Investment worth $30 billion likely in semicon space in 4 yrs

This is about 6% of new investment in the sector globally

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It could be the coming of age for India in the global semiconductor field.

With new projects being announced, under discussion, and even cleared this week, India, according to industry estimates, could see an investment of around $30 billion in this space in the next two to four years.

Of this, 60 per cent has been cleared by the Union Cabinet.

For a country that is getting into the game after 17 years of aborted attempts, that would constitute 5-6 per cent of the over $500 billion of fresh investment in the semiconductor space, both in new plants and expansion. SEMI, an industry association based in Calfornia, had projected this would be under construction beginning from 2021 to 2023.

On Thursday, the Maharashtra government cleared a proposal for Israeli fab giant Tower Semiconductor, in collaboration with the Adani group, setting up a plant in Panvel with an investment of ₹83,947 crore (almost $10 billion) in two phases. However, the project is being studied — for clearance and subsidy under the central government's semiconductor scheme — by the Indian Semiconductor Mission.

Just a day earlier Electronics Minister Ashwini Vaishnaw met the brass of German fab giant Infineon, which is exploring setting up a power semiconductor chip plant — from wafers to silicon carbide chips — a project, experts say, could require an investment of at least $2 billion.

Also, the Cabinet this week cleared a ₹3,400 crore OSAT (Outsourced Semiconductor Assembly and Test) plant proposal by Kaynes SemiCon, to be set up in Sanand, Gujarat, where the capacity has been tied with global chip makers.

Vaishnaw has charted an ambitious plan, by which he is looking to set up four-six fab plants in the next five years as well as six-ten compound semiconductor plants. And in OSAT/Assembly Testing Marking and Packaging, the target is to grab 10 per cent of the global market in five years and aim at 25 per cent in 10 years.

To do that, the government's ₹75,000 crore subsidy scheme, in which fab and OSAT plants were offered at 50 per cent of the cost of setting up the plant, is now nearly exhausted after it cleared four projects — Micron's OSAT plant, the Tata group's fab and OSAT facility, CG Power OSAT facility in Gujarat, and now Kaynes. It will now require more money to fund the Adani-Tower and Infineon, if cleared, to continue to provide the subsidy. Vaishnaw earlier, however, had made it clear that money would never be in short supply in such a strategic sector.

India is far behind and will require a lot of catching up to do. The global market for wafers will hit 33.7 million a month in 2025, according to SEMI. Even in Southeast Asia, where countries like Singapore and Malaysia have a vibrant semiconductor industry, the capacity in 2024 is expected to be 1.8 million.

With the two fab plants of the Adani group and the Tata group, under construction, the capacity will be only 0.09 million wafers a month.

CHINA DOMINATES

Global capacity in wafer per month projected for CY25 (in mn)

China	10.01
Taiwan	5.8
South Korea	5.4
Japan	4.7
Americas	3.2
Europe & West Asia	2.7
South East Asia	1.8
INDIA*	0.09

*Including the Tatas and Adanis (if cleared by the government) when the first phase of their projects come through. The Tatas are expected to be on steam in two years
Source: SEMI and projections given by Indian companies