



# As imports of semiconductor chips rise, India eyes local production

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## Context

At the World Economic Forum in January, Minister of Electronics and Information Technology Ashwini Vaishnaw announced that **India's first domestically manufactured semiconductor chip will be rolled out this year**. Through domestic production, India aims to **reduce its increasing import dependency**.

Five manufacturing facilities are under construction for the manufacturing and assembly of semiconductor chips.

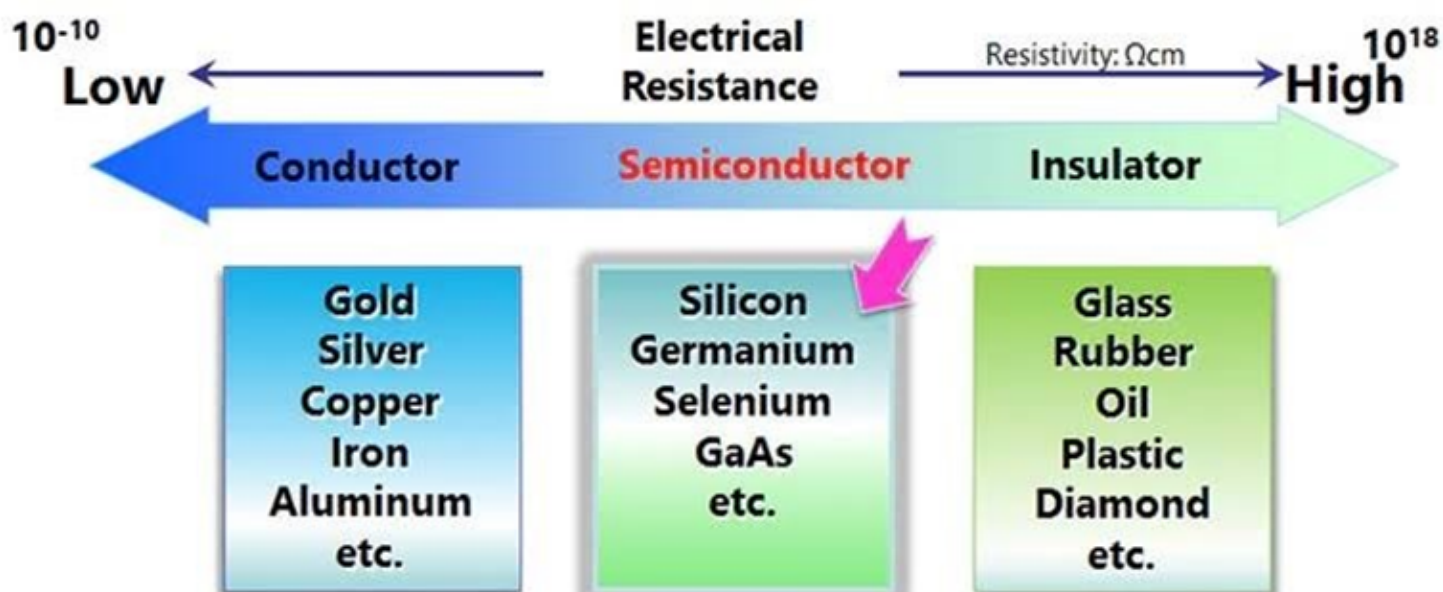
The **Semicon India Programme, launched in 2021**, aims to **develop the semiconductor and display manufacturing ecosystem**.

Monolithic ICs constitute nearly 2.09% of India's total imports in FY25 (April-November), a considerable jump from 0.19% in FY16.

In the past 10 years, except FY19, **China has been the major supplier** of semiconductor chips to India, accounting for nearly one-third of the import value every year.

**Hong Kong, Japan, South Korea, Singapore, and Taiwan** have also been major suppliers to India

## Semiconductors & India's mission



# 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 (SPECs)

### 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)

### 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