

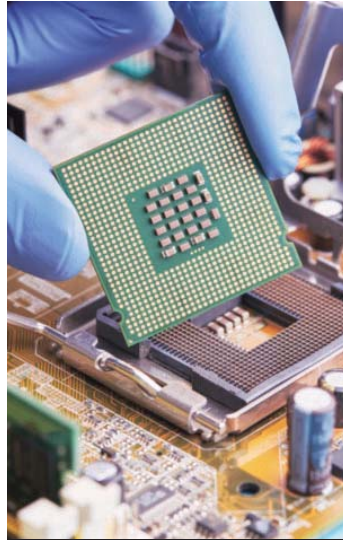
Alternatives to China: Vietnam, India slug it out for semicon investments

SURAJEET DAS GUPTA
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India and Vietnam are vying with each other to woo semiconductor companies to their country. With the tension between the US and China escalating, and Taiwan getting vulnerable both countries are trying to present themselves as alternative destinations for global players.

Vietnam, which started the effort as early as 2010, has got a leg-up after US President Joe Biden's visit last month. The occasion saw the announcement of many semiconductor projects, including a \$1.6 billion project by the outsourced semiconductor assembly and test (OSAT) company Amkor Technology. Amkor has chosen Vietnam to set up its second largest plant in the world, and the first phase of the project rolls out in October. It also announced investments by chip design majors like Marvel and Synopsys.

Vietnam has garnered investments of over \$5 billion in the semiconductor space, which have been publicly announced or are in various stages of implementation. These include investments from diverse big-ticket players as Intel, Samsung, Hana Micron, Dutch suppliers to chip manufacturers, ASML, Infineon Technologies, Korean giant



THE NUMBERS GAME

How the two stack up on semiconductor global investments

VIETNAM

\$1.5 billion*

INTEL

\$1.6 billion

AMKOR

\$850 million

SAMSUNG

\$1 billion

HANA MICRON

*Planning to put in more
Source: Based on announcements by companies and media reports

INDIA

\$2.75 billion

MICRON

\$400 million

AMD

\$400 million

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SKC, and so on.

India, which started pitching itself as an alternative to China only a couple years ago, is making an aggressive bid to catch up. It has closed a big \$2.75 billion investment from Micron for an advanced therapy medicinal products (ATMP) plant, while the US semiconductor company, Advanced Micro Devices (AMD), has announced an investment of \$400 million over 4 years in an engineering centre in Bengaluru.

What's more, Applied Materials, another supplier to the semiconductor industry, has tied up with Foxconn to set up a \$250-million chip-making tools project.

However, neither Vietnam nor India has been able to close a deal with global foundries to set up a fab plant in their respective country, which require investments ranging from \$5 to \$9 billion. Whichever country manages to pull it off first will have a big advantage.

During Biden's visit, the US not only

Vibrant Gujarat to focus on Industry 4.0, semiconductors

The tenth edition of the Vibrant Gujarat Summit will see discussions being held in areas such as semiconductor manufacturing, green hydrogen, electric mobility, sustainable manufacturing, renewable energy, and industry 4.0, Chief Minister Bhupendra Patel said on Friday at the curtain-raiser event in Delhi. Prime Minister Narendra Modi will inaugurate the summit, which will be attended by heads of states, global CEOs, ministers from foreign countries.

ASHUTOSH MISHRA

upgraded its relationship status with Vietnam, but also signed an agreement to provide initial funding to improve semiconductor skills in the country.

Also, the US has offered Vietnam \$100 million a year for five years under the CHIPS and Science Act for building semiconductor supply chains. South Korean companies have been very active in Vietnam. In India, though only SK Hynix has shown an interest in setting up a packaging plant.