

India Semiconductor Mission

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In news— In line with Central Government's India Semiconductor Mission, Karnataka government has signed a memorandum of understanding (MoU) with Israel-based International Semiconductor Consortium (ISMC) recently.

About the MoU-

- As per the MoU, ISMC will invest ₹22,900 crore (\$3 billion) in Karnataka state to set up the country's first and largest semiconductor chip-making plant.
- **ISMC is a joint venture between Abu Dhabi-based Next Orbit Ventures and Israel's Tower Semiconductor.**
- The investment is expected create a 65 nm Analog Semiconductor Fabrication plant.
- It was reported that the company has requested 150 acres of land in Mysuru's Kochanahalli Industrial area and is set to fully implement the project over the next 7 years.
- This MoU has also provided a forum for technology and cultural exchange between Israel and India.
- The investment comes at a time when the Prime Minister of India recently urged the industry to make India a global hub for semiconductors, in his inaugural address at the **Semicon India-2022 conference held in Bengaluru** recently.

About India Semiconductor Mission(ISM)-

- ISM has been setup as an Independent Business Division within Digital India Corporation having administrative and financial autonomy to formulate and drive India's long term strategies for developing semiconductors and display manufacturing facilities and semiconductor

design ecosystem.

- Envisioned to be led by global experts in the Semiconductor and Display industry, ISM will serve as the nodal agency for efficient, coherent and smooth implementation of the schemes.
- It also aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem.
- Following four schemes have been introduced under the aforesaid programme:
 - **Scheme for setting up of Semiconductor Fabs in India** provides fiscal support to eligible applicants for setting up of Semiconductor Fabs which is aimed at attracting large investments for setting up semiconductor wafer fabrication facilities in the country.
 - **Scheme for setting up of Display Fabs in India** provides fiscal support to eligible applicants for setting up of Display Fabs which is aimed at attracting large investments for setting up TFT LCD / AMOLED based display fabrication facilities in the country.
 - **Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India.**
- **Design Linked Incentive (DLI) Scheme** offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design.
- The total **fiscal outlay of the proposed schemes is INR 76,000 crore** which is fungible across different schemes.
- **The Vision of ISM is to build a vibrant semiconductor**

and display design and innovation ecosystem to enable India's emergence as a global hub for electronics manufacturing and design.

- It **formulates a comprehensive long-term strategy for developing semiconductors & display manufacturing facilities** and semiconductor design ecosystem in the country in consultation with Government ministries / departments / agencies, industry, and academia.
- It facilitates the adoption of trusted electronics through secure semiconductors and display supply chain, including raw materials, specialty chemicals, gases, and manufacturing equipment.
- It **enables a multi-fold growth of Indian semiconductor design industry by providing requisite support in the form of Electronic Design Automation (EDA) tools**, foundry services and other suitable mechanisms for early-stage startups.
- It **also promotes and facilitate indigenous Intellectual Property (IP) generation** and encourage, enable and incentivize Transfer of Technologies (ToT).
- ISM also enables collaborations and partnership programs with national and international agencies, industries and institutions for catalyzing collaborative research, commercialization and skill development.

India makes up to 20 per cent of the world's semiconductor design engineers. Almost all of the top 25 semiconductor design companies have their design or R&D centres in the country.