

Enabling a sustainable future, one green building at a time

OTTO Solutions aims to deliver smart systems that can help achieve energy efficiency. BY CHEE MEI JING MAY, JONATHAN TEO, MUHD SHAFIQ MUNIR AND NG YONG GI

H EADQUARTERED in Singapore, OTTO Solutions Pte Ltd started as a brick-and-mortar retail lighting company in 1992 and has evolved over the last 28 years into a smart solutions product and service provider for businesses.

The company has also established a presence in Malaysia and plans to grow its business in regional countries – Vietnam, Indonesia, the Philippines and Thailand in the coming years.

With a paid-up capital of S\$1.5 million, OTTO Solutions' mission and brand promise is to listen, innovate, simplify and deliver on comprehensive sustainable smart building technology solutions from design to project delivery and be the market leader in green building energy efficiency technologies.

The Enterprise 50 winner is headed by founder and chief executive officer (CEO) Andy Lai, who started with lighting supply distribution and expanded the business offerings to provide mechanical, electrical and smart building automation solutions over the years.

Lai believes constant innovation is critical to success and has always encouraged employees to innovate from within the company.

An innovator himself, he was featured in *The Straits Times* where he clinched the Singapore Good Design Mark Award.

Lai believes a strong corporate culture is the "secret formula" to a sustainable organisation.

The three values he often quotes are "learn, grow and share" and they have been deeply ingrained in the workplace.

Today, these values are visible in OTTO Solutions' daily operations and are the main driving force behind its success.

"Learn" refers to talent development by constantly upskilling and expanding employees' knowledge and expertise to meet market demand, while "grow" refers to business expansion with a focus on product partnerships to further innovate and expand technology product lines.

"Share" refers to the merit-based reward system for the team's achievements that have been obtained collectively, team bonding events and community work involvement as part of the company's corporate social responsibility efforts.

At OTTO Solutions, innovation is highly supported and employees are encouraged to think creatively and bring new ideas to the table.

Taking risks

Lai encourages his employees to break the mould and take risks so the creative energy in OTTO Solutions helps its employees to develop professionally, placing it at the cutting-edge of the industry.

For instance, OTTO Solutions' in-house automation department was born out of this culture.

Started by engineering employee Derrick Ho, the automation department is focused on increasing energy efficiency in buildings through OTTO Solutions' in-house products.

Ho now leads the company's technology research and development efforts and won a national innovation challenge jointly organised by BCA and DBS Singapore in 2019 aimed at helping building operators achieve Green Mark Super Low Energy Building standards.

"I believe smart building systems that specifically help buildings achieve energy efficiency is the new norm. Sustainability needs to be made affordable for all building owners to adopt and implement with ease of mind. This will help Singapore reach the national goal of having 80 per cent of buildings to be green buildings by 2030," said Mr Ho.

Being a comprehensive solutions provider, OTTO Solutions prioritises energy efficiency and cost effectiveness by tracking usage rates, occupancy patterns and data feedback.

It seeks to improve energy efficiency and reduce business costs of customers in the long run. In addition, its after-sales service such as regular maintenance shows its commitment to customers.

"We have been rapidly expanding our business and developing innovat-



Above: At OTTO Solutions, innovation is highly supported and employees are encouraged to think creatively and bring new ideas to the table. Below: A showcase of the circadian lighting which changes from daylight to warm white and warm colour temperature during the course of a day at a recent project site. PHOTOS: OTTO SOLUTIONS



ive products since 1992. With a 10-year vision of reducing climate change for a sustainable future for all, our dedicated team is now ready to spread our wings to the region, to do our part to tackle global warming," said Lai.

Currently, a succession plan is in place and Lai is guiding the new management team as the company reaches for new heights.

For example, the head of the department for lighting and automation, Lionel Lai, in his late 20s, is working closely alongside Ho, to head the

team expansion, business growth plans and product road map for the next decade.

There are hurdles to cross for the team. For instance, Covid-19 has impacted businesses across all sectors and how buildings operate has changed.

OTTO Solutions has been quick to reinvent itself to cater to this change, starting with technology to provide a safer environment for occupants.

For instance, the company has furthered its research and development efforts to provide smart solu-

tions for its clients such as facial recognition contactless kiosks, automated UV lighting and blockchain-based automated room fogging sanitisation.

During the pandemic, the team took the opportunity to review its current processes and operational structures to identify improvements.

Lai proactively invested time to adopt and integrate the use of digital solutions to ensure that productivity was not compromised.

"Working remotely was a struggle at first but slowly and surely, our team managed to overcome the challenges together and now we have embraced the 'new norm' of working remotely effectively. We believe this new norm has proven that our team is highly adaptable to changes during times of uncertainty," he said.

To meet the future demands of each customer segment with its ever-changing needs, OTTO Solutions recognises the need for more cross-department collaboration and customised proposals from design to project delivery.

In terms of operations, smart solutions play an integral part in helping building operators reduce their costs.

For instance, OTTO Solutions' wireless and multi-feature human-centric smart lighting system is able to automatically save energy through daylight harvesting and occupant presence detection.

The smart lighting system also benefits the occupants with its customisable meeting room scene settings, time scheduling features for productivity and circadian lighting which greatly helps with the occupants' body circadian rhythm.

Serving building operators

OTTO Solutions provides services to commercial, hospitality and retail sectors, with the latter forming the bulk of its clientele.

With more than 2 decades of project experience, OTTO Solutions has served building operators such as Volkswagen Singapore, Grab Singapore's HQ at Marina One, National Library Board, BCA Academy, Singapore Expo, Singapore Flyer, Singapore Airlines, Singapore Examinations and As-

essment Board, Singapore Tourism Board, and Singapore Institute of Management (SIM) Global Singapore.

It also serves residential and communal spaces such as Sengkang Hospital and Whampoa Community Club.

OTTO Solutions' products help buildings to achieve their Green Mark for Super Low Energy and Net Zero Energy standards, which is part of Singapore's green building movement.

Adopting smart technology might be costly and to defray cost for clients for lighting retrofitting, for example, OTTO Solutions has a performance-based payment scheme to help clients save energy and cost by upgrading fluorescent light fittings of old buildings into energy-saving LEDs and pairing them with smart lighting automation.

This results in building owners achieving up to 80 per cent energy saving without having to fork out the initial capital outlay.

OTTO Solutions is dedicated to creating sustainable solutions for its clients with a goal of carbon footprint reduction. This is evident in the growing advocacy for energy usage reduction among businesses in Singapore.

With BCA setting the target of having 80 per cent of buildings to be green by 2030, the demand for environmental solutions will continue to rise.



This series is part of the Enterprise 50 Educational Project between the E50 partners and the NUS Business School. OTTO Solutions was among the winners in 2019. The annual E50 ranking is co-organised by The Business Times and KPMG, sponsored by OCBC Bank, and supported by Enterprise Singapore, Singapore Exchange and Singapore Business Federation.

