

PENANG — Not short of investments, but of skilled workers

22 December 2022

Penang currently houses more than 350 multinational corporations (MNCs) — including three of the top 10 global semiconductor giants and six of the top 30 global medical device companies — as well as more than 4,000 small and medium enterprises (SMEs).

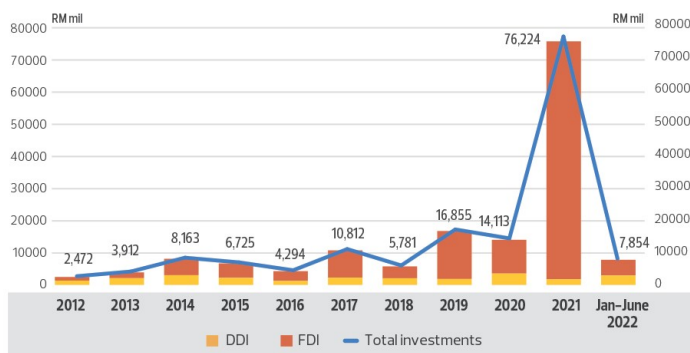


Thanks to its strong and vibrant E&E ecosystem, the state accounts for over 5% of the world’s semiconductor sales. There are leading players in sectors such as integrated circuit (IC) test design, outsourced semiconductor assembly and test (OSAT), optoelectronics, storage and memory, printed circuit board (PCB) and substrates, as well as front- and back-end equipment manufacturing.



VITrox has established its own college, which is accredited to offer diploma courses

Approved manufacturing investments in Penang



Despite the global uncertainties, Penang’s approved manufacturing investments hit an all-time high of RM76.2 billion in 2021. The figure not only surged 440% year on year, but also exceeded the cumulative investments of RM73.1 billion garnered from 2012 to 2020. It is estimated that more than 12,000 jobs have been created from the manufacturing investments in 2021 alone.

Contribution from projects in Batu Kawan Industrial Park (BKIP) to Penang’s total investment amount

YEAR	AMOUNT FROM PROJECTS (RM MIL)	CONTRIBUTION TO TOTAL INVESTMENT AMOUNT (%)
2017	1,470	14
2018	781	14
2019	4,284	25
2020	5,078	36
2021	1,740	2
Jan – June 2022	4,364	56

INVESTPENANG

THE EDGE
MALAYSIA

Work-based learning

Notably, ViTrox Corp Bhd has established its own college, dubbed ViTrox College, which has obtained the Malaysian Qualifications Agency (MQA) accreditation to offer diploma courses in electronics, mechatronics and machine vision engineering.

According to ViTrox co-founder, CEO and president Chu Jenn Weng, his aim is to build a strong local ecosystem in Penang by emulating the Silicon Valley ecosystem in California.

“Next year, we will offer more diploma courses in computer science and industrial management. When the time is right, we will apply to offer engineering and computer science degree courses that will help us become a full-fledged university,” he says.

ViTrox College offers work-based learning diploma and Technical and Vocational Education and Training (TVET) courses. Its foundation is driven by real-world learning experiences and motivated by a lifelong interest in technology innovation and people competencies.

“Although it is MQA accredited, we are running it very differently. It is work-based and problem-based learning, with a lot of hands-on activities on solving real-world industrial problems together with engineers and technicians. Our lecturers are full-time, fully qualified and experienced. They have years of relevant experience in the fields,” says Chu.

He points out that apart from teaching the knowledge to solve real engineering problems, the college also cultivates the right mindset and culture through what ViTrox is doing.

“Our target for next year’s first batch is below 50 students. We emphasise quality education and we want to pay intensive attention to these students, ensuring that they will do well in their studies with proper guidance and mentoring before we scale,” he adds.

Meanwhile, ViTrox will start building the first block of its five-block Vitrox Institute of Technology (VIT) next year. VIT is anticipated to be a magnet to attract lecturers from around the world to come, teach and do research.

“Talent remains the biggest challenge to support our 10-year master plan. I will have to continue to think about getting, retaining and engaging the right people to expand our market worldwide, mitigating regional risk, as well as designing, developing and manufacturing the right products and solutions for our customers sustainably,” says Chu.

Next year could be one for tech players to forget

Even before the start of 2023, semiconductor and semiconductor-related firms believe it is likely to be a year to forget, as

they are already setting their sights on 2024 as a potential recovery year.



At a glance, semiconductor stocks have been hit hard this year. As the stock market tends to look six to 12 months ahead, the price crunch underscores that investors are also expecting the semiconductor industry to head towards a downward cycle.

The technology-weighted Nasdaq Composite Index has fallen 30% year to date to close at 11,014.89 points last Tuesday (Dec 6), from 15,644.97 as at Dec 21, 2021. It should be noted that the Nasdaq had on Oct 14 nosedived to 10,321.39, its 29-month low since July 2020.

On the local front, the Bursa Malaysia Technology Index also shed 31% to 66.49, from 96.61, during the same period.

In a recent visit to Penang — the electronics and electrical manufacturing and assembling hub in Malaysia — semiconductor players that The Edge spoke to have similar pessimistic views on the industry outlook for next year, given that their businesses are already bracing for a slowdown as the sector grapples with weak demand spurred by decades-high inflation, rising interest rates, geopolitical tensions and pandemic-related lockdowns in China, hitting the PC and smartphone market as businesses and consumers rein in expenses.

“Owing to the economic slowdown in the US and Europe, as well as the Covid-19 lockdown in China, demand for personal computers, mobile phones and consumer electronics has been declining. This has affected our business in the back-end semiconductors, such as from the machine vision system standard (MVSS) and machine vision system tray (MVST) business, since the second quarter of this year,” says Chu Jenn Weng, co-founder, CEO and president of ViTrox Corp Bhd.

On the other hand, he notes that the demand for automated board inspection (ABI) products — advanced 3D optical inspection system (AOI) and advanced 3D X-ray inspection system (AXI) — for the automotive, telco infrastructure, and high-performing computer (HPC) is still very strong, which is likely to help ViTrox achieve top- and bottom-line records again in 2022.

Uncertainty remains as to how much longer the slowdown will be prolonged, with some expecting the industry to rebound as early as the second half of next year, pending developments in the global economy, inflation and the Russia-Ukraine war.

“The first quarter of next year will be bad. If inflation cannot go down further, there is a concern for a recession in the US, which may delay the recovery [of the industry],” Chu warns.

Against this backdrop, he says, Vitrox will put more emphasis on long-term growth strategies while preparing for a mild downturn in 2023.

“We are cautiously optimistic about the outlook for 2023. We can’t control what will happen in the next six to 12 months externally, but we can take this anticipated slowdown in the first half of 2023 to recharge ourselves with better strategies, skills and tools, and make investments in critical areas so that we can rebound faster and stronger to serve our global customers with better products and services in a timely manner,” Chu says.