



SHAPING
**SMART
CITIES**
FOR
TOMORROW
SUSTAINABILITY REPORT 2017

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Chairman's Statement

We are pleased to present our inaugural sustainability report for FY2017.

Towards the end of 2017, the Singapore government announced 2018 as the Year of Climate Action. Pan-United Corporation Ltd ("PanU") takes this theme seriously. Building on innovative research and development capabilities and strategic partnerships, we grew our sustainability initiatives and moved our sustainability agenda forward. Because we consider sustainability as a key component in our strategy, we are glad to have an opportunity to present these achievements and our future ambitions in this report.

According to the United National Environment Programme, "buildings and construction together account for 36% of global final energy use and 39% of energy-related carbon dioxide emissions when upstream power generation is included"¹. This means we can create a clear impact down the value chain by reducing the carbon footprint of the industry through our concrete.

This report highlights our efforts in developing greener concrete, nurturing our employees, and identifying goals to improve our diversity, water recycling and other internal governance structures.

The Board has been integral in determining these material factors. It oversees the overall sustainability strategy at PanU. We would like to thank our employees for all their hard work this year, and for their help in putting together this report.

Our customers are always at the heart of everything we do. Their growing demand for 'greener' concrete helps drive our innovation-based culture and encourages us to accelerate our research and development efforts. Our growing status as industry leaders in the development of sustainable concrete technology provides the impetus for us to keep innovating and strive for greater goals.

Building on innovative research and development capabilities and strategic partnerships, we grew our sustainability initiatives and moved our sustainability agenda forward.

¹ UNEP Towards a zero-emission, efficient, and resilient buildings and construction sector Global Status Report 2017, https://www.worldgbc.org/sites/default/files/UNEP%20188_GABC_en%20%28web%29.pdf

About this Report

This is PanU's inaugural annual sustainability report in line with the Singapore Exchange ("SGX") Sustainability Reporting requirements.

This report presents data and information for the financial year from 1 January 2017 to 31 December 2017 ("FY2017"). It covers our Singapore-based operations excluding Malaysia, Indonesia and Vietnam. It also excludes our Port business in China, which was de-merged on 7 February 2018.

This report has been prepared in accordance with the Global Reporting Initiatives ("GRI") Standards: Core Option. While we have not sought external independent assurance for this reporting period, we will consider it for future years.

A softcopy of this report can be found on our website: www.panunited.com.sg. Should you have any questions or feedback, please do not hesitate to contact us at info@panunited.com.sg.

About Us

PanU is a concrete innovation company. We are listed on the Stock Exchange of Singapore, are headquartered in Singapore and have operations spanning four countries, with a workforce exceeding 1,200 people.

We harness innovation and digitalisation to develop industry-leading sustainable solutions.

Our values and principles

With a heritage of six decades in business, we are guided by the Company's "Why cannot?" tenacity to driving long-term goals and growth. This spirit of tenacity, perseverance and trustworthiness continues to live on in the Group and underpin our strategic focus on excellent customer service.

Our primary activities include:

- Manufacture and supply of ready mix concrete, ground granulated blast furnace slag and granite aggregates,
- Cement silo operations, cement trading and distribution,
- Quarry operations,
- Trading and shipping services,
- Trading and supply of refined petroleum products, and
- Investment holding and general trading.

We are Singapore's largest provider of ready mix concrete and cement with a growing footprint in Vietnam, Malaysia and Indonesia. In Vietnam, PanU is the top brand for high quality specialised concrete products in Ho Chi Minh City. We serve both public and commercial clients for projects in a range of sectors including industrial and infrastructural, commercial, institutional, educational and residential.

Our capabilities are vertically integrated to maximise the value created for our customers in Singapore. We own or manage virtually all the components and processes in a seamless value chain. Specialised concrete applications are researched and developed by our own Innovation Centre to customise products, often in partnership with our customers.

Our operations and logistics networks are managed by a state-of-the-art Command Centre in-house, which operates round the clock. These are complemented by in-house shipping and trading expertise to provide further logistics support.

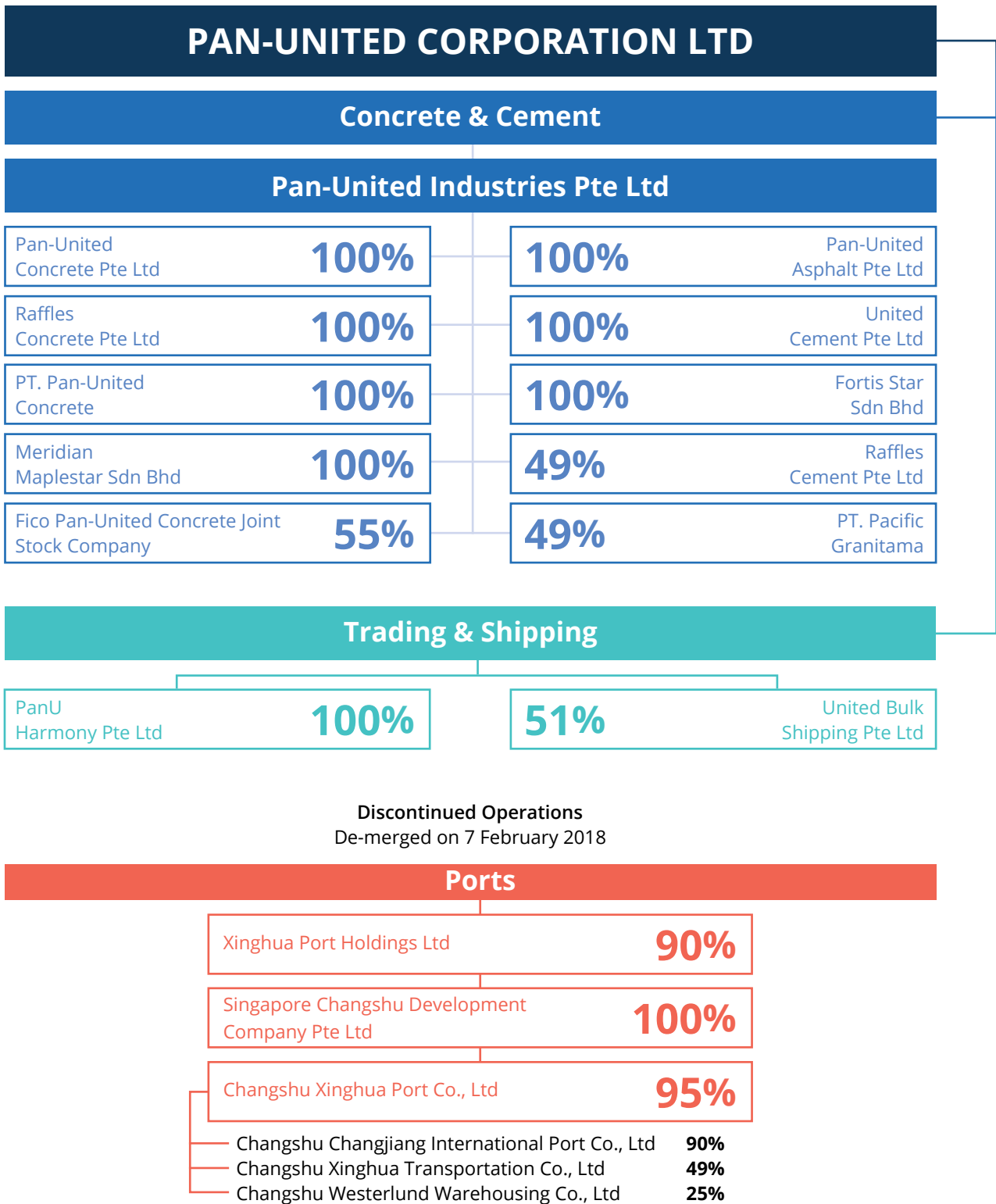
Our supply chain consists of aggregate quarrying and procurement, sales and marketing, manufacturing, processing, delivery and after-sales support.

Demonstrate Leadership

In 2017, through the construction of Tanjong Pagar Centre, the tallest building in Singapore, we demonstrated our leadership and ambition: PanU broke the record for the single largest Self-Compacting Concrete ("SCC") pour in Singapore by supplying 13,500 cubic metres of concrete to create a gigantic raft foundation.

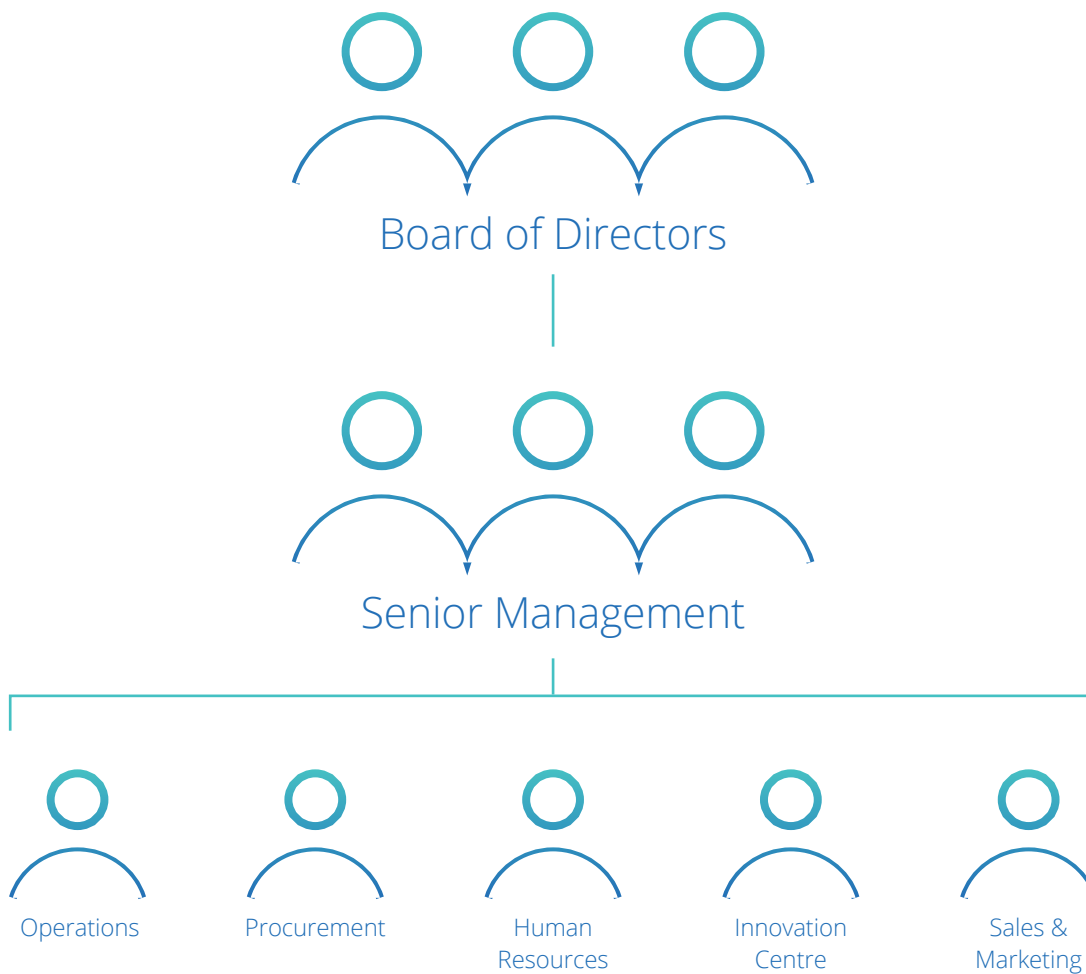
The pour employed a continuous convoy of trucks delivering concrete at precise intervals of one truck every one-and-a-half minutes over the course of 41 hours. The rate of concrete pour peaked at 531 cubic metres per hour.

Corporate Structure



Sustainability Governance

Our strategic focus is to create sustainable solutions that are safe and environmentally-friendly for the communities and the world we live in. Information and data from key management in Operations, Procurement, Human Resources, the Innovation Centre and Sales & Marketing is reported to Senior Management who manage and monitor sustainability performance and targets. Senior Management feeds this information to our Board. With the support of the Audit Committee, the Board ensures that we have the appropriate policies and practices in place for better accountability and oversight.



Stakeholder Engagement

Engaging with our stakeholders is key to sustainable growth and successful long-term relationships. We identify our stakeholders by assessing their reliance on, involvement with and influence on our business.

Stakeholder	Frequency	Method	Topics raised	Our response
Employees	<ul style="list-style-type: none"> • Annual • Regularly • Ad hoc 	<ul style="list-style-type: none"> • Dinner & Dance • Internal emails • Staff meetings 	<ul style="list-style-type: none"> • Employee well-being • Health and safety • Training and development 	<ul style="list-style-type: none"> • Employee wellness talks, health screenings, etc • Employee training and development programmes
Investors	<ul style="list-style-type: none"> • Annual • Quarterly • Ad hoc 	<ul style="list-style-type: none"> • Annual General Meeting • Annual reports • Analyst briefings • SGX Announcements • Company website • Email alerts • Extraordinary General Meeting 	<ul style="list-style-type: none"> • Group Financial Results and the Group's business • Any matters affecting the Group 	<ul style="list-style-type: none"> • Shareholder participation at general meetings • Annual reports and other communications such as notices and letters to shareholders, Circulars and Proxy Forms on the Company's website
Customers	<ul style="list-style-type: none"> • Ad hoc 	<ul style="list-style-type: none"> • Emails • Meetings 	<ul style="list-style-type: none"> • Billing queries • Customers' requirement • Research & development ("R&D") collaborations 	Frequent communication to understand requirements and changing demands
Regulators/ Government	<ul style="list-style-type: none"> • Ad hoc 	<ul style="list-style-type: none"> • On-site inspections • Meetings • Government publications 	<ul style="list-style-type: none"> • Environmental compliance • Labour standard compliance • SGX listing requirements 	Collaboration to ensure compliance and achieve high ratings whenever possible
Suppliers	<ul style="list-style-type: none"> • Regularly 	<ul style="list-style-type: none"> • Meetings • Emails 	<ul style="list-style-type: none"> • Product quality and delivery schedules • Health and safety 	Meetings to collect and monitor relevant data

Materiality Assessment

To conduct our materiality assessment, PanU enlisted the help of an external consultant to facilitate a workshop with senior management. During this workshop, our stakeholders deliberated on an array of material topics identified through peer benchmarking. Our stakeholders selected the factors they believed to be most significant to them, and those that our business would have the largest impact on. The selected factors with the highest priorities were validated with the Board to arrive at our material topics.



Environmental

Sustainable Materials
Recycled Water



Social

Diversity and Inclusion
Occupational Health and Safety



Governance

Regulatory and Legal Compliance

Environmental

As a concrete producer, PanU aims to create more efficient, environmentally friendly products to contribute to the reduction of the greenhouse gas emissions associated with building construction. With the extensive in-house R&D capabilities at our Innovation Centre, we continually seek to create high-performance, sustainable products and solutions that are safe and environmentally-friendly to our customers and communities. Many of our research endeavours are made in collaboration with Singapore government bodies, consultants, our valued customers and research institutions like the Nanyang Technological University.

Sustainable Materials

Management Approach

We are constantly on the lookout to reduce our carbon footprint.

Over the years, we have been reducing the ecological footprint of our concrete by integrating more recycled content into our production, thereby reducing the volume of natural aggregate. We provide a range of solutions to our clients who increasingly demand sustainable products, including the 'Eco' and 'Green' ranges developed by our in-house R&D teams.

With a producer responsibility mindset, we use three key types of recycled materials in our concrete:

- We collect superfluous concrete from our customers and process it in-house to be re-used as recycled concrete aggregates. Concrete aggregates are inert granular filler materials such as sand, gravel or crushed stone that are essential ingredients in concrete.
- We use Washed Copper Slag from the marine industry. This is a by-product of copper production and is used to remove paint, rust and marine deposits from ships. The processed washed slag can be used as fine concrete aggregates.
- We purchase Ground Granulated Blast-Furnace Slag ("GGBFS"), a by-product of steel production. It has lower heat characteristics compared with Ordinary Portland Cement ("OPC") and has a much lower carbon footprint. We also manufacture our own GGBFS from our slag grinding plant in Johor, Malaysia, for our ready mix concrete business in Singapore and Malaysia, as well as external demand.



We participate in the Waste Management Recycling Association of Singapore ("WMRAS") accreditation scheme, which examines our recycled concrete aggregates and crushers. The scheme includes a yearly audit, and we are proud to have their seal of approval.



Testament to our sustainability commitment and achievements, PanU was the first ready mix concrete company to be awarded the Singapore Green Building Council's highest level of sustainability certification, having attained the "Leader" certification, with 4 out of 4 ticks.

Examples of some of our sustainable concrete products:



Pan-U Green Concrete uses more than one-fifth of recycled or cementitious materials as raw materials to produce structural-grade concrete. This content consumes less energy and lowers the carbon emission footprint of our concrete by up to 45%, in comparison to concrete produced with natural raw materials.



PanU Lite™ is a lightweight concrete that also demonstrates excellent thermal and sound insulation properties. It saves on manpower, energy costs and needing less concrete.



PanU Self-Compacting Concrete (“SCC”) reduce significantly the use of manual labour to compact the concrete. It is a very popular option for building skyscrapers in densely populated areas. This specialised product flows easily under the force of gravity and fills all irregular voids without the use of mechanical compactors, which vibrate and produce higher noise pollution. It saves on manpower to spread and compact the concrete by 70%, cuts down the application time by 40% and reduces noise pollution by 15%.



PanU Watercrete is a special underwater concrete that can be poured into bridge columns, displacing water in the process. The concrete subsequently hardens naturally in the water. PanU Watercrete eliminates the preparatory stage of pumping out sea water to create the air space before filling the columns, saving considerable energy and time costs.

Performance Indicators

- 8% of our input materials are made up of recycled materials².

Targets

- Continue to assess areas for reducing the use of natural, virgin materials in our products.

Recycled Water

Water is a key ingredient in the production of concrete. We aim to resourcefully reduce our water consumption wherever possible. We strive to improve the efficiency of our water usage and reduce consumption.

Management Approach

To manage water consumption, we harvest rainwater for recycling and reuse grey water for activities like wetting dry floors and washing tyres. We filter the water through miniature water treatment plants located in our industrial sites to recapture the water and reduce wastage.

Performance

Most of our water is drawn from a municipal source. 4% is recycled water.

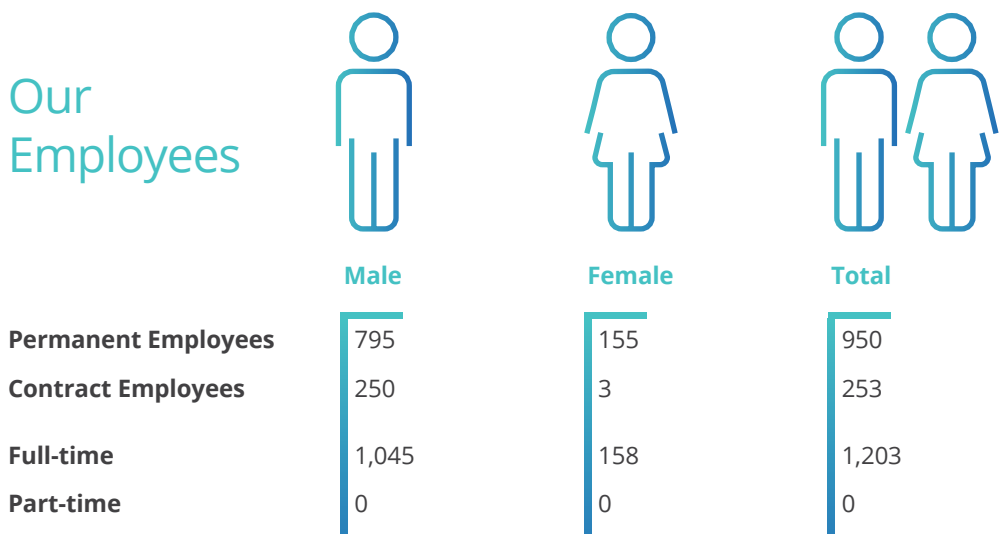
Targets

- Improve water monitoring and data collection to identify areas for improvement.
- Increase recycled water use by 5% by FY2020.

² Formula: total recycled input materials used / total input materials used

Social

We regard the PanU family of employees as integral to our success. Our team of highly committed individuals has accumulated years of knowledge and experience to advance the organisation in profound ways. As such, we take measures to ensure their well-being, development and safety in our organisation.



None of our employees are covered by collective bargaining agreements.

Diversity and Inclusion

Our employees represent a diverse group of races, nationalities and cultures. A diversity of backgrounds brings with it a spread of experiences and perspectives, which help broaden and strengthen our value proposition and prepare for greater risks and opportunities. We believe in having a diverse workforce, and are very proud of our open and convivial atmosphere, and the successful teamwork we see throughout our organisation.

Management Approach

We continue to introduce initiatives aimed at delivering value to our customers and upskilling our workforce. We have reviewed and implemented training sessions for our entire team, from customer service officers to our drivers, to foster and sustain a culture of service excellence in PanU.

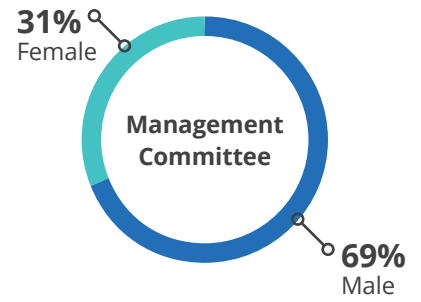
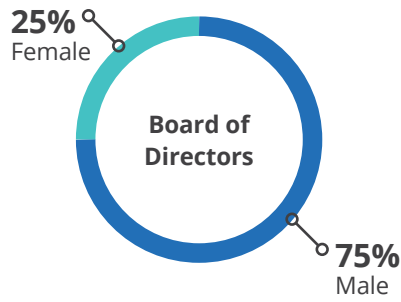
To further develop our employees, we are in the process of implementing an e-Learning Portal, that provides technical and soft skills training to employees and targeted Leadership Development management skill programmes for our managers.

We work with Singaporean and Malaysian universities to attract young, bright talent. We want to be an attractive workplace where employees feel they can thrive, and new talent aspire to join.

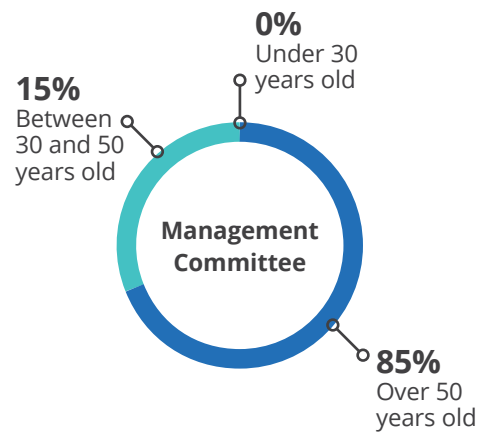
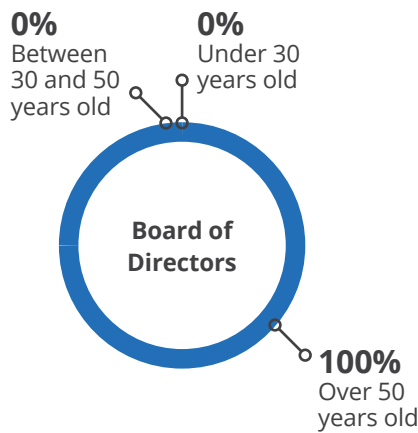
We also employ 253 employees on contract basis, primarily to work in our concrete batching plants. These workers include general workers for batching plant duties, mechanics for plant maintenance. We also contract concrete mixer truck drivers to help deliver ready mix concrete to project sites.

Performance

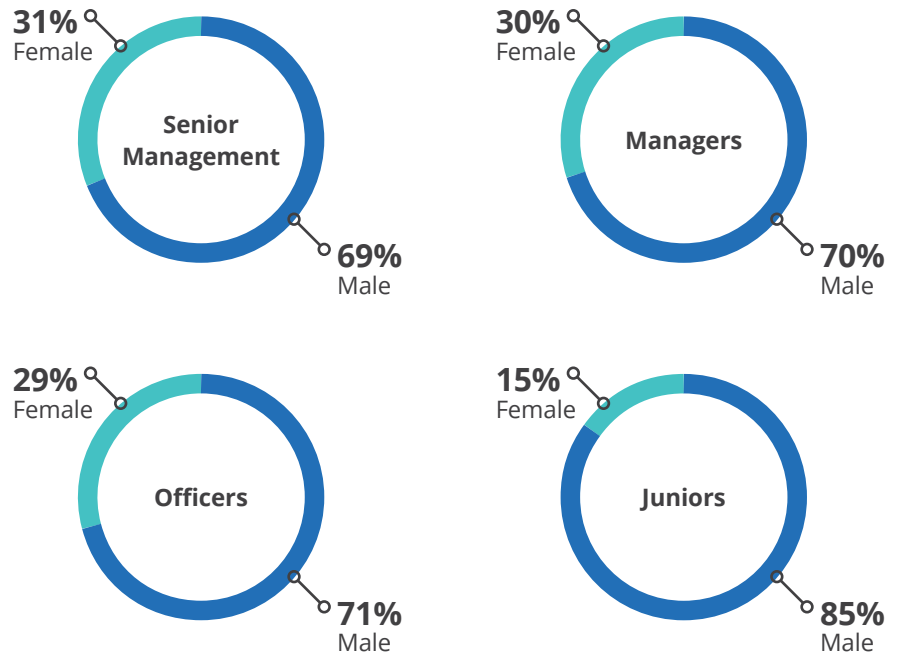
Upper Management by Gender



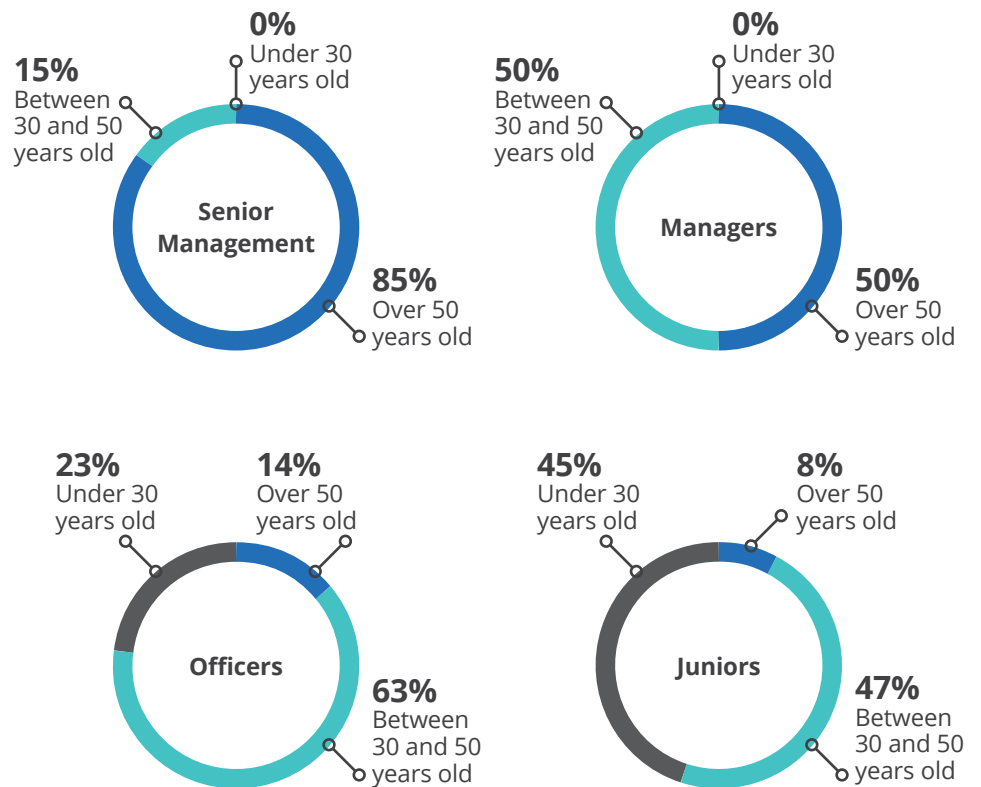
Upper Management by Age Category



Employees by Gender



Employees by Age Category



Targets

- Implement a diversity and inclusion strategy and policy by end of FY2019.

Occupational Health and Safety

We have health and safety policies to protect and guide our employees. It is not enough to have stringent policies; they must be adequately implemented and monitored.

Management Approach

To help us manage on-site safety, we have a risk management system in place following SS506 Guidelines. All our sites are OSHA 18001 certified. All our employees as well as non-employees, who are working on our sites ie. sub-contracted workers, receive safety equipment and training. These include Work-at-Height courses and Hazmat Transport Driver courses. Depending on relevance, all employees are required to attend some form of safety training.

On-site, we have an external Safety Officer to oversee practices. Every month, the Officer hosts a safety meeting with the Safety Committee where he will report and discuss mitigative and preventive measures. These are supported by weekly 'toolbox' meetings, during which we remind our employees of safety policies.

In addition, our employee receives regular safety reminders on health and wellness, as well as educational blasts as recommended by the Ministry of Manpower ("MOM") via email to all of our employees. These regular reminders encourage our employees to practise wellness through healthy eating, ergonomics and exercise, among others.

Our employees undergo regular health screenings including X-ray scans, which are mandatory. We work closely with our contractors to keep an eye on safety practices to ensure safe and sustainable workplaces. For employees who operate near loud noises, we conduct audiometric medical screenings. All our employees undergo health screenings every two years. All employees above the age of 50 years go through annual health screenings.

In November 2017, PanU invited the Singapore Civil Defence Force ("SCDF") to visit our facilities for a better understanding of our safety and emergency response procedures. In turn, SCDF gave our team a full overview on their operations.

Performance



	For Employees	For non-employees whose work and/or workplace is controlled by organisation
Number of Fatalities as a result of Work-Related Injuries	0	0
Number of High-Consequence Work-Related Injuries (excluding fatalities)	0	0
Number of Recordable Work-Related Injuries	7	12
Total Work-Related Injuries	7	12
Rate of Fatalities as a result of work-related injuries	0	0
Rate of High-Consequence Work Related Injuries	0	0
Rate of Recordable Work Related Injuries based on 200,000 hours	1.35	2.38

The work-related injuries in FY2017 were mainly road accidents, slips and falls.

The following training sessions are conducted in English and Chinese:

- Hazmat Transport Driver Course, which includes identifying 9 classes of hazardous substances, and basic fire fighting
- Work-at-Height Course, which includes risk assessment and preventive measures related to working at heights
- Process plants and construction site workplace, health and safety procedures, including potential hazards identification such as fire and explosion hazards

Targets

- Aim for ISO 45001 by FY2019.
- Reduce rate of recordable work-related injuries by 5% by FY2020.
- Maintain zero high-consequence injuries across our operations.
- Maintain zero fatalities across our operations.

Governance

The relationship between our customers and employees is built fundamentally upon trust. The way we govern our business and these relationships is therefore crucial to our long-term success. To help us maintain integrity in all matters, we have governance policies and procedures in place.

Regulatory and legal compliance

Management Approach

The National Environment Agency (“NEA”) conducts ad hoc inspections of our concrete batching plants. We maintain clean sites with no breeding grounds for vectors like mosquitoes, to keep diseases like dengue and malaria at bay. The Pollution Control Department also inspects our sites for dust control. We use a cement filter bag system to trap dust, and wet floors to stop dust from rising.

Performance

In FY2017, there were no incidents of non-compliance with laws and regulations in the social and economic areas or with environmental laws and regulations.

Targets

- Maintain zero incidents of non-compliance in the social, economic and environmental areas.

External initiatives and memberships of associations

- Waste Management Recycling Association of Singapore (WMRAS)
- Business Council for Sustainable Development Singapore (Founding Member)
- Singapore Green Building Council (SGBC)
- Singapore Concrete Institute
- American Concrete Institute (Singapore Chapter)
- Ready Mixed Concrete Association of Singapore
- BCI Asia Construction Information Pte Ltd
- The Concrete Society Ltd
- The Singapore Contractors Association Ltd
- Tunnelling and Underground Construction Society (Singapore)
- ISO 14001

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