



## Design Linked Incentive for Semiconductors

**For Prelims:** Design Linked Incentive, Semiconductors, Centre for Development of Advanced Computing

**For mains:** Semiconductors and their future in India, Components and the importance of the DLI scheme.

### Why in News

The Ministry of Electronics and Information (MeitY) is seeking applications from 100 domestic [semiconductor](#) chip design firms, companies, start-ups and [Micro, Small and Medium Enterprises \(MSMEs\)](#) under its **Design Linked Incentive (DLI) Scheme**.

- The DLI scheme is part of the MeitY's [comprehensive Program for the Development of Semiconductors and Display Manufacturing Ecosystems](#) in the country.
- Lately, there has been an abrupt and [cascading shortage of semiconductors worldwide](#).

### Semiconductors

- Any of a **class of crystalline solids intermediate in electrical conductivity** between a conductor and an insulator.
- Semiconductors are employed in the manufacture of various kinds of electronic devices, including **diodes, transistors, and integrated circuits**. Such devices have found wide application because of their compactness, reliability, power efficiency, and low cost.
- As discrete components, **they have found use in power devices, optical sensors, and light emitters, including solid-state lasers**.

### Key Points

- **About:**
  - Under the DLI Scheme **financial incentives and design infrastructure support will be extended to domestic companies, startups and MSMEs**.
  - The incentives **will be provided 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 **for over a period of 5 years**.
- **Eligibility:**
  - The approved applicants that claim incentives under the scheme will be encouraged to **retain their domestic status** (i.e., more than 50% of the capital in it is beneficially owned by resident Indian citizens and/ or Indian companies, which are ultimately owned and controlled by resident Indian citizens) for a **period of three years** after claiming incentives under the scheme.
  - An **applicant must meet the Threshold and Ceiling Limits** to be eligible for

disbursement of incentives under the Scheme.

- A dedicated portal has also been made available.

▪ **Aim:**

- To **nurture at least 20 domestic companies** involved in semiconductor design and facilitate them to achieve turnover of more than Rs.1500 Crore in the next 5 years.

▪ **Approach:**

- The DLI Scheme will also take a **graded and pre-emptive approach** to Identify the Products of national priorities and implement strategies for their complete or near complete indigenisation & deployment thereby taking steps towards the import substitution & value addition in strategic & societal sectors.

▪ **Nodal Agency:**

- **C-DAC (Centre for Development of Advanced Computing)**, a scientific society operating under MeitY, will serve as the nodal agency for implementation of the DLI scheme.

▪ **Components of DLI:** The scheme has three components - Chip Design infrastructure support, Product Design Linked Incentive and Deployment Linked Incentive:

- **Chip Design Infrastructure Support:** Under this, **C-DAC will set up the India Chip Centre to host the state-of-the-art design infrastructure** (viz. EDA Tools, IP Cores and support for MPW (Multi Project Wafer fabrication) & post-silicon validation) and **facilitate its access to supported companies.**
- **Product Design Linked Incentive:** Under this, **a reimbursement of up to 50% of the eligible expenditure subject to a ceiling of Rs.15 Crore per application will be provided** as fiscal support to the approved applicants who are engaged in semiconductor design.
- **Deployment Linked Incentive:** Under this, **an incentive of 6% to 4% of net sales turnover over 5 years subject to a ceiling of Rs.30 Crore per application will be provided** to approved applicants whose semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design are deployed in electronic products.

▪ **Related Initiatives:**

- **For Semiconductor Fabs and Display Fabs:**
  - Government would provide fiscal support of up to 50% of the project cost for setting up semiconductor and display fabrication units.
- **Semi-conductor Laboratory (SCL):**
  - MeitY will take requisite steps for modernization and commercialization of Semi-conductor Laboratory (SCL).
- **For Compound Semiconductors:**
  - Government will support fiscal support of 30% of capital expenditure to approved Compound Semiconductors units.
- **India Semiconductor Mission:**
  - In order to drive the long-term strategies for developing a sustainable semiconductors and display ecosystem, **a specialised and independent India Semiconductor Mission (ISM) will be set up.**
- **Production Linked Incentives:**
  - Incentive support to the tune of Rs.55,392 crore (7.5 billion USD) have been approved under **Product Linked Incentive (PLI)** for Largest Scale Electronics Manufacturing, PLI for IT Hardware, SPECS Scheme and Modified **Electronics Manufacturing Clusters** (EMC 2.0) Scheme.

## Centre for Development of Advanced Computing

- C-DAC is the **premier Research & Development organisation of the Ministry of Electronics and Information Technology (MeitY)** for carrying out R&D in IT, Electronics and associated areas.
- **India's first supercomputer PARAM 8000** was indigenously built (in 1991) by the Centre for Development of Advanced Computing.

**Source: PIB**

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