



Semicon India 2024 and ITSI Fund

[Source: ET](#)

Why in News?

Recently, the Prime Minister of India inaugurated the **Semicon India industry conference** and highlighted **India's growing partnerships with** countries like the **US, Japan and Singapore**.

- In another development, the US and India collaborated under the **International Technology Security and Innovation (ITSI) Fund** to promote the development of a **secure global semiconductor supply chain and telecommunications networks**.

What is the Semicon India Conference?

- Semicon India 2024 was co-located with electronica and productronica India, creating the **largest single event for electronics manufacturing in South Asia**.
 - Electronica and Productronica India are **South Asia's leading trade fair** for electronic components, systems, applications and solutions.
- It offered **comprehensive exhibitions, insightful programs, and unmatched networking opportunities**.

What is India's Vision for the Semiconductor Industry?

- India is poised to play a **pivotal role in shaping the global semiconductor industry** and spearheading efforts to establish a robust and resilient global supply chain.
- India aspires to **expand its electronics sector from the current USD 150 billion to over USD 500 billion by the end of the decade**, with the goal of generating over 6 million employment opportunities in the process.
- **India has become the eighth nation globally to host a congregation of the international semiconductor industry**, marking a significant milestone in the country's growing prominence in this strategic sector.
- India's strength is anchored in its threefold power which is a **reform-oriented government, a growing manufacturing sector, and a technology-driven, aspirational society and market**.
- India, with its **talent pool, growing research investments, rising data centre demand**, and green transition efforts is set to become a **global semiconductor powerhouse**.
 - It **aims to train 85,000 engineers and technicians** over the next decade through **strategic partnerships with 113 educational and research institutions**.
 - **Uttar Pradesh is emerging as a semiconductor design hub and a leader in consumer electronics**.

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SEMICONDUCTORS

Semiconductors are materials having conductivity between conductors and insulators

EXAMPLES

- **Pure Elements:** Silicon and Germanium
- **Compounds:** Gallium Arsenide and Cadmium selenide

SIGNIFICANCE

- Essential to almost all sectors of the economy – **aerospace, automobiles, communications, clean energy, information technology** and **medical devices** etc.

SEMICONDUCTORS AND INDIA

- **India Imports from:** China, Taiwan, USA and Japan
- **Indian Semiconductor Market:** Expected to reach **USD 55 bn** by 2026

SCHEMES

- **Production-Linked Incentive (PLI) scheme**
- **Design Linked Incentive (DLI) Scheme**
- Scheme for Promotion of Manufacturing of Electronic Components and Semi-conductors (SPECES)

OBJECTIVES

- Encourage semiconductor and display manufacturing in the country.
- Nurture >20 domestic companies in semiconductor design
Achieve a turnover of > Rs.1500 crore in next 5 years
- Manufacture electronics components and semiconductors

INDIA'S SEMICONDUCTOR MISSION (ISM)

VISION

- Build a **vibrant semiconductor and display design and innovation ecosystem**

LAUNCHED

- 2021

NODAL MINISTRY

- Ministry of Electronics and Information Technology (MeitY)

TOTAL FINANCIAL OUTLAY

- Rs 76,000 crore

COMPONENTS

- Scheme for setting up of Semiconductor Fabs
- Scheme for setting up of Display Fabs
- Scheme for setting up of Compound Semiconductors/Silicon Photonics/Sensors (including MEMS) Fabs/ Discrete Semiconductors Fab and Semiconductor ATMP/OSAT
- DLI Scheme



What is the ITSI Fund?

- The US is collaborating with the Government of India to expand and diversify the global semiconductor ecosystem through [the International Technology Security and Innovation Fund \(ITSI\)](#).
 - The **CHIPS Act** created the ITSI Fund to secure and develop the global semiconductor supply chain and telecommunications networks.
- The initial phase involves a comprehensive review of India's semiconductor sector, focusing on **Assembly, Testing, and Packaging (ATP)**.
- US-India cooperation aims to **advance the global semiconductor supply chain and support digital transformation**.
 - The partnership will also address supply chain logistics and align technological goals with shared democratic values to ensure equitable benefits of digital advancements.

Government's Initiatives for the Semiconductor Sector

- [Production Linked Incentive Scheme \(PLI\)](#)

- [Digital RISC-V \(DIR-V\) program](#) for the production of microprocessors.
- [Modified Special Incentive Package Scheme \(M-SIPS\) for Semiconductors.](#)
- [Chips to Startup \(C2S\) Programme](#) to train high-quality engineers.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. With reference to solar power production in India, consider the following statements: (2018)

1. India is the third largest in the world in the manufacture of silicon wafers used in photovoltaic units.
2. The solar power tariffs are determined by the Solar Energy Corporation of India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (d)

PDF Reference URL: <https://www.drishtiias.com/printpdf/semicon-india-2024-and-itsi-fund>