentive scheme** that offers fiscal support of up to 50% of a project's cost for display and semiconductor fabrication units. This initiative aims to bolster India's domestic semiconductor manufacturing capabilities.
- ❑ The **Production Linked Incentive (PLI) Scheme** provides financial incentives to companies engaged in large-scale electronics manufacturing and IT hardware production. PLI schemes are designed to encourage investment in the electronics sector and enhance India's position as a global manufacturing hub.
  - **PLI Scheme for Large-Scale Electronics Manufacturing (Mobile Phones):** Incentive of 4% to 6% on incremental sales of manufactured goods (over base year) for 6 years. Target products include not only mobile phones, but also components like battery packs, PCBs, camera module and others.
  - **PLI Scheme for IT Hardware:** Incentive up to 5% on incremental sales of manufactured goods (over base year) for 6 years. Target products include laptops, tablets, servers, and all-in-one PCs.
- ❑ **Semiconductor Fabs and Display Fab:** Up to 50% fiscal support on project costs for setting up semiconductor and display fabrication units.
- ❑ **Modernization of Semiconductor Laboratory:** Upgrading and commercializing India's existing Semiconductor Laboratory (SCL) to enhance production capabilities.
- ❑ **Compound Semiconductors & Semiconductor Packaging:** 30% financial assistance on capital expenditure. Focus areas include compound semiconductors, silicon photonics, MEMS sensors, semiconductor assembly, testing, marking, and packaging.
- ❑ **Design Linked Incentive (DLI) Scheme:** 50% support on eligible R&D expenditure. 4-6% net sales incentive for product deployment over five years.
- ❑ **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)** offers financial incentives to promote the manufacturing of electronic components and semiconductors. The scheme focusses on building a robust supply chain ecosystem for electronics manufacturing in India.
- ❑ Modified **Electronics Manufacturing Clusters (EMC 2.0) Scheme** aims to develop world-class infrastructure for electronics manufacturing. The EMC 2.0 scheme supports the creation of electronics manufacturing clusters that provide state-of-the-art facilities and ecosystem support to companies operating in the sector.
- ❑ **Chips to Startup (C2S) Programme:** To train 85,000 engineers in Very Large Scale Integration (VLSI) and Embedded Systems across more than 100 academic and R&D institutions.

## MFS Offerings

### Export/Import Assessment

- Identification of top importing countries
- Export competitor countries
- Shipment data analysis
- Shipment cost with export pricing strategy
- Supply chain network mapping
- Listing of non-tariff measures (NTMs) and national tariff lines (NTLs)

### Market Potential Assessment

- Country geopolitical analysis
- Market feasibility analysis
- Sector SWOT analysis
- End-use sector growth trend
- Location and market entry advisory
- Regulatory and policy insights

### Operational Cost Optimisation

- Assessment of operational expenses
- Mapping of expenses with sectoral average
- Deep dive of micro cost components
- Positioning of company with respect to peers
- Future outlay of operational expenses

## Benefits For You

- Global Trade Intelligence
- Market sizing reflecting domestic and global demand-supply landscape
- Global reach to government and business stakeholders across countries
- Touchpoints in export markets
- Product-market fitment from a global trade perspective
- Diversification/investment opportunities

## Our Knowledge Base

**20<sup>+</sup>** Countries

**15<sup>+</sup>** Sectors

**50<sup>+</sup>** Products

Would you like to  
**EXPLORE** more?

Write to:  
**Ms Bhavna Seth Ranjan**  
(bhavna.ranjan@cii.in)

Meet us:  
**CII Market Facilitation Services**  
Plot No. 249-F, Phase IV  
Udyog Vihar, Sector 18  
Gurugram, Haryana — 122 015

Disclaimer: Without limiting the rights under the copyright reserved, this electronic newsletter or any part of it may not be translated, reproduced, stored, transmitted in any form (electronic, mechanical, photocopying, audio recording or otherwise) or circulated in any design other than the design in which it is currently published, without the prior written permission of CII. CII has sourced the views, opinions, information, estimates etc. contained in this newsletter from different sources and/or authors and the ownership and copyright of the same vests with the respective authors. CII does not represent this information to be accurate or reliable. The views and opinions are not to be understood as professional advice in any manner or interpreted as policies, objectives, opinions or suggestions of CII. CII does not assume any responsibility and disclaims any liability for any loss, damages, caused due to any reason whatsoever, towards any person (natural or legal) who uses this electronic newsletter. This electronic newsletter cannot be sold for consideration, within or outside India, without express written permission of CII. Violation of this condition will lead to criminal and civil prosecution. Distributed by Confederation of Indian Industry (CII), The Mantosh Sondhi Centre; 23, Institutional Area, Lodi Road, New Delhi 110003, India, Tel: +91-11-24629994-7, Fax: +91-11-24626149; Email: info@cii.in; Web: www.cii.in



### Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, with around 9,000 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 365,000 enterprises from 294 national and regional sectoral industry bodies.

For more than 125 years, CII has been engaged in shaping India's development journey and works proactively on transforming Indian Industry's engagement in national development. CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness, and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Through its dedicated Centres of Excellence and Industry competitiveness initiatives, promotion of innovation and technology adoption, and partnerships for sustainability, CII plays a transformative part in shaping the future of the nation. Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes across diverse domains including affirmative action, livelihoods, diversity management, skill development, empowerment of women, and sustainable development, to name a few.

For 2024-25, CII has identified "Globally Competitive India: Partnerships for Sustainable and Inclusive Growth" as its Theme, prioritizing 5 key pillars. During the year, it would align its initiatives and activities to facilitate strategic actions for driving India's global competitiveness and growth through a robust and resilient Indian industry.

With 70 offices, including 12 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with about 300 counterpart organizations in almost 100 countries, CII serves as a reference point for Indian industry and the international business community.

### Confederation of Indian Industry

The Mantosh Sondhi Centre

23, Institutional Area, Lodi Road, New Delhi – 110 003 (India)

T: 91 11 45771000

E: [info@cii.in](mailto:info@cii.in) • W: [www.cii.in](http://www.cii.in)

Follow us on



[cii.in/facebook](https://www.facebook.com/cii.in)



[cii.in/twitter](https://twitter.com/cii.in)



[cii.in/linkedin](https://www.linkedin.com/company/cii.in)



[cii.in/youtube](https://www.youtube.com/c/ciiin)

Reach us via CII Membership Helpline Number: 1800-103-1244