

SKILLfully

SkillFully is created to provide enterprises with useful information on SkillsFuture initiatives. Through SkillFully, we hope to stay connected with you as you power up your workplace “fully” with competitive skills.

NTUC X SSG COLLABORATION:

Discover How Workplace Learning and Company Training Committees (CTC) are Benefitting Companies

PM Link

Building Better Processes and Skills

Fong's Engineering & Manufacturing

Achieving Precision in Skills Development

Gardens by the Bay

Germinating Seeds of Resilience and Strengthening the Roots for a Culture of Learning



Message from the Editorial Team

Dear friends and partners,

Welcome to the sixth and the final edition of SkillFully for 2021!

This edition is jointly curated by SkillsFuture Singapore (SSG) and the National Trade Union Congress (NTUC) to share the spirit of Tripartism and how the government, unions and employers have worked together to support workforce and business transformation.

We wanted to share stories of companies that have embarked on and implemented a holistic training strategy through NTUC's Company Training Committees (CTCs) and Operation & Technology Roadmap (OTR). You might have heard and read these terms in the news and wondered what they encompass.

In this edition, we are honoured to be able to work with the Labour Movement to share the ins and outs of what the initiatives mean through the stories of three companies: PM Link, Fong's Engineering & Manufacturing and Gardens by the Bay. These companies vary in size and come from diverse sectors from manufacturing, hospitality and built environment. Yet, they demonstrate the same commitment to pivot and help their workers keep up with the challenging times by working with the unions to upgrade skills.

Transforming learning and skills development at the workplace can take various forms. If you have been following our stories in the past editions of SkillFully, you would have gathered that there is no one-size-fits-all model. We hope the stories in this edition have given you more tangible ideas on how you could be assisted by the unions if you are ready to embark on the journey.

As 2021 draws to a close, we would like to wish you Merry Christmas and a Happy New Year, and we hope that you continue to stay safe!

Yours Sincerely,
Team @ The Enterprise Engagement Office

NTUC: Transforming Businesses and Strengthening Workforce Capabilities



As technology hastens the speed of change, the Labour Movement runs even faster.

The unions at the National Trade Union Congress (NTUC) know this by heart as they are close to the ground and feel the heat as workers struggle to keep up with change.

In response to the fast-changing environment, the NTUC set up the Training & Transformation unit in 2019 to become the strategic enabler to support workforce and business transformation. Company Training Committees (CTCs) were formed to elevate the Labour Movement's efforts to work with employers and help workers upgrade as their companies transform.

To ensure that the Labour Movement has the capability to support this vision, NTUC forged a strategic partnership with A*STAR aimed at upskilling its Industry Training Officers in Operation & Technology Roadmap (OTR) know-how. Through this partnership, NTUC is able to help their CTCs manoeuvre the transformation and identify opportunities in technology adoption, job redesign and skills upgrading. Companies can also leverage on NTUC Training and Placement Ecosystem, comprising Employment and Employability Institute (e2i), NTUC LearningHub (LHUB), NTUC Industry Training and Transformation (IT&T) and Ong Teng Cheong Labour

Leadership Institute (OTCi) to hire and retain talent as well as upgrade jobs and skills of their workforce.

SSG has been working closely with NTUC to support its CTC initiatives. We have constant conversations and regularly exchange ideas to develop better ways of fostering effective learning at the workplace to meet the needs of our enterprises and workforce.

This edition provides the inside stories of three successful case studies: Gardens by the Bay, which used the CTC and OTR to develop a 3-year "Smart Gardens Roadmap"; Fong's Engineering & Manufacturing which leveraged insights from OTR to identify training needs for its new smart factory; and PM Link, which tapped on the CTC and OTR to assist with workforce planning and secure employees' buy-in for its overall digital transformation.

Read on to discover their real-world applications and be inspired.





Building Better Processes and Skills

As the built environment sector continues to evolve, firms in the industry need to catch up on digital transformation and develop new skills. Mr Tan Cheng Chuah, Managing Director of PM Link, shares tips on how his company made the shift.

As a subsidiary of the multidisciplinary architectural and engineering consultancy CPG Corporation, PM Link Pte Ltd (PM Link) is a project management company that specialises in conceptualising, planning and coordinating building and infrastructure projects both locally and overseas.

In the past, work was straightforward and only involved a few partners such as structural engineers, mechanical engineers and architects.

The industry has vastly evolved with the rising need for safety and sustainability and the advent of technologies. Client requirements have also increased in tandem, and project management firms must now be knowledgeable in areas like design for safety and maintainability, acoustics, facade design, construction methodology and more, said Managing Director, Mr Tan Cheng Chuah.

“Despite having decades of experience, we realised if we do not continue to equip ourselves with new skillsets to handle this evolving environment, we would be out of business very soon,”

Cheng Chuah explained. “It’s survival. The built environment is changing, so either you stay relevant or you stay out.”

Technology has changed the game

He added that technology has leveled the playing field, and in many instances, new entrants are able to compete on equal footing with established players. The winners will be not be those who have been around longer, but those who can integrate technology into their business processes.

It is with this realisation and vision in mind that motivated PM Link to partner Building Construction and Timber Industries Employees’ Union (BATU) to form a Company Training Committee (CTC) in 2019 to tap on NTUC Training and Placement Ecosystem’s suite of support, starting with the development of a five-year Operation & Technology Roadmap (OTR) to support its business transformation.

The CTC partnership and OTR effort was timely as it guided PM Link on the selection and implementation of new technology which paid off during the pandemic. For example, PM Link implemented a digital solution to create 360-degree progress pictures of construction sites. This made meetings more efficient and most importantly, enabled the company to overcome the safety distancing restrictions without needing to visit the physical site.

To ensure the new technology could be implemented smoothly, PM Link also developed a core competency matrix to identify the new skills for its project management team. This led to the roll out of Building Information Modelling (BIM) and safety skills training through the CTC that were catered specifically to the needs of project managers, so staff would be able to use the new technology in their unique roles.

Transformation is a two-way street

In Cheng Chuah’s experience, although change started from the top, “to be successful, both the employer and staff must see the big picture of why we are doing this.”

He strongly felt that the CTC platform and OTR development process was useful to bring management and employees together to brainstorm for solutions. While commitment from the top management drove the impetus for change, allowing junior staff to share their viewpoints and be heard during OTR workshops fostered co-ownership and buy-in from the whole company.

Cheng Chuah shared that successful business transformation requires a strong culture of learning and it helps if staff were aware of their own skills. That’s why in 2020, PM Link and the BATU CTC worked with SkillsFuture Singapore (SSG) to implement a skills profiling digital solution to empower its employees to assess and benchmark their skills proficiencies against industry standards.

“Staff don’t know what they don’t know,” Cheng Chuah stated matter-of-factly. He added: “They might think they have a skill, but with the skills profiler, they can now see clearly if they are lacking in emerging areas like BIM management, and specifically say ‘I think I need training in this area’.”

He believes that this platform can be a valuable tool to help employees understand areas of improvement as they grow in their careers.

Reflecting on the changes brought about by COVID-19, Cheng Chuah added that there was a silver lining in that the pandemic has made the sector more adaptive and open to new ways of working. “We cannot operate in silos and I hope the industry will continue to advance and move forward in the overall sector transformation.” Cheng Chuah gracefully concluded.

Achieving Precision in Skills Development

The last 40 years has seen Fong's Engineering & Manufacturing transformed from a mere metal component manufacturer to a specialised developer of high-end medical devices.

When Fong's Engineering & Manufacturing ("Fong's") was first established as a precision engineering company back in 1982, it played by the old adage: "don't put all your eggs in one basket".

The company started out serving all types of industries, from military to oil and gas, and even aerospace- manufacturing parts for hard disk drives, semiconductors, tanks and much more.

Despite making a name for itself as a trusted precision engineering firm, Fong's began to realise that as an SME with limited resources, the company simply did not have the economies of scale to focus on so many different industries, reflected Mr Jeremy Fong, Chief Executive Officer.

In 2012, Jeremy began narrowing Fong's focus to the medical sector. Overseas plants were disposed and the company underwent a full-scale restructuring. Today, Fong's is a recognised player in the medical field, known for its manufacturing prowess in high-end medical devices like endoscopy and surgical power tools.

The need for skills transformation

Predictably, change of this magnitude was fraught with challenges, Jeremy shared.

When Fong's built its first clean room and automation line for medical devices in 2013, his staff struggled to adapt to the stringent medical standards.

"The engineers were used to the hard disk drive industry, so when we had to validate the clean room, they panicked," Jeremy recalled. Jeremy brought in a consultant to train the team, but some employees were resistant to change and eventually had to be let go.

Despite the challenges, Fong's managed to transform the business and by 2018, it surpassed its goal in specialising in the medical sector. It also expanded its capabilities beyond manufacturing parts to research and development and is now capable of designing its own high value-added medical products.

Committing to a culture of lifelong learning

Fong's success can be credited to the company's learning culture. Besides sponsoring staff for SkillsFuture Singapore (SSG) funded courses in areas like project management and website creation, employees have also been given the chance to deepen their skillsets through part-time diploma programmes with Nanyang Polytechnic and Temasek Polytechnic.

Engineer Pamela Koo, who has been with Fong's for six years, found that the Specialist Diploma in Biomedical and Pharmaceutical Engineering was incredibly useful. "The lessons offered many



**Photo was taken during pre-covid period.*

relevant takeaways that I could apply, achieve operations excellence and broadened my knowledge on how to resolve quality control issues," she shared.

Turning raw skills to refined talent

"If staff are willing to learn and change, we will invest in them," Jeremy emphasised, adding that the company followed through with this commitment again in 2019, when Fong's became a smart factory and launched its first fully-automated production line.

To help staff pick up the necessary industry 4.0 skills in robotics and data analytics, Fong's set up a Company Training Committee (CTC) with the Advanced Manufacturing Employees' Union (AMEU) to tap on support from NTUC Training and Placement Ecosystem, starting with the development of an Operation & Technology Roadmap (OTR) and created a structured training plan for employees to acquire advanced manufacturing skills.

"The OTR helped us identify our opportunities and the risks we faced. Based on our strengths and weaknesses, we were able to decide on the kind of training we needed to help us realise our potential," said Mr Joseph Wong, Director, Technology & Transformation.

He added that through the CTC, e2i also stepped in to help Fong's organise the SkillsFuture for Digital Workplace (SFDW) programme, a company-wide training programme that equips employees with basic digital literacy skills to adapt to technological changes in the workplace. Staff gained from the lessons on cybersecurity and data management, which empowered them to better assess their upskilling options.

Although the company is still in the early stages of implementing the OTR, Joseph is confident that this emphasis on employee development has helped in talent attraction and retention.

"We place a lot of emphasis on creating a collaborative learning workplace by encouraging new and young engineers to share their knowledge. The chances of new entrants joining us have increased tremendously with the open sharing culture," he said. Indeed, around 35 percent of the Fong's workforce has been with the company for over 20 years.

It has been close to a decade since Fong's first embarked on its transformation journey. Looking back, Jeremy advised that change must start from the top. "If the boss doesn't have the true intention and willingness to change, no efforts can be successful."

As the business grows, Jeremy's goal is to strengthen his company to be a learning organisation and provide employees with the opportunities to continuously learn and upgrade.

Germinating Seeds of Resilience and Strengthening the Roots for a Culture of Learning

Gardens by the Bay stood firm through the storms of COVID-19, and turned adversity into opportunity.

Like many attractions, Gardens by the Bay (GBTB) was affected by the pandemic. When the entire country shifted into circuit breaker, overseas visitorship declined as travel came to a standstill, and the lockdown in the local dormitories also affected the Gardens' pool of outsourced workforce, leading to a shortage of manpower.

In response to the adversity, GBTB nailed down two key priorities to focus on: first was to keep its existing workforce engaged, and second was to adapt to the new manpower and safety measurements quickly so that operations could continue smoothly, recalled Ms Ng Shixin, Senior Assistant Director of Human Resource.

Turning adversity to opportunity

To achieve the first goal, GBTB rallied each department to create e-learning content to orientate colleagues on the impending changes, and how these would impact their work. This also gave the organisation a chance to introduce change management, to help prepare employees mentally for the challenges ahead.

This engagement exercise also paved the way for GBTB to fast-track its "Central Pool Scheme", an initiative which allows for the cross-training and cross-deployment of staff across functions.

Ms Farahzillah Bte Azmi Farah, who spent most of her nine years with GBTB in the ticketing department, was one of the employees who participated in this scheme.

With GBTB's shift to online ticketing for a safe and contactless experience, Farah opted for the scheme to learn to drive the Garden Cruiser so she can rotate between both functions. The scheme enabled her to value-add to a function which requires manpower and has made her daily work more interesting, she shared.

As of June 2021, over 37 percent of frontline operations staff like Farah have started cross-training, amounting to more than 1,500 training hours.

The logic behind the scheme is simple, Shixin said: "If an officer wants to have a lifelong career with GBTB, then we want to provide an environment where they can learn and grow."

Accelerating the shift to smart gardens

By inculcating this culture of learning over the years, GBTB has also laid its foundation to transform itself into a smart garden—one that can leverage on technology for greater productivity.

Gardens by the Bay Deputy Chief Executive Officer Lee Kok Fatt said: "Gardens by the Bay is keen to play a part in Singapore's Smart Nation vision through incorporating technology and automation in our operations and processes, which will also allow us to equip our workforce with new skills to better respond to a post-Covid world.



We are thankful for partners such as National Trade Union Congress (NTUC), Attractions, Resorts and Entertainment Union (AREU) and SkillsFuture Singapore (SSG) for their expertise and support in this game-changing journey."

Plans for GBTB's transformation have been in the works since pre-pandemic days. In 2019, GBTB partnered the AREU to form a Company Training Committee (CTC) to upskill its workforce.

The pandemic presented a good opportunity for GBTB to take a step further and work with NTUC's Training and Placement Ecosystem to develop an Operation & Technology Roadmap (OTR).

"The OTR provided us with a structured and step-by-step method to develop our Smart Gardens roadmap," Shixin recounted. With the participation from various departments, GBTB identified areas of work that could be automated with technology to alleviate strain on resources, enhance efficiencies in operations and create higher-value roles for staff.

GBTB has entered the early stages of the OTR implementation and is already reaping the benefits. It deployed a smart solution to facilitate contactless visits and introduced new technologies to overcome manpower constraints in the horticulture department.

"With the right tools and machineries, we have reduced the number of man-hours so as to enable the smarter deployment of the workforce and amount of time to complete the tasks," Horticulturalist Mr Tan Ching Hong shared.

In the past, spraying fertilisers was done by three staff, who would take a full day to complete the job. With a multi-nozzle spray mounted on a buggy, only one staff is required now and the work is done within half a day.

Having completed a SSG-funded course on drone operations, Ching Hong agreed that the course was very useful as he has learnt to use this new technology more effectively.

However, as it is very different from what horticulturalists like himself are trained in, his advice is this: "Think about training positively. It allows you to acquire new and useful skillsets that you might not have had the opportunity to learn if not for the course."

At GBTB, learning is inclusive and open to all staff, not just for those in the attraction operations and horticulture departments, Shixin said. "We have invited everyone in GBTB to be a part of this journey of transformation," she added.

The goal is to continue supporting more staff to take on SSG-funded skills training programmes in the areas of IT and data, sustainability and customer service.

NTUC Training and Transformation

Supporting Workforce and Business Transformation



The NTUC LearningHub Learning eXperience Platform (LXP) offers us expanded anytime, anywhere learning opportunities to gain new knowledge and skillset especially in the areas of soft skills and digital literacy.

– Mr Heng Meng Kwong, Head of Learning Office at Certis Corporate University

We are always looking for the right talent to work together with us, but the hard part is finding the right match. I'm glad that e2i helps us to find the right matches.

– Mr Wee Kok Seng, Managing Director of Eligo



Hear from companies who have worked with NTUC

The NTUC LearningHub Learning eXperience Platform (LXP) can be easily accessed on mobile which makes learning convenient. Courses are as short as 15 minutes which allow for faster and better information retention. I can see that the topics are carefully selected and relevant to our daily work.

– Ms Susan Yeo, Deputy Service Manager at DBS Bank

OTR is a structured process to create a well-defined roadmap to make our people future-ready. Having gone through OTR makes us more confident that the workforce is ready to embrace the future.

– Ms Wiwin, Plant Manager of Energizer

As a one-stop partner, NTUC Training and Placement Ecosystem supports companies in business growth, productivity improvement and preparing a workforce for the future. Through a suite of solutions that can be customised to sectors and needs, companies can chart a business transformation plan, hire and retain talent, upgrade jobs and skills of their workforce, while tapping on relevant government and Labour Movement support schemes.

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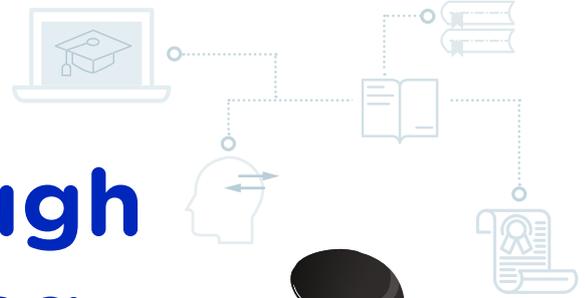
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01

Workplace Learning Blueprint Development



Develop On-the-Job Training (OJT) blueprint for different job roles using the Skills Framework

02

Training Needs and Skills Gap Analysis



Conduct a Training Needs and Skills Gap Analysis to identify learning gaps and curate targeted training plans to suit your company's needs

03

Effective Coaching for Workplace Trainers



Develop a workplace coaching plan and learn how to engage employees using appropriate communication and feedback techniques

04

Mentoring for the Workplace



Understand the techniques of mentoring effectively and how to guide mentees in developing skills and capabilities

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