

Future Semisphere

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Technology



Investment



Supply Chain



Policy



Innovation





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SUPPLY CHAIN

Capacity Expansion & Fab Construction

India's Fab Build-Out: Micron's L&T Award, Paras' Madhya Pradesh Plant and Tata's 90nm Line

India's chip manufacturing plans took several concrete steps forward.

Micron awarded Larsen & Toubro the Phase 2 construction contract for its \$2.75 billion facility, moving the project ahead after earlier delays. The contract marks further progress on the facility's assembly, testing and packaging operations.

Paras Defence, through its semiconductor arm, announced a ₹6,200 crore investment in a packaging plant in Madhya Pradesh. The facility could give Indian chip designers greater access to domestic packaging and testing capabilities, reducing reliance on overseas facilities.

Tata's wafer facility, meanwhile, will begin with 90nm technology rather than the finer node previously discussed. Mature nodes such as 90nm are widely used in automotive, industrial and power applications. Starting with a mature node also allows Tata to build manufacturing capabilities before moving towards more advanced technologies.

Together, these developments show India strengthening both the front end and back end of semiconductor manufacturing.

What This Means For You



For Startups

Fabless and packaging startups gain more domestic assembly and testing options, while the 90nm line provides a local mature-node manufacturing route.



For Ecosystem Partners

The growing number of semiconductor projects creates opportunities across construction, materials, equipment, packaging and related services.

Read more [1](#) [2](#) [3](#)

POLICY & GEOPOLITICS

Industrial Policy & State Subsidies

India Builds the Base Around Its Fabs: Karnataka, NIDAR 2.0 and a Chip-Skills Pact

India continued to strengthen the policy and skills ecosystem supporting its semiconductor ambitions.

Karnataka moved ahead with plans for major semiconductor and electronics hubs, adding to the growing list of states competing to attract chip projects. State-level initiatives are important as land, power and local incentives play a key role in attracting investments.

The Indian government also unveiled NIDAR 2.0, a programme focused on powering drones with indigenous chips. The initiative could create opportunities for drone and edge-computing startups to develop and source locally while addressing a specific government-led application.

On the skills front, National Institute of Electronics & Information Technology (NIELIT) and the Semi-Conductor Laboratory (SCL) agreed to collaborate on strengthening India's semiconductor ecosystem by connecting training and design resources. Such initiatives can help bridge the gap between India's strong semiconductor design talent and the supporting infrastructure and skills needed to build a stronger domestic ecosystem.

What This Means For You



For Startups

Drone, edge-computing and semiconductor design startups can explore opportunities under NIDAR 2.0 and make use of training and lab resources through initiatives such as the NIELT-SCL partnership.



For Ecosystem Partners

State incentives and national government-led programmes provide clearer signals on where semiconductor activity is developing, helping guide investment, partnerships and talent planning.

Read more [1](#) [2](#) [3](#)

INVESTMENT & MARKET

M&A, Joint Ventures & Consortia · Design Wins

India Pulls in Silicon:

Marvell's \$250M, Seoul Semiconductor and Home-grown Space Chips

India attracted fresh commitments from both global and domestic semiconductor players.

Marvell announced plans to invest \$250 million in India over three years, expanding its Bengaluru and Hyderabad centres and doubling its local engineering workforce. As a fabless semiconductor company, the investment focuses on design and R&D rather than manufacturing, further strengthening India's role in advanced chip development for AI and data-centre applications.

Seoul Semiconductor, a South Korean LED and semiconductor company, also said it is exploring the possibility of establishing a manufacturing base in India. While still at an early stage, the move adds to growing interest from global semiconductor companies in building operations in India.

India's space programme is preparing to use locally developed semiconductor chips in rockets. Developing and qualifying chips for space applications represents another step towards building confidence and capability in India's domestic semiconductor ecosystem.

Together, these developments highlight growing investment in India's semiconductor design, manufacturing and indigenous chip capabilities.

What This Means For You



For Startups

The expansion of global semiconductor R&D in India could create new opportunities for partnerships, hiring and technology collaboration.



For Ecosystem Partners

Growing foreign and domestic investment provides clearer signals on where semiconductor activity is expanding, helping guide investment and partnership decisions.

[Read more 1 2 3](#)

TECHNOLOGY DIRECTION

Chip Design Services · Advanced Packaging · EDA Software

Design and Packaging Move Ahead: Sovereign SoC, EMIB Enablement and Smarter EDA

India's chip design and advanced packaging ecosystem saw several notable developments.

StraitsMicro announced plans to unveil a sovereign surveillance SoC, designed in India for security and surveillance applications, through a pre-silicon demonstration. The development highlights the growing focus on homegrown chip design for strategic applications.

Tessolve and Intel Foundry also agreed to collaborate on EMIB enablement, an advanced packaging technology that connects chips using a silicon bridge. Such collaborations can help design teams access advanced packaging capabilities without having to own a fabrication facility.

Siemens acquired Precision Innovations to strengthen its design tools with AI-driven chip planning capabilities. AI-enabled EDA tools can help improve design efficiency and identify potential issues earlier in the development process.

Together, these developments highlight the growing importance of chip design, advanced packaging and AI-enabled EDA tools in building a competitive semiconductor ecosystem.

What This Means For You



For Startups

Design and packaging teams should track developments in EMIB and AI-enabled EDA, which can provide access to advanced capabilities without owning a fab.



For Ecosystem Partners

The growing focus on design services, packaging and EDA highlights opportunities beyond semiconductor manufacturing, particularly for technology providers and investors.

Read more [1](#) [2](#) [3](#)

TECHNOLOGY DIRECTION

RF & Connectivity Silicon · New Materials · Architecture Shifts

From Power Modules to Nano-Oscillators: New Products and Beyond Transistors

Developments across RF, power electronics and semiconductor research highlighted both near-term product innovation and longer-term technology possibilities.

NXP launched an AI-powered automotive radio chip designed to support smarter in-car audio and connectivity as vehicles become increasingly electronic. Advanced Energy also introduced a high-density 1,100-watt power factor correction module for data centres and industrial applications.

Beyond the Transistors, researchers synchronised 105,000 nano-oscillators in 45 nanoseconds, pointing to the possibility of computing architectures that could eventually move beyond conventional transistors. While still at an early research stage, the development offers a glimpse into potential long-term shifts in semiconductor architecture.

What This Means For You



For Startups

RF and power teams can benchmark against new products from major vendors, while architecture-focused startups should keep an eye on research into alternatives to conventional transistors.



For Ecosystem Partners

Investors and ecosystem partners can view new product launches as indicators of market activity and frontier research as an early signal of potential long-term technology shifts.

Read more [1](#) [2](#) [3](#)

POLICY & GEOPOLITICS / SUPPLY CHAIN

Trade Restrictions & Export Controls · Capacity Expansion

The Global Semiconductor Landscape Shifts: China's Home-grown DUV, New Export Controls and Capacity Moves

China is making its own DUV lithography machines and introduced its own AI export controls.

The DUV Lithography machines are used to manufacture chips at mature and mid-range nodes. Developing these tools domestically is an important step towards greater semiconductor self-sufficiency and could reduce reliance on foreign equipment. However, production volumes remain limited, some critical components are still sourced from Japan, and the technology is yet to demonstrate competitive chip production at scale. And also China is considering new export controls on AI technologies, including possible restrictions on local companies using TSMC. If implemented, such measures would mark a shift in China's approach to semiconductor trade restrictions and could create additional considerations for companies with China exposure.

Tower Semiconductor is reviving a former Panasonic fab as part of a \$3 billion Japan photonics expansion. SEMI also reported a 7.4% year-on-year increase in global silicon wafer shipments, while the US Department of Commerce allocated \$874 million to strengthen the domestic technology supply chain.

Together, these developments highlight how equipment access, trade policies and manufacturing capacity are increasingly shaping the global semiconductor landscape.

What This Means For You



For Startups

Teams with China exposure should monitor potential new restrictions, while all startups should consider equipment availability and trade policies alongside technology and product strategy.



For Ecosystem Partners

Equipment access, trade policies and new manufacturing capacity are becoming important factors in investment, partnership and supply-chain decisions.

Read more [1](#) [2](#) [3](#) [4](#) [5](#)

SFAL Startup's Momentum

M&A, Joint Ventures & Consortia · Chip Design Services

Axiro Semiconductor acquires Tosil Systems



Axiro Semiconductor, a Bengaluru-based RF/Analog IC design company, wholly owned subsidiary of CG Power and Industrial Solutions Limited, and part of the SFAL portfolio, has acquired Tosil Systems for ₹16.44 crore in an all-cash transaction. Axiro acquired 100% of Tosil, with the deal completed on 20 August 2026.

Tosil is a nine-year-old chip design services company providing silicon design, verification, physical implementation, embedded software, Linux board support and Edge AI engineering services to chipmakers and electronics companies globally.

The acquisition allows Axiro to add Tosil's design and embedded engineering capabilities to its existing semiconductor business, accelerating capability expansion through an established team and technology base.

For the SFAL ecosystem, the acquisition highlights the growing maturity of India's semiconductor startup landscape. It demonstrates how portfolio companies can scale not only organically, but also by acquiring complementary capabilities and talent to build stronger semiconductor businesses.

[Read more 1](#)

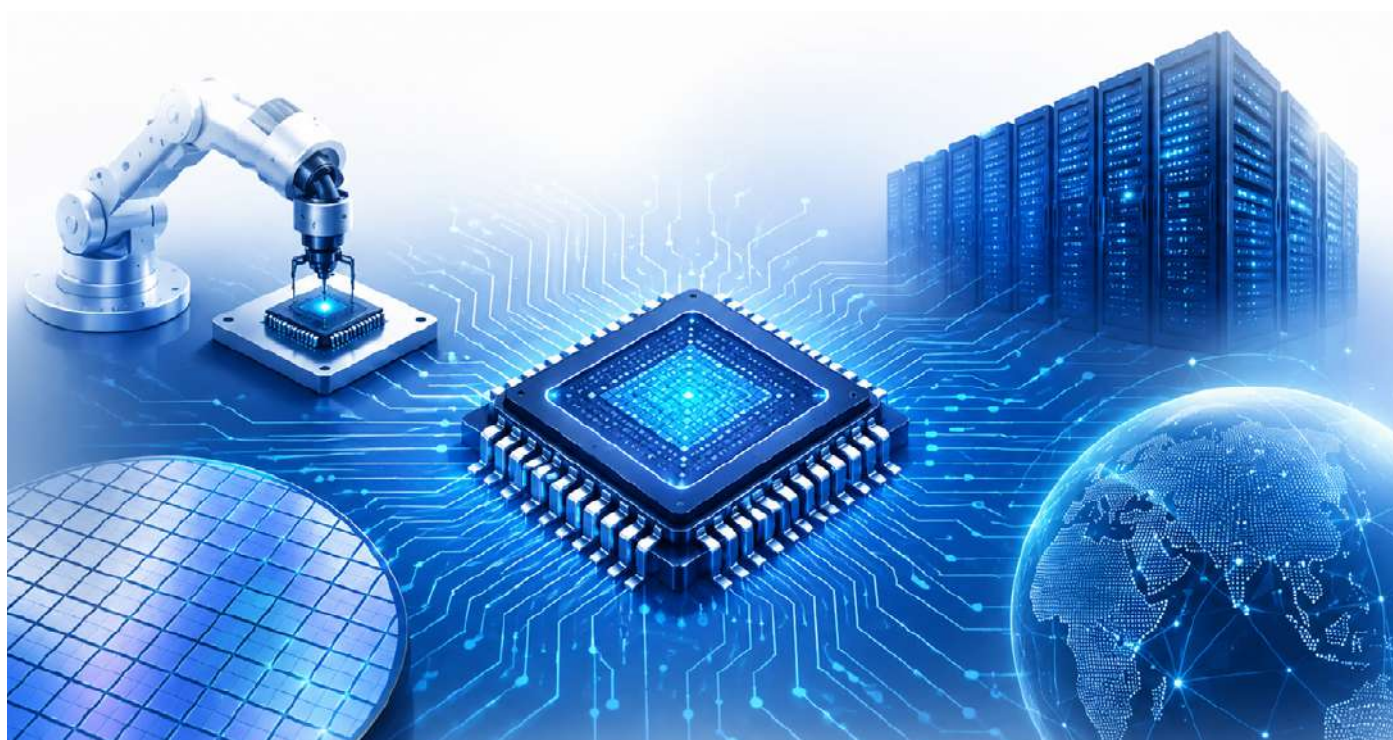
UPCOMING SEMICONDUCTOR EVENTS & CONFERENCES

September 2026

Global

<p>Sep 02-04</p> <p>Semicon Taiwan</p> <p>SEMI 🌐 Taiwan</p>	<p>Sep 03-05</p> <p>The 4th Western China Semiconductor and Integrated Circuit Industry Expo 2026</p> <p>Shanghai Chaobo Exhibition Co., Ltd 🌐 China</p>
<p>Sep 04-09</p> <p>29th EuMW 2026</p> <p>SEMI 🌐 London</p>	<p>Sep 08-11</p> <p>SPIE Photomask Technology + Extreme Ultraviolet Lithography</p> <p>SPIE 🌐 USA</p>
<p>Sep 09</p> <p>Future of AI Computing</p> <p>SEMI 🌐 USA</p>	<p>Sep 09-11</p> <p>CIOE 2026</p> <p>Shenzhen UBM Herong Exhibition Co., Ltd 🌐 China</p>
<p>Sep 09-11</p> <p>IICIE 2026</p> <p>Shenzhen Herong Zhongxin Exhibition Co., Ltd. 🌐 China</p>	<p>Sep 09-11</p> <p>VISOTECH</p> <p>Camel Trade Exhibition and Promotion Events Company Limited 🌐 Vietnam</p>
<p>Sep 09-11</p> <p>WCSTAI</p> <p>Conferences Global 🌐 South Korea</p>	<p>Sep 14-18</p> <p>ECCE Europe 2026</p> <p>SEMI 🌐 Spain</p>
<p>Sep 16</p> <p>EDA Cloud Tech Day 2026</p> <p>SEMI 🌐 USA</p>	<p>Sep 16</p> <p>Semi Down Under 2026</p> <p>Semiconductor Sector Service Bureau partnership with Morse Micro 🌐 Australia</p>
<p>Sep 16-17</p> <p>The MEMS & Sensors Technical Congress</p> <p>SEMI 🌐 USA</p>	<p>Sep 20-22</p> <p>3rd Bi-annual IEEE- WiPDA Europe 2026</p> <p>SEMI 🌐 Denmark</p>
<p>Sep 20-24</p> <p>52nd ECOC 2026</p> <p>SEMI 🌐 Spain</p>	<p>Sep 20-24</p> <p>Embedded World North America</p> <p>NürnbergMesse 🌐 USA</p>
<p>Sep 22-23</p> <p>Advanced Packaging including Heterogeneous Integration & Chiplets</p> <p>SEMI 🌐 USA</p>	<p>Sep 22-23</p> <p>World Conference on Semiconductors & Microchips (SemiCon Week)</p> <p>The People Events 🌐 Germany</p>

Sep 24 Semiconductors and AI: Exploring Data Centres Cicada Innovations 🌐 Australia	Sep 24-25 SSIA Summit & Semiconductor Dinner SSIA 🌐 Singapore
Sep 27 International Conference on WCSST Confs 🌐 China	Sep 28-Oct 1 IMAPS Symposium 2026 SEMI 🌐 USA
Sep 29-30 Microelectronics UK SEMI 🌐 London	Sep 29-30 Photonics UK 2026 SEMI 🌐 London
Sep 30 Advanced Printing Electronics Technology SEMI 🌐 USA	Sep 31-Oct 1 Kyushu Semiconductor Industry Exhibition Innovent, Inc. 🌐 Japan



India

Sep 17-19 SEMICON India 2026 ISM, Meity, SEMI 🌐 Delhi, India	Sep 18 SmartFactory Symposium India 2026 Applied SmartFactory, TCS 🌐 Delhi, India
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OUR PERSPECTIVE

This edition highlights two clear trends. First, India continues to build its semiconductor base through new packaging and manufacturing capacity, R&D investments, and state-led initiatives and skills partnerships. Second, the global semiconductor landscape is being reshaped by developments in equipment, technology and trade, particularly China's growing focus on domestic capabilities and evolving export controls.

For the SFAL ecosystem, the opportunity is expanding across the semiconductor value chain—from chip design and packaging to mature-node manufacturing, power and RF technologies. At the same time, changing global trade and equipment dynamics make it increasingly important to track developments beyond India.

The startups and ecosystem partners that stay ahead of both domestic capacity growth and global shifts will be better positioned to identify emerging opportunities.



Future Semisphere

India and Global Semiconductor Intelligence | BI-WEEKLY EDITION 5

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