Design Linked Incentive (DLI) Scheme

Mains: *GS III – Indian Economy and issues relating to planning, mobilisation, of resources*

Why in News?

The Design Linked Incentive (DLI) Scheme is a key instrument in advancing India's semi-conductor ambitions and to develop a strong fabless capability.

What is the DLI scheme?

- **Design Linked Incentive (DLI) Scheme** – It is a key instrument in advancing India's ambition to develop a strong fabless capability.
- It supports semiconductor design across the full lifecycle—from design and development to deployment—covering
- Integrated Circuits (ICs), chipsets, Systems-on-Chip (SoCs), systems and IP cores.
- **Aim** – By promoting indigenous semiconductor content and intellectual property in electronic products, reduce import dependence.
    - Strengthen supply chain resilience, and enhance domestic value addition.
- **Implementation** – By the Ministry of Electronics and Information Technology (MeitY).
- **Eligibility** – The following are eligible for financial incentives for deploying semiconductor designs.
    - **MSMEs** — Defined according to the Ministry of Micro, Small and Medium Enterprises notification, 1 June 2020.
    - **Startups** — Defined as per the Department for Promotion of Industry and Internal Trade (DPIIT) notification, 19 February 2019.
    - **Domestic companies** — Defined as those which are owned by resident Indian citizens, as per the Foreign Direct Investment (FDI) Policy Circular, 2017 or extant norms.

What support is provided under the scheme?

- **Financial incentives**

- **Product Design Linked Incentive –** Reimbursement of up to 50% of eligible expenditure and is capped at ₹15 crore per application.
- The support is available to entities involved in semiconductor design for –
    - Integrated Circuits (ICs) Chipsets Systems on Chips (SoCs) Systems
    - IP Cores Semiconductor-linked designs.
- **Deployment Linked Incentive** – Incentives of **6% to 4%** of net sales turnover are provided for five years.

    - The incentive is capped at ₹30 crore per application.
    - The minimum cumulative net sales required over Years 1–5 is 1 crore for startups/ ₹ MSMEs and 5 crore for other domestic companies.
- The design must be successfully deployed in electronic products.
- **Design infrastructure support**
- C-DAC has established the ChipIN Centre under the DLI Scheme to facilitate the design infrastructure support to approved companies.
- **National EDA (Electronic Design Automation) Tool Grid** — Remote access to the centralized facility of advance EDA tools for chip design activities will be provided to start-ups and MSMEs.
- **IP Core repository** — Flexible access to the repository of IP Cores for SoC design activities.
- **MPW Prototyping support** —Fiscal support for fabricating the design in MPW manner at semiconductor foundries.
- **Post-silicon validation support** — Fiscal support for testing and validation of the fabricated ASIC and silicon bring-up activities.

What are the programme highlights & key achievements of DLI?

- **ChipIN Centre** – It has democratized access to advanced EDA tools for chip design for about 1 lakh engineers and students across 400 organizations nationwide.
    - It is the world's largest user base of a centralized chip design facility.
- This includes around 305 academic institutions *under the Chips to Start-up (C2S) Programme* and 95 startups under the DLI Scheme
    - This reducing entry barriers for early-stage innovators.
- **India's shared EDA Grid** — A national platform offering high-end chip design software has recorded 54,03,005 hours of cumulative usage by 95 supported start-ups as of 2nd January 2026.
- **Strengthening skill base –** over 1,000 specialised engineers have been trained or engaged through DLI-supported projects, strengthening India's design talent base.

What are key institutional frameworks for semiconductor design?

- **Ministry of Electronics and Information Technology (MeitY) —** MeitY leads national semiconductor initiatives, provides policy direction, and anchors schemes.
- It also coordinates institutional and industry partnerships to strengthen India's chip design and manufacturing ecosystem
- **Semicon India Programme (SIM)** – With an outlay of ₹76,000 crore, this supports investments in semiconductor and display manufacturing as well as the design ecosystem.
- It ensures end-to-end backing for design, fabrication and productisation.
- **Chips to Startup (C2S) Programme** – It is an umbrella capacity building programme initiated at academic organizations.
- It has spread across the country to generate 85 thousand number of industry-ready manpower at B.Tech, M.Tech, and PhD levels specialized in semiconductor chip design.
- **Microprocessor Development Programme** – initiated at C-DAC, development and

fabrication of open-source architecture-based family of microprocessors
    - viz. VEGA12, SHAKTI13 and AJIT microprocessors as a step towards self-reliance.

What are the companies that stands out as leading examples?

- **Vervesemi Microelectronics** – With a strong portfolio of 110+ semiconductor IPs, 25 integrated circuit (IC) product variants,
- 10 granted patents, and 5 trade secrets is developing motor-control chips for a wide range of applications.
- **InCore Semiconductors** – It is focused on the design and development of indigenous RISC-V microprocessor IPs and SoC design automation tools.
- These initiatives with the ultimate goal of building India's most powerful embedded processor, Dolomite, targeted at entry-level smartphones and edge-AI applications.
- **Netrasemi –** It is focused on designing AI-capable SoCs for CCTV secure surveillance, smart sensors, robotics and drones, and mobility applications.
- The company has successfully taped out India's first indigenously designed AI SoC in an advanced 12 nm process node, integrating in-house AI/ML accelerators, vision processing, and video engines.
- **AAGYAVISION** – It is designing advanced radar-on-chip that operate reliably in all weather conditions,
- And driving advancements in safety, security, smart infrastructure, edge computing, and
- Emerging 6G sensor networks as well as critical application like drone detection.

What lies ahead?

- The DLI Scheme is critical to anchoring India in the most strategic and value-intensive segment of the global semiconductor value chain—chip design.
- The scheme also enables high-value growth by translating deep-tech innovation into globally competitive products, fostering startups and building skilled workforce.
- These outcomes are already evident, positioning Indian companies as credible global suppliers while strengthening domestic supply chains and reinforcing India's self-reliant semiconductor ecosystem.

Quick facts

Fabless chip design
• **Fabless semiconductor companies** hold the highest strategic value because they design the chips that drive product intelligence, efficiency, and security. • While fabs manufacture silicon and EMS firms assemble devices, more than half of a semiconductor's value comes from design and IP, not physical production. • Fabless semiconductor design models *generate high value addition with relatively modest capital expenditure*, - Whereas design and IP contribute disproportionately to product economic value.

Reference

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