

Spearheading transformation in the semiconductor industry

Feinmetall Singapore has established itself as one of the leading companies in the industry, enjoying year-on-year growth of 29 per cent over the past five years. BY FABRIANA PHUAH AN TING, GUAY HUI MIN, MICHELLE LIM SUET YING AND SENG SHAN YING

THE journey of Feinmetall Singapore began when general manager Sam Chee Wah set sights on Singapore's strong institutional support for SMEs.

Recognising that he could tap into a strong talent pool in Singapore's growing knowledge economy, he took a leap of faith and left his stable job as a wafer testing engineer. The result was a German-Singapore joint-venture that provides semiconductor parts to various companies in Asia Pacific; an industry which he saw had potential for significant growth.

Since then, Feinmetall Singapore has established itself as one of the leading companies in the industry, enjoying year-on-year growth of 29 per cent over the past five years.

In 2017, it marked a milestone when it opened its Digital Manufacturing Facility in Marsiling – a project set to expand its production capacity and increase overall revenues by up to 115 per cent.

Daring to change

Feinmetall Singapore's success can largely be attributed to its vision of changing traditional practices in the industry.

While Feinmetall Singapore had embarked on several large projects such as its Marsiling facility, several less high-profile projects have helped it develop a reputation as a leader in



General manager Sam Chee Wah; through collaboration with research facilities such as SIMTech, a research institute under A*STAR, Feinmetall Singapore introduced a ready-made planning system, known as Manufacturing Control Tower, to handle routine tasks. This allows workers to use their time to perform higher-skilled work instead.

the industrial transformation of the semiconductor industry.

As Mr Sam says: "Transformation does not have to be revolutionary, it can be done in small, simple steps."

One key area for improvement, Mr Sam says, was that the industry was largely manual. He saw that automation could help significantly improve lead times.

Through collaboration with research facilities such as SIMTech, a research institute under A*STAR, Feinmetall Singapore introduced a ready-made planning system, known as Manufacturing Control Tower (MCT), to handle routine tasks. This allows workers to use their time to perform higher-skilled work instead.

The automated systems give employees live updates of the status of orders via a visual and intuitive interface, helping to boost efficiency as employees are able to focus on more pressing orders. This enables employees to prioritise tasks better and enhances responsibility since updates are visible to the whole team.

For its customers, the firm has developed mobile apps such as Feinmetall Application and Maintenance E-portal (collectively known as FAME), which offer step-by-step video-assisted training on the more frequent maintenance procedures.

Bringing people on board

These increase convenience and efficiency since customer requests are immediately recorded in the system; reducing human errors due to lag time in keying in the information. It also allows staff to save time when conducting on-site training for customers.

Human capital is one of the most important cornerstones to a company's success. "In order for a change to take place," says Mr Sam, "there is a need for the leader to change and bring everyone on board towards the new goal."

One major challenge in its initial phase of automation was resistance from its employees. To ease the change, Feinmetall Singapore chose to invest in training, sending their technicians for skills development courses to transit from manual work to programmers.

Other more experienced staff received further coaching to help them become supervisors and share their expertise with newcomers.

"We communicated our direction

"We communicated our direction and goals clearly to the employees and showed them the benefits of transitioning into automation. Once they saw the benefits clearly, everyone was on board."

General manager Sam Chee Wah

and goals clearly to the employees and showed them the benefits of transitioning into automation," says Mr Sam. "Once they saw the benefits clearly, everyone was on board."

While Feinmetall Singapore uses a top-down approach for implementing changes, it also promotes collaboration between employees, which is ever more crucial as it transits into digitised manufacturing, requiring employees to work closely together.

To promote rapport between its employees, the company introduced several shared spaces to encourage employees to get together, engage with and learn from one another.

Employees are encouraged to take breaks at the office pantry which offers recreational activities such as table football and refreshments for employees to mingle and exchange ideas.

Another aspect that Feinmetall Singapore stresses is its culture. Recognising that employees perform better when they feel valued, it strives to boost their morale and motivation.

For example, an air shower was installed outside the main work area despite it not being a clean room to elicit in employees a sense of professionalism and distinction between work and personal life.

All employees are also required to be in lab attire prior to entering the work area, regardless of their position. This promotes equality. "Once you enter the room, there's no superior or subordinate, everyone is equal inside," says Mr Sam.

He also seeks to understand his employees' needs better through dialogue sessions. Not only does this help him gather feedback on changes the company should adopt, it also provides insights on how to further improve the company for the future.



This series is part of the Enterprise 50 Educational Project between the ESO partners and the NUS Business School. Feinmetall Singapore was among the winners in 2017. The annual E50 ranking is co-organised by The Business Times and KPMG, sponsored by OCBC Bank, and supported by Spring Singapore, IE Singapore, Singapore Exchange and Singapore Business Federation.



Forging onwards

Despite leading Feinmetall Singapore to five consecutive E50 awards in his drive for automation in the industry, Mr Sam continues to seek improvement and move towards digital manufacturing.

This is in line with the Singapore government's initiative to achieve Industry 4.0.

In terms of product quality, Feinmetall Singapore also aims to participate in the Singapore Quality Award (SQA) instead of the Singapore Quality Class (SQC) that it had won since 2015.

While they will be subjected to more stringent audits, Mr Sam believes that the SQA would prove to be another significant milestone in the company's aim to become a leading player in the industry.

■ The writers are students at NUS Business School.