**Task – 04**

**Batch – 04**

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**PARTICIPATION OF INDIA IN IC VALUE CHAIN**

**Research and Development :**

**Samsung launches semiconductor R&D facility in India :**

Samsung Semiconductor India Research, a part of Korean chaebol Samsung Electronics, today inaugurated a semiconductor R&D facility in India. The facility, located in Bengaluru, is aimed at driving cutting-edge semiconductor research and development in India, while addressing the company's growing needs for advanced infrastructure, it said.

The new campus of Samsung Semiconductor India Research (SSIR) features a modern, open-plan layout across four floors, encouraging collaboration and agility. The design includes designated hot-desking areas for workforce flexibility.

**Design :**

**Saankhya Labs receives approval under Semiconductor Design Linked Incentive (DLI) scheme for Development of a System-on-Chip (SoC) for 5G Telecom infrastructure equipment**

Under the DLI scheme, Saankhya Labs will get financial incentives and crucial design infrastructure support.

The Centre for Development of Advanced Computing (CDAC) evaluated the application of Saankhya Labs on behalf of MeitY for the development of SoC

It will help India in becoming self-reliant and the approval under the semiconductor DLI scheme will enable the company to do that faster. This would also put Saankhya Labs in a position to develop more SoCs in the future and enable India to also become a hub for semiconductors in the future

**Manufacturing :**

**The Indian government approved the establishment of three new semiconductor manufacturing facilities on February 29 under the country’s flagship incentive program.**

**Tata Electronics Private Limited (TEPL)** will collaborate with Powerchip Semiconductor Manufacturing Corp (PSMC), Taiwan, to establish a semiconductor fab in Dholera, Gujarat, with an investment of INR 9100 billion (US$109.71 billion)

**Tata Semiconductor Assembly and Test Pvt Ltd (TSAT)** will set up a semiconductor unit in Morigaon, Assam, with an investment of INR 2700 million (US$325.99 million).

**CG Power**, in partnership with Renesas Electronics Corporation, Japan, and Stars Microelectronics, Thailand, will establish a semiconductor unit in Sanand, Gujarat, with an investment of INR 760 million (US$91.63 million).

**ATMP:**

**Foxconn Technology Group and HCL Group will establish a semiconductor outsourced assembly and testing (OSAT) unit in India, with Foxconn investing $37.2 million for a 40% equity stake**

Foxconn Technology Group and HCL Group have announced plans to create a joint venture (JV) for a semiconductor outsourced assembly and testing (OSAT) unit in India. [Foxconn](https://www.business-standard.com/topic/foxconn) is set to invest $37.2 million, securing a 40 per cent equity stake in the venture. The move aims to establish an OSAT facility to contribute to India's semiconductor industry and enhance supply chain resilience.

Micron Technology Inc. has already committed $825 million to its assembly, testing, monitoring, and packaging plans in the country. The Sanand unit of Micron is estimated to create 5,000 direct and 15,000 indirect employment opportunities in Gujarat over the next five years.

**Renowned companies in the field of distribution :**

* Mouser electronics India
* Digikey India
* Millennium Semiconductors
* Campus Component
* Unified

L&T Semiconductor Technologies (LTSCT), a fully owned subsidiary of L&T, is the first major Indian Semiconductor product company - a fabless company for designing & delivering Smart Devices for Global Customers. A company that provides Semiconductor Devices and Technology partnerships by helping customers realise energy efficient, high-performance systems to benefit from data, electrification and software defined technology trends.

**LTSCT Objectives:**

The aim of LTSCT is to build an India-based semiconductor portfolio of Smart Devices across MEMS Sensors, Power, Analog Mixed Signal & RF

products, to support Automotive, Industrial, Energy and Telecommunication verticals.

LTSCT mentioned that they have a presence in four prominent geographies i.e. US, Europe, Japan and India, with offices in Austin, Munich, London, Tokyo, Bangalore and Chennai.

**LTSCT Mission & Scope:**

Enabling customers with a new generation of smart, efficient and market leading power, sense and control Integrated Circuits. Together, creating smart applications and driving decarbonization and digitalization.

Recently L&T Semiconductor Technologies (LTSCT) has entered into a Share Purchase Agreement on 08 July 2024 for acquisition of 100% stake in SiliConch Systems.

Siliconch Systems (SiliConch, headquartered in Bangalore, was incorporated in April 2016. The company specializes in the development / design of semiconductor Intellectual Property (IP) / Integrated Circuits (IC).

The acquisition is expected to add IP, engineering skillsets and design expertise to strengthen the Group's presence in fabless semiconductor business, and thus aligns with the overall growth strategy of LTSCT

Recently The CP PLUS did partnership with L&T Semiconductor Company aims to develop indigenous Indian IP SoCs & system solutions and a comprehensive range of advanced AI IP CCTV products for both the Indian and global markets.

As L&T is the Indian multinational conglomerate, we can expect in Future LTSCT will start a foundry also so it will be at the place of global leaders in the product based semiconductor industries.