



# NITI Aayog releases “Future of India’s Semiconductor Industry” Roadmap

Charts India’s path from high import dependence to becoming an indispensable global semiconductor player by 2035

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Semiconductors are no longer just an industrial input. They are the foundation of national security, economic resilience, digital sovereignty and future competitiveness — powering everything from defence systems, telecom networks and AI infrastructure to automobiles, healthcare devices, digital public infrastructure and advanced manufacturing.

As global semiconductor supply chains are being reshaped by geopolitics, technology shifts and the race for trusted capacity, India has a historic opportunity to move from being a large semiconductor market to becoming a critical node in the global value chain.

Against this backdrop, NITI Aayog’s Frontier Tech Hub today released India’s first comprehensive 10-year roadmap - “Future of India’s Semiconductor Industry”. The roadmap was unveiled by Smt. Nirmala Sitharaman, Hon’ble Minister of Finance and Corporate Affairs, Shri Ashwini Vaishnaw, Hon’ble Minister for Railways, Information & Broadcasting and Electronics & Information Technology, in the presence of Shri Ashok Lahiri, Hon’ble Vice Chairman, NITI Aayog; Ms. Debjani Ghosh, Distinguished Fellow, NITI Aayog; Shri Amitesh Kumar Sinha, CEO, ISM; along with members of the Expert Council, senior industry leaders, and other distinguished dignitaries from government, academia and the semiconductor ecosystem.

Developed in deep consultation with some of the best minds from industry and government, the roadmap lays out a clear, actionable vision for India to build a USD 120–150 billion semiconductor value chain by 2035.

Anchored in India's strengths in design talent, innovation capability, growing domestic demand, electronics manufacturing and materials, the roadmap is built around five mutually reinforcing pillars: Pioneering frontier R&D and design IP; Policy and Investment to mobilise long-horizon capital; Production focused on advanced packaging and compound semiconductors; People across the full semiconductor talent pyramid; and Partnerships with trusted nations and global industry.

Across these pillars, it sets clear goals, including positioning India as a leading global destination for advanced packaging and OSAT, emerging as a major supplier of wide-bandgap semiconductors, building leadership in compound semiconductor manufacturing, strengthening frontier design capabilities, and creating more than **100** advanced semiconductor design IPs.

The roadmap directly reinforces the priorities announced under the India Semiconductor Mission 2.0 in the Union Budget 2026 and marks India's shift from ecosystem creation to ecosystem deepening — from attracting investments and building foundational capacity to developing deeper capabilities across design, materials, manufacturing, packaging, talent, R&D and trusted global partnerships.

The full roadmap is available on the NITI Aayog Frontier Tech Hub website.

**Read the full roadmap here:** <https://niti.gov.in/sites/default/files/2026-05/Future-of-India-Semiconductor-Industry.pdf>

**Smt. Nirmala Sitharaman, Hon'ble Minister of Finance and Corporate Affairs, said:**

*“The NITI Frontier Tech Hub's roadmap, 'Future of India's Semiconductor Industry' is a clear declaration of India's intent to move decisively from being a major consumer of chips to becoming an indispensable part of the global semiconductor value chain. Semiconductors are the foundational infrastructure of the 21st century. They power AI, electric mobility, telecommunications, defence systems, healthcare technology, digital public infrastructure, and advanced manufacturing. The roadmap released today rightly focuses on future segments where India can build strong positions: advanced packaging, compound semiconductors, wide-bandgap materials, and AI-native chip design. With this focused strategy, long-term perspective and sustained commitment, India is well placed to seize this historic opportunity.”*

**Shri Ashwini Vaishnaw, Hon'ble Minister for Railways, Information & Broadcasting and Electronics & Information Technology, said:**

*“Semiconductors will define the next era of economic and technological leadership, and India is positioning itself as a trusted partner in that journey. Our focus is on building the full ecosystem — design, talent, materials, equipment, fabs and advanced packaging — so that global companies and partner countries can look to India as a dependable, long-term pillar of the semiconductor supply chain.*

*With ISM 2.0, design is our clear number one priority. We are strongly supporting Indian design companies so that their innovations can be manufactured and scaled right here in India. As the Prime Minister guided us, this is a 20-year journey. It is central to our technological sovereignty and strategic autonomy as we build Viksit Bharat 2047.”*

**Shri Ashok Lahiri, Vice Chairman, NITI Aayog, said:**

*“One of the biggest risks India carries today is its dependence on technology controlled by others. Sovereignty in this century will begin with the infrastructure layer, and semiconductor leadership is part of that foundation. The NITI Frontier Tech Hub roadmap matters because it sets out a clear ambition for India and a practical path to get there.”*

**Ms. Debjani Ghosh, Distinguished Fellow, NITI Aayog, said:**

*“Semiconductors are a long-cycle industry. The capabilities that will define leadership in 2035 have to be anticipated, planned and built today. This roadmap is therefore not just about responding to current demand; it is about identifying where technology value is moving and making deliberate choices on where India can build enduring advantage. Our focus has been to create a practical ten-year pathway that helps India move beyond participation to strategic depth — across design, advanced packaging, compound semiconductors, talent, R&D and ecosystem readiness. In frontier technologies, timing matters. Countries that plan early, invest consistently and build capabilities patiently are the ones that lead.”*

**About NITI Frontier Tech Hub: <https://www.niti.gov.in/frontier-tech-hub>**

The **NITI Frontier Tech Hub** was created as an action tank for *Viksit Bharat* to anticipate emerging mega-technology shifts and shape India’s preparedness to unlock their potential for faster economic growth, inclusive societal outcomes, and strategic resilience—advancing the country’s journey towards becoming a frontier-technology nation. Collaborating with over 100 experts from government, industry, and academia, the Hub is shaping a 10-year roadmap across critical to harness frontier technologies for economic growth, societal outcomes, and strategic resilience.

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