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77 Welcome New Members

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The Singapore Contractors Association Ltd (SCAL) will cease the printing, publication, and circulation of the SCAL Contractor Newsletter and will be going all-digital from issue 2 (2023). For more information, please visit wwww.scal.com.sg or email us at hello@scal.com.sg.

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Message From the President

Dear members,

In February, we ushered in the year of the Dragon with a CNY lunch gathering for our members. The dragon symbolises strength, wisdom, luck and prosperity. I wish all members a healthy and prosperous 2024.

In this issue, we shine a spotlight on the Dispute Consultation Clinic (DCC), a vital resource for construction companies in Singapore. Designed to offer specialized expertise and industry support, the DCC aids in navigating and resolving construction-related disputes swiftly and effectively. Through this initiative, SCAL endeavours to furnish our members with value-added services, ensuring smoother operations within the industry.

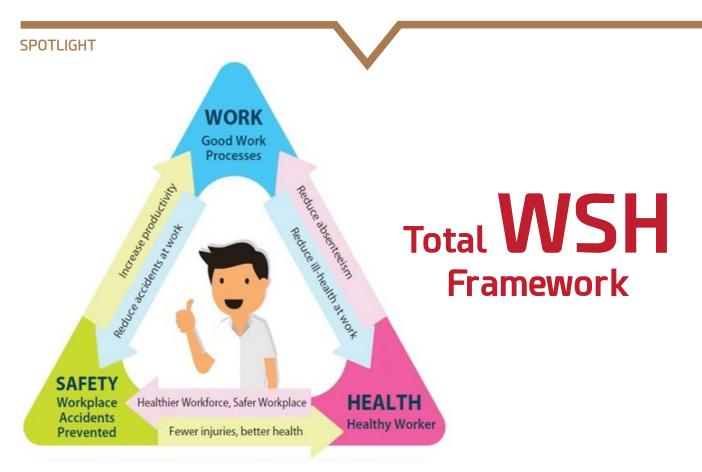
SCAL recently conducted an insightful industry survey aimed at students enrolled in built-environment-related courses in Singapore. The findings underscore the importance of enhancing youth engagement, which we plan to achieve through dynamic social media campaigns, job-matching initiatives, mentorship programs, and a curated calendar of events. From immersive learning journeys to active construction sites to informative career talks and partnerships with educational institutions, we aim to equip students with a firsthand understanding of our dynamic industry and its myriad opportunities.

SCAL's Young Leader Programme (YLP) stands as a testament to our commitment to nurturing the next generation of industry leaders. Hear from two participants from the second cohort of the YLP their perspectives on the construction landscape and strategies for attracting talent to our field.

Total Workplace Safety and Health (Total WSH) remains a cornerstone of our collective efforts towards fostering safer and healthier worksites. Through the implementation of the A-I-M-E model - Assessment, Intervention Program, Monitoring, and Evaluation construction companies can systematically address safety and health concerns, yielding positive outcomes for both workers and organizations alike. Teambuild Engineering and Construction Group, Boustead Projects, and Expand Construction graciously share their experiences in integrating Total WSH principles into their operations, highlighting the tangible benefits reaped. Aligned with SCAL's vision for the future of our industry, the ASEAN Constructors Federation (ACF) Council Meeting will be hosted by SCAL in Singapore. The colocated half-day conference centred on Sustainability and Digitalisation, underscoring our commitment to embrace best practices and innovative technologies, and to build sustainably in aiding in the reduction of carbon footprint. Find out how you can be involved at the event here.

As we navigate the opportunities and challenges that lie ahead, let us remain steadfast in our commitment to excellence, innovation, and the well-being of our workforce. Together, we can build a stronger, safer, and more prosperous future for the construction industry.

Mr Lee Kay Chai President The Singapore Contractors Association Ltd



Cultivating A Holistic and Safe Environment

Total Workplace Safety and Health (Total WSH) is a comprehensive approach that integrates work, safety and health (includes both physical and mental well-being) together in the workplace. In the construction industry where workers are exposed to various hazards, Total WSH can play a crucial role in improving safety outcomes and promoting overall well-being.

By implementing the A-I-M-E (Assessment, Intervention Program, Monitoring and Evaluation) model, construction companies can systematically address safety and health issues, leading to safer worksites, improved worker well-being, and better overall outcomes for the organisation.

SCAL spoke to member companies Teambuild Engineering and Construction Group, Boustead Projects and Expand Construction who shared their experiences on implementing Total WSH into their organisation.

Teambuild Engineering and Construction Group

When Teambuild Engineering and Construction Group first embarked on the WSH framework, they had to figure out how to implement it and what sort of resources were needed. The structured framework of Total WSH guided them how to implement it systematically. With top management commitment and the establishment of a Corporate Environmental Health and Safety (EHS) Committee, they organised numerous programmes for the well-being of their stakeholders.

With regular health screening and staff survey, Teambuild could access and monitor the health and mental well-being of their staff. In 2022, 147 employees attended the onsite health screening. Some of the heath issues identified were high blood pressure, cholesterol diabetics and obesity.

Medical professionals conducted workplace visits to educate employees on various health topics, including cancer awareness, eye care, posture maintenance, and nutrition. Additionally, physical activities such as Tabata workout sessions, yoga classes, and bowling competitions were



arranged for employee engagement and well-being. Upon conducting an iWorkHealth analysis on mental well-being, it was identified that workplace harassment was present. To address this issue, a vendor was enlisted to offer support services, including a hotline and counselling, for employees experiencing workplace harassment, aiming to address mental health concerns effectively.

"There was initial resistance from employees going for health check, as they fear their illness may affect their jobs. Information remains confidential for whatever intervention is taken for those who are unwell. Medical certificates are monitored closely by the HR department. For staff who constantly take MC, HR will talk to them to understand their situation. We encourage them to join the monthly talk and exercises. For employees who are not well, their job scope is reviewed and if possible, redesignated to better support the employees," shared Mr Allan Low, Deputy QEHS Director.

"One of our mechanics has to run to all our project sites to help repair the machine. He recently had a bypass and based on his health condition; he needs to continue going for weekly medical appointments. As a result, he is unable to continue performing his original scope, as there were several occasions he felt weak. Following management's review, his expertise and experience were much appreciated, hence he was redeployed as a master mechanic, working full time in the office," said Allan.

"We cannot keep doing the same thing repeatedly while expecting different results. To further elevate an organisation's Safety and Health Performance, Total WSH enables a holistic approach in enhancing the safety, health and wellbeing of the employees. This will eventually reduce sickness, leave of absence and ill-health, that will translate to productivity improvement at work, concluded Allan.

Boustead Projects

Established in 1996, Boustead Projects is a leading provider of innovative eco-sustainable real estate solutions with a regional presence across Singapore, China, Malaysia and Vietnam.

Concerned about the lifestyle habits and mental well-being of the workforce, the management of Boustead Projects signed on the weight management (265 participants) and mental well-being package (237 participants).

Workers were monitored for the blood pressure and BMI and exercises were conducted daily. For the weight management programme, personnel on site participated in Zumba and "Bollybeats" and attended two sessions of nutritional talks on diabetes, cholesterol and hypertension and food intake. Red Bull was a popular drink among the construction workers as they perceived it to provide the energy to sustain them at work. When asked to reduce the consumption of Red Bull due to its high sugar content, the workers showed





some resistance. To help them maintain their energy levels, Boustead Projects provided more water coolers as a healthier alternative for them to stay hydrated. As a result, they drank more cool water instead of Red Bull, effectively lowering their sugar intake.

For mental well-being, the iWorkHealth survey was conducted, followed by two sessions of Mental Well-being Talks that focussed on workplace anxiety and workplace stress and burnout. There was active participation from both personnel on site and staff, with a strong response rate for iWorkHealth survey at 100%.

"With Total WSH, workers are more aware of their health and well-being. They are more open and willing to speak up when they have issues. Within a span of 10 months, we engage them on their health and their food intake. Workers can give feedback through the feedback box or talk to their supervisor. Since embarking on Total WSH, we have seen a reduction of staff taking medical leave. We could maintain our productivity levels and even bring forward the date of project completion. With Total WSH, we see better health and a safer workplace for all," shared Mr Howard How (QEHS Director).

Expand Construction

Delivering quality products through proper project management and adherence to high safety standards Expand Construction Pte Ltd's portfolio includes private condominiums, industrial buildings/warehouses and D&B HIP projects.

Expand has a unique practice for its mental well-being programme. With a buddy system put in place at their construction temporary quarters, each worker is tagged to a buddy in his room. They will check on their buddy daily and communicate with them. Management will be alerted if their buddy faces issues and the person will be counselled.

Expand embarked on the Total WSH programme in 2021. Full time dedicated officers attended training to equip themselves with knowledge to implement Total WSH.



Through iWorkHealth, data was collected to understand the workforce, identity issues and concern with the WSH Gap Analysis and instil changes to improve.

Placing health as the focus, Expand did a risk assessment on health. The organisation worked with vendors of specialist programmes to engage workers and staff, with the use of the iWorkHealth and AIME programme. The organisation also had its own 3R system in place – Remind, Reward and Remove.

As workers are exposed to working under the sun, they face the potential of suffering from heat stroke. Expand set up a programme for them that if they feel lethargic, they can inform their supervisor and rest for 10 mins and participate in the water parade daily. For workers who are overweight, they are encouraged to attend Zumba classes to exercise. Nutritionist are brought in to talk about diet, and type of food to eat and help control their weight.

"We monitor the work behaviour, the emotional and mental aspect of our staff and engage them on their well-being. We track employee's medical leave in terms of productivity. With sufficient rest, there has been a marked improvement in absenteeism rate. Expand invests heavily in drones which can conduct inspects, do checks and capture visuals to detect problems in advance. Workers are then able to carry out their work better with this assessment. By investing in technology, we can reduce dust pollution and ergonomical problems such as hand injuries."

Richard Tan, [insert designation], shared insights on Expand's adoption of technology based on feedback from workers, "Implementing tools like e-barrels and e-trolleys has not only enhanced ergonomics but also bolstered work performance. The improved well-being of our workers has translated into heightened job satisfaction and productivity. Moreover, through our AIME model, employees have transitioned from reactive to proactive problem solvers. By actively contributing solutions, they play a pivotal role in shaping a safer and healthier work environment. Looking ahead, Expand remains committed to leveraging technology for sustainable solutions aimed at preventing health issues, physical strain, and workplace hazards."







Digital Tool Install

Next-Gen Breakthrough Technology

Redefining Engineering & Project Delivery of Semiconductor Fabs and Associated Process Equipment



Integrated Data Base build ~ Tool Install Integrated data management

Engineering Management Platform (EMP) as connected database-one source of truth



3D, 4D, 5D BIM Model LOD 400/500 3D BIM model

4D dynamic sequencing, material management progress tracking & constructability analysis

5D cost estimation



Smart Design Data-driven approach for Design & Engineering hyper-automation

Smart P&IDs with intelligent data management for integrated engineering



Off-site Fabrication Isometric from 3D BIM model for off-site fabrication (pre-fabrication, pre-assembly and modularization)

Efficient inventory management

Laser Scan 3D laser scanning for multidisciplinary coordination

3D laser scanning for as-built



Supply Chain Integration of entire supply chain (procurement, operation, distribution and integration)

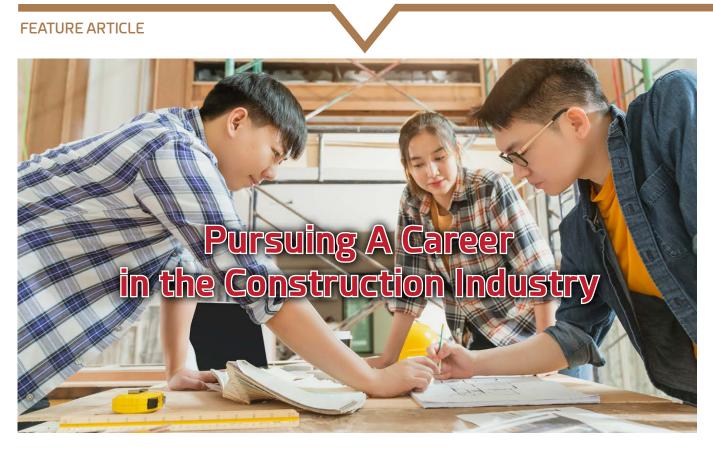
Efficient project planning and execution



Digital Change Management AgileIT change management system Efficient task & issue tracking

Automated process and workflows





How ready are jobseekers seeking to join the construction industry? SCAL conducted an industry survey targeted at students currently enrolled in built-environment-related courses in Singapore from October to December 2023. With the support of the Ministry of Education, the industry survey successfully engaged 233 students from diverse backgrounds, who shared their thoughts and opinions.

Key Findings



Over 50% of participants believed that, despite its challenges, the industry can be **rewarding**.



Salary and benefits remain the primary motivators influencing whether respondents will continue in the construction industry.



For the **49%** of respodents who expressed their intention to work in the construction industry, their motivation stems from **a passion for building and creating things**. They expressed a desire to contribute to building projects.







Students currently studying in the built environment have expressed a desire for **more** learning journeys and industry career talks to provide them with greater certainty about their path in the industry.



There is a need to **boost the industry's reputation** by highlighting its emphasis on **technology, enhancing the monetary benefits** and offering **career growth opportunities** it offers.



Students have also indicated in the survey for a more targeted government social campaign to improve the image of the construction industry through various social media platforms.



"Many students are interested in technology. By incorporating technology in the construction industry, we may be able to attract more students to join this industry.

Ms Xin Yu Year 2 civil engineering undergraduate, NTU

Student's Perspective

Xin Yu, a year 2 undergraduate is studying civil engineering at NTU. Her passion in creating and building things influenced her interest in pursuing a career in the construction industry. Joining the robotics club as her co-curricular activities during her school days allowed her to construct intricate structures, problem-solve, and collaborate effectively. This sparked her interest to building things. Her school counsellor recommended her to join the built industry.

Xin Yu feels that there is a high demand of jobs available in the built industry such as construction and land reclamation projects. As a civil engineer, she can join the statuary board, construction company or consultancy firm. "It is rewarding to see the outcome of our hard work in the built environment. We have to be meticulous and pay attention to details in our work. There are also tight datelines and complex regulations we have to adhere to," shared Xin Yu.

During her course of study, Xin Yu developed an interest in sustainability, and plans to pursue courses in this area for sustainable construction. Cultivating a more sustainable construction sector will enhance supply resilience, improve productivity and site conditions. Materials used for building such as steel and location of the building have an impact on the eco system.

"Many students are interested in technology. By incorporating technology in the construction industry, we may be able to attract more students to join this industry. As engineers, we need to go to site to inspect the safety of the buildings. By having a software, engineers can check the conditions of building in the office, this will increase accuracy and efficiency.



We can also create awareness of this industry by reaching out to the Primary and Secondary schools by having career fairs and inviting alumni from the construction industry to share their experiences and advantages of working in this industry."

Attracting and Retaining Jobseekers

"Offering competitive salaries and benefits is essential for attracting and retaining students in the construction field. Companies should regularly review and adjust their compensation packages to remain competitive in the market. To attract young professional to join the industry, we need to prioritise safety and offer opportunities to work in environments where the latest technologies are utilised to minimise risks and streamline processes," shared Ms Jane Pang, Senior HR Manager, Teambuild Engineering & Construction Pte Ltd.



Teambuild has embraced cutting-edge technologies and innovative methods in their construction processes. By implementing Prefabricated Prefinished Volumetric Construction (PPVC) modules and the adopting Building Information Modeling (BIM) to model the building process, the organisation has significantly enhanced safety standards within their projects.

The use of technological

advancement in the built environment can be seen in the implementation of IDD such as BIM 360 or Autodesk Construction Cloud (ACC). This is a collaboration platform for all stakeholders to share, view and update information on the same page on various process, such as RFI and design discussions.

Technology and innovation in construction provide platforms for creativity and problem-solving. The construction sector, with its constant need for innovation and adaptation, offers opportunities for young talent to contribute their ideas and creativity to contribute their ideas and creativity to meaningful projects.





Students in the built environment are often looking for opportunities for career advancement and professional development. Employers can support their career growth by offering mentorship programs. Providing clear paths for advancement and opportunities to take on challenging projects can also help retain students in the industry.

The construction industry can collaborate with educational institutions to bridge the gap between academia and realworld practice. Internship programs, co-op placements, and apprenticeships can provide students with valuable handson experience and insights into the industry while allowing employers to identify and nurture talent early on.

Engagements with Youths

SCAL plans to increase youth engagement through social media campaigns, job-matching and mentorship programmes and a curated calendar of events for students to find out more about the construction industry.

Social media campaigns will be specifically designed to rebrand the perception of the construction industry. This allows SCAL to connect better with younger audiences and debunk common misconceptions.

SCAL is creating a job-matching program to make it easier for students to transit into the workforce. This programme will create mutually beneficial relationships between up-andcoming professionals and established industry leaders. Finalyear students will also be mentored by experienced industry professionals who will help them navigate the construction field and develop professionally.

SCAL will also organise competitions for students to participate strengthening their portfolios and increasing employability prospects after graduation. SCAL Young Leaders will mentor the students during these competitions.

For student engagement, there will be a curated calendar of events comprising immersive learning journeys to active construction sites, offering students a firsthand exposure to the industry to see how things work up close. SCAL is also organising talks and collaborating with educational institutions, featuring governmental regulatory bodies such as the Building and Construction Authority (BCA) to furnish insights into the regulatory landscape and career pathways.

By implementing these outreach strategies and initiatives, the construction industry can effectively attract students and inspire the next generation of construction workforce.



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Effective Conflict Resolution Through Dispute Consultation Clinic

Arbitration? Mediation? Litigation? What do contractors do when they need to resolve construction related disputes? Legal conflicts are common in the construction industry, given its complexity with various stakeholders, contracts, regulations, and technical challenges.

The Dispute Consultation Clinic (DCC) launched by Singapore Construction Mediation Centre (SCMC), a subsidiary under SCAL, provides construction companies in Singapore with the support and specialised expertise needed to navigate and resolve construction-related disputes in a timely and effective manner.

Contractors and sub-contractors are sometimes embroiled in contractual disputes ranging from payment disputes to defects and liquidated damages. Given their constrained financial resources, they often find themselves unsure of how to navigate such circumstances.

Mr Wilson Wong, SCAL First Vice-President and SCMC chairman mooted the idea of a "Clinic" where troubled contractors could come to the clinic and speak to consultants regarding their problems for recommendations on the course of actions they can take.

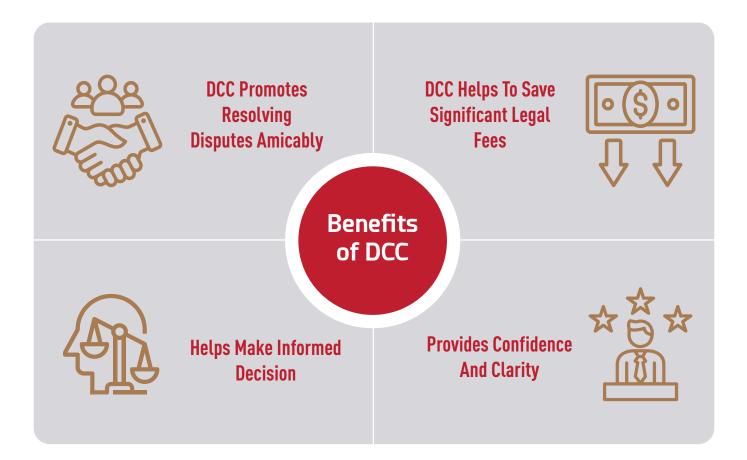
"We want to continue to value add for our members and DCC is one of the services we provide for our members. SCAL plays a crucial role in promoting industry well-being and good practices within the construction sector in Singapore. SCAL is here to help construction firms in the industry, whether you are a main contractor or sub-contractor. More awareness will be made to promote the presence and the services that DCC offers through our engagements with our stakeholders in seminars and events," shared Wilson.



"SCAL plays a crucial role in promoting industry well-being and good practices within the construction sector in Singapore. SCAL is here to help construction firms in the industry. whether you are a contractor or sub-contractor.

More awareness will be made to promote the existence of DCC through our engagements with our stakeholders in seminars and events,"

Mr. Wilson Wong First Vice-President and SCMC



Expert Consultants

Each DCC is facilitated by two experienced consultants. One is a practitioner who has in-depth knowledge of the construction industry and a proven track record in construction mediation and dispute resolution. The other is a solicitor who is experienced in construction law.

The party going for DCC needs to provide information of events relevant to the case. The expert consultants will seek to understand the details of the dispute and recommend possible solutions. By providing a structured process and expert facilitation, DCC streamlines and expedites the consultation process.

"We are seeing only one party of the case. There are instances where the other party involved in the case may not want to go for mediation. SCAL can promote mediation by contacting the other party and offer DCC for them to consider whether to go for mediation" added Wilson.

Take Preventive Measures

Wilson has seen a case where the main contractor delayed paying his sub-contractor as he was cash strapped. In another case, the main contractor took advantage of the sub-contractor's lack of financial resources, knowledge of the contract and poor documentation of events in the course of the project.

Through DCC, the participating contractors can learn from the consultants to take preventative measures and how to protect

themselves contractually, through proper documentation and compliance with the contractual requirements such as serving notice of extension of time and variation claims.

"Bediscipline and never overlook the importance of complying with the contractual terms, in particular requirements related to timely serving of notice of claims and payment response etc. When a dispute occurs, a suffering party will find himself in a weak position for settlement due to poor documentation and non-compliance with the contractual requirements," said Wilson.

DCC Promotes Good Practices, Negotiation and Mediation & Helps Save Cost

Construction projects often require ongoing collaboration between parties. SCMC through DCC promotes resolving disputes amicably via negotiation and mediation. Companies can preserve relationships and maintain goodwill, which is beneficial for both parties.

With a small fee, DCC is facilitated by 2 expert consultants which include 1 solicitor. It helps to save significant legal fees and expenses. So far, DCC has provided all participants with valuable guidance. This helps them make an informed decision and enabling them to move forward with confidence and clarity.

Affected parties who have attended DCC come out better educated and equipped in their contractual management.



On February 16, 2024, Budget 2024 introduced new and enhanced initiatives to help business weather current challenges such as tackling rising costs and building a competitive edge for the future. These initiatives will impact the construction section in Singapore in terms of sustainability, competitive advantages and collaboration opportunities.

Sustainability

A highly urbanised island state, buildings in Singapore account for over 20% of the nation's carbon emissions. Greening the built environment is crucial to Singapore's climate change mitigation strategy. With the Green Building Masterplan, a target has been set to green 80% of Singapore's buildings (by gross floor area, GFA) by 2030. To meet this target, the Mandatory Energy Improvement (or MEI) regime, targeted at energy-intensive buildings will be introduced by end of 2024. Building owners of such buildings will be required to conduct an energy audit, and implement measures to reduce energy consumption.

Enterprise Financing Scheme - Green

With effect from 1 April 2024, the scope of the Enterprise Financing Scheme – Green (EFS-Green) will be widened to assist SMEs in adopting green solutions. **The scheme's enhanced support has also been extended by two more years.** This is designed to support those who develop enabling technologies focused on waste reduction, conservation of resources and cutting greenhouse gas emissions in sectors such as clean energy and green infrastructure.

New Energy Efficiency Grant for the Construction Sector

Expediting the green construction process, the construction sector can benefit from the Energy Efficiency Grant (EEG), a new grant for the construction industry. The grant will support local construction firms to adopt energy-efficient construction equipment. The base tier provides funding of up to 70% for pre-approved equipment cost, capped

at \$30,000. The advanced tier provides funding based on expected energy savings or up to 70% of equipment cost (whichever lower), capped at \$350,000 (inclusive of base tier). The EEG will be introduced for the construction industry by the end of this year.

Technology

The adoption of productive and innovative technologies has elevated the standards in the built environment, allowing firms to maximise their competitive advantage and drive growth. Construction firms have been receiving support to digitalise, raise their productivity, and build more sustainably.

Integrated Digital Delivery

Construction firms are gradually adopting Integrated Digital Delivery (IDD) such as include the adoption of virtual environments to simulate real-world construction. IDD enables greater collaboration throughout the project by connecting different stakeholders in a building project via a "digital spine". This gives stakeholders visibility on the project, and they can highlight issues that can be resolved before the actual construction stage. The IDD adoption rate for new developments by GFA (Gross Floor Area) has increased from about 45% in 2022, to 58% in 2023 and is on track to meet the target of 70% IDD adoption by 2025.

Design for Manufacturing and Assembly

There are now more productive ways of building with the use of Design for Manufacturing and Assembly (DfMA) technologies.

DfMA technology enables the off-site prefabrication of building components in a safer, more productive, factorylike settings before they are shipped to the work site and assembled. It is a requirement for all developments on land sold under the GLS programme. The Buildability Framework was enhanced in 2022 so that all large building projects of at least 25,000 square metres must adopt DfMA. The DfMA adoption rate for all new developments by GFA increased from 51% in 2022 to 61% in 2023 and is on track to meet the target of 70% DfMA adoption by 2025.

The government has also rolled out the Productivity Solutions Grant to help over 900 construction and facilities management SMEs adopt pre-approved digital solutions, to date.

Extension of the Productivity Innovation Project (PIP) scheme

Firms can tap on Productivity Innovation Project (or PIP) scheme which has been extended to March 2025 to support investments in productive technologies such as Integrated Digital Delivery solutions and automated equipment in offsite construction facilities. The scheme provides builders and prefabricators with co-funding support of up to 70% of the costs of technologies such as robotics and automation, capped at \$10 million. Over the last six years, the PIP scheme has supported 78 firms with \$37.4 million worth of funding in investments. Firms are encouraged to make use of the PIP extension to transform their processes.

Collaboration Opportunities

To enhance business capacity, WSG's Capability Transfer Programme facilitates the transfer of capabilities from foreign specialists to locals. Companies can benefit from salary support, attachment-related costs, and funding for equipment and venue costs for industry-wide projects.

The Growth and Transformation Scheme (GTS) encourages collaboration which supports alliances of developers, builders, consultants, and other stakeholders, to pursue best-in-class transformation outcomes together.

The Government conducts regular reviews to ensure that procurement processes remain fair and cost-effective. Agencies are required to abide by strict timeframes so that firms receive payments on time. This includes regular milestone payments and partial payments when variation orders are progressively completed.

Accelerating transformation in the built environment

BCA's Contractors Registration System (CRS) will shift from being a public sector registry to a nation-wide registry of construction firm. The CRS entry requirements is raised to keep pace with current market conditions. All firms hiring foreign construction workers have to register to under CRS. By aligning the minimum standards required for such firms, this will enable the implementation of further quality, manpower, productivity, and innovation measures more effectively, across the entire construction industry. Firms have to maintain a minimum financial capability and experience to sustain their operations and deliver projects.

Enterprise Financing Scheme (EFS)

The Enterprise Financing Scheme (EFS) offers financial support to construction firms. The maximum loan quantum for the EFS – SME Working Capital Loan, is increased from \$300,000 to \$500,000 for small and medium-sized enterprises (SMEs). The enhanced maximum loan quantum of \$10 million under the EFS – **Trade Loan will continue until March 31, 2025 to help enterprises with trade financing requirements.** The EFS – Project Loan will also be extended to March 31, 2025, with a maximum loan quantum of SGD\$15 million for construction projects to assist domestic construction firms in overcoming tough market conditions.

Corporate income tax rebate

In the Year of Assessment 2024, companies are set to receive a 50% corporate income tax rebate, capped at \$40,000, to help reduce business costs.

Upskilling

Singaporeans aged 40 and above are eligible for \$4,000 Skills-Future credit top-up in May, giving mid-career workers the opportunity to upgrade their skills and advance in their careers. Eligible programmes include part-time and full-time diplomas, post-diploma, and undergraduate programmes, providing businesses with a workforce equipped with up-todate skills and qualifications.

Lim Han Ren, Executive Director from Soilbuild Construction Group is looking forward to find out how the green grants can help to reduce the construction industry's carbon footprint. "Decarbonisation is usually focussed on the development side, but for us builders there is sustainability when we build as well. As the construction industry moves more towards digitalisation and energy efficient construction equipment, senior colleagues may see the use of these tools as a roadblock. The skills future credits are able to equip them with the new skills to use technology."

Chiu Ling, <Job title> representing Gin Chia specialising in wet trades such as tiling and plastering, highlighted the distinctive labour-intensive nature of her family business. While discussing available schemes, Chiu Ling noted that certain programmes may not directly apply to their trade. However, she emphasised the company's commitment to exploring avenues that align with their operational framework. Additionally, regarding the income tax rebate, Chiu Ling mentioned that the company's eligibility hinges on profitability, reflecting the organisation's focus on sustainable growth and financial stability.

By strengthening competitive advantage and increasing productivity, this will elevate standards in the construction sector. Construction companies need to be adaptable and invest in upskilling their staff to future-proof their businesses.

FEATURE ARTICLE



The construction industry finds itself amidst a challenging landscape characterised by a scarcity of skilled labour, exacerbated by demanding working conditions and perceived subpar wages. This persistent talent shortage stems from numerous factors, including insufficient awareness regarding the plethora of opportunities and career pathways available within the industry.

SCAL had the opportunity to speak to two members from the second batch of Young Leader Programme (YLP): Loo Boon Woei and Wayne Huang on their insights on the construction industry and how they can contribute to the industry. YLP is a SCAL initiative to recognise and develop the next generation of leaders to promote a more inclusive and representative leadership structure.

Facing Challenges

Wayne who studied construction management has been in the industry for five years. He worked in Australia for a year before returning back to Singapore to manage his family business which specialises in architectural wet trade. Working in a high-pressure working environment, Wayne face numerous stakeholders – his clients, end users, developers and authorities. He also has the added responsibility of managing the family business by taking care of the daily operations.

"Everyone working in this industry should be proud of what they do. Our foreign workers in Singapore work long hours but they are not appreciated. As a result, they are not confident and proud of what they do. Self-esteem is very crucial in the long run. Proper recognition should be given to the people working in this industry – the builders, contractors and



developers. By treating the construction industry fairly with competitive salary package, this is one way to attract young talents to the industry," shared Wayne.

Boon Woei graduated with a civil engineering degree in NUS and has been in the industry for 12 years. "Many of us have to work long hours due to the lack of manpower in the industry. Some of the challenges I face include manpower shortage, supply chain disruptions and implementation of new policies."

These young leaders are generating ideas and working on improving the construction sector. Wayne equipped his workers with multiple skills through internal training. With this flexibility, his workers can multitask in his projects.

Embracing Technology

Technology has been a vital tool for sector transformation. "By leveraging on Integrated Digital Delivery (IDD) for a Common Data Environment (CDE) in the construction industry, construction companies can create attractive opportunities for individuals to join the industry by offering enhanced collaboration, streamlined workflows, data-driven decision-making, and opportunities for career advancement and skills development," said Boon Woei.

BIM software allows contractors and workers to visualise the building design in 3D, providing a more comprehensive understanding of the project compared to traditional 2D drawings. This helps to improve spatial awareness and reduces errors in construction.

THE CONTRACTOR

Wayne agrees information is more integrated with the use of the BIM software. "We are able to see numerous information on the same platform. We ensure the work we do does not clash with the other contractors downstream when we view the drawings on BIM."

By equipping all his supervisors on site with tablets and smartphones, they have the capability to view the drawings on BIM. Hence when the workers have doubts, their supervisor will show them the visualisation of the specific area they are working at. This helps improve comprehension and communication of design intent.

Platform of Engagement

Inspired by his General Manager, Mr Yheng Yee Foon, who is an active member in SCAL, Boon Woei joined the SCAL's Young Leader Programme (YLP). "Through YLP, I have a platform to feedback on issues faced, and share the type of technology which can help us as main contractors and how this can benefit the construction industry and to achieve real productivity gains."

For career path, an engineer can join a consultancy firm to get Professional Engineer (PE) license, or he can be a project manager under a main contractor. SCAL has The Construction Professional Accreditation Scheme (CPAS) accredited professional scheme for personnel performing the roles and duties of a project director, manager, engineer or equivalent in the built environment.

"Currently, I am focusing on the technical coordination under the umbrella of the main contractor. In a way this is a third career path which is not well published. By sharing my experiences and what we can achieve, I hope to inspire new talent to join us by embarking on this alternative career path," shared Boon Woei.



pandemic, facing manpower shortage, we looked at how we could improve conditions of the work dormitories to prevent the virus from spreading. As engineers, we resolve problems with resilience and positive thinking," shared Boon Woei.

"More time can be given in the design stage. Most of the time the fast pace in Singapore built environment does not allow consultants to have sufficient time to develop a wellcoordinated design. As such, the coordination work will take place during the construction stage and eventually prolong the construction duration," said Boon Woei.

Wayne encourages students planning a career in this industry to be positive and active. "Have the curiosity to learn more, for this will drive you to go deeper into the work processes and the jobs available in the industry."

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Boon Woei and Wayne agree that being in the built environment is a rewarding career. Seeing the project from drawings on paper at design stage to being transformed to reality gives them immense job satisfaction. Wayne is involved in several BTO projects. "Buying a home is a sentimental issue for homeowner. When the project is completed, there is this immense satisfaction of handing over the keys to homeowners for their BTO flats. Whenever I drive around and I see a building that we have been working on, I will excitedly point out to my two sons that is the project their dad is working on," smiled Wayne.

"Seeing the outcome of what is being built on site – the real physical building, gives me the job satisfaction. During the

Mr. Loo Boon Woei Technical and Planning Manager



2024 Chinese New Year Luncheon – Celebrating the Year of the Dragon and Connecting Communities



The SCAL community gathered at the SCAL Construction Hub to celebrate the Lunar New Year on 19th February 2024. With over 200 guests in attendance, this event marked the 10th day of the lunar calendar, symbolising a fresh start and a hopeful future for SCAL and the industry at large.

The first highlight of the event was a vibrant Lion Dance performance, serving as a symbol of prosperity and good fortune, and bestowing blessings upon SCAL and its members for the year ahead. Attendees also enjoyed a delectable meal while connecting with industry peers, fostering bonds that are integral to the industry's success.

During the event, SCAL President, Mr. Lee Kay Chai, took the opportunity to address the audience, emphasising key initiatives and priorities for the industry in 2024. He highlighted the significance of embracing technology, digitalisation, and sustainability to drive business growth and competitiveness. Additionally, he urged members to leverage programmes such as the SCAL's Academy Career Conversion and Job Placement Programmes to upskill their workforce effectively.

Encouraging project managers to come forward and get accredited under SCAL's Construction Professional Accreditation Scheme (CPAS), Mr Lee expounded the effectiveness of the scheme in promoting continuous professional development and enhancing credibility of work. "This will foster a happier, more productive workforce and contribute to talent retention," he added.

Announcing two new important updates concerning SCAL's annual Productivity & Innovation Awards (PIA), Mr Lee Introduced a new category to acknowledge the contributions of SLOTS members and subcontractors. The Awards will also now be title-sponsored by the Lu Ban committee to reflect

the spirit of invention and excellence associated with Lu Ban. Mr. Lee also provided insights into upcoming regulations and initiatives, including the launch of the SCAL HR guidebook aimed at talent management as part of SCAL's ongoing commitment to supporting its members in navigating the evolving landscape of the industry. "Though such changes in our industry will continue, as contractors, it is imperative that we adapt swiftly and reassess our operational procedures to align with these transformative measures set to redefine our sector."

With every Chinese New Year celebration, the luncheon also featured the traditional Lo Hei ceremony, also referred to as the "prosperity toss," where attendees exchanged auspicious greetings.

As the luncheon drew to a close, attendees departed with a renewed sense of community spirit, with a collective vision



an industry together.

Special thanks to Motorway Group of Companies for bringing the Ssangyong Musso Sports experience to our guests during the luncheon.

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United in Giving: 2024 SCAL **Blood Donation Drive Campaign**

Back in February, the community showcased its spirit of generosity and solidarity by giving back to society through donations. In collaboration with the Singapore Red Cross, we are proud to have played a role in bolstering the national blood supply. A total of 152 individuals, including SCAL members and the public, stepped forward to support this important cause. The drive resulted in the collection of 113 bags of blood where each unit represents a lifeline for those in need, highlighting the impact of our efforts.



4,000 KG

of plastic waste were used to pave the parade square at Padang.

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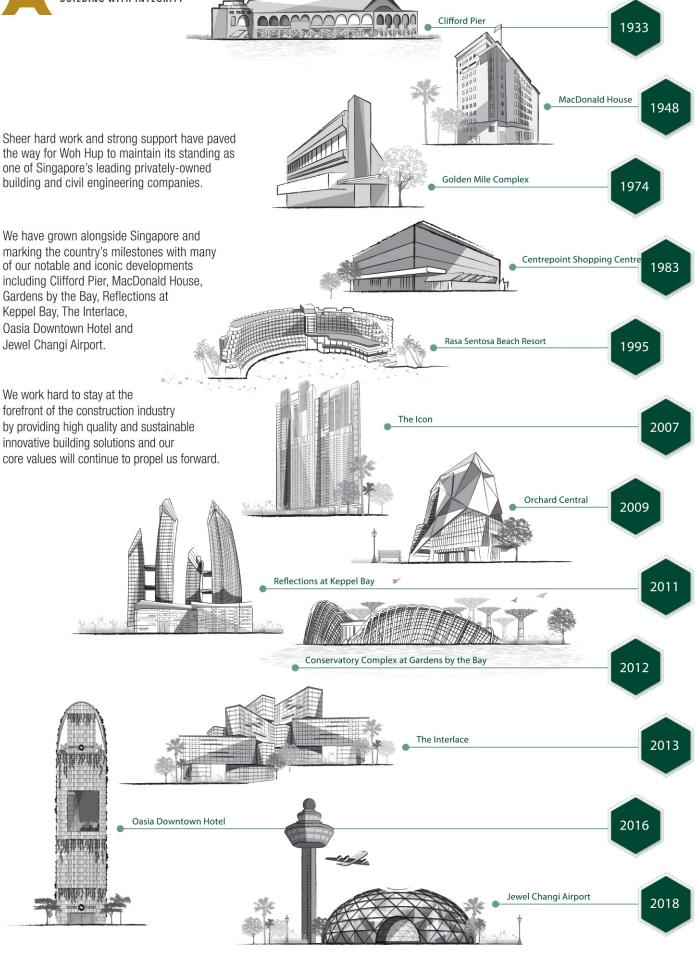






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Collaboration Above and Beyond Contracting



Meinhardt Group's Dr. Eugene Seah on the Evolving Importance of Collaborative Contracting for Singapore Contractors

Article Written By Aditya Karkera

At a basic level, all construction projects are webs of interconnected, interdependent, interfacing relationships: between employers, authorities, builders, consultants, and urban communities. The growing importance of collaborative contracting models, set against a backdrop of intensifying cost and capabilities pressures in Singaporean construction, underlines both the value and fragility of these models. Understanding the strengths and avoiding the pitfalls of collaborative contracting, as well as the role technology has to play in enhancing collaborative delivery, is critical for contractors wishing to go further together.

Dr. Eugene Seah—Global Board Member, COO (Singapore), and Senior Director in the Group CEO's office at the Meinhardt Group—has seen the conception and evolution of collaborative contracting in Singapore from the very beginning. "I was involved with collaborative contracting before it was even called collaborative contracting," Dr. Seah shared. From first being exposed to it during his studies in the late 90s to early involvement in VivoCity and ION Orchard's collaborative journeys, Dr. Seah has seen collaborative contracting grow from initial aspirations to the latest cases and conversations surrounding NEC4 and other models.

The Singapore Academy of Law defines collaborative contracting as "a contracting model based on the recognition that there can be mutual benefit for a project owner and project participants from a more co-operative working relationship." Established with the aim of addressing misalignments of interest and risk-sharing in increasingly complex projects as well as minimising the blame game, collaborative contracting is exercised through various forms that are themselves evolving. "It's important to study the collaborative contract forms, which have different strengths and weaknesses: PPC 2000 standard of contract for project partnering, X12 extensions to the NEC contract form, and the Australian alliancing contract models. Now there's also the PSUC form and talk of bringing NEC4 to Singapore."

But Dr. Seah doesn't believe that more contract forms and further clauses are necessarily better, and this is a first pitfall that contractors should be careful to avoid. "My take is that just bringing in additional forms, additional clauses, and additional laws to Singapore doesn't help with collaborative contracting." The contract form mustn't be seen as a silver bullet or an end, but a means to an end: changing the mindset of project stakeholders from a combative attitude to a co-operative one.

In fact, collaborative contracting should be more about the collaboration than the contract. So that even a "normal" contract can be an opportunity to practice collaborative contracting. "With the right mindset in place, the focus should be on making the project a good place for all parties," Dr. Seah said, "The mindset to collaborate can transform projects more than contract forms or clauses can."

This is often easier to agree to than to actually implement in practice. After all, the compromises required to make a collaborative contracting model co-operative and not combative affect contractors the most. "The contractors are the ones building, they are the ones signing the contract. Alongside the developer, they take the most risk in actual construction," said Dr. Seah., explaining that the contractor's health is central to the project's success. "If the contractor fails, there's prolongation for consultants and the developers have to deal with delay issues and face buyers. It's in everyone's interest to bring in the right contractor at the right time and give them the right contract."

Early Contractor Involvement (ECI) injects the seasoned, practical experience and insights of contractors into the front-end design, engineering, and construction process and is perhaps one of the most important collaborative contracting approaches involving As contractors. Singaporean construction continues to gravitate towards improved constructability, Design for Sustainability, Design for Safety, and Design for Maintainability to deliver the built assets of the future, contractor input can help projects save costs, time, and even lives. It is important for contractors to familiarise themselves with ECI models and present their capabilities, value-add, and experience as ECI contractors for project owners wishing to pursue a collaborative contracting model. By being proactive in positioning themselves as collaboration-ready contractors, and not collaborationreactive ones, firms can enhance their standing for the next wave of collaborative projects.

With the introduction of project management and Common Data Environment (CDE) software and solutions to the contractor's digital toolkit, collaborative contracting also takes on the dimension of better information management and the flow of information is central to effective collaboration and synchronisation between project stakeholders. Building Information Modelling (BIM), in particular, has changed the ways in which collaborative partners can interface, provide information and input to each other, and manage conflicts. Technology could also serve to gauge the "Happiness Index" of a collaborative or partnering model project to identify hotspots of friction, delays, and disconnections—contributing to more healthy and resilient collaborative structures.

But Dr. Seah believes that technology, while helpful, is still not as important as the mindset shift that collaborative models

should induce. "Sometimes stakeholders simply dump all of their data into the CDE. And 80% of RFIs tend to be trivial, so the poor engineer needs to sift through the huge data dump in the CDE to find answers for these trivial queries. It can be a waste of time without the collaborative mindset that would prevent the uncoordinated data dump and the unnecessary RFI."

However, scepticism remains strong: why engage in this additional effort in a time of shrinking margins and competitive pressure? "One pitfall I have heard of is that collaborative contracting is seen as a great way to get variations without getting paid. Or a great way to place risks on contractors without a matching pricing strategy," Dr. Seah said, "but it's important to remember that collaboration is a give and take relationship." And it all boils down to relationships that are unique to every project instead of a formulaic approach to collaboration that is blindly implemented in all projects.

"If the bosses can sit down over a major issue," says Dr. Seah, "it can sometimes be resolved over a cup of coffee." The hallmarks of such Kopi Collaboration are early communication of issues to counterparties, face-to-face conversations driven by mutual trust and respect, and a simple, accessible contract document. The latter is particularly overlooked. "My measure of success is how clean my contract document is," Dr. Seah shared, "Otherwise every time I need to refer to the variation clause, the obligation clause, the liability clause." Dr. Seah recalled a successfully collaborative Grade A office building project where one only needed to open the contract document maybe once or twice a year. Over three years and at a project value of \$140 million, the project only had twelve variations.

"So successful collaboration is indeed possible. Which project doesn't have problems? Every now and then there are issues, but it's important that we talk about them. Take turns to buy each other dinner to discuss them. And eventually joke about them too." Dr. Seah's grandfather Mr. Seah Mong Hee—the first Asian Chartered Quantity Surveyor—believed in settling issues truthfully and earnestly, face to face over a cup of coffee. And so this same tradition of Kopi Collaboration, in the spirit of the common enterprise of constructing a sustainable future built environment, has a long way to go but is off to a promising start.

"So successful collaboration is indeed possible. Which project doesn't have problems? Every now and then there are issues, but it's important that we talk about them. Take turns to buy each other dinner to discuss them. And eventually joke about them too."

Dr. Eugene Seah

Global Board Member, COO (Singapore), and Senior Director in the Group CEO's office at the Meinhardt Group

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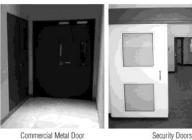
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