

Isro Eyeing New Chip Unit as more Cos Take to Skies

THE PLAN Agency looks to build an additional fab at SCL, its Chandigarh chip making facility

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Bengaluru: India's space agency plans to build an additional fab at Semiconductor Laboratory (SCL), its chip making facility in Chandigarh, in a bid to scale up capacity to meet the growing demand for chipsets for rockets and satellites as it opens up the space sector to private firms and startups.

The move by the Indian Space Research Organisation (Isro) comes at a time when the government is looking to encourage global companies to set up semiconductor fabs to tap the local market.

India is poised to increase its share in the global manufacturing of mobile phones, IT hardware, automotive electronics, industrial electronics, medical electronics, Internet of Things and other devices in the near future as it aspires to set up \$400 billion worth of electronics manufacturing by 2025, the government said in its latest call seeking expressions of interest to set up fabs.

SCL has a 180-nanometre facility that produces chips for strategic

purposes. SCL and the Semiconductor Technology and Applied Research Centre (SITAR) in Bengaluru, which has a 100-nanometre unit, also make micro-electrical mechanical systems (MeMs) and sensors that have applications in critical areas. SITAR also runs a Gallium Arsenide Enabling Technology Centre (GAETEC) in Hyderabad.

However, most of the country's requirement is met by imports due to a lack of a homegrown ecosystem of semiconductor manufacturers. "There is a need to increase localisation (of components and chipsets). The plan is to

reduce imports and increase indigenisation," an Isro official, who did not want to be named, said.

Isro has built homegrown capacity to build chips with 65-nanometre technology. Isro's success in building the Vikram processor, crucial for navigation and guidance control of its rockets, besides its collaboration with IITs to build homegrown chips for Navic receivers that will increase the accuracy of navigation across remote corners of the country, will spur demand for mass manufacturing, the person said.

The space agency is also looking at opportunities in the private sector, where startups and large companies are looking to build rockets, satellites and ground equipment that require chipsets to improve their performance.

Separately, a team at the Indian Institute of Science, Bengaluru is awaiting approval for its project to build Gallium Nitride Semiconductors, which includes building the chips and also systems for applications in power electronics and radio frequency electronics used for cell phone towers in 5G applications and radars.

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