Japan's Worsening Population Crisis

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Newsweek®

PLANET PROTECTORS

THIRTEEN DISRUPTORS WHO ARE PUSHING THE BOUNDARIES OF TECH TO FIGHT CLIMATE CHANGE AND SAVE THE EARTH

05.2023

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Ardentec

A Partner For Global Semiconductor Heavyweights

"One of the most competitive places in the region for doing business", Taiwan "punches above its weight in the global economy", according to global professional services firm PWC. The country is one of the world's 25 biggest economies, and is the 18th largest goods exporter, despite its relatively modest size.

Taiwan is particularly dominant in the semiconductor industry, in which it is the world's largest exporter, and still growing strongly. Exports of integrated circuit chips rose for the seventh consecutive year in 2022, according to government figures, rising a striking 18.4%.

Ardentec Corporation is at the heart of this thriving industry, not just in Taiwan, but at global level, as one of the world's leading outsourced semiconductor assembly and test (OSAT) businesses. The company provides semiconductor testing in memory, logic, and mixed-signal integrated circuits to integrated device manufacturers (IDMs), pure-play wafer foundry companies, and fabless design companies, with a focus on wafer testing.

"We're a testing partner you can trust to global industry heavyweights," says Dr. Chi-Ming Chang, Ardentec Corporation's vice chairman and president. "We strive for the most innovative testing technologies to help our global customers achieve the best quality and efficiency. We're a company that listens to its customers' needs and delivers quality, and we expect to have many more opportunities to do so in the future. We have an energetic, passionate, and motivated team and have won many appreciation awards for our work."

The company was established in 1999 by four co-founders, including Dr. Chang and chairman Dr. Chih-Yuan (C.Y.) Lu, with a passion for technology development and a commitment to quality. The founders recruited people with a similar mindset, and from the very beginning developed the company's own test process analysis system, an IT system which helps its engineers monitor product test and identify any deviations from specifications. This system provides a powerful backbone to Ardentec's offering to its customers.

"We've continued to advance our technology, and have developed capabilities in specific areas to help our customers with their distinctive needs, for example in introducing new products," says Dr. Chang. "We've introduced AI into our production lines to check for any defects, which has greatly increased productivity as well as quality assurance. We continuously, persistently help our customers speed up their product development cycles and reduce their time to market. That's how we've become a major test hub for big international customers in many areas of semiconductor parts."

Ardentec's timeline is testament to its growth path - an IPO on the Taipei Exchange in 2005; a first overseas subsidiary established, in Singapore, the following year; a Korean subsidiary added in 2011; and a third, in Nanjing in the People's Republic of China, in 2017. In its international expansion, the company has always focused on being close to wafer producers such as pure-play wafer foundries. Throughout the covid pandemic, the company kept its production lines running and ensured delivery on time, to high quality standards, for its customers, at a time of global disruption in the semiconductor industry.

Dr. Chi-Ming Chang
Vice-Chairman & President

Dr. Chih-Yuan (C.Y.) Lu
Chairman

In June 2022, Ardentec broke ground on a new factory in Longtan, Northern Taiwan, that will increase its capacity in its home market by 30%, as the business continues to grow. In recent years, the company has seen growing demand from segments including automotive microcontrollers (MCUs) and advanced driver assistance systems (ADAS). Ardentec entered the automotive chip market in 2010 and has since become a major supplier, with general MCUs altogether accounting for nearly 34% of revenue. Over the longer term, the company aims to deploy a "dual engine" strategy, building capacity in two factories simultaneously, to boost its ability to meet client needs.

Its international footprint sets Ardentec apart from its competitors, allowing it flexibility and the ability to pivot to demand. Combined with the company's commitment to innovation, quality, and customer service, it is a factor that has helped it become a partner for leading international companies.

Ardentec is also open to partnerships with financial investors. The company has a market capitalisation of more than $900m and achieved revenues of around $485m in 2022. Its revenues have grown at a CAGR of 18.4% between 2001 and 2022, and topped 20% growth each of the past three years. Dr. Chang sees ample scope to build on this.

"We're outperforming our competitors, and there are huge opportunities in the manufacturing of wafers, semiconductors, and MCUs, so our sector is only going to be in more demand," he says. "We know how to grow consistently; we don't just have spikes of growth like some businesses. We'll continue to thrive."

And as Ardentec thrives, so will its home country, which is realising its huge economic potential, particularly in technology.

"Taiwan has a very strong semiconductor industry - it's a huge player in the sector," says Dr. Chang. "And the country is going to have even more opportunities in different sectors over the next 8-10 years: AI in medicine, tech in elderly care; utilising data to become more efficient, technology savvy, and innovative across a range of industries. Taiwan has the data, it has the technology, and it knows how to apply it across the board."

Ardentec
a testing partner you can trust