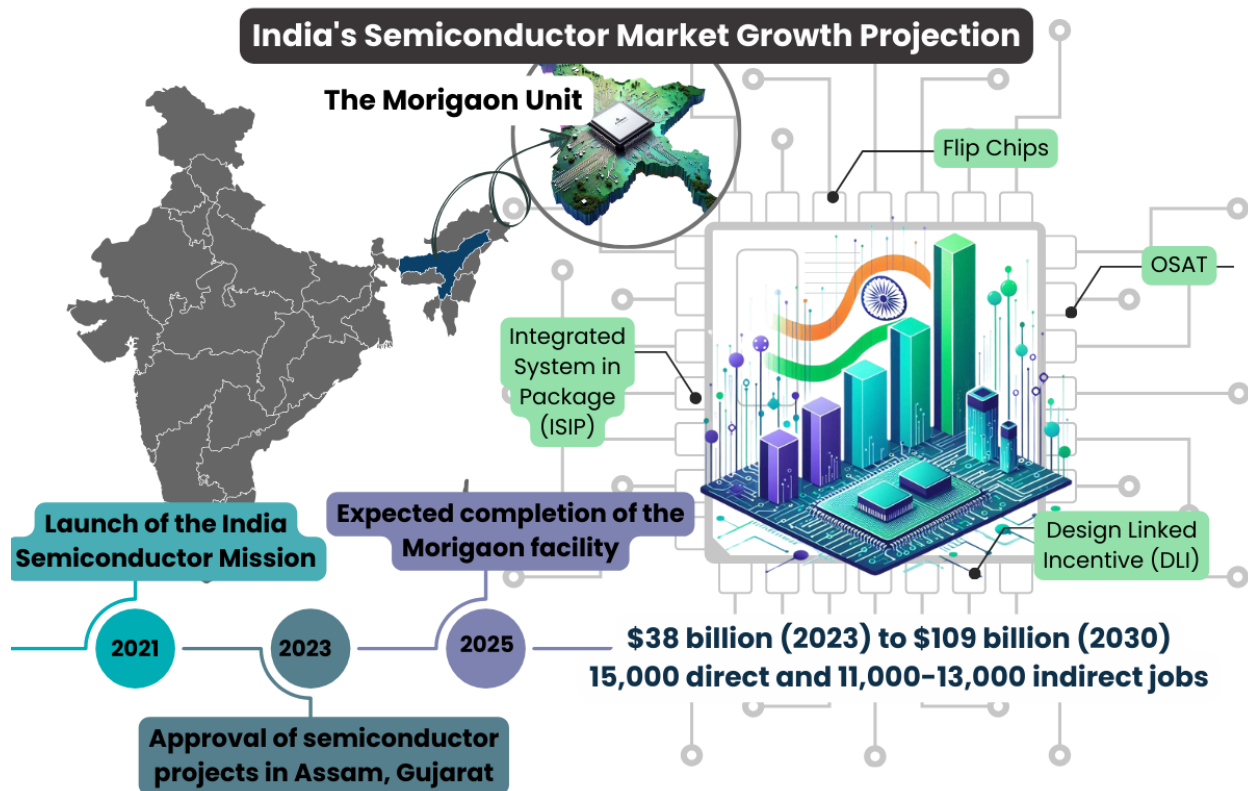


Assam's Semiconductor Plant: A Game-Changer for India's Semiconductor Ecosystem

India's ambitious strides in the semiconductor industry are best exemplified by the development of a semiconductor unit in Morigaon, Assam, spearheaded by Tata Semiconductor Assembly and Test Pvt Ltd (TSAT). TSAT, a key player in India's semiconductor industry, is leading this project, which is set to become one of the country's premier manufacturing sites. This project aligns with the nation's broader goal of establishing a self-sufficient semiconductor ecosystem. With an investment of Rs. 27,000 crores, the Morigaon facility is expected to produce up to 48 million semiconductor chips per day, employing advanced packaging technologies like flip chips and Integrated System in Package (ISIP). This facility is designed to cater to essential sectors such as automotive, electric vehicles, telecommunications, and consumer electronics and is projected for completion by mid-2025.

The Morigaon unit goes beyond technological development; it brings significant socio-economic benefits by generating a substantial workforce of 15,000 direct and 11,000-13,000 indirect jobs, contributing to regional economic growth in Assam and nearby areas. As a high-capacity production site, the facility's daily output will serve domestic and international markets, positioning India as a competitive force in the global semiconductor supply chain.

India Semiconductor Mission: Fostering a Self-Reliant Semiconductor Industry



Industry estimates place the Indian semiconductor market at approximately \$38 billion in 2023, with projections indicating growth to \$109 billion by 2030. To support this rapid expansion and reduce reliance on imports, the Indian government has taken proactive steps and implemented several initiatives to promote domestic semiconductor manufacturing. The India Semiconductor Mission (ISM) aims to build a sustainable semiconductor and display ecosystem to position India as an electronics manufacturing and design leader. Guided by international semiconductor experts, ISM coordinates efforts across government ministries, industry, and academic institutions to ensure efficient deployment of resources and support.

Launched in 2021 with a financial outlay of ₹76,000 crore, the Semicon India program is structured to promote the domestic semiconductor industry through incentives and strategic partnerships. This initiative supports various semiconductor industry sectors, extending beyond just fabrication facilities (fabs) to include packaging, display wires, Outsourced Semiconductor Assembly and Testing (OSATs), sensors, and other critical components, creating a comprehensive ecosystem. Under the program, four schemes have been introduced, namely Modified Scheme for setting up Semiconductor Fabs in India, Modified Scheme for setting up of Display Fabs in India, Modified Scheme for setting up of Compound Semiconductors/ Silicon Photonics/ Sensors Fab/ Discrete Semiconductors Fab and Semiconductor ATMP/ OSAT facilities in India, and Design Linked Incentive (DLI) Scheme.

The Morigaon semiconductor facility is part of a more comprehensive network of government-backed projects to bolster India's semiconductor production capabilities. The Union Cabinet has approved the establishment of multiple semiconductor units across the nation, including new facilities by Tata Electronics in Dholera, Gujarat, and CG Power in Sanand, Gujarat. Additionally, Kaynes Semicon Pvt Ltd was approved to set up a unit in Sanand. This expansion signifies India's commitment to reducing reliance on semiconductor imports and fortifying its global semiconductor value chain position.

The government has also focused on modernizing the Semiconductor Laboratory in Mohali and implementing the Scheme for the Promotion of

Manufacturing of Electronic Components and Semiconductors (SPECS) and the Production Linked Incentive (PLI) Scheme for Large-Scale Electronics. These efforts ensure support for every segment of semiconductor production, fostering an ecosystem encompassing chip design, fabrication, testing, and assembly.

Establishing the semiconductor unit in Morigaon, Assam, marks a pivotal step toward achieving India's semiconductor ambitions. This project and others approved under the SemiconIndia program strengthen India's technological foundation and support the nation's vision for economic resilience and self-reliance. As the demand for semiconductors surges worldwide, India's burgeoning semiconductor infrastructure is set to drive innovation, create jobs, and secure the country's position as a significant player in the global digital economy.

Reference: PIB