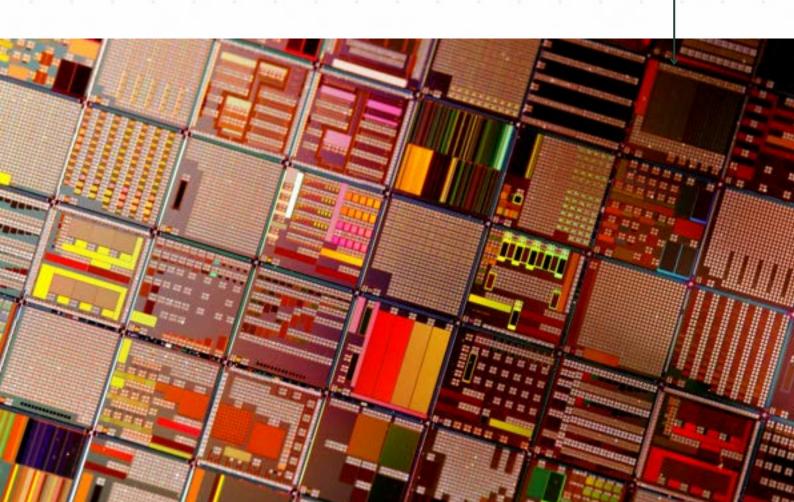


2025

# Taiwan and the Global Semiconductor Supply Chain

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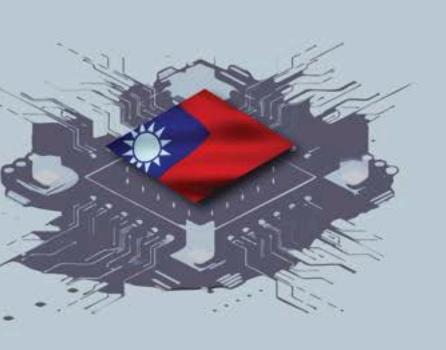
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# EXECUTIVE SUMMARY

The global semiconductor market is seeing a strong rebound. The main driver is soaring demand for AI chips and computing-related electronics, which are quickly becoming the industry's most important application area. This growth is expected to continue, marking the start of a new expansion phase for the sector.

Competition in the industry remains highly concentrated. Taiwan continues to dominate advanced chip manufacturing, especially in sub-6nm capacity, while the United States leads in IC design. Companies such as NVIDIA are strengthening their leadership in chip design thanks to explosive demand for AI computing. Taiwan's wider IC industry is also expanding rapidly. This is largely a structural advantage built on its powerful and growing manufacturing base.

At the same time, India is pushing hard to build its own semiconductor ecosystem. Through the India Semiconductor Mission (ISM), it is trying to attract global partners—for example, by supporting a major joint wafer-fab project with Taiwan. The goal is to develop domestic supply-chain capabilities. However, India still faces hurdles. Several high-profile investment projects have been suspended, showing the difficulty of scaling up quickly. In response, some Indian companies are looking abroad and pursuing overseas acquisitions to speed up technology access and adoption.

Overall, this report highlights three central themes: the AI-driven rebound reshaping global demand, the continued dominance and concentration of key players (especially Taiwan in manufacturing and the U.S. in design), and India's fast-moving—but still challenging—effort to build an independent semiconductor supply chain. Together, these trends outline where the industry's next growth engine lies, who is positioned to capture it, and which emerging players are trying to close the gap.



# Global Semiconductor market

In 2024, the global chipmakers drove towards a decisive rebound phrase. The global semiconductor market reached US\$ 655.9 billion with an annual growth rate of 21.0%. According to forecasts by the Industrial Economics and Knowledge Center (IEK) of Industrial Technology Research Institute (ITRI), this momentum continued into 2025, with the market expanding to US\$ 772.6 billion, representing a 17.8% increase from the previous year. Driven by surging demand for Al-related chips, the global semiconductor market is expected to maintain a robust 11.9% growth rate in 2026, reaching US\$ 864.3 billion.

The market is expected to surpass US\$ 1 trillion in 2029.

On future projections, the market is expected to surpass US\$ 1 trillion in 2029, marking a significant milestone in the next phase of industry expansion.

In the coming years, computing electronics will be the primary engine driving global semiconductor growth. Its market size is expected to exceed US\$ 500 billion by 2029, making it a key sector shaping future industry cycles.



Global Semiconductor Market: 2024-2029 Size -Growth Rate 1,200.0 25.0% 1.081.2 989.6 21.0% 1,000.0 954.2 20.0% 17.8% 864.3 772.6 800.0 15.0% 655.9 USS billior 600.0 11.9% 10.4% 9.3% 10.0% 400.0 5.0% 200.0 3.7% 0.0% 2024 2025 2026 2028 2029

Figure 1. Global Semiconductor Market: 2024-2029

Source: Sayumi Chung, "Market and Technology Trends in Al Semiconductors and IC Design," ITRI, October 28, 2025, p. 3.

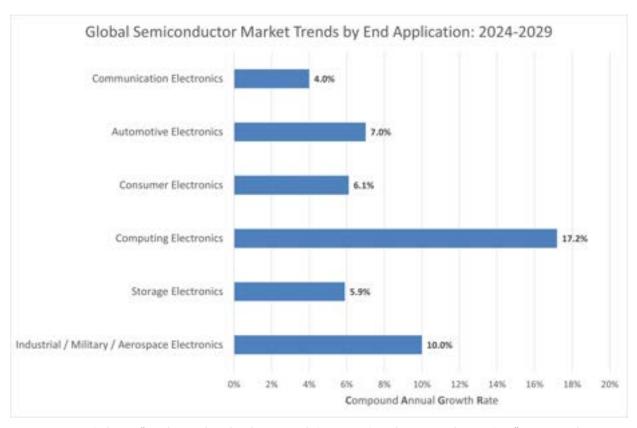
On the end-application of the global semiconductor supply chain, Computing Electronics is the fastest-growing segment in the market. Its compound annual growth rate (CAGR) is 17.2% over a 5-year period, a forecast that shows its increasing demand for such services over all else.

It is followed by Industrial / Military / Aerospace Electronics (10.0%), Automotive Electronics (7.0%), Consumer Electronics (6.1%), Storage Electronics (5.9%), and Communication Electronics (4.0%).

These trends belly real-events playing out such as the AI race where high-performance computing and industrial/military electronics are in high demand in the industry.



Figure 2. Global Semiconductor Market Trends by End Application: 2024-2029



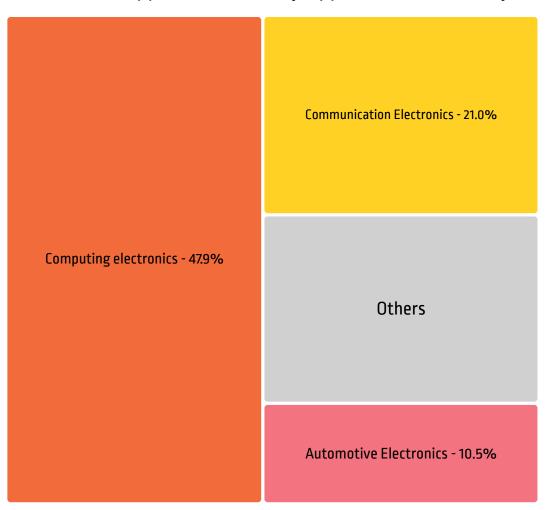
Source: Sayumi Chung, "Market and Technology Trends in Al Semiconductors and IC Design," ITRI, October 28, 2025, p. 3.

In terms of market share, Communication Electronics was the largest application segment in 2023, accounting for 29.2%, followed by Computing Electronics at 28.1% and Automotive Electronics at 14.6%. With the rapid expansion of AI and cloud data center demand, Computing Electronics overtook all other segments in 2024, becoming the largest application market with an impressive annual growth rate of 53.9%. ITRI further projects strong structural growth in this segment, with increases of 35.4% and 23.9% expected in 2025 and 2026, respectively.



By 2029, the market share of Computing Electronics is forecast to surge to 47.9%, solidifying its position as the dominant application category within the semiconductor industry. Communication Electronics is expected to decline to 21.0% but will remain the second-largest segment, while Automotive Electronics will hold third place with a 10.5% share.

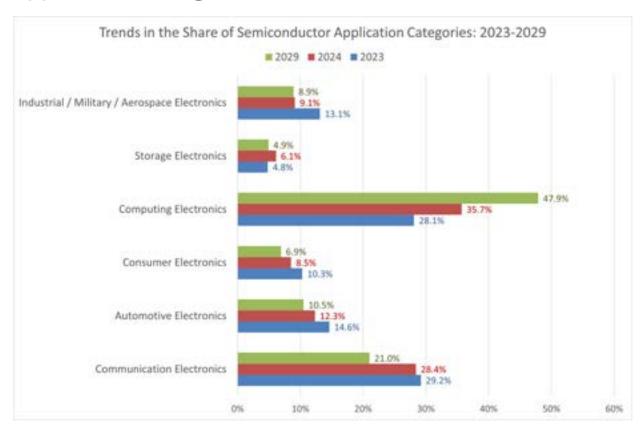
#### Semiconductor Application Industry Application forecast by 2029



Source: Taipei Representative Office in Singapore



Figure 3. Trends in the Share of Semiconductor Application Categories: 2023-2029



Source: Sayumi Chung, "Market and Technology Trends in Al Semiconductors and IC Design," ITRI, October 28, 2025, p. 4.

In 2024, the global AI semiconductor market reached US\$ 138.8 billion. According to estimates from ITRI's IEK, an explosive surge in AI demand in 2024 will eventually stabilize into a more sustained growth phase. In 2025, the global AI semiconductor market is expected to expand to US\$ 204.9 billion, representing a 47.6% increase. Looking toward the medium and long term, driven by continued expansion in edge AI, AI servers, and data-center deployments, the global AI semiconductor market is projected to reach US\$ 438.5 billion by 2029. Over the period from 2024 to 2029, the CAGR is expected to remain as high as 25.9%.

In 2024, the global AI semiconductor market reached US\$



Figure 4. Global Al Semiconductor Market: 2024-2029



Source: Sayumi Chung, "Market and Technology Trends in Al Semiconductors and IC Design," ITRI, October 28, 2025, p. 20.

# Global IC Design Industry

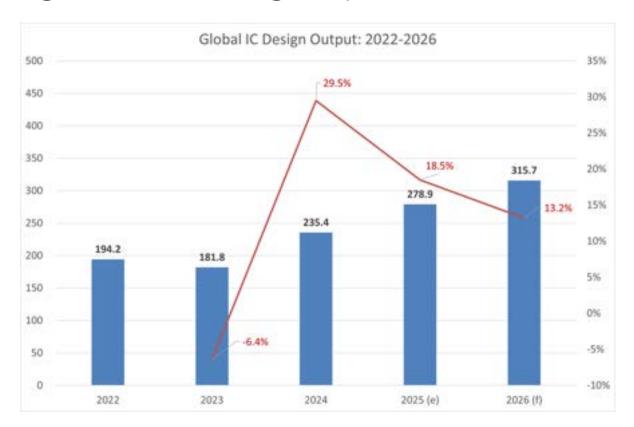
In 2024, the global integrated circuit (IC) design industry reached a total production value of US\$ 235.4 billion, representing a robust 29.5% increase from the previous year. According to projections by ITRI's IEK, the strong growth momentum seen in 2024 will continue into 2025. Benefiting from surging demand for generative AI–related chips, the global IC design industry is expected to maintain a high growth rate of 18.5% in 2025.

Looking ahead to 2026, ITRI forecasts that after the initial explosive expansion driven by AI, the buildout of AI infrastructure will gradually transition from rapid scaling to more normalized deployment. At the same time, AI functionality will become increasingly integrated into a wide range of edge devices. As the market enters a more stable and sustainable growth phase, the global IC design industry is projected to reach US\$ 315.7 billion in output value in 2026, with a solid annual growth rate of 13.2%.

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Figure 5. Global IC Design Output: 2022-2026



Source: Sayumi Chung, "Market and Technology Trends in Al Semiconductors and IC Design," ITRI, October 28, 2025, p. 11.



Among the world's top ten IC design companies in 2024, NVIDIA continued its dominance, driven by explosive demand for AI computing and the aggressive expansion of AI servers and data-center processing capabilities by cloud service providers.

NVIDIA achieved an astonishing 120.1% annual growth rate in 2024, reaching US\$ 76.69 billion in revenue. This created a substantial gap with the second-ranked Qualcomm, whose revenue was only US\$ 32.98 billion, less than half of NVIDIA's. Broadcom ranked third with US\$ 27.80 billion, followed by AMD with US\$ 24.13 billion and Apple with US\$ 20.51 billion. The sixth to tenth positions were held by MediaTek (US\$ 15.93 billion), Marvell (US\$ 5.64 billion), HiSilicon (US\$ 4.79 billion), Realtek (US\$ 3.52 billion) and Novatek (US\$ 3.17 billion) respectively.

Notably, China's HiSilicon, Huawei's in-house chip design subsidiary, recorded a sharp surge in revenue in 2024, due to Huawei's 's rapid expansion in AI servers and automotive applications. Its new AI server, the CloudMatrix 384, which debuted in Shanghai in July 2025 and uses 384 of Huawei's Ascend 910C chips, competes with NVIDIA's own top-performing GB200 NVL72 AI server.



From a country-level perspective, among the top ten global IC design companies in 2024, the U.S., Taiwan and China dominates the world supply chain. United States accounted for six firms with a combined market share of 87.3%. Taiwan had three companies with a 10.5% share, while China had one company accounting for 2.2%. Looking at the overall industry, U.S.-based companies held approximately 69% of the global IC design market in 2024, while Taiwan accounted for about 17%, bringing the combined U.S.–Taiwan shares to over 85%. China represented roughly 12%, still trailing significantly behind the United States and Taiwan.



Table 1. Top 10 Global IC Design Companies in 2024

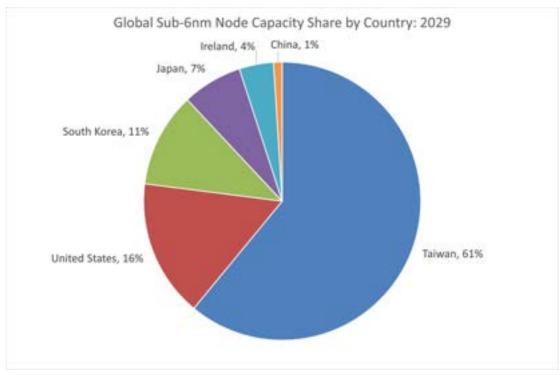
| Rank        | Company   | Country | Main Products  | Revenue | Growth Rate |
|-------------|-----------|---------|--|---------|-------------|
| 1           | NVIDIA    | US      | AI, HPC, Automotive Processors                                       | 76.69   | 120.10%     |
| 2           | Qualcomm  | US      | 5G (Mobile Processors, Base Stations), AI,<br>HPC, Communication ICs | 32.98   | 12.80%      |
| 3           | Broadcom  | US      | 5G (Base Stations), AI, HPC, Communication<br>ICs                    | 27.8    | 8.50%       |
| 4           | AMD       | US      | AI, HPC  | 24.13   | 8.20%       |
| 5           | Apple     | US      | 5G (Mobile Processors), Al, CPU                                      | 20.51   | 13.60%      |
| 6           | MediaTek  | TWN     | 5G (Mobile Processors), AI, Communication<br>ICs, IoT ICs            | 15.93   | 18.50%      |
| 7           | Marvell   | US      | 5G (Base Stations), AI, Communication ICs,<br>Embedded Processors    | 5.64    | 3.40%       |
| 8           | HiSilicon | CN      | 5G (Mobile Processors), AI, Communication<br>ICs                     | 4.79    | 105.20%     |
| 9           | Realtek   | TWN     | Networking ICs, Multimedia ICs, PC<br>Peripheral ICs, Al             | 3.52    | 15.70%      |
| 10          | Novatek   | TWN     | Display Driver ICs, Digital TV ICs, Al                               | 3.17    | -10.00%     |
| Total       |           |         |  | 215.15  | 100.00%     |
| USA Share   |           |         |  | 187.74  | 87.30%      |
| TWN Share   |           |         |  | 22.623  | 10.50%      |
| China Share |           |         |  | 4.79    | 2.20%       |

Source: Sayumi Chung, "Market and Technology Trends in Al Semiconductors and IC Design," ITRI, October 28, 2025, p. 12.

# Global Landscape of Advanced Semiconductor Manufacturing

According to estimates by ITRI's IEK, using publicly announced construction schedules and planned production capacities as the basis—and calculating projected 2nm to 6nm capacity at the point when full-scale mass production begins in 2029 (excluding R&D lines and any unannounced future capacity)—Taiwan's global market share is expected to reach 61%. The United States would account for 16%, South Korea 11%, Japan 7%, Ireland 4%, and China only 1%

Figure 6. Global Sub-6nm Node Capacity Share by Country: 2029



Source: Nancy Liu, "Al and Innovative Applications Are Driving a Strategic Re-Evolution in the Global IC Manufacturing Industry," ITRI, October 28, 2025, p. 11.



This uneven distribution indicates that advanced semiconductor manufacturing capacity will remain highly concentrated globally and remain malleable to geopolitics and national industrial policy instruments.

From a policy perspective, the U.S. government has leveraged the CHIPS and Science Act to provide substantial subsidies to companies targeting the 7nm and more advanced technology nodes, aiming to rebuild leading-edge semiconductor manufacturing capabilities on American soil. Among U.S. domestic companies, Intel is primarily positioned with its Intel 20A (now discontinued) and Intel 18A processes. Foreign companies operating in the U.S. include TSMC with its N4X, N3, and N2 nodes, and Samsung with its SF3 and SF2 technologies— forming the core of advanced manufacturing capacity in the United States.

Intel remains behind at nodes below 3nm and is attempting to regain competitiveness in foundry services through Intel 18A and even more advanced process technologies. Its Fab 52 and Fab 62 facilities in Arizona continue to expand, with a focus on building advanced capacity centered on 18A. As a U.S. company, Intel is also more likely to receive priority access to government and defense-related orders, strengthening its prospects for reestablishing technological leadership.

TSMC's U.S. investment is projected to exceed US\$ 40 billion, making it one of the largest foreign direct investment projects in American history. The company's Arizona campus is set to introduce the N4X, N3, and N2 process nodes, with a target of beginning 3nm mass production in 2026—a development that underscores the deepening supply chain complementarities between Taiwan and the United States.



Samsung, meanwhile, plans to invest more than US\$ 17 billion in Texas to produce its SF4 and SF3 nodes. Its U.S. presence provides the American market with an additional source of advanced manufacturing beyond TSMC, supporting Washington's goal of achieving greater supply chain diversification and reducing reliance on any single supplier.

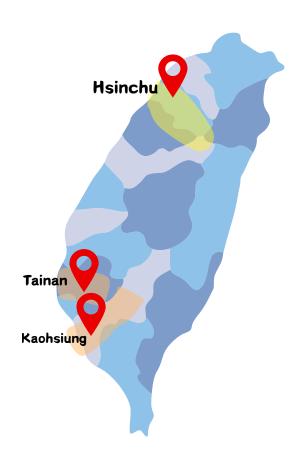
In the global landscape of advanced semiconductor manufacturing below the 7-nanometer threshold, TSMC continues to hold an overwhelmingly dominant position. According to data from the ITRI, TSMC commands a 53% share of global 2-nanometer capacity, followed by Samsung at 19%, Japan's Rapidus at 16%, and Intel at 12%. In the 3-nanometer segment, TSMC's lead is even more pronounced with a 69% market share, while Samsung holds 23% and Intel 8%. Even in the 4–6 nanometer range—where competition is broader and the technological barrier slightly lower—TSMC maintains a commanding 85% share, compared to Samsung's 12% and SMIC's 3%, reflecting an unmistakable performance gap.



For 2-nanometer capacity, global deployment focuses primarily on next-generation AI accelerators, GPUs, AIPC core processors, and premium smartphone SoCs. TSMC stands as the largest and fastest-moving producer in this technology node, with mass-production capabilities concentrated in Hsinchu, Tainan, and Kaohsiung in Taiwan.

Samsung's SF2 process adopts a GAAFET MBCFET architecture and incorporates BSPDN technology, though its yield performance remains less stable; its 2-nanometer production is primarily located in Texas, USA. Intel, meanwhile, has introduced its 18A process into mass production at Fab 52 in Arizona, with plans to launch the Panther Lake CPU in 2025—an important step in reinforcing the United States' leadership in advanced manufacturing.

## Places with production factories and facilities

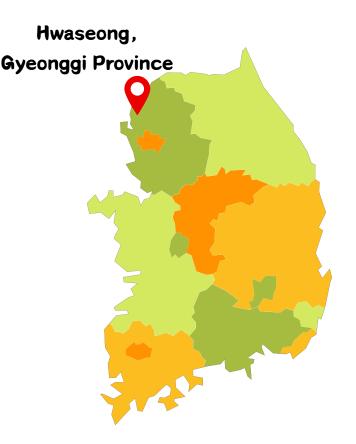






In the 3-nanometer domain, capacity is geared toward applications such as flagship smartphone SoCs, AI and HPC GPUs, high-performance server CPUs, and data center inference chips. TSMC remains the largest supplier with the most stable yields, with major production in Tainan and an additional footprint in Arizona. Samsung ranks second, with capacity located in South Korea's Gyeonggi Province and in its Texas facility. Intel is planning to establish 3-nanometer production in Ireland, with mass production expected to begin in 2025 as part of its effort to catch up in the race for advanced nodes.

For the 4-, 5-, and 6-nanometer processes, the dominant applications include mainstream AI accelerators and GPUs, high-end mobile processors, and advanced server CPUs. TSMC is again the largest global producer, with capacity spanning Tainan and Hsinchu in Taiwan, Kumamoto in Japan, and Arizona in the United States—demonstrating a strategy that integrates both regional diversification and global deployment. Samsung's 6-nanometer process is largely an optimized extension of its 7-nanometer technology, with production concentrated in its Hwaseong facilities. SMIC aims to complete 5nanometer development and move into mass production in 2025, but without access to EUV equipment, it must rely solely on DUV lithography. As a result, its yields and competitiveness are expected to face significant structural

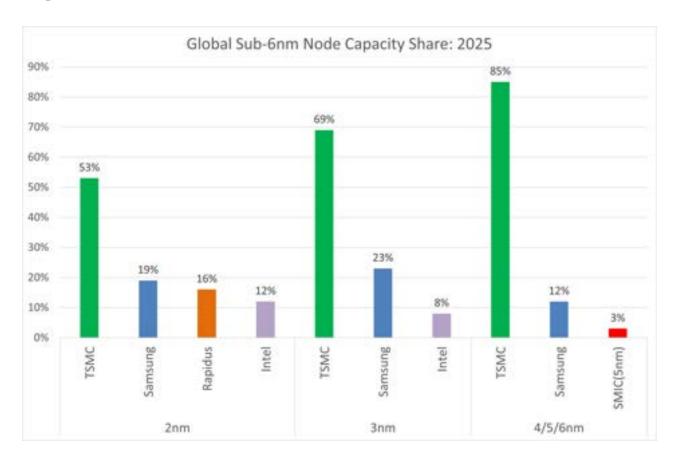






constraints.

Figure 7. Global Sub-6nm Node Capacity Share: 2025



Source: Nancy Liu, "Al and Innovative Applications Are Driving a Strategic Re-Evolution in the Global IC Manufacturing Industry," ITRI, October 28, 2025, p. 10.

# Global IC Packaging and Testing Industry Development

In this report, the term "global packaging and testing industry" primarily refers to the output value of third-party Outsourced Semiconductor Assembly and Test (OSAT) services. Because the packaging and testing divisions of IDMs or foundries typically do not disclose standalone revenue, estimates of the global IC packaging and testing market are largely based on OSAT revenue figures. As third-party service providers, OSAT firms offer packaging and testing outsourcing services to fabless companies as well as IDMs/foundries, forming an indispensable link in the semiconductor supply chain.

Based on changes in global IC packaging and testing output value shown in Figure 8, the industry experienced strong growth from 2021 to 2022. Supported by demand generated during and after the pandemic—particularly remote-work—driven needs—the global semiconductor market continued expanding, propelling synchronous growth in the packaging and testing sector. In 2022, the industry's output value reached US\$ 42.61 billion, marking a five-year high.

However, at the beginning in the second half of 2022, the global economy began to cool significantly. Central banks in major economies raised interest rates to curb inflation, leading to a contraction in both corporate capital expenditure and consumer electronics demand. The sharp slowdown in end-market demand elevated chip inventory levels, which in turn further suppressed packaging and testing requirements.



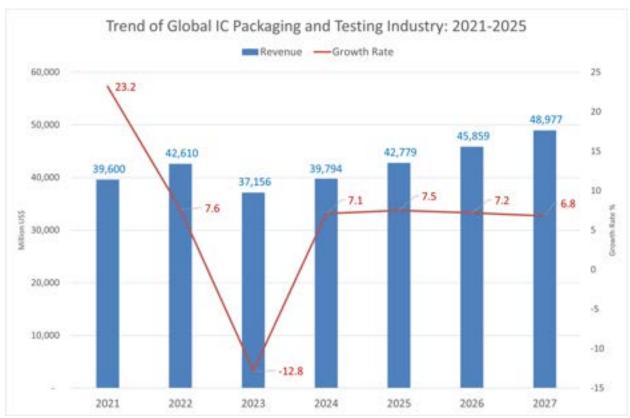
Under these multiple headwinds, the global IC packaging and testing industry saw a substantial decline in 2023. The annual output value fell by 12.8% from the previous year to US\$ 37.16 billion. Nevertheless, 2023 also marked the low point of the inventory correction cycle.

Starting in 2024, as inventory digestion concluded and market demand gradually recovered, the sector rebounded to US\$ 39.79 billion, representing year-on-year growth of 7.1%.

Looking ahead to 2025, with improving global economic conditions and strong momentum from high-end applications such as AI servers and data centers, the packaging and testing industry is poised for more stable growth. According to forecasts by the IEK of ITRI, industry revenue is expected to grow an additional 7.5% in 2025, reaching US\$ 42.78 billion—potentially setting a new historical high.



Figure 8. Trend of Global IC Packaging and Testing Industry: 2021-2025



Source: Jing-Han Chen, "Development Trends and Technological Innovations in the Advanced Semiconductor Packaging Industry," IEK, ITRI, October 28, 2025, p.2.



# **Current Developments in Taiwan's IC Industry**

Taiwan's IC industry can be divided into four major segments: IC design, IC manufacturing, IC packaging, and IC testing. From a structural perspective, Taiwan's industrial landscape has clearly shifted toward IC manufacturing, reflecting the gradual concentration of the global semiconductor supply chain around Taiwan's production capabilities.

#### **IC Design**

Taiwan's IC design industry, a key component of innovation in the semiconductor supply chain currently anchored by top-performing firms such as MediaTek, Novatek and Realtek, has experienced steady growth since 2010, with output increasing from US\$ 14.4 billion to US\$ 22.4 billion in 2019. Following the pandemic-driven surge in global demand, output jumped to US\$ 28.8 billion in 2020 and further to US\$ 43.4 billion in 2021. In the following years, production levels stabilized at around US\$ 40 billion. However, output in the first three quarters of 2025 has already reached US\$ 35.1 billion, suggesting that a new record high for the full year is likely and that growth momentum in this segment has re-emerged.



#### IC Manufacturing

IC manufacturing represents Taiwan's core competitive strength in semiconductors, as seen in leading wafer foundries such as TSMC. Output rose from US\$ 28.4 billion in 2010 to US\$ 47.6 billion in 2019. From the start of the pandemic in 2020, soaring global chip demand pushed output steadily to US\$ 98.1 billion in 2022 over the short period of 3 years. Although output slightly declined to US\$ 85.5 billion in 2023, it rebounded sharply to a record US\$ 106.5 billion in 2024. With US\$ 104.8 billion already achieved in the first three quarters of 2025, another historic high is strongly probable in the near future in the age of AI.

#### **IC Packaging**

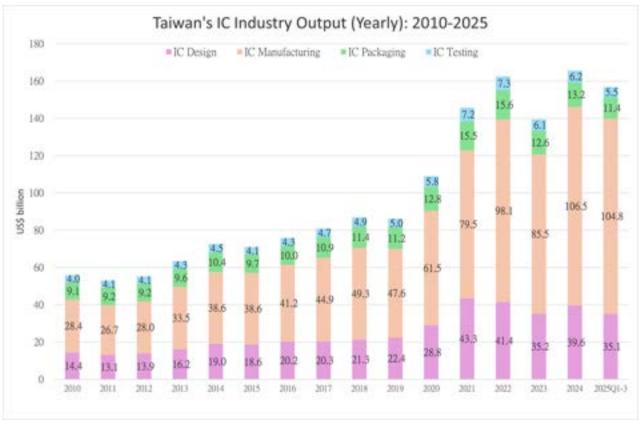
Growth in IC packaging, helmed by some of Taiwan's leading companies — ASEH, Powertech (PTI) and KYEC has been moderate. Output rose steadily through the 2010s, climbing from just over US\$ 9 billion to around US\$ 11 billion before the pandemic. It reached its surge, reaching its peak at roughly US\$ 15.5 billion in 2021—2022. A market adjustment brought the figure down the following year, though it has since begun to recover, rising back above US\$ 13 billion in 2024. With over US\$ 11 billion already generated in the first three quarters of 2025, the sector appears on track to return to its early-2020s highs.

#### **IC Testing**

The IC testing segment, similar to IC packaging, is smaller in scale and has shown more limited growth. Output increased from US\$ 4.0 billion in 2010 to US\$ 5.0 billion in 2019. A pandemic-surge lifted production to US\$ 5.8 billion in 2020, US\$ 7.2 billion in 2021, and US\$ 7.3 billion in 2022 as lockdowns increased demand for personal computing, leading to an increase in workload for OSAT providers in Taiwan. However, in 2023, output fell to US\$ 6.1 billion in 2023 only to inch slightly to US\$ 6.2 billion in 2024. With US\$ 5.5 billion achieved in the first three quarters of 2025, the full-year figure may once again approach the 2021–2022 peak.



#### Figure 9.



Source: IEK, ITRI, November 12, 2025.

Based on data, Taiwan's IC industry has experienced rapid expansion in the first three quarters of 2025. In the IC design segment, output increased from US\$ 7.7 billion in 2023 Q1 to US\$ 9.3 billion in 2024 Q1, rising further to US\$ 11.0 billion in the 2025 Q1 and reaching US\$ 11.4 billion in the third quarter.



#### Figure 10.



Source: IEK, ITRI, November 12, 2025.

In terms of growth rates for the first three quarters of 2025, IC design expanded by 17.8%, IC manufacturing by 36.6%, IC packaging by 15.3%, and IC testing by 17.7%. A closer look reveals that IC design and IC manufacturing both grew rapidly throughout the first three quarters, while growth in IC packaging and IC testing was concentrated mainly in the second and third quarters—highlighting a typical pattern in which back-end processes lag in recovery but display noticeable catch-up momentum once the cycle turns.



Table 2. Growth of Taiwan's IC Industry Output (Quarterly): 2025 Q1-3

|                  | 2025 Q1-3 Growth | Q1 Growth | Q2 Growth | Q3 Growth |
|------------------|------------------|-----------|-----------|-----------|
| IC Design        | 17.8%            | 17.4%     | 24.4%     | 11.9%     |
| IC Manufacturing | 36.6%            | 31.0%     | 43.2%     | 35.2%     |
| IC Packaging     | 15.3%            | 5.4%      | 22.2%     | 17.8%     |
| IC Testing       | 17.7%            | 3.6%      | 24.7%     | 24.5%     |

Source: IEK, ITRI, November 12, 2025.

#### CHANGES IN INDUSTRY COMPOSITION: LONG-TERM STRUCTURAL SHIFTS IN TAIWAN'S SEMICONDUCTOR ECOSYSTEM

An examination of the sectoral shares within Taiwan's IC industry reveals a continued consolidation toward manufacturing, reflecting a long-term pattern of expanding production, stagnant design growth, and contraction in back-end processes.



#### **SHARE OF IC DESIGN**

From 2010 to 2020, IC design consistently accounted for roughly 25–27% of total IC industry output. In 2021, surging demand briefly pushed its share to 29.8%, but the proportion has declined steadily since then—falling to 23.9% in 2024 and further to 22.4% in the first three quarters of 2025.

# SHARE OF IC

IC packaging has experienced a long-term decline in its share of the industry. Its proportion dropped from 16.2% in 2010 to 13.0% in 2019, fell further to 9.6% in 2022, and declined again to 8.0% in 2024. The share fell to 7.3% in the first three quarters of 2025.

**PACKAGING** 

# SHARE OF IC MANUFACTURING

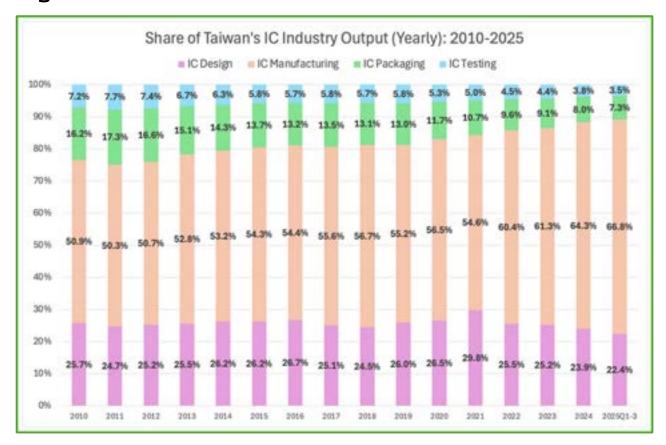
The share of IC manufacturing has risen steadily, from around 50% in 2010 to 56% in 2019. It climbed to 60.4% in 2022 and expanded to 64.3% in 2024, reaching 66.8% in the first three quarters of 2025—an all-time high. Manufacturing has thus become the undeniable backbone of Taiwan's semiconductor structure.

The share of IC testing has also trended downward, falling from 7.2% in 2010 to 5.8% in 2019, then to 4.5% in 2022. It reached 3.8% in 2024 and further declined to 3.5% in the first three quarters of 2025.

SHARE OF IC TESTING



#### Figure 11.



Source: IEK, ITRI, November 12, 2025.



## Global Foundry Landscape in 3Q 2025: TSMC Extends Lead in Advanced Nodes as Samsung's Profit Surges

Global competition in the foundry market intensified in the third quarter of 2025, with the four dominant players delivering sharply divergent performances that underscore their differing strategic trajectories. TSMC further solidified its lead through unmatched execution in advanced manufacturing; Samsung Electronics reported a strong profit recovery powered by the scale-up of its 2 nm GAA process; Intel accelerated its pivot toward Intel Foundry and strengthened its AI supply chain position with substantial government backing; and SMIC—despite logging record-high revenue—adopted a more cautious stance on near-term prospects.

According to TrendForce, TSMC posted consolidated third-quarter revenue of US\$ 33.1 billion, setting a new historical high. Revenue rose 40.8% year-over-year, supported by robust demand across its HPC and smartphone platforms. Leading-edge technologies at 7 nm and below accounted for 74% of total wafer revenue, with 3 nm contributing 23% and 5 nm contributing 37%. Gross profit reached US\$ 19.68 billion, with a 59.5% gross margin, while net profit was US\$ 15.1 billion, yielding an impressive 45.6% net margin. Looking ahead, TSMC expects fourth-quarter revenue between US\$ 32.2–33.4 billion, with gross margins holding at a strong 59–61%.







According to TrendForce, Samsung Electronics reported US\$ 59.4 billion in consolidated revenue for the quarter, up 9% from the previous year. Its semiconductor division generated US\$ 22.8 billion, increasing 13% year-over-year. Operating profit surged to US\$ 8.37 billion, marking a significant turnaround. Management highlighted that the foundry segment achieved record-high advanced-node order volumes and commenced large-scale production of its 2 nm GAA process—a milestone seen as a key catalyst for Samsung's improving profitability and competitive momentum.

#### SAMSUNG

According to TrendForce, Intel reported third-quarter revenue of US\$ 13.7 billion, growing 2.8% year-over-year. Gross profit reached US\$ 5.2 billion, and net profit stood at US\$ 4.3 billion. CEO Lip-Bu Tan emphasized during the earnings call that accelerating AI workloads are expanding compute demand, creating opportunities across Intel's x86 portfolio, ASIC operations, and Intel Foundry Services. The quarterly report also confirmed the sale of a majority stake in Altera, the securing of US\$ 5.7 billion in accelerated U.S. government funding, and strategic equity investments from NVIDIA and SoftBank Group. These moves strengthen Intel's balance sheet and reinforce its focus on long-term Intel Foundry development.

intel

According to TrendForce, SMIC reported third-quarter revenue of US\$ 2.3818 billion, up 9.7% year-over-year and marking the second-highest level in its history. Revenue growth was driven by increased wafer shipments and a more favorable product mix, lifting gross margin to 22.0%—still far behind TSMC's 59.5%—and pushing capacity utilization to 95.8%. Net profit reached US\$ 0.315 billion, yielding a 13.2% net margin (compared with TSMC's 45.6%). However, management adopted a more cautious outlook for the fourth quarter, guiding for flat to mildly positive revenue growth of 0–2% and a gross margin decline to 18–20%, citing ongoing geopolitical uncertainties and global trade headwinds.





# Table 3. Q3 FY 2025 Income Statements of Four Major Semiconductor Companies

| Company | Revenue | Growth Rtae | Gross Profit | Operating<br>Profit | Net Income |
|---------|---------|-------------|--------------|---------------------|------------|
| Intel   | 13.7    | 2.8%        | 5.2          | -0.7                | 4.3        |
| Samsung | 59.4    | 9.0%        | 23.1         | 8.37                | 8.37       |
| SMIC    | 2.38    | 9.7%        | 0.523        | 0.351               | 0.315      |
| TSMC    | 33.1    | 40.8%       | 19.68        | 16.74               | 15.1       |

#### Note:

1.1 US\$  $\approx$  1,449 Korean won (KRW) as of November 15, 2025.

2. Samsung Electronics' figures cover both semiconductors and other electronics products.

Source: TrendForce, <a href="https://x.com/trendforce/status/1989206648284664028">https://x.com/trendforce/status/1989206648284664028</a>, November 15, 2025.



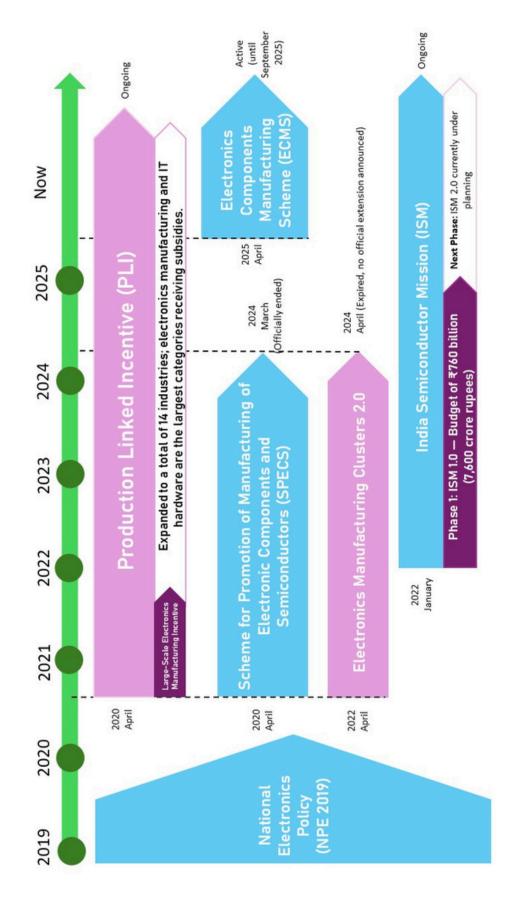
### **India's Semiconductor Policy**

Since the release of the National Policy on Electronics 2019 (NPE 2019), India has continued to advance the upgrading of its electronics and semiconductor industries. The policy scope spans semiconductors, automotive electronics, ICT equipment, medical electronics, and more, with the core objective of positioning India as a global hub for Electronics System Design and Manufacturing (ESDM).

Building on this policy framework, the Indian government has, over the past six years, introduced a series of concrete incentive and subsidy programmes. These include the Scheme for Promotion of Electronic Components and Semiconductors (SPECS), the Electronics Manufacturing Clusters Scheme (EMC 2.0), the Production-Linked Incentive (PLI) Scheme, and the latest Electronic Components Manufacturing Scheme (ECMS). In 2022, the government also officially launched the India Semiconductor Mission (ISM), forming a more comprehensive support architecture for the semiconductor sector.



Manufacturing and Semiconductor Policies: 2019–2025 Figure 12. Major Milestones of India's Electronics



Source: Thomas Hsu, "Chips Amid Global Trade Conflicts: India's Semiconductor Policy and Industry," IEK, ITRI, October 22, 2025, p. 1.



#### 1. POLICY PRIORITIES AND STRATEGIC DIRECTIONS OF NPE 2019

NPE 2019 covers key areas such as semiconductor manufacturing and display production, while placing particular emphasis on semiconductor IC design, medical electronics, automotive electronics, and other strategic electronics industries. Its overarching aim is to strengthen the competitiveness of India's ESDM value chain, increase domestic manufacturing content, expand export capacity, and develop India into a major global base for manufacturing and design.

Although NPE 2019 has not undergone major revisions since its release, related ministries have jointly pushed forward its implementation. A number of incentive-based programmes have been launched over the past six years, serving as important tools for extending and deepening the policy. The major schemes are summarized below.

## 2. SCHEME FOR PROMOTION OF ELECTRONIC COMPONENTS AND SEMICONDUCTORS (SPECS)

To enhance domestic capacity and value addition in electronic components, semiconductors, displays, materials, and manufacturing equipment, India introduced the SPECS programme to build an autonomous and comprehensive electronics manufacturing ecosystem. The application window for SPECS closed in March 2024. Subsequent efforts to strengthen domestic component production are now carried forward through the PLI scheme and ECMS, while semiconductor-related subsidies have been taken over by the ISM scheme launched in 2022.

## 3. ELECTRONICS MANUFACTURING CLUSTERS SCHEME (EMC 2.0)

India implemented the first phase of the Electronics Manufacturing Clusters (EMC) Scheme between 2012 and 2017. However, due to rapidly growing demand for electronics and limited domestic production capacity, the government introduced EMC 2.0 in 2020. The upgraded scheme aims to improve infrastructure within electronics manufacturing parks and develop shared technical and public service platforms—including shared equipment, product testing, quality certification, R&D centres, and talent development facilities—to enhance manufacturing efficiency and attract greater investment into the electronics sector.



#### 4. PRODUCTION-LINKED INCENTIVE (PLI) SCHEME

Launched in April 2020, the PLI scheme initially focused on large-scale electronics manufacturing. After successfully attracting major global smartphone manufacturers, the programme was expanded to 14 strategic industries, including pharmaceuticals, telecom and networking equipment, food processing, home appliances, solar PV, advanced chemistry cell batteries, automobiles and components, textiles, and specialty steel. PLI has become a flagship initiative of the Modi government to upgrade manufacturing and attract foreign direct investment. It is widely recognized by international firms as a predictable and appealing incentive mechanism.

#### 5. INDIA SEMICONDUCTOR MISSION (ISM)

To strengthen semiconductor production capacity and supply chain resilience, the Indian government launched the Semicon India Programme at the end of 2021 and established the India Semiconductor Mission (ISM) as the central implementing agency. Under the Ministry of Electronics and Information Technology (MeitY), ISM oversees policy planning, funding allocation, project evaluation, and programme monitoring. The first phase of ISM is budgeted at INR 760 billion (approximately US\$ 9 billion), covering wafer fabs, assembly and test facilities, IC design, and supply chain integration, with the aim of increasing India's semiconductor self-reliance and global competitiveness.

## 6. ELECTRONIC COMPONENTS MANUFACTURING SCHEME (ECMS)

Approved in March 2025 and launched in April, the ECMS is a six-year programme with a total central government budget of INR 229.19 billion (around US\$ 2.8 billion). Its core objective is to strengthen weak links in the supply chain and reduce India's dependence on imported passive components—such as resistors, capacitors, and inductors—while raising domestic value addition from the current level of about 20% to roughly 40%. The scheme encourages both domestic and foreign firms to invest in electronic component manufacturing in India and aims to support deeper integration of Indian companies into global value chains.



## INDIA SEMICONDUCTOR MISSION (ISM)

The India Semiconductor Mission (ISM), led and implemented by the Ministry of Electronics and Information Technology (MeitY), serves as the central body responsible for strategic planning and execution related to the semiconductor industry. Its mandate spans industrial strategy, manufacturing facility deployment, ecosystem development, supply chain security and localization, technology transfer and international collaboration, R&D and innovation capacity building, promotion of industry–academia–research linkages, and the formation of semiconductor clusters.

The following provides an analysis of the four major incentive programmes under ISM, along with an overview of their implementation progress to date.



## 4 Major ISM Incentive Programmes

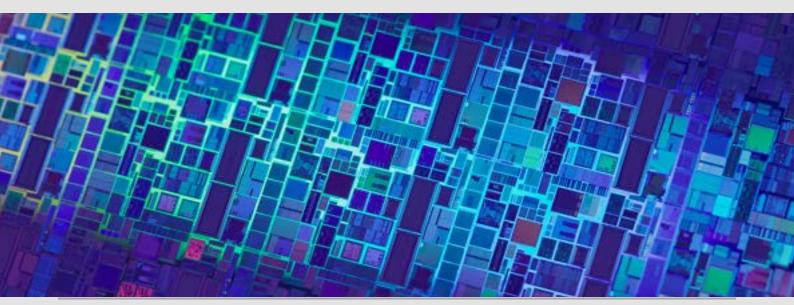


## 1. Semiconductor Fabs

The objective is to attract both global and domestic companies to invest in wafer fabrication facilities in India, thereby strengthening local manufacturing capabilities. The central government provides up to 50% of capital expenditure support, with several state governments offering additional incentives. Eligible technologies include logic, memory, digital ICs, analog ICs, mixed-signal ICs, and system-on-chips (SoCs).

#### 2. Display Fabs

This programme aims to draw major global display manufacturers to establish production facilities in India and develop a complete display manufacturing value chain. The central government offers up to 50% capital expenditure support, complemented by additional state-level incentives. Supported technologies include TFT-LCD, AMOLED, and other advanced display production lines.





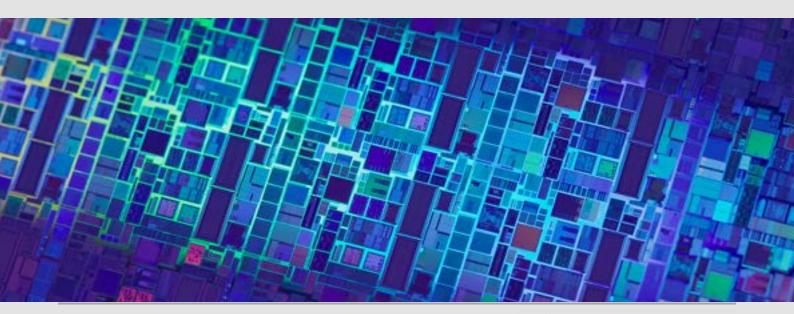


# 3. Compound Semiconductors / ATMP / Sensors

This category focuses on building high-value semiconductor manufacturing and assembly—test capabilities, and has become one of India's most vigorously promoted areas. The government provides up to 50% capital expenditure support for projects involving compound semiconductors (e.g., GaN, SiC), silicon photonics, various sensors (including MEMS), and assembly, testing, marking, and packaging (ATMP/OSAT). The goal is to strengthen India's semiconductor supply chain and enhance indigenous technical capabilities.

## 4. Design Linked Incentive (DLI)

The DLI programme aims to bolster India's IC design sector, enhancing innovation capacity and global competitiveness. Incentives include reimbursement of up to 50% of design-related expenditures (capped at INR 150 million), or a 4%–6% financial incentive over five years for products that have entered the sales or deployment stage (capped at INR 300 million). Supported activities include EDA tools, prototyping, R&D support, and infrastructure development. DLI serves as a key policy instrument for nurturing India's domestic IC design companies.

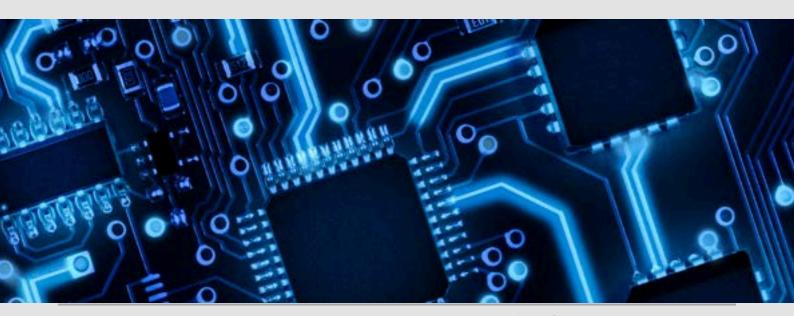




## 10 Semiconductor Manufacturing Projects Approved

India's IC design sector is relatively mature, with many global IDMs and fabless companies having established R&D centers in the country. To strengthen the manufacturing segment and build deeper indigenous capabilities, the Indian government has provided substantial subsidies to attract international semiconductor leaders for technology partnerships, forming a "government funding + corporate investment + international technology collaboration" model.

In August 2025, ahead of Prime Minister Modi's visit to Japan and the SEMICON India 2025 event, the Union Cabinet approved four additional semiconductor projects. With these new approvals, the total number of sanctioned semiconductor manufacturing projects has reached ten. The key details are as follows:





## Table 4. Ten Approved Investment Projects under India's Semiconductor Mission

| No | Company                                    | Location                | Investment Size              | Туре                  | Approval Date |
|----|--|-------------------------|------------------------------|-----------------------|---------------|
| 1  | Micron<br>Technology (US)                  | Sanand, Gujarat         | US\$ 2.75 B (INR<br>225.1 B) | IDM ATMP<br>Facility  | 2023.6        |
| 2  | Tata Electronics<br>+ PSMC (TW)            | Dholera, Gujarat        | US\$ 10.9 B (INR<br>915.2 B) | Wafer Fab (Fab)       | 2023.6        |
| 3  | Tata Semiconductor Assembly Test           | Marigaon, Assam         | US\$ 3.26 B (INR 271.2 B)    | OSAT Facility         | 2024.2        |
| 4  | CG Power +<br>Renesas (JP) +<br>Stars (TH) | Sanand, Gujarat         | US\$ 920 M (INR<br>76.0 B)   | IDM ATMP<br>Facility  | 2024.2        |
| 5  | Kaynes Semicon                             | Sanand, Gujarat         | US\$ 400 M (INR<br>33.0 B)   | OSAT/ATMP<br>Facility | 2024.9        |
| 6  | HCL + Foxconn<br>(TW)                      | Jewar, Uttar<br>Pradesh | US\$ 440 M (INR<br>37.0 B)   | OSAT Facility         | 2025.5        |
| 7  | SiCSem + Clas-<br>SiC (UK)                 | Bhubaneswar,<br>Odisha  | US\$ 233 M (INR<br>20.66 B)  | IDM ATMP<br>Facility  | 2025.5        |
| 8  | 3D Glass<br>Solutions (US)                 | Odisha                  | US\$ 220 M (INR<br>19.43 B)  | IDM ATMP<br>Facility  | 2025.8        |
| 9  | Continental<br>Device India                | Mohali, Punjab          | US\$ 13 M (INR<br>1.17 B)    | IDM ATMP<br>Facility  | 2025.8        |
| 10 | ASIP + APACT<br>(KR)                       | Andhra Pradesh          | US\$ 53 M (INR<br>4.68 B)    | OSAT Facility         | 2025.8        |

Source: Thomas Hsu, "Chips Amid Global Trade Conflicts: India's Semiconductor Policy and Industry," IEK, ITRI, October 22, 2025, p. 4-5.





### 1. MICRON TECHNOLOGY (UNITED STATES)

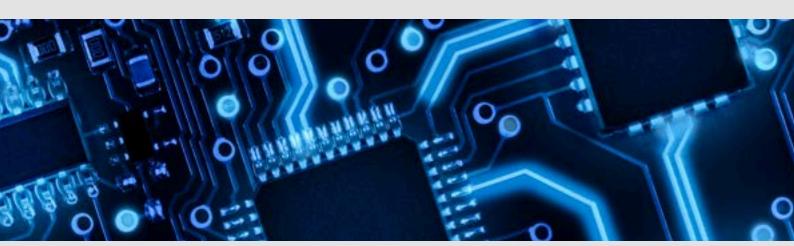
Micron Technology is investing approximately US\$ 2.75 billion to establish a new assembly and test facility in Sanand, Gujarat. Partial production is scheduled to begin in Q4 2025, focusing on packaging and testing of DRAM, NAND, and other memory products.

The project received a combined 70% construction subsidy from the central and state governments, making it one of India's most significant achievements in attracting a top global semiconductor company. It not only brings advanced manufacturing capability to the region but also enhances India's talent development and technical expertise in semiconductor assembly and testing.

# 2. TATA ELECTRONICS IN PARTNERSHIP WITH TAIWAN'S POWERCHIP SEMICONDUCTOR MANUFACTURING CORP. (PSMC)

Tata Electronics is investing about US\$ 10.9 billion to build a 12-inch wafer fab in Dholera, Gujarat—the only wafer fabrication project among the ten ISM-approved investments, and the first major fab led by an Indian conglomerate. PSMC will provide maturenode technologies and guidance on fab construction, including 28 nm, 40 nm, 55 nm, 90 nm, and 110 nm processes, as well as support in establishing quality management systems and operational workflows. The fab is designed for a monthly capacity of 50,000 wafers, producing PMICs, display driver ICs, MCUs, and logic chips for high-performance computing, with volume production expected to begin in 2026.

To address talent shortages, Tata has been sending engineers to Taiwan for professional training since 2025.





### 3. TATA SEMICONDUCTOR ASSEMBLY TEST (TSAT)

The Tata Group is setting up TSAT, an OSAT facility in Marigaon, Assam, with a total investment of around US\$ 3.26 billion, in partnership with Test Pvt Ltd. Production is expected to begin by mid-2025, with an annual capacity of 48 million units.

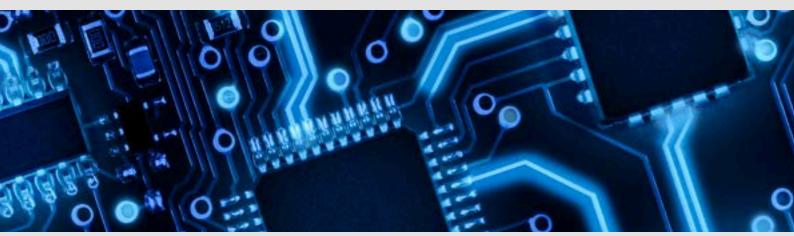
The plant will utilize advanced packaging technologies such as flip-chip and will mainly supply automotive electronics, electric vehicles, and consumer electronics—boosting India's autonomy and technological depth in assembly and test.

# 4. CG POWER IN JOINT VENTURE WITH RENESAS ELECTRONICS (JAPAN) AND STARS MICROELECTRONICS (THAILAND)

CG Power, one of India's major industrial equipment manufacturers, is investing about US\$ 920 million to build an assembly and test facility in Sanand, Gujarat, in partnership with Renesas Electronics and Stars Microelectronics. CG Power holds a 92.3% equity stake.

The project has secured 50% capital expenditure support from the central government and is scheduled for completion in October 2027.

With an annual capacity of 15 million units, the facility will produce semiconductors for consumer, automotive, and energy applications and is expected to become a flagship example of foreign collaboration in India's advanced packaging segment.





#### 5. KAYNES SEMICON

Kaynes Semicon, a subsidiary of India's leading EMS company Kaynes Technology, is investing roughly US\$ 400 million to establish a packaging and testing facility in Sanand, Gujarat. Approved in September 2024, the plant is expected to begin production in Q1 2026, with an initial annual capacity of 200 million units, targeted to expand to 1 billion units within five years. Its products will support diverse markets including industrial electronics, automotive, EVs, communications, consumer electronics, and mobile devices—signaling the growing capabilities of domestic Indian firms in advanced semiconductor packaging.

#### 6. HCL AND FOXCONN (TAIWAN) JOINT VENTURE

Indian IT and engineering group HCL, together with Taiwan's Foxconn, will establish an OSAT plant in Jewar, Uttar Pradesh, with an investment of about US\$ 440 million. Approved in May 2025, it will be the state's first semiconductor facility. The project received a combined 70% subsidy from central and state governments, along with additional tax incentives. The plant will focus on wafer-level packaging and display driver ICs, with a planned capacity of 20,000 wafers per month and an annual output of about 36 million units—strengthening India's footprint in mobile, laptop, and automotive semiconductor supply chains.

#### 7. SICSEM AND CLAS-SIC (UNITED KINGDOM) JOINT VENTURE

SiCSem and the UK-based Clas-SiC Wafer Fab Ltd. are jointly building India's first commercial SiC compound semiconductor fab in Info Valley, Bhubaneswar, Odisha. Planned annual capacity includes 60,000 SiC wafers and 96 million packaged units.

The products will serve applications across missile systems, defense equipment, electric vehicles, rail transportation, fast-charging solutions, data centers, consumer appliances, and solar inverters—marking a significant advancement in India's high-voltage and high-efficiency semiconductor capabilities.



### 8. 3D GLASS SOLUTIONS (3DGS), UNITED STATES

U.S.-based 3DGS plans to establish a vertically integrated advanced packaging and glass substrate manufacturing facility in Odisha's Info Valley. Annual output will include 69,600 glass panel substrates, 50 million assembly units, and 13,200 3DHI modules. Its technologies will support defense, high-performance computing, AI, RF systems, automotive electronics, photonics, and copackaged optics—introducing advanced materials and packaging capabilities currently absent in India.

#### 9. CONTINENTAL DEVICE INDIA LTD (CDIL)

CDIL is expanding its discrete semiconductor manufacturing operations, adding new production lines for power devices such as MOSFETs, various transistors, and both silicon- and SiC-based high-power components. Post-expansion, annual capacity will reach 158 million units, supplying markets including electric vehicles, charging infrastructure, renewable energy systems, industrial equipment, and communications infrastructure—strengthening India's position in the power semiconductor domain.



## 10. ASIP IN COLLABORATION WITH SOUTH KOREA'S APACT

Indian OSAT company ASIP will partner with South Korea's APACT to establish a semiconductor manufacturing facility with an annual capacity of 96 million units. Key application markets include mobile phones, set-top boxes, automotive electronics, and various consumer electronic products. The project will enhance India's system-in-package (SiP) capabilities and support greater self-reliance across diverse semiconductor applications.

## Challenges and Responses in the Development of India's Semiconductor Industry

Despite the Modi administration's strong push to advance semiconductor development and the active efforts of various state governments to attract investment through incentives and subsidies, India still faces multiple challenges in building a complete semiconductor ecosystem. In recent years, several proposed investment projects have been put on hold due to concerns over market conditions and policy risks—reflecting the need for further institutional improvements as India moves along its semiconductor growth trajectory.

At the same time, in an effort to narrow the gap with leading global semiconductor technologies, Indian companies have begun adopting more proactive strategies, including overseas acquisitions and technology-driven mergers. These cases show that India's industry stakeholders increasingly recognize that relying solely on domestic fab construction and government support is insufficient to reach international standards. Instead, external technology integration and global expansion are essential for accelerating the development of competitive capabilities.



#### Major Semiconductor Investment Projects Put on Hold in India



#### **Kaynes Semicon (India) and Aptos Technology (Taiwan)**

Aptos Technology, a subsidiary of Taiwan Mask Corp., announced in February 2024 that it had signed a cooperation agreement with India's Kaynes Semicon, originally aimed at providing training and know-how licensing in assembly and test technologies. However, Aptos Technology formally declared bankruptcy in June 2025, leading to the termination of the partnership. The company stated that issues had already surfaced during the collaboration process, and both parties had mutually decided to end the cooperation before bankruptcy proceedings began.

#### Vedanta (India) and Foxconn (Taiwan)

In September 2022, India's industrial and energy conglomerate Vedanta and Taiwan's Foxconn announced a plan to jointly invest about US\$ 19.5 billion to establish India's first 12-inch wafer fab and associated assembly and test facilities in Gujarat. However, in July 2023, Foxconn officially withdrew from the joint venture and stated that it would no longer participate in the operation of the proposed company. Vedanta subsequently shifted to seeking either sole investment or new partners to continue the project.

#### **Adani Group (India) and Tower Semiconductor (Israel)**

Adani Group, one of India's major conglomerates, announced in 2024 that it would partner with Israel's Tower Semiconductor to enter mature-node semiconductor manufacturing, including 28-nm chip R&D and production. The companies submitted a joint venture proposal worth about US\$ 10 billion to ISM. In September 2024, the Maharashtra state cabinet approved their plan to build a wafer fab in the Panvel area near Mumbai. However, after further due diligence, Adani Group announced in April 2025 that it would suspend the collaboration, citing significant uncertainty in India's semiconductor market demand and major challenges in supply chains, financing, and technology. The company concluded that the investment lacked strategic and commercial viability, leading both sides to terminate the partnership.





#### Zoho (India)

In May 2024, India's IT and SaaS giant Zoho submitted a proposal to invest US\$ 700 million in a semiconductor fab in Tamil Nadu, aimed at producing compound semiconductors for EV and power-electronics applications, and sought government subsidies for the project. After a year of assessment, Zoho announced in May 2025 that it would suspend the investment plan, citing the lack of a suitable technology partner, limited government fiscal support, and excessively high capital expenditure risks. As a result, the board resolved to halt the project.

Table 5. Four Deferred Investment Cases in India's Semiconductor Projects

| No | Investment /<br>Partner Companies                           | Project Timeline | Reason for<br>Suspension  |
|----|---|------------------|---|
| 1  | Kaynes Semicon<br>(India) / Aptos<br>Technology<br>(Taiwan) | 2024.2-2025.6    | Partnership<br>collapsed  |
| 2  | Zoho (India)  | 2024.5-2025.5    | Zoho announced project suspension                                     |
| 3  | Adani Group (India)<br>/ Tower<br>Semiconductor<br>(Israel) | 2024.9-2025.4    | Adani suspended cooperation after evaluation                          |
| 4  | Vedanta (India) /<br>Foxconn (Taiwan)                       | 2022.9-2023.7    | Foxconn<br>announced<br>withdrawal from<br>joint venture<br>operation |

Source: Thomas Hsu, "Chips Amid Global Trade Conflicts: India's Semiconductor Policy and Industry," IEK, ITRI, October 22, 2025, p. 7.



# Indian Semiconductor Firms Accelerate Capability Building Through Overseas Acquisitions



In recent years, Indian semiconductor companies have actively pursued overseas mergers and acquisitions to rapidly acquire experienced engineering teams, process equipment, and key intellectual property. This strategy not only shortens India's learning curve in semiconductor talent development but also strengthens its autonomy in advanced technology R&D.

In effect, India is adopting a dual-track approach of "talent acquisition" and "technology upgrading" to accelerate its catch-up with global semiconductor competitors. Below are representative cross-border acquisition cases undertaken by Indian firms over the past two years:

#### August 2024 – Polymatech Electronics acquires U.S.-based Nisene Technology Group

In August 2024, India's Polymatech
Electronics, via its Singapore subsidiary,
completed the acquisition of Californiabased semiconductor packaging and test
equipment maker Nisene Technology Group.
Founded in the 1970s, Nisene is one of the
industry's long-standing equipment
manufacturers, best known for its IC design
and testing expertise for silicon carbide (SiC)
wafers, and holds more than 50 core
patents.

#### June 2025 – L&T Semiconductor Technologies and Kaynes Semicon acquire Fujitsu General Electronics' power module business

In June 2025, India's IC design firm L&T
Semiconductor Technologies and Kaynes
Semicon jointly acquired the power module
business of Japan's Fujitsu General
Electronics for INR 1.18 billion
(approximately US\$ 13.8 million). According
to the plan, Fujitsu's related production lines
in Japan will be gradually relocated to
Kaynes Semicon's facilities over the next 12
to 18 months.



## 2025 – Tata Electronics in talks with Malaysian semiconductor and OSAT firms

Media reports indicate that since April 2025, Tata Electronics has been in discussions with multiple Malaysian semiconductor and assembly-test companies, including wafer foundry X-Fab, semiconductor manufacturer SilTerra Malaysia, and OSAT and sensor producer Globetronics Technology. No further developments have been disclosed to date. Tata's objective is to directly acquire mature-node fabrication and packaging capacity in Malaysia to accelerate the expansion of its global semiconductor footprint.



#### TaiwanPlus Videos on Semiconductor

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MALAYSIA,
SINGAPORE &
THE CHIP RACE |
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ISLAND



Southeast Asia is entering the global chip race, with Malaysia leading the way and building ASEAN's role in the global semiconductor supply chain.

But does the region have enough skilled talent and resilience that power Taiwan's chip industry? And what will it take for ASEAN to climb higher in the semiconductor value chain? Featuring: Aswini Kumar (researcher, National Chengchi University) and Sunil G Acharya (senior consultant, SFAL)

#### 114/10/22 CONNECTED



ASML, once a low-profile Dutch firm, now produces state-of-theart machinery behind 90% of the world's microchips. Few know its story better than journalist Marc Hijink.

The author of 'Focus: the ASML Way' takes us inside ASML's rise, powered by its billion-dollar EUV lithography machines and a unique culture of creative chaos.

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