

RELIABLE
RESILIENT
RESPONSIBLE

HONG LEONG ASIA LTD.

SUSTAINABILITY
REPORT 2022

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BOARD OF DIRECTORS



From left to right:

(Standing) **Tan Chian Khong, Ng Sey Ming**

(Seated) **Kwong Ka Lo @ Caroline Kwong, Kwek Leng Peck, Stephen Ho Kiam Kong**

ABOUT THIS REPORT

This Sustainability Report (“SR” or “Report”) showcases Hong Leong Asia’s (“HLA” or the “Group”) sustainability approach, initiatives and performance from 1 January 2022 to 31 December 2022 (“FY2022”), unless otherwise stated. This Report has been prepared in accordance with Global Reporting Initiative (“GRI”) Standards “Core” option and complies with the Singapore Exchange Securities Trading Limited (the “SGX-ST”) requirements on sustainability reporting.

In determining the scope of this Report, key subsidiaries of HLA from the Powertrain Solutions¹ and Building Materials businesses were considered, contributing to over 99% of HLA’s revenue in 2022. The rigid packaging business is not included in this report as it is not material in terms of proportion to the Group’s total revenue. Nonetheless, HLA remains committed to its current practices to review and manage key material issues unique to this segment.

Environmental, social and governance (“ESG”) topics selected are based on principles of materiality, sustainability context and stakeholder inclusion.

We have also aligned material topics with the United Nations Sustainable Development Goals (“SDGs”), focusing on SDG 9, “Industry, Innovation & Infrastructure” and SDG 12, “Responsible Consumption and Production”. These two SDGs are most relevant to our businesses and are aligned to specific materials issues described in the Report (see p.13 under Materiality Assessment).

A historical comparison of data is presented where possible. We will continue to assess and improve our progress and data collection methodology over time.

There is no significant change to the organisation’s size, structure, ownership and relationship with key suppliers.

This Report, available to shareholders via SGX website and HLA’s website, should be read with the HLA Annual Report 2022 for more information on the Group’s businesses and financial performance.

This Report is made in accordance with a resolution of the Board dated 5 April 2023.

¹ Formerly known as “Diesel Engines”

BOARD STATEMENT

Dear Stakeholders,

HLA's Board of Directors (the "Board") is pleased to present our 2022 Sustainability Report.

Sustainability has always been at the heart of our guiding principles at HLA. This has evolved into our core value, "Do the Right Things" where we lead by example to take ownership and accountability of the decisions and actions that impact our businesses and the environment. We believe that conducting our businesses with integrity and driving responsible green practices among our employees is vital towards long-term value creation for our stakeholders.

The Board's responsibility is to provide clear oversight of HLA's Sustainability Reporting process and risk management of key material issues guided by the recommendations of the Audit and Risk Committee ("ARC"). At HLA, this means ensuring the implementation and frequent review of a strong Corporate Governance system, safeguarding our operations, and supporting the safety and well-being of our employees.

We have developed a holistic Sustainability Framework that helps to guide us in the management of pertinent Environment, Social and Governance ("ESG") issues. We are pleased to report on the progress of our short- and medium-term targets that are in line with the Group's 2025 Vision.

Pushing Ahead on our Sustainability Framework

In 2022, we remained focused on driving the progress of our key ESG targets under the three interconnected pillars of our Sustainability

Framework, "Driving Innovation for a Low-Carbon and Circular Economy", "Empowering our People and Communities" and "Building Resilience for the Long-Term", firstly, through consistent communication we will expand upon key messages surrounding our ESG ambitions and secondly, we are committed to ensure action is being driven at the ground level.

The key narratives across these three pillars within our core focus in the built environment and transportation sectors will continuously develop as their regulatory environment and industry trends evolve. Hence, we have set the tone from the top during quarterly town hall meetings by emphasising on the importance of our ESG targets as well as sharing key success stories from various businesses. We are also engaging the leadership team to expand the focus towards key trends that impact our business activities and the value chain which typically covers product innovation, operational efficiency, circular economy and digital solutions. This is done via sharing sessions during our monthly management meetings, town hall meetings, training sessions and other employee programmes where we discuss how these various topics could impact our businesses.

We are also embarking on a new journey to drive bottom-up action. This has been led by the formation of two "ESG Impact Working Groups" under the Building Materials businesses in Singapore and Malaysia consisting of management level members tasked to oversee the strategies and progress of their respective ESG targets. As for our Powertrain Solutions business in China, we collaborated with the various departments to develop and incorporate the unit's ESG targets under our Sustainability Framework and this completes our Group's 2025 commitments as seen in this Report.

BOARD STATEMENT

To further strengthen and provide clarity on these commitments, the Human Resources team has also put plans in place to progressively embed our ESG targets within the roles and responsibilities of employees throughout the organisation. We target to implement Key Performance Indicators linked to our 2025 ESG targets under the Group's Performance Progress Cycle for employees in 2023.

Urbanisation Trend Remains Intact

The urbanisation of cities remain front and centre of our lives – today, we see a much higher interest and activity towards improving the experience of city dwellers in communities and spaces. Moreover, such activity that occurs on the ground and national level are increasingly being linked with climate change effects. Hence, suitable long-term solutions to improve the implementation of urban structures and design to cope with climate change are being sought after. In the region of Asia where we operate, this is a complex area to navigate as we deal with local regulatory frameworks and design requirements. Nonetheless, there are clear opportunities to pursue as we see governments, authorities and commercial players express interests to collaborate and develop solutions at an even faster pace than before.

Driving Partnerships to Develop Better Mobility Solutions

In China, value-chain players in the automotive and transport sector are collaborating on new energy technologies, fuel efficiency and infrastructure development in the key regions. Our Chinese subsidiary, Guangxi Yuchai Machinery Company Limited (“GYMCL”) has continued its efforts to develop new energy solutions by teaming up with

partners and customers. This includes a joint venture formed with bus manufacturer, Beijing Xingshunda, to accelerate the development of fuel cell powertrain systems as well as core fuel cell power system components for the Beijing, Tianjin and Hebei markets. Furthermore, the Group recently formed a new energy solutions subsidiary, Yuchai Xin-Lan New Energy and has successfully integrated a 3.5 tonne electric drive axle into an EV light-duty bus manufactured by Guangxi Shenlong for the Nanning bus market. Moving forward, this subsidiary will be developing new partnerships to strengthen its research and development processes, strategic testing locations for trials and talent recruitment strategies.

Preparing for the Next Wave of Green Building Demands

Over in Singapore, the case for green buildings continues to hold strong and we remain focused on aligning our initiatives with the country's target to green 80% of buildings (by floor area) by 2030 and accelerate decarbonisation across building lifecycle under the Singapore Green Building Masterplan*. The key improvement tracks identified include raising building energy performance standards, better designs for maintenance, designing a healthier environment for users and reducing embodied carbon. In addressing the area on embodied carbon, we continue to develop our portfolio of green ready-mix concrete under Island Concrete of our Building Materials business to meet the needs of our customers as the criteria for green building materials becomes more stringent. The Singapore government also continues to push ahead to improve construction productivity and strengthen the resilience of the built industry against supply chain and manpower disruptions with the adoption of

* <https://www1.bca.gov.sg/buildsg/sustainability/green-building-masterplans>

BOARD STATEMENT

Design for Manufacturing and Assembly technologies. Our Building Materials businesses reached a major milestone in December 2022 when we obtained temporary occupation permit for our Integrated Construction and Prefabricated Hub (“ICPH”) located in Pulau Punggol Barat. This is a state-of-the-art facility set up to manufacture Advanced Precast Concrete System and Prefabricated Prefinished Volumetric Construction products. The facility has also been designed to incorporate a higher level of automation and controlled factory environment to reduce both environmental impact and labour-intensive construction work.

In Malaysia, there is similar interest in the Green Building movement, to implement energy efficiency and green product solutions for new built environment projects. We remain focused on developing our portfolio of green building material products under Tasek Malaysia. We see growing trends in the area of improving industrial processes which require circular economy and commercial energy efficiency solutions. In the past year, we have been successful in increasing volumes of alternative raw materials in our cement products. As to alternative fuels, we have increased our volumes slightly and remained focused on reaching our 2025 ESG target to progressively reduce our dependency on coal usage to power our operations. We continue to review investments to improve the operational efficiency and productivity of our cement plant located in Ipoh, Malaysia.

Climate Change and our Green Transition

In line with our goals to drive more ambitious targets beyond 2025 under our sustainability pillar, “Driving Innovation for a Low-Carbon

and Circular Economy”, we took the first step to internally address and align on the potential implications of climate change for our organisation. This was carried out in alignment with the SGX mandate for all issuers to adopt climate reporting in phases based on the recommendations of the Task Force on Climate-related Financial Disclosures (“TCFD”). HLA being in the Building Materials and Powertrain Solutions sectors is required to fulfil this requirement from financial year 2024. In 2022, with the help of a consultant, we developed our TCFD reporting framework and drafted our first-year disclosures starting from FY2022. We developed our climate risk assessment based on two scenarios from the Intergovernmental Panel on Climate Change pathways, 1.5°C (RCP 2.6) and >3°C (RCP 8.5), with 2019 adopted as the baseline year. Considered over short, medium and long-term (2030, 2050, 2080) horizons, it was identified that our assets are not vulnerable to physical risks in the short term but would likely be affected by transition risks such as carbon pricing, changing customer needs and stringent industry regulations. Both risks are likely to increase over the medium- and long-term. The transition risks are being addressed by the Group through its existing business strategy and moving forward, we are set to reduce our carbon emissions in our sectors. We will continue to build our experience over time in climate-related financial reporting. For the full narrative on our TCFD disclosures, please read pages 63 to 68 in this Report.

Steady Steps Towards Safety Leadership

As of 19 September 2022, following a high occurrence of workplace fatalities in Singapore, the Ministry of Manpower (“MOM”) launched a code of practice in essence to strengthen the workplace safety

* <https://www.mom.gov.sg/workplace-safety-and-health/wsh-measures-to-address-spate-of-accidents-in-2022/code-of-practice-for-company-directors-wsh-duties>

BOARD STATEMENT

culture under the Workplace Safety and Health (“WSH”) Act* 2006. There are clear guidelines and principles under the WSH Act for organisations to adopt as their framework. To align on and strengthen our understanding of the recent updates to the WSH Act, an Occupational Health and Safety training was conducted for the Board and Management Team (Corporate Office) on 13 March 2023. In line with our ESG targets for zero fatalities and Loss Time Injuries (“LTIs”), we remain committed to improve our safety performance over the long-term.

Strict legislation sets a strong tone from the very top and offers clear guiding frameworks for organisations to follow suit such as with the efforts of MOM at the national level. However, to sustain and continuously promote healthy attitudes towards safety, we believe that organisations should embed such principles as their core values. Under our third pillar, “Building Resilience for the Long-Term”, we continue to practise the principles that the safety of our people require tough leadership, vigilant management of our workplace environments and effective communication.

2023 Priorities

The regulatory environment where we operate is moving at a quicker pace to promote green product use and to reduce our carbon emissions. Hence, we will continue to focus our efforts on reviewing emerging technologies as well as improve our TCFD reporting framework. To support these agendas under “Building Resilience for the Long-Term”, we will launch a new Supplier Code of Conduct policy with our ESG criteria. This will define the Group’s expectations towards

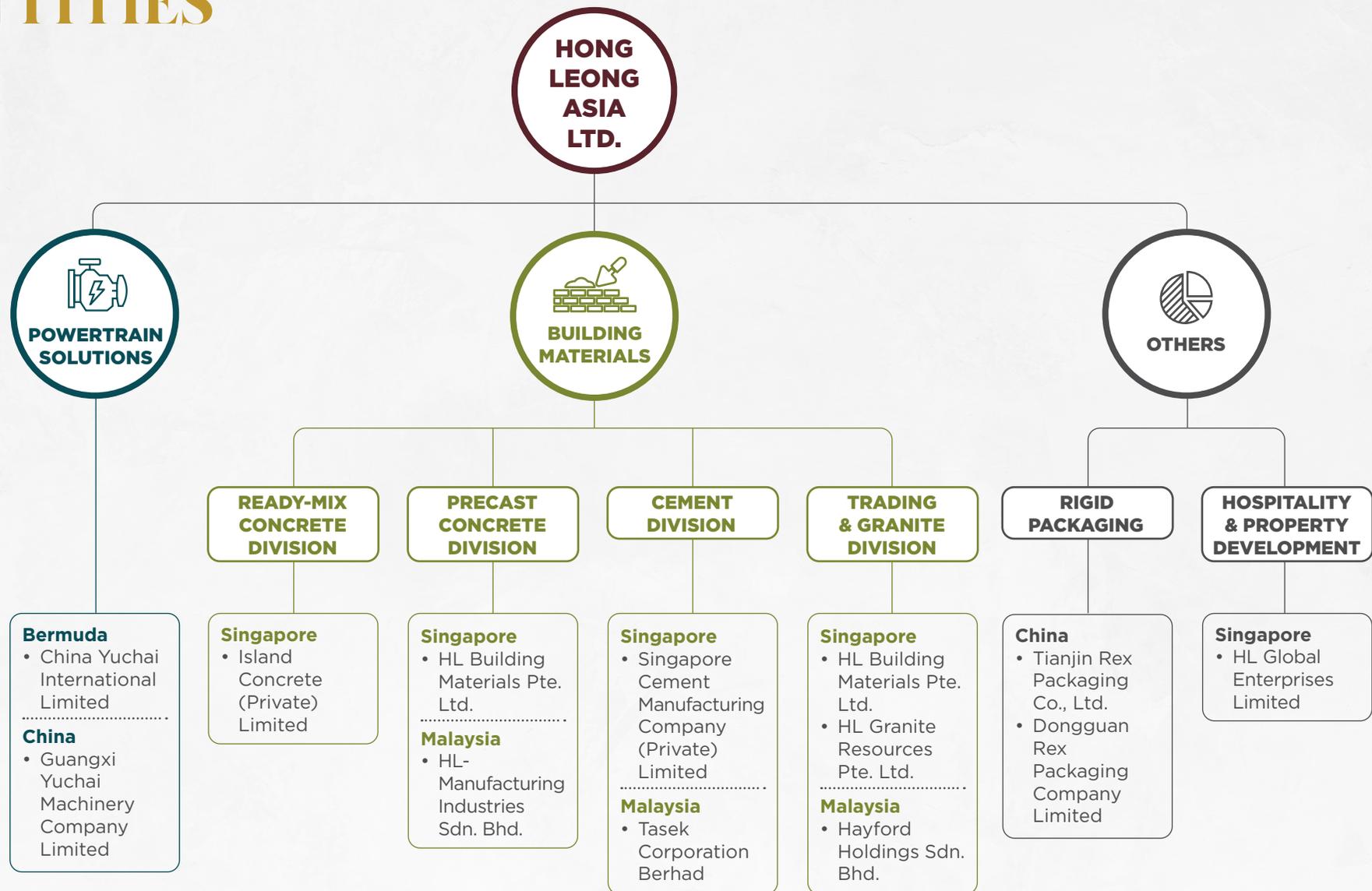
our suppliers to responsibly manage their ESG issues in accordance with our standards. It will also support our plans to embark on Scope 3 emission reporting to expand our Greenhouse Gas data coverage. We expect to launch it with our suppliers over the second half of 2023.

We will also continue to actively promote safety culture through training and ensuring ample support for our employees in driving awareness and education. This includes leading by example, organising internal safety campaigns and improving communication at toolbox sessions. Finally, despite the challenges, we are pleased with the progress made within one year of publishing these targets and we will continue to strive harder to achieve our 2025 ESG targets.

We appreciate your continuing feedback and support as we define and create a sustainable future together.



OPERATING ENTITIES



OUR APPROACH TO SUSTAINABILITY

SUSTAINABILITY FRAMEWORK AND GOVERNANCE

The HLA Group Sustainability Framework provides a clear articulation of the Group’s sustainability priorities. Its three interconnected pillars encompass the material ESG topics facing HLA Group. Ensuring the sound management of these material topics is crucial to the success of our business strategy to create long-term value for our stakeholders.

HLA GROUP SUSTAINABILITY FRAMEWORK

At HLA, our vision is to develop and deliver sustainable and innovative urban solutions for cities of the future. Our core values set the foundation for building resilience for the long-term.

DRIVING INNOVATION FOR A LOW-CARBON AND CIRCULAR ECONOMY

1. Energy and CO₂ Emissions
2. Alternative Cement and Concrete Products
3. Energy Efficient Products
4. Circular Economy and Waste
5. Product Quality and Customer Satisfaction

EMPOWERING OUR PEOPLE AND COMMUNITIES

1. Community Engagement
2. Diversity, Inclusion and Talent Management

BUILDING RESILIENCE FOR THE LONG-TERM

1. Ethical Conduct and Regulatory Compliance
2. Cybersecurity and Data Protection
3. Supply Chain Management
4. Occupational Health, Safety and Welfare



KEEP THE CUSTOMER FIRST



DO THE RIGHT THINGS



THINK FAST, WORK FASTER



MIND THE DETAILS THAT MATTER



CREATE AN IMPACT BEYOND OUR BUSINESS

Note: To differentiate the material topic “Innovative Products” between our core business units as seen on the materiality matrix on p.13, we have renamed the topic as “Alternative Cement and Concrete Products” and “Energy Efficient Products” for the Building Materials and Powertrain Solutions businesses, respectively.



OUR APPROACH TO SUSTAINABILITY

GOVERNANCE

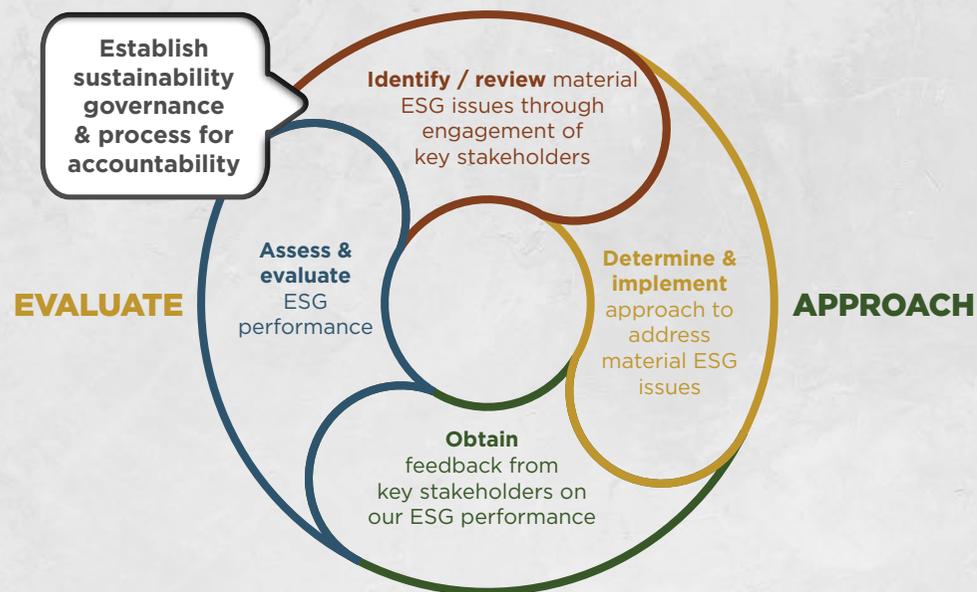
The Board of Directors (the “Board”) is entrusted to provide transparency and visibility into HLA’s risk management practices as well as to ensure the reliability, adequacy and effectiveness of internal controls through the support and recommendation of the Audit and Risk Committee (“ARC”).

This process starts with the identification, prioritisation and management of material ESG issues by the Group’s Sustainability Team. They provide direction to each business unit’s Sustainability Working Groups and conduct performance progress reviews. The Chief Executive

Officer (“CEO”) oversees the overall effectiveness of this process as part of managing the internal control and risk management framework of the Group’s businesses and operations.

The Sustainability Committee provides a bi-annual progress update to the ARC and presents annual guidance on the strategic direction. The ARC evaluates and reviews the reporting process and performance annually in order to ensure that all requirements for sustainability compliance are met before reporting to the Board.

HLA’S SUSTAINABILITY GOVERNANCE PROCESS



HLA’S SUSTAINABILITY GOVERNANCE STRUCTURE



OUR APPROACH TO SUSTAINABILITY

HLA'S KEY STAKEHOLDERS AND MATERIALITY ASSESSMENT PROCESS

OUR KEY STAKEHOLDERS

We recognise the importance of engaging our stakeholders and define key stakeholders as groups that have a vital interest in our businesses in Singapore, Malaysia and China. They may have a significant impact on us and vice versa, and include those with a vested interest in our business conduct. They include shareholders, customers, employees, local communities, government agencies, industry associations, suppliers and business partners.

We encourage open communication and build relationships and have adopted a stakeholder-inclusive approach – understanding the diversity of our stakeholders, keeping our ears to the ground and staying abreast of industry trends – and deploying various platforms to engage them. The frequency of ongoing engagement with our stakeholders varies with their concerns and needs as well as with the topics of engagement.



OUR APPROACH TO SUSTAINABILITY

HLA GROUP KEY STAKEHOLDERS MAPPING



KEY STAKEHOLDERS



MATERIAL ESG ISSUES



ENGAGEMENT PATHWAYS

CUSTOMERS

Our customers are the reason for our business existence. We aim to assist our customers to meet future requirements and transit to a low-carbon economy with key focus on sustainable and innovative urban solutions in the built environment and transport sectors.

- Alternative Cement and Concrete Products (BMU)
- Energy Efficient Products (CYI / GYMCL)
- Product Quality and Customer Satisfaction
- Energy and CO₂ Emissions
- Occupational Health, Safety and Welfare

- Customer Surveys (Yearly)
- Materiality Survey (2021)
- Rebranding Projects
- Partnerships / Joint Ventures (JVs)
- Customer Site Visits
- Service Centres / Call Centres, Mobile Applications, Online Channels
- After-Sales Services (CYI / GYMCL)

EMPLOYEES

Our employees are the engines that drive our businesses forward, anticipating needs of our customers, delivering value and executing business strategies.

- Diversity, Inclusion and Talent Management
- Occupational Health, Safety and Welfare

- Recruitment Channels
- Talent Management Programme
- Occupational Health and Safety Channels (toolbox meetings, management meetings, trainings)
- Employee Surveys
- Materiality Survey (2021)
- Rebranding Projects
- Training and Development Initiatives
- Town Hall Meetings, Management Meetings, Department / Team Bonding
- Staff Engagement Events and Wellness Programme
- Newsletters, Bulletin Boards, Email Communication
- Whistleblowing Channel

OUR APPROACH TO SUSTAINABILITY



KEY STAKEHOLDERS



MATERIAL ESG ISSUES



ENGAGEMENT PATHWAYS

GOVERNMENT AGENCIES AND AUTHORITIES

Beyond meeting regulatory requirements, we recognise the importance of building partnerships and good relations with the authorities and regulators to participate in nation building and development.

- Ethical Conduct and Regulatory Compliance
- Occupational Health, Safety and Welfare
- Circular Economy and Waste
- Energy and CO₂ Emissions

- Materiality Survey (2021)
- Site Inspections, Site Audits, Reports Submissions
- Meetings, Trainings, Seminars, Technical Committees

LOCAL COMMUNITIES

We are part of the communities wherever we operate. We are committed to invest our resources in the local communities to support their well-being and development.

- Community Engagement
- Dust and other Emissions Management

- Corporate Social Responsibility (CSR) Activities and Initiatives
- Partnerships with Non-Governmental Organisations (NGOs)

SHAREHOLDERS, INVESTORS, ANALYSTS AND MEDIA

We aim to maximise shareholder value and implement prudent risk management to ensure company financial resilience and embed sustainability strategies into the business.

- Ethical Conduct and Regulatory Compliance
- Energy and CO₂ Emissions
- Occupational Health, Safety and Welfare

- Annual General Meeting
- Corporate Websites, Annual Reports, Financial Reports
- Meetings, Presentations, Dialogues

SUPPLIERS, CONTRACTORS AND VENDORS

Across our value chain, we expect our suppliers to adhere to our policies and codes. In addition, we recognise the important role we play in collaborating with our suppliers, contractors and vendors to improve sustainability and responsible practices.

- Ethical Conduct and Regulatory Compliance
- Supply Chain Management
- Occupational Health, Safety and Welfare

- Supplier Evaluation
- Materiality Survey (2021)
- Health and Safety Trainings / Inductions
- Tender/Bidding Process, Request for Proposal, Meetings, Dialogues

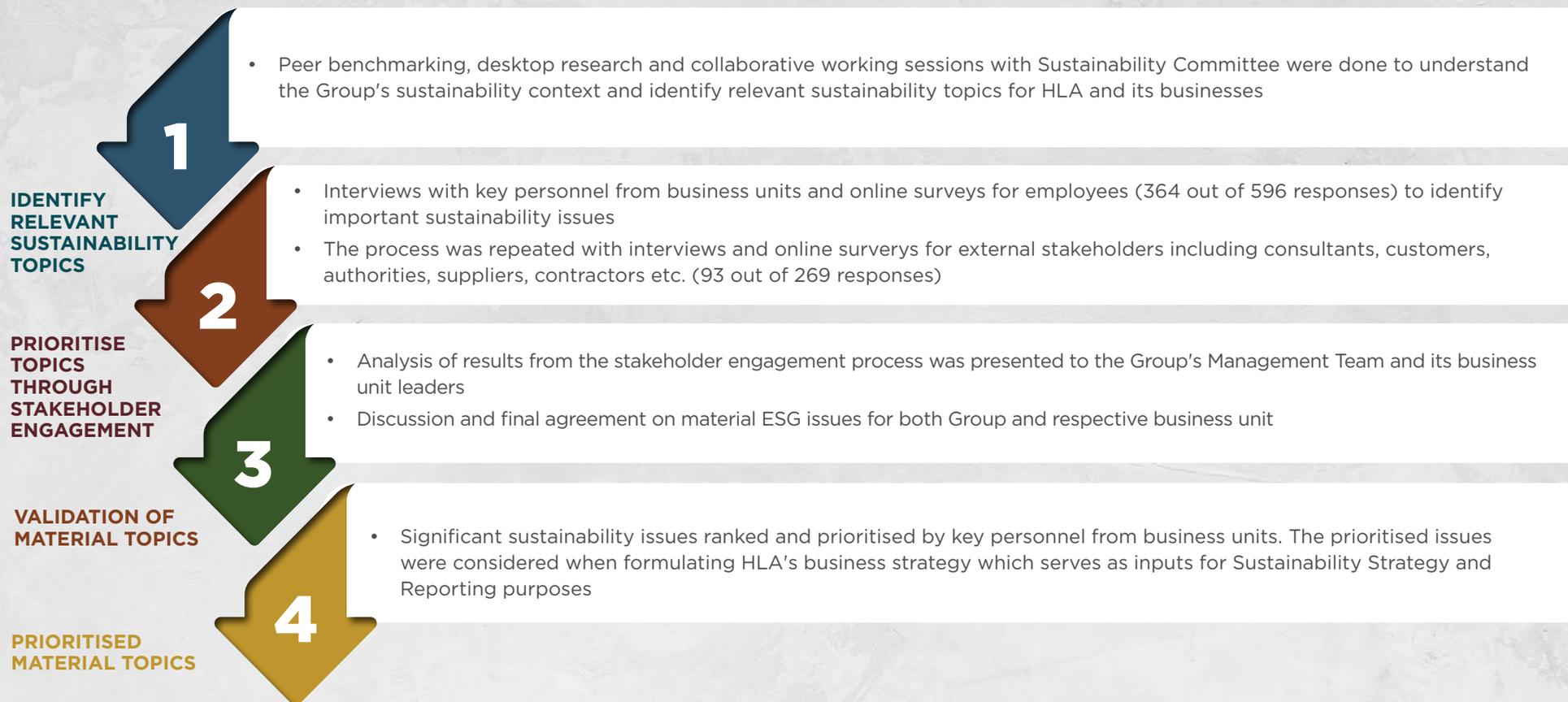
OUR APPROACH TO SUSTAINABILITY

MATERIALITY ASSESSMENT

HLA conducted its sustainability materiality assessment in 2021 to re-frame the ESG concerns from the respective business key stakeholders. The material issues have been updated accordingly.

To understand the sustainability concerns and identify relevant material key ESG issues, we followed the process as shown below.

HLA GROUP MATERIALITY ASSESSMENT PROCESS



OUR APPROACH TO SUSTAINABILITY

HLA’s materiality matrix is summarised from our engagement with various stakeholders both internally and externally. The list of ESG issues were mapped onto a matrix reflecting the importance to key stakeholders (external) and HLA (internal).

The materiality matrix compiled reflected a strong consistency between internal and external ratings on the material issues. It also served to affirm the high relevance of SDGs 9 and 12 to our businesses.

HLA GROUP MATERIALITY MATRIX



Note: Material issues bolded within the blue box were included as key prioritised topics during the management workshops



DRIVING INNOVATION FOR A LOW- CARBON & CIRCULAR ECONOMY

Cities of the future must transition towards a low-carbon economy in order to mitigate and adapt to climate change. This must also be supported by adopting a circular economy approach that removes waste and maximises the value of limited resources.

We see these changes as opportunities to transform the business. We optimise our operations to reduce environmental footprint, and use natural resources more efficiently by replacing raw materials with more sustainable alternatives.

We partner with our customers and other players in the value chain to create sustainable and innovative urban solutions in the Building Materials and Powertrain Solutions sectors.

SUMMARY TABLE OF 2025 TARGETS - DRIVING INNOVATION FOR A LOW-CARBON AND CIRCULAR ECONOMY

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2022 PROGRESS	STATUS	2025 TARGET*
Energy and CO₂ Emissions	Percentage reduction in CO ₂ emission intensity (metric tonnes of CO ₂ /SGD Revenue) vs 2016 baseline	38%	🟡	≥50%
	Scope 3 Emissions Reporting (in alignment with TCFD reporting requirements by SGX)	TCFD Consultant selected. Data collection in progress.	🟡	Report on a comply or explain basis by 2023
Alternative Cement and Concrete Products (Building Materials)	Percentage of sales volume from innovative/ certified green concrete products under Green Mark / SGBC (Singapore)	8%	🟢	≥20%
	Clinker-to-cement ratio – use of fly ash, limestone, slag and other cementitious material to lower the ratio & replace clinker	0.88	🟢	≤0.75
	Number of new products registered under recognised Malaysia green bodies	1 cement product certified	🟢	2 Tasek cement and 2 Tasek concrete products certified
Energy Efficient Products* (Powertrain Solutions)	Percentage of Powertrain Solutions sold from new energy products	NEW**	N/A	≥20%
Circular Economy and Waste	Percentage of recycled/alternative raw materials in total concrete volume	27%	🟢	≥35%
	Percentage of concrete waste generated from total volume (excluding sludge)	3%	🟢	<0.5%
	Alternative raw materials used in the calcination process	41,572 MT / year	🟢	50,000 MT / year
	Percentage of coal substitution by alternative fuels in calorific value basis	16%	🟢	>30%
	Utilisation rate of foundry waste sand (%)	93%	🟢	90% (NEW)**
	Recycling of casting waste	100%	🟢	100% (NEW)**
Dust and Other Emissions	Fines / complaints on dust emissions from authorities	0	🟢	Zero incidents
	Dust emission levels	<38.79mg/Nm ³	🟢	<50mg/Nm ³ continuously
	SOx, NOx, VOC emissions	Data to be assessed / collected and reported by 2023	🟡	Data to be assessed / collected and reported by 2023
Product Quality and Customer Satisfaction	Average Customer Satisfaction Score based on annual surveys / feedback	Building Materials - 82% Powertrain Solutions - 88%	🟢	Building Materials - ≥90% Powertrain Solutions (NEW)** - ≥85%

🟡 To improve 🟢 On track 🟢 Target achieved

*Note: Some of the 2025 targets have been fine-tuned to better reflect the nature of our businesses

**Note: The previous description under “Energy Efficient Products” in SR2021 is removed in this Report to align with GYMCL’s 2025 ESG targets which is marked as NEW

HLA GROUP



CHINA



POWERTRAIN SOLUTIONS

CHINA

- Engine Production Facility in Yulin
- R&D Facility in Nanning

Total Energy Consumption:

1,030 TJ



BUILDING MATERIALS

MALAYSIA

- Cement Plant
- Ready-mix Concrete Batching Plants
- Precast Fabrication and Assembly Facility
- Quarries

Total Energy Consumption:

6,375 TJ

SINGAPORE

- Cement Silo Terminal
- Ready-mix Concrete Batching Plants
- Precast Fabrication and Assembly Facility

Total Energy Consumption:

115 TJ

■ MALAYSIA
■ SINGAPORE



ENERGY & CO₂ EMISSIONS

HLA's core businesses in Building Materials and Powertrain Solutions are energy intensive. For the building materials unit ("BMU"), coal is the main source of fuel used in the kiln for clinker production at Tasek while other sources of energy include diesel, alternative fuels and electricity. The industrial operations of the business in Singapore and Malaysia, spanning offices, batching plants, silos and the transportation of products to customers, require high energy consumption daily.

Across our operations, energy consumption is closely monitored and managed by the operations team on a daily basis and reported monthly to the Sustainability Committee. This data analysis helps to identify any anomalies which are then further investigated so that remedial actions can be taken. Tasek's cement operations has an online power monitoring system to control the efficiency of major plant equipment during the production of clinker and cement. This system was upgraded in 2021 and integrated into the plant computerised control system.

We also took migratory steps such as utilising lower-carbon emission alternative fuels ("AF") to replace coal, and alternative/substitute materials like pulverised fly ash ("PFA") and ground-granulated blast furnace slag ("GGBS") to reduce the carbon intensity of cement production.

Our Powertrain Solutions operations use a considerable amount of electricity. To mitigate this, solar panels were installed at manufacturing plants to reduce electricity consumption. Other initiatives included voltage control and optimisation at the substation via reactive power compensation, changing electric heating pipe to heating with heat pump, and implementing heat-waste drying technology.

ENERGY & CO₂ EMISSIONS

PROGRESS ON 2025 TARGETS

CO₂ emission intensity of the Group’s business operations registered an increase in 2022 compared to 2021, impacted by reduced revenue contribution attributable to series of lockdowns in China which has dampened overall engine demand for the Powetrain Solutions business. We will closely monitor our emission profile and carbon intensity of the Group’s business activities in the transition to the endemic phase.

In 2022, we appointed a consultant to assist the Group in reporting the Scope 3 emissions and to conduct scenario analysis as per TCFD requirements. Data collection exercise is on-going and is expected to complete in 2Q 2023.



HLA GROUP CO₂ EMISSIONS

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Energy and CO₂ Emissions	Reduction in CO ₂ emission intensity (MT CO ₂ /SGD Revenue) vs 2016 baseline	47%	38%		≥50%
	Scope 3 Emissions Reporting (in alignment with TCFD reporting requirements by SGX)	NEW*	TCFD Consultant selected. Data collection in progress.		Report on a comply or explain basis by 2023

 To improve  On track  Target achieved

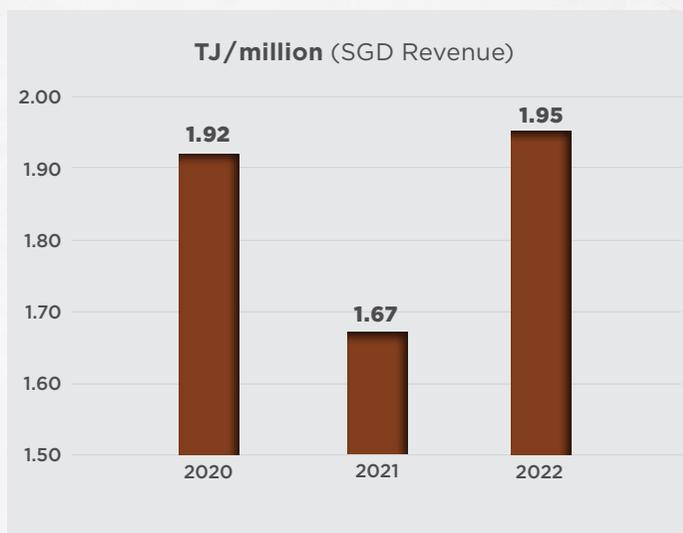
***Note:** New item added under sustainability reporting scope as of FY2021

ENERGY & CO₂ EMISSIONS

2022 PERFORMANCE

Total energy consumption for the Group's operations in Singapore, Malaysia and China decreased approximately 8.2% to 7,520 TJ for FY2022 primarily due to pandemic related lockdowns in China during the year, resulting in less energy consumption attributable to weaker commercial vehicle demand and the weak construction sector demand for concrete products in Malaysia. Diligent monitoring of fuels and electricity consumption, throughput optimisation and equipment improvements also contributed to lower energy consumption.

HLA GROUP AVERAGE ENERGY INTENSITY



HLA GROUP AVERAGE CO₂ INTENSITY



HLA GROUP TOTAL ENERGY CONSUMPTION (FOSSIL FUELS & ELECTRICITY) BY COUNTRY

TOTAL ENERGY CONSUMPTION (FOSSIL FUELS AND ELECTRICITY)	UNIT MEASUREMENT	2020	2021	2022
Singapore	TJ	71	97	115
China	TJ	1,594	1,537	1,030
Malaysia	TJ	6,916	6,559	6,375
Total Energy Consumption	TJ	8,581	8,193	7,520
Average Energy Intensity	TJ/million (SGD Revenue)	1.92	1.67	1.94

ENERGY & CO₂ EMISSIONS

CO₂ emissions produced by operations in Singapore, Malaysia and China in FY2022 continued to decrease compared to the prior year due to the lockdowns in China dampening commercial vehicle sales and continued lower clinker production in Malaysia against a challenging industry landscape. In FY2022, 15% of the Group's overall CO₂ emissions is purchased electricity (Scope 2) for our businesses which include property management and operations as well as utilities. Scope 1 emissions from the combustion of fossil fuels and calcination of limestone, which is inherent in cement production, accounted for the remaining 85% of the Group's total footprint in FY2022.

To reduce CO₂ emissions resulting from business activities, the Group focused on the use of alternative fuels ("AF"). We noted a slight improvement in AF consumption performance in 2022 (see page 25). We continued to address operational issues to enable us to consume higher volumes of AF as well as increased investments to process these waste materials better. In addition, an energy audit was conducted at Tasek in Malaysia during the year to identify energy efficiency solutions.

HLA avoided emitting approximately 159,000 tonnes of CO₂ yearly. This is equivalent to 34,260 passenger vehicles driven in one year².

² <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

HLA GROUP CO₂ EMISSIONS BY SCOPE 1, SCOPE 2 AND TOTAL (BY COUNTRY)

SCOPE 1 EMISSIONS (BY COUNTRY)	UNIT MEASUREMENT	2020	2021	2022
Singapore	tCO ₂	4,175	5,977	6,454
China	tCO ₂	44,174	50,174	37,768
Malaysia	tCO ₂	1,440,161	1,363,021	1,290,676
HLA Group Scope 1 Total Emissions	tCO₂	1,488,509	1,419,171	1,334,897
SCOPE 2 EMISSIONS (BY COUNTRY)	UNIT MEASUREMENT	2020	2021	2022
Singapore	tCO ₂	1,730	1,985	3,373
China	tCO ₂	210,069	181,242	108,911
Malaysia	tCO ₂	140,762	123,755	124,891
HLA Group Scope 2 Total Emissions	tCO₂	352,560	306,982	237,175
TOTAL CO ₂ EMISSIONS (BY COUNTRY)	UNIT MEASUREMENT	2020	2021	2022
Singapore	tCO ₂	5,976	8,045	9,827
China	tCO ₂	254,243	231,416	146,679
Malaysia	tCO ₂	1,580,923	1,486,776	1,415,567
HLA Group Total CO₂ Emissions	tCO₂	1,841,142	1,726,236	1,572,072
HLA Group CO₂ Intensity	tCO₂ / million (SGD Revenue)	412.3	352.3	408.5

***Note:** All CO₂ calculation is as per 2006 IPCC Guidelines for National Greenhouse Gas Inventories, GHG Protocol and Cement Sustainability Initiative

ENERGY & CO₂ EMISSIONS



ISLAND CONCRETE IMPROVES OPERATIONAL PRODUCTIVITY AND REDUCES EMISSIONS WITH SINGAPORE'S FIRST 12m³ CONCRETE MIXER TRUCKS

As one of the largest building materials companies in Singapore, transport emissions contribute to the CO₂ footprint of the Group.

Island Concrete initiated a project to collaborate with the Land Transport Authority of Singapore ("LTA") on a pilot trial to increase the maximum laden weight of the concrete mixer trucks from 34 tons to 43 tons. The Island Concrete team then worked with the manufacturer to fulfil the design and specifications set out by LTA.

In August 2022, two 12m³ concrete mixer trucks were rolled out for the pilot run to provide a better, faster and more cost-effective method for transportation to construction sites. We expect productivity to improve by about 30% by increasing the capacity of concrete mixer trucks from 9m³ to 12m³. We are confident that this will translate into CO₂ emissions reduction over time.



BUILDING MATERIALS UNIT



ALTERNATIVE CEMENT & CONCRETE PRODUCTS

For much of the built environment, the cement and concrete used has massive carbon footprint. Annually, the cement and concrete industry accounts for approximately 8% of global CO₂ emissions, more than double those from aviation and shipping industries. In the manufacturing of cement, clinker, a key component of cement, is produced in a kiln by calcination, when limestone reacts with silica-bearing minerals to form a mixture of calcium silicates. This process generates the biggest share of CO₂ emissions in the cement-to-concrete value chain.

In FY2022, our Building Materials businesses continued with process improvements to develop and adopt cost-efficient substitution of raw materials and alternative fuels, as well as to implement measures that reduce energy consumption in production.

In Singapore, we continuously work to improve on the manufacturing of lower-clinker cement for concrete products. At Island Concrete, fly ash cement and GGBS are used to manufacture Envirocrete or Ecocrete with 160 different mixes, delivering lower carbon footprint with similar performance compared to ordinary cement. Certified by Singapore Green Building Product (“SGBP”), an industry standard environmental certification under Building and Construction Authority (“BCA”) in Singapore, Island Concrete’s range of green concrete products are supplied to various construction and infrastructure projects for the built environment sector in Singapore.

GREEN READY-MIX CONCRETE PRODUCTS CERTIFIED UNDER ISLAND CONCRETE OF BUILDING MATERIALS, SINGAPORE

BRAND	NO. OF PRODUCT	CERT NO.	SGBP RATING
I – Envirocrete I – Ecocrete	166	SGBP 3352, 3353, 3354 and 3355	✓✓✓✓✓ Good to Leader



At our Malaysian operations, Tasek develops cement products with lower clinker content as specified under the Malaysian Standards Specification for Cement. The products have lower emissions and energy consumption profiles, and typically includes substituting clinker with pulverished fuel ash and ground granulated blast-furnace slag. Currently, Tasek markets its lower clinker cement as a “CEM II” labelled product under the brand names - Green Buaya, Loceng and Red Buaya.

ALTERNATIVE CEMENT & CONCRETE PRODUCTS

PROGRESS ON 2025 TARGETS

ALTERNATIVE CEMENT AND CONCRETE PRODUCTS

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Alternative Cement and Concrete Products	Percentage of sales volume from innovative / certified green concrete products under Green Mark / SGBC (Singapore)	NEW*	8%	☑	≥20%
	Replacement of clinker with fly ash, limestone, ground-granulated blast furnace slag, etc. in MT	0.89	0.88	☑	≤0.75
	Number of new products registered under recognised Malaysia green bodies	1 cement product	1 cement product	☑	Certification for two cement and two concrete products under Tasek

☑ To improve ☑ On track ☑ Target achieved

*Note: New item added under sustainability reporting scope as of FY2021

In FY2022, the sales volume of our green concrete under BMG, Singapore, accounts for 8% of total concrete sales volume.

For the Malaysia market, Tasek launched a new bag cement product in 1Q 2022 under the label Portland Composite Cement (“PCC”). In the manufacturing of PCC, the proportion of alternative raw materials is increased by 21% to achieve an improved C/K ratio of 0.88.



BUILDING MATERIALS UNIT



CIRCULAR ECONOMY AND WASTE

Internal waste generated from our Building Materials businesses include non-hazardous waste such as domestic waste, concrete waste and scraps as well as hazardous waste such as engine oils and lubricants.

For non-hazardous waste, the domestic waste is mainly landfilled or incinerated while scraps are sold to recyclers. Concrete waste is typically taken off by external party for backfilling at various constructions sites while some contractors repurpose the concrete waste as recycle concrete aggregates after going through a process of drying, sorting and crushing.

Furthermore, the industry currently uses various clinker substitutes or alternative raw materials to produce green products and solutions, contributing to a more sustainable and circular built environment by reducing the amount of CO₂ released in the final product. This practice is also implemented so that our customers have greener alternatives. Test trials are conducted to assess the performance of the green products and push the limits of our formulations.

As for hazardous waste, this waste is sent to an approved third-party contractor as per respective country regulations for disposal. As most of the hazardous waste are petroleum based, these are mainly recoverable.

Apart from waste generated and recycled, the industry also requires water for the production of cement and concrete products re precast and ready-mix concrete.

Cement manufacturing process requires water for cooling of machines and hot gases while water is also one of the major components in concrete mixes. Further, water is used in the offices, lavatory facilities, plant cleaning activities and for dust suppression measures.

In Malaysia, our cement plants mainly withdraw water from ponds and lakes from existing quarries while concrete operations withdraw groundwater via boreholes. Water for non-process usage is sourced from piped municipal supply from water authorities. The main source of water for our operations in Singapore comes from piped municipal water supply.

All our concrete batching plants have a water recycling system where sedimentation ponds are in place to capture any wastewater mixed with concrete. Pumps are installed in the ponds to recycle the wastewater for trucks washing or dust suppression measures.



CIRCULAR ECONOMY AND WASTE

PROGRESS ON 2025 TARGETS

As part of the Group’s plan to drive circular economy solutions, Tasek has a co-processing permit license in compliance with Malaysia’s guidelines on Environmentally Sound Co-Processing of Scheduled Waste in the cement industry. This license enables the Group to offer our expertise and solutions to co-process waste from other industries which reduces the need to dispose via landfill.

Despite limited supply, the Group’s operations in Malaysia improved the utilisation of alternative raw materials by 2.3% in 2022. For operations in Singapore, the substitution rate remained unchanged as the availability of required alternative raw materials is very limited.

Concrete waste makes up a large proportion of material waste in the building materials industry. More often than not, it is generated from demolition and construction activities, concrete trial mixes, over-ordered concrete by customers, leftover concrete after pours and from truck breakdowns. In Singapore, some of the concrete waste is repurposed into 1m³ blocks (picture on the right) used for static pile load test and the rest is collected by external parties and used for backfilling.

We have started to monitor and report this indicator in 2022.



Concrete blocks used in static pile load test (Kentledge method).
Source: BCA Build Smart Publication October 2013



HLA has identified SDG 12 indicators that include substantially reducing waste generation and achieving the environmentally-sound management of chemicals and all wastes throughout their lifecycle by 2030 as key positive contributions to target through put performance improvement. Hence, current practices and future plans such as increased investments to process alternative raw materials and alternative fuels within our Building Materials operations are underway to support the 2025 ESG targets.

SUBSTITUTION OF ALTERNATIVE RAW MATERIALS (%) IN READY-MIX CONCRETE

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	COUNTRY	2021	2022	STATUS	2025 TARGET
Circular Economy & Waste	Percentage of recycled/alternative raw materials* in total concrete volume	Singapore	28%	28%	☑	≥35%
		Malaysia	20%	22%	☑	

☑ To improve ☑ On track ☑ Target achieved

*Note: Alternative raw materials include PFA, GGBS, water-cooled slag aggregate, recycled concrete aggregate & Granite Fines / Quarry Dust

CIRCULAR ECONOMY AND WASTE

UTILISATION OF ALTERNATIVE RAW MATERIALS AND ALTERNATIVE FUELS (UNDER TASEK'S CEMENT DIVISION)

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Alternative Cement and Concrete Products	Alternative raw materials used in the calcination process (MT)	33,665	41,572	☑	≥50,000
	Percentage of coal substitution by alternative fuels in calorific value basis	14%	16%	☑	≥30%

☑ To improve ☑ On track ☑ Target achieved

At Tasek, the use of alternative raw materials (“ARM”) rich in alumina and silica increased by 23% in 2022, attributed to higher plant capacities to consume the ARMs and proactive sourcing of key input materials.

About 16% of the required energy sources was derived from alternative fuels (“AF”), a 2.5% improvement compared to 2021. The AF sources mainly include fossil-based waste like plastics and carbon black. The improved utilisation rate in 2022 was primarily due to increased consumption of carbon black and a diversified sourcing approach to secure alternative fuels.

CONCRETE WASTE GENERATED (%) FROM READY-MIX CONCRETE

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	COUNTRY	2021	2022	STATUS	2025 TARGET
Circular Economy & Waste	Percentage of concrete waste generated from total volume (excluding sludge)	Singapore	NEW*	4.1%	☑	≤0.5%
		Malaysia	NEW*	0.4%	☑	

☑ To improve ☑ On track ☑ Target achieved

***Note:** New item added under sustainability reporting scope as of FY2021

CIRCULAR ECONOMY AND WASTE



2022 PERFORMANCE

Overall, an estimated 253,501 tonnes of waste from the Building Materials business was generated in 2022. Of this volume generated, around 1% was directed to disposal (domestic waste, hazardous waste) while the remaining 99% was diverted from disposal (concrete waste, scraps).

We have started to monitor and report this indicator in 2022 and will continue to improve our reporting of waste generation and disposal from our operations in the coming years.

The Building Materials business recorded a water consumption of 1.65 million m³ of water. Most of the water is currently consumed by Tasek cement plant (40%), followed by concrete operations in Singapore (33%) and precast operations in Singapore (20%).

We have started to monitor and report this indicator in 2022 and HLA will continue to improve our reporting of overall water consumption.

WASTE GENERATION BY BUSINESS SEGMENT AND GEOGRAPHIC LOCATION

BUSINESS SEGMENT	GEOGRAPHIC LOCATION	TYPE OF WASTE	WASTE GENERATED (t)
Building Materials	Singapore	Oils, lubricants, concrete sludge,	250,892
	Malaysia	domestic waste, scraps	2,609
TOTAL			253,501

WASTE PERFORMANCE BY BUSINESS SEGMENT AND GEOGRAPHIC LOCATION

BUSINESS SEGMENT	GEOGRAPHIC LOCATION	WASTE DIRECTED TO DISPOSAL (t)	WASTE DIVERTED FROM DISPOSAL (t)
Building Materials	Singapore	723	250,169
	Malaysia	122	2,486
TOTAL		845	252,655

WATER CONSUMPTION BY BUSINESS SEGMENT AND GEOGRAPHIC LOCATION

BUSINESS SEGMENT	GEOGRAPHIC LOCATION	WATER CONSUMPTION (m ³)
Building Materials	Singapore	877,727
	Malaysia*	773,290
TOTAL		1,651,017

***Note:** Water consumption data from concrete and cement operations in Malaysia is based on water pump flow, running hours and water usage in concrete mix

BUILDING MATERIALS UNIT



DUST AND OTHER EMISSIONS MANAGEMENT

Dust is emitted in the processing of raw materials and within our cement and ready-mix concrete batching plants. Our Building Materials business operations are committed to ensure we have effective mitigating measures in place.

The measures are in compliance with specific country requirements to minimise air emission and pollution for nearby communities. Our main pollution control equipment are bag filters or electrostatic precipitators which are installed in our plants and covers major equipment, transfer points and silos. These are inspected on a periodic basis and preventive maintenance is carried out to maintain optimum performance of the pollution control equipment.

For our operations in Singapore, ambient air is monitored and the government imposes regulatory measures to minimise dust emissions through zoning and land-use planning.

At Tasek, an online real time continuous emission monitoring system is installed and linked to the Department of Environment in Malaysia. In rare occasions of a spike in dust emission due to an unexpected breakdown or instability of certain plant processes, the operations team would take prompt actions to rectify the issue and notify the regulators accordingly.

Monitoring of emission levels by an external third party is also carried out on a quarterly basis. A direct communication channel is provided for nearby communities to enable them to address any relevant environmental issue with the plant's Safety, Health & Environment ("SHE") manager for corrective action.



PROGRESS ON 2025 TARGETS

DUST AND OTHER EMISSIONS

🔴 To improve 🟡 On track 🟢 Target achieved

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Dust and Other Emissions	Fines / complaints on dust emissions from authorities	0	0	🟢	Zero
	Dust emission levels	NEW*	<38.79 mg/Nm ³ **	🟢	<50mg/Nm ³ continuously
	SOx, NOx, VOC emissions	NEW*	Data collection in progress	🟡	Data to be assessed / collected and reported by 2023

*Note: New item added under sustainability reporting scope as of FY2021

**Note: Based on average external third-party measurements from both kilns in 2022

DUST AND OTHER EMISSIONS MANAGEMENT



2022 PERFORMANCE

Our Building Materials business ensures its processes and maintenance of equipment are in good order to control dust emissions according to regulatory limits.

At Tasek, dust emission limits were first introduced in 2019 in accordance with the Environmental Quality (Clean Air) Regulation 2014 in Malaysia. The first phase of upgrading of dust collectors was then completed in 2019. The second phase of upgrading the electrostatic precipitators system for the second kiln was completed in 2022. Dust emission levels are currently well below the allowable limit of 50mg/Nm³.

We recorded zero fines from authorities on emissions and one complaint from the community in Malaysia in 2022.



TASEK IMPROVES DUST EMISSIONS CONTROL

At Tasek, dust emission limits have been reduced in accordance with the Environmental Quality (Clean Air) Regulation 2014 for the production lines of two kilns. The first phase of upgrading was completed in 2019 and the second phase in 2022. The RM25 million upgrading was carried out in two phases to ensure the dust emission limits were well below 50mg/Nm³ at all times. The main upgrading work done was the replacement/conversion of the existing limestone electrostatic precipitator to a bag filter technology.



BUILDING MATERIALS UNIT



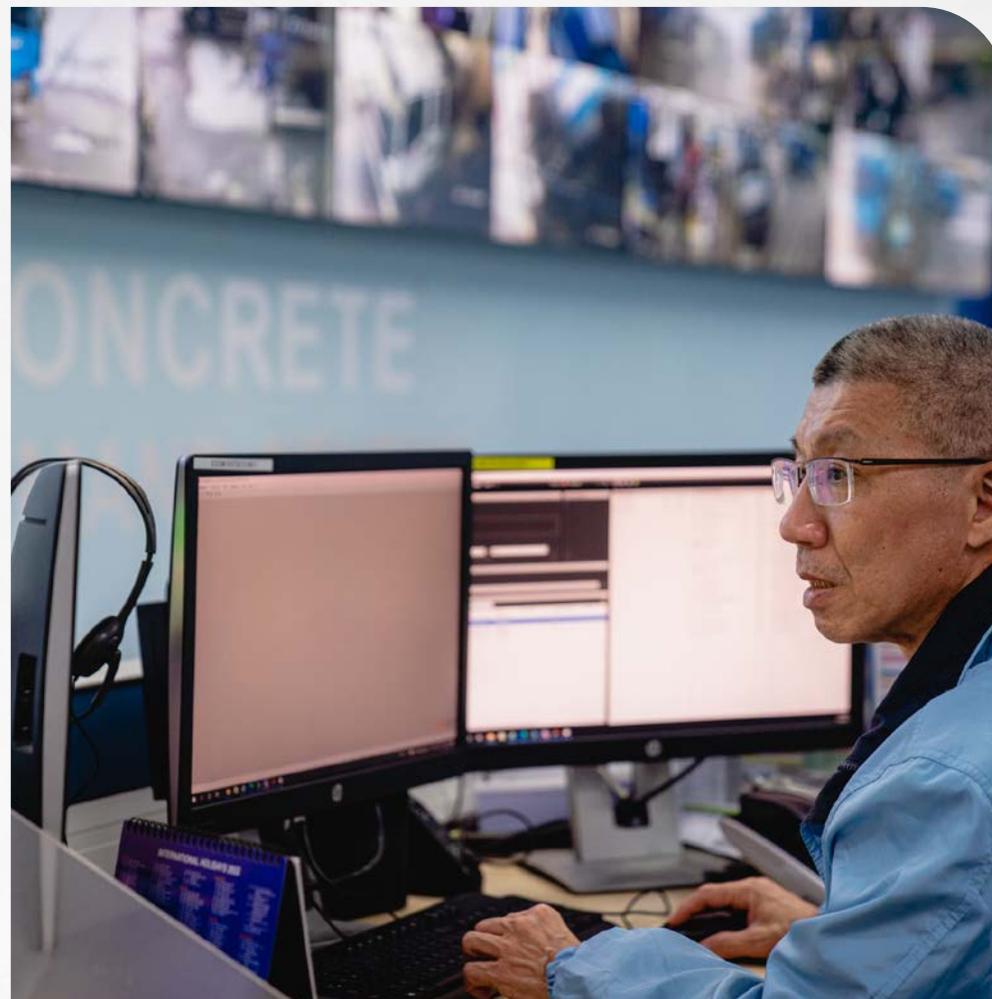
PRODUCT QUALITY & CUSTOMER SATISFACTION

All our Building Material business operations are certified according to ISO 9001 requirements. This includes our cement plant and ready-mix sites. The laboratory in our cement plant in Malaysia is also certified ISO 17025 compliant, which sets the main standards for testing and calibration. We conduct periodic testing of raw materials, clinker, cement and concrete to ensure the quality is maintained throughout the supply chain.

Our cement and concrete products have their product certification licenses issued by the respective authorities- Standard and Industrial Research Institute of Malaysia, Construction and Industry Development Board for Malaysia, and BCA in Singapore. Major suppliers are evaluated at least once a year on quality of goods and services provided. Ad-hoc visits to our suppliers' sites formed part of the evaluation process, especially for new suppliers.

Our sales & marketing teams proactively engage with customers to ensure our products and services meet or exceed their expectations. These engagements enable our sales & marketing teams to address issues promptly. The teams work closely with the technical and quality control teams to conduct site visits and review customer feedback to solve issues and align with any changing industry requirements and trends.

Formal surveys are conducted to obtain customer feedback on our products and services. These are performed annually or at the end of each project. The customer feedback enables us to gauge the level of customer satisfaction and identify areas for improvement.



PRODUCT QUALITY & CUSTOMER SATISFACTION



PROGRESS ON 2025 TARGETS

The precast division of our Building Materials business in Singapore achieved a customer satisfaction of 82% for the manufacture, supply and delivery of precast concrete components for projects completed in 2022. The score, solicited from 6 customers, was based on BCA's customer evaluation criteria covering five areas: quality performance, site planning and control, progress of works, housekeeping, and response to instructions.

In Singapore, Island Concrete conducted its first customer survey in 2022. A total of 22 customers were surveyed on topics relating to sales response to enquiry, order process, product quality and delivery performance.

At Tasek in Malaysia, the cement division conducts annual surveys for its major customers. The survey covers product quality and customer service including product performance and service levels. A satisfaction rate of 78% was recorded based on 80 responses for 2022, 3% lower compared to 2021. Among issues identified were product consistency and response time to issues highlighted.

Tasek's ready-mix concrete division similarly conducted an online customer survey which covered customer feedback on ordering, delivery, quality and service. A customer satisfaction score of 86% was achieved based on 42 responses, which is an improvement compared to 2021.

Despite the intense competition, both our cement and ready-mix concrete operations in Tasek managed to maintain a strong customer satisfaction score in 2022.

SURVEY RESULTS FOR BUILDING MATERIALS BUSINESS

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2020	2021	2022	STATUS	2025 TARGET
	Average Customer Satisfaction Score based on annual surveys and/or feedback					
Product Quality and Customer Satisfaction	• BMG Precast Division under HL Building Materials ("HLBM")	83%	81%	82%		
	• BMG Ready-mix Concrete Division ("Island Concrete")	-	NEW*	81%	☑	≥90%
	• Tasek Cement	82%	81%	78%		
	• Tasek Ready-mix Concrete	77%	83%	86%		

☑ To improve ☑ On track ☑ Target achieved

*Note: New item added under sustainability reporting scope as of FY2021

PRODUCT QUALITY & CUSTOMER SATISFACTION



NEWLY LAUNCHED INTEGRATED CONSTRUCTION AND PREFABRICATION HUB TO INCREASE LABOUR PRODUCTIVITY AND ENHANCE WORKPLACE SAFETY

HLBM, together with our JV partner, Sunway Group, built an Integrated Construction and Prefabrication Hub ("ICPH") with a floor area of 65,317.06 m². The three-storey manufacturing facility named HL-Sunway Prefab Hub is equipped with state-of-the-art technology which include an Automated Carousel System, an Automated Storage and Retrieval System ("ASRS"), an Automated material hoist for loading/unloading of rebar and batching plant with flying buckets, for the production of prefabricated individual precast components, integrated sub-assemblies and prefinished volumetric construction ("PPVC") modules. The automation of processes along the production line will enhance workplace safety as well as achieve productivity gains.

As the 5th ICPH in Singapore, the HL-Sunway Prefab Hub has perforated façade cladding which not only enhances the visual aesthetics of the building but also enriches the indoor environment of the facility, allowing natural ventilation and lighting that significantly improves energy efficiency. Commercial operations started on 5 January 2023 and our 1st load of delivery was made on 31 January 2023.

Key features/facts of the ICPH plant include:

- 14 lines equipped with heavy lifting overhead cranes of up to 40T
- Equipped with integrated concrete batching plant with flying bucket and ASRS
- Raw material receiving hopper equipped with misting spray for dust pollution control
- Raw material storage fully enclosed - all raw materials are stored either underground or in silo
- Attained Greenmark Gold for the green initiatives adopted such as solar panels (25% power substitution) for the building. Façade walls are perforated for natural ventilation and lighting, coupled with an 8m wide air-well which enables ICPH to have natural ventilation without the need for mechanical ventilation
- Onsite wastewater treatment facility with zero wastewater discharge to open drain



POWERTRAIN SOLUTIONS UNIT



ENERGY EFFICIENT PRODUCTS

Guangxi Yuchai Machinery Limited (“GYMCL” or “Yuchai”) is a subsidiary of China Yuchai International Limited (“CYI”) and a major component manufacturer of Powertrain Solutions. It has invested heavily in R&D to reduce the environmental impact and to meet the stricter emission standards as required by the Chinese government. The R&D centre is located in Nanning, capital of Guangxi Zhuang Autonomous Region and test trial lines are situated in Yulin, Guangxi Zhuang Autonomous Region.

To combat increasing air pollution, China has implemented the National Emissions VI (Stage 3 heavy-duty Vehicle Fuel Consumption) and Tier IV standards for new on-road heavy-duty vehicles (HGV) and off-road vehicles.

The National VI standard is implemented in phases from 1 July 2021 to 1 July 2023. Concurrently, GYMCL is working to comply with

the Chinese National VII (Stage 4 HD Vehicle Fuel Consumption) standards. This is likely to be enforced in mid-2024 with target fuel savings of 15% for Stage 3 standards (National VI).

As a result of these developments, GYMCL is advancing towards alternative fuels and environmentally-friendly hybrid engines with improved fuel efficiency. This includes next-generation hybrid powertrains, fuel cell systems and range extenders which will enlarge the portfolio of new energy vehicle (“NEV”) products and provide customers with wider range of green options.



HLA has identified the SDG 9 indicator to upgrade infrastructure and retrofit industries by 2030 to make them sustainable with increased resource use efficiency and greater adoption of clean and environmentally-sound technologies and processes as a key positive contribution to target through performance improvement. Hence, we have committed to a new 2025 target under our Powertrain Solutions business to expand our range of new energy powertrain solutions and sales to customers.



2022 PERFORMANCE

GYMCL’s investment on R&D and outcomes are tabled below. Total R&D expenditure in 2022 represents 5% of GYMCL’s revenue compared to 4% in 2021.

SUMMARY OF R&D STATISTICS UNDER GYMCL

	2020	2021	2022	Total (2020 – 2022)
R&D expenses (RMB million)	627	849	836	2,312
Patent Application	1,497	1,275	1,029	3,081
Patent Granted*	607	585	790	1,982

***Note:** Patents are applicable in China, Vietnam, Japan and South Korea

The types of registered patents are invention patents, utility model patents and design patents. The term of patent protection is 10 or 20 years from the filing date depending on the type of patent registered

ENERGY EFFICIENT PRODUCTS

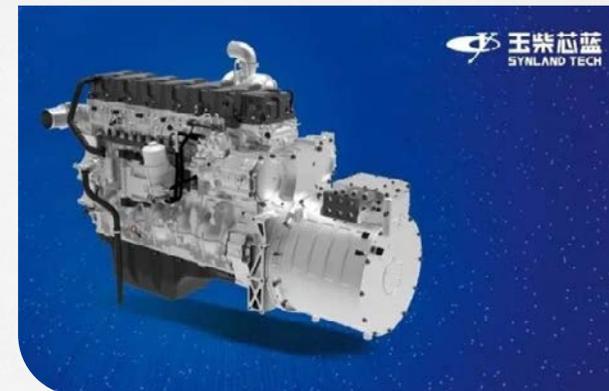
The following NEV products have started to enter the market in China to meet the growing demands for alternative fuel solutions:

- **Plug in hybrid engine** - these include the YCHPT II, YC4EG gas engine with an ISG generator
- **Range Extender** - which combines a traditional diesel engine and an electric power system - YCY24 engine + 65 kW, YCSO4 engine + 100 kW, YCK16 + 400kW
- **ISG power generation powertrain (“YC IE-Power”)** - directly couples the hybrid and power extender engine drive end for both vehicle motion and battery charging
- **e-CVT power-split hybrid powertrain (“YC e-CVT”)** - integrates the vehicle transmission and motor-generator in a single module
- **Integrated electric drive axel powertrain (“YC e-Axle”)** - integrates driving motor on wheel axle together with motor and vehicle control modules
- **Fuel cell system (“YC FCS”)** - designed outputs of 40 kW and 90 kW, for both truck and bus applications

Following efforts to meet such demands, GYMCL marked a milestone in December 2021 with the first operating hydrogen engine - YCK05 for the commercial vehicle market in China. The YCK05 hydrogen-powered engine solution is aligned with China’s Carbon Reduction Goals in 2030 and 2060. Developed in cooperation with the Beijing Institute of Technology, the upgraded engine with its highly-efficient combustion technology makes it widely applicable for the bus, municipal, sanitation, logistics and distributions sectors.

An improved second hydrogen engine- YCK16H was rolled out in June 2022, positioning GYMCL as a leading supplier of hydrogen internal combustion engines with offerings for light-duty and heavy-duty commercial application in China (see case study on page 35).

Moving forward, GYMCL will continue to roll out initiatives under its new energy partnerships and collaborations to work towards its target of increasing green product sales to 20% of its total engine sales by 2025.



YCK16+400kW has maximum power generation per litre of diesel of 4.45kWh/L, which is 23% higher than current industry level



Nanjun new energy light truck equipped with Yuchai Xinlan E-AxleE-Axle

ENERGY EFFICIENT PRODUCTS



YUCHAI LAUNCHES HIGH POWER RANGE EXTENDER SYSTEM IN A 200-TON MINING TRUCK

Inner Mongolia Easymove Intelligent Technology Co., Ltd. the first domestically-made 200-ton mining truck EM200. Equipped with Yuchai 300kW high-power range extender powertrain system, it greatly improves payload management efficiency, lowers carbon emissions and provides intelligent control.

The proprietary-designed system utilises electromechanical hybrid control and the Permanent Magnet Synchronous Motor which significantly reduces its weight and size with more power and better reliability. The range extender complements the energy from the vehicle battery which helps it to cope with bumpy and steep road conditions. Other major benefits of outfitting the EM200 with Yuchai 300kW range extender includes 30% fuel reduction and lower carbon emissions and noise level.



ENERGY EFFICIENT PRODUCTS



YUCHAI'S YCK16H LAUNCHES AS THE HIGHEST HORSEPOWER HYDROGEN ENGINE IN CHINA

GYMCL successfully launched the YCK16H hydrogen engine in Yulin, Guangxi Zhuang Autonomous Region.

This hydrogen engine has a displacement of 15.93 litres and a maximum horsepower of 560. It is currently the hydrogen-burning engine with the largest displacement and highest horsepower in China.

YCK16H features a proprietary smart engine control system along with its advanced high-pressure common rail, high-pressure direct injection and twin scroll turbocharger technologies enabling stronger power, higher thermal efficiency and better combustion stability.

This engine is designed with high adaptability for fuel concentration, which allows the engines to operate with different hydrogen fuels such as grey hydrogen, green hydrogen and hydrogen from methanol.

The successful ignition of the heavy-duty YCK16H engine follows the launch of GYMCL's first hydrogen-fired engine, YCK05H, in December 2021. The light-duty YCK05H is



designed for the urban buses, municipal administration, sanitation, and logistics and distribution markets while the YCK16H can be widely used in various heavy-duty commercial vehicles such as the 49T semi-trailer and distributed energy resource applications.

Leveraging the same engine set-up, a natural gas engine version of YCK15N has completed both the bench and vehicle road tests. It is expected to be put into mass production by 2023.

POWERTRAIN SOLUTIONS UNIT



CIRCULAR ECONOMY AND WASTE

GYMCL uses the “reduce, reuse and recycle” approach in their operations in order to conserve natural resources.

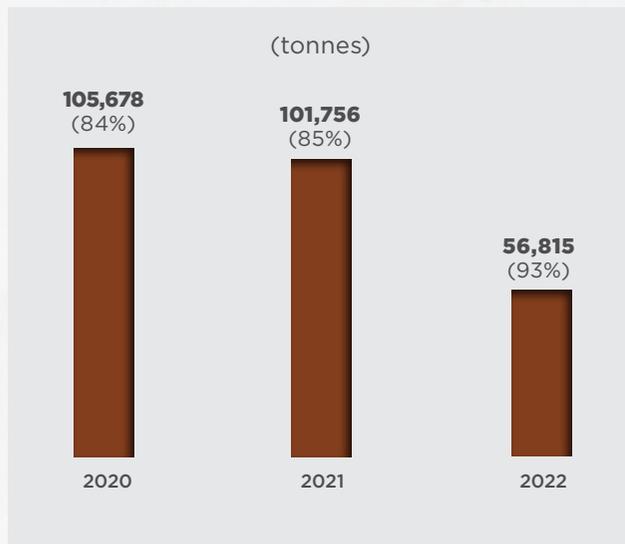
GYMCL has been using recycled sand rather than natural sand in the manufacturing process of engine blocks. Production water used for equipment cooling requirements are also recycled and used for the cleaning of water tanks in sewage treatment stations and ground surfaces to reduce overall water consumption. For product transportation, GYMCL has replaced wooden boxes used for packaging with reusable, lighter steel cage frames which reduces waste and emissions.

GYMCL is currently using environmentally-friendly high-heat paint within the plant that is free of benzene, toluene, xylene and other heavy metals such as lead, mercury, chromium and cadmium. This reduces the volatile organic compounds (“VOCs”) found in traditional high-heat paint by 80%.

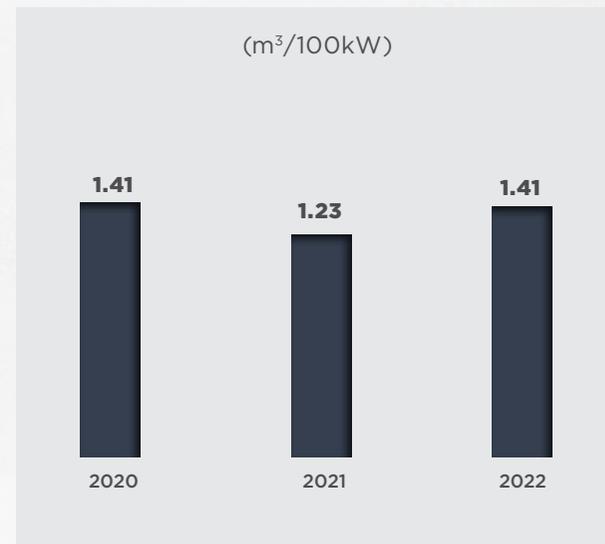


2022 PERFORMANCE

NATURAL SAND REPLACEMENT



WATER CONSUMPTION



OTHER WASTE STATISTICS UNDER GYMCL

	UNITS	2020	2021	2022
Waste Oil	tonnes	112.2	156.7	115.1
Hazardous Waste	tonnes	1002.8	907.9	625.7
Recycling of Packaging	units	295,269	325,000	187,281

POWERTRAIN SOLUTIONS UNIT



DUST AND OTHER EMISSIONS MANAGEMENT

GYMCL has built treatment and filter systems for dust, fumes, painting and noise to reduce the pollution resulting from engine production. Existing environmentally-friendly facilities and production lines comply with national, provincial and local environmental protection regulations in China.



2022 PERFORMANCE

GYMCL has recorded zero fines from authorities on emissions and zero complaints from the community in 2022.



PRODUCT AND CUSTOMER SATISFACTION

GYMCL prides itself on quality assurance and continues to ensure high standards even as its product range expands. This is guided by a strong culture of total quality control and its management has a clear oversight on key processes such as lean manufacturing and has established strong practices of open communication and collaboration between departments.

Understanding customer needs in the market segments that we serve and strengthening brand and service levels remain a key focus.

GYMCL serves the Chinese domestic market with 3,335 network stations and 239 overseas network stations providing after-sales service including warranty for engines made by GYMCL.

To strengthen quality assurance management with new customer demands and growing regulatory requirements such as safety features, efficiency and environmentally-friendly benefits, R&D continues to be a main driver of innovation in the process of enhancing our engine designs.



PRODUCT AND CUSTOMER SATISFACTION



2022 PERFORMANCE

GYMCL received positive customer feedback from surveys that cover product quality, service, efficiency and customer service attitude. The results were polled from customers consolidated through key sales channels that included customer service hotlines, service management offices located across China and third-party customer satisfaction surveying bodies.

GYMCL achieved an average rating of 88% in 2022.

The recent National VI compliant engine roll-out was supported by greater training resources to strengthen the technical capacity of service personnel and to ensure a positive customer experience in using the new engine technology.

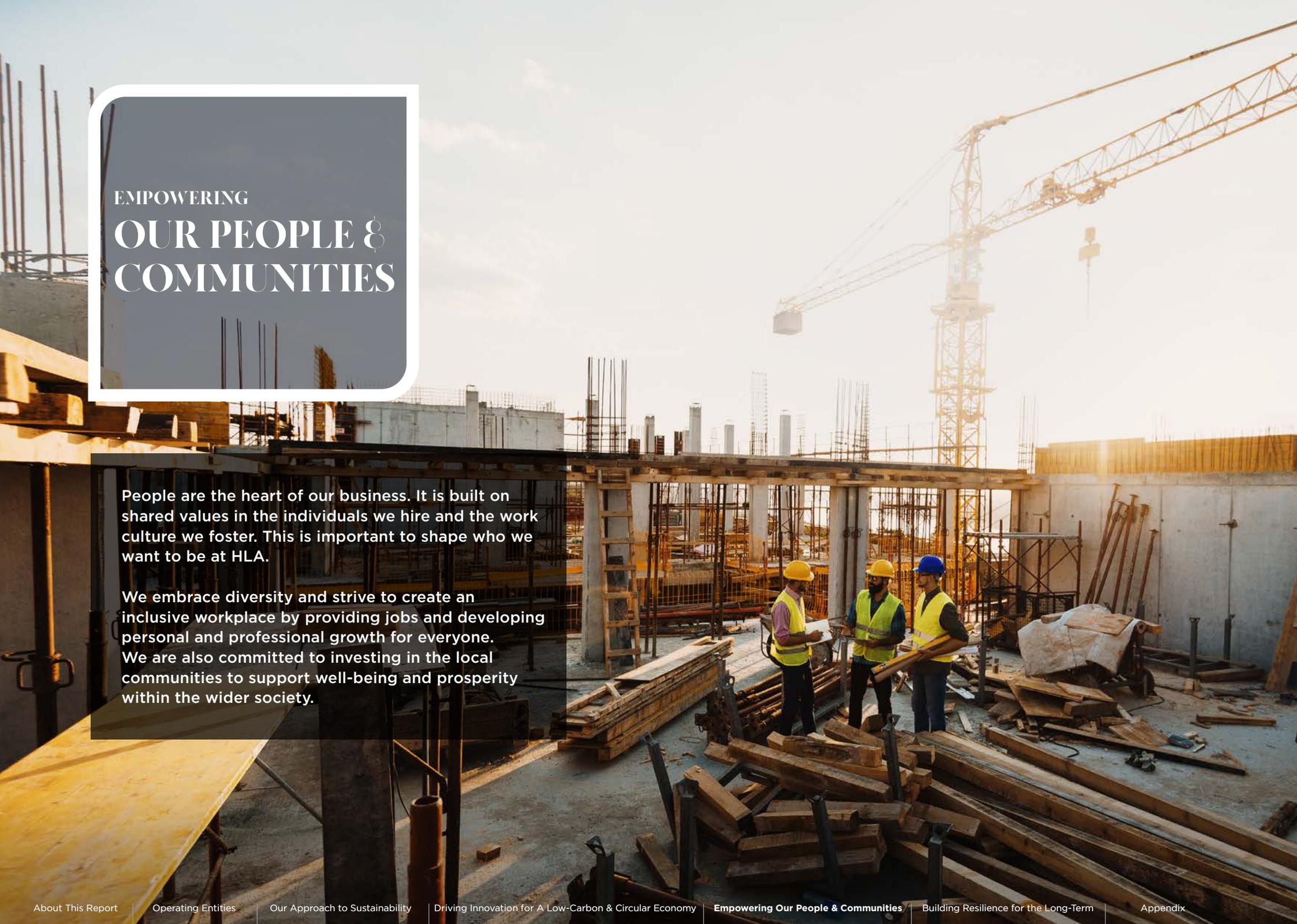
To improve service levels and competency, GYMCL conducted:

- 242 service training sessions with over 27,000 people
- 129 live training sessions with over 8,400 participants (37 National VI training sessions with 1,237 trainees and 37 T4 training sessions with 340 trainees)
- 109 online training sessions with more than 18,000 participants (4 sessions of National VI training were held with 665 participants, 25 sessions of T4 training were held, and the rest were video push courses)
- 4 internal training for service personnel with 300 attendees

CUSTOMER SATISFACTION (PRODUCT SEGMENT) UNDER GYMCL

CUSTOMER SATISFACTION RATINGS	2020	2021	2022
Commercial (%)	84	80	84
General Engine (%)	86	82	82
Marine (%)	86	90	86
Average (%)	82	82	88





EMPOWERING OUR PEOPLE & COMMUNITIES

People are the heart of our business. It is built on shared values in the individuals we hire and the work culture we foster. This is important to shape who we want to be at HLA.

We embrace diversity and strive to create an inclusive workplace by providing jobs and developing personal and professional growth for everyone. We are also committed to investing in the local communities to support well-being and prosperity within the wider society.

SUMMARY TABLE OF 2025 TARGETS - EMPOWERING OUR PEOPLE & COMMUNITIES

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2022 PROGRESS	STATUS	2025 TARGET*
Diversity, Inclusion and Talent Management	Hours of training per employee per year (in-person and/or virtual, on the job training etc.) to be aligned with career development plans	6 hours/employee	🔴	≥40 hours / employee annually
	Implement a diversity and inclusion policy	Policy drafted	🟡	100% implemented
	Update and implement clear succession planning development framework	Frameworks being developed by Group HR	🟡	100% implemented
	Redesign internship and develop management trainee programmes to align to talent management programmes	Frameworks being developed by Group HR	🟡	100% implemented
Community Engagement	Percentage of employee participation in volunteering or community engagement activities	12%	🟡	≥30%
	Volunteering hours for community engagement activities	NEW**	N/A	≥6,000 hours / year
	Complaints from local communities at all operational sites	1	🔴	Zero incidents
	All sites to establish and implement stakeholder engagement plans	33% (Engagements plans completed for Malaysia)	🟡	100%
	Initiatives towards Sustainable Cities and Communities and/or Sustainable Construction initiatives	Joint venture with bus manufacturer, Beijing Xingshunda on fuel cell powertrain systems	🟡	Initiation & implementation of projects, partnerships, collaborations and/or R&D

🔴 To improve 🟡 On track 🟢 Target achieved

***Note:** Some of the 2025 targets have been fine-tuned to better reflect the nature of our businesses

****Note:** Powertrain Solutions business has in 2022, committed to the same targets under the Group which is marked as NEW

DIVERSITY, INCLUSION AND TALENT MANAGEMENT

We strive to ensure our employees are evaluated based on merit, competency and experience within the organisation. Training and reskilling of our employees are our priorities to ensure optimal performance and engagement of employees. For leadership training, we identify candidates through performance appraisals and succession planning processes. Supervisors are responsible for guiding these employees through their career paths with clearly defined goals. This enables us to build a pool of talent for more senior roles within the business.

Workplace diversity is vital to nurture inclusivity, promote innovation and support business sustainability. Our Code of Business Conduct

(“COBC”) ensures that we create a fair, respectful and equitable work environment. The COBC is also shared with every new employee who joins the company. During town hall sessions and performance appraisals, our leaders and employees are encouraged to exchange ideas and inspire one another to be better role models.

Encouraging regular dialogue between employee and supervisor also ensures we build healthy relationships in the workplace. Employees are free to voice any concerns and feedback to the Management, Heads of Departments and unions. For more serious grievances, the Group’s whistleblowing channel offers a safe alternative.

PROGRESS ON 2025 TARGETS

DIVERSITY, INCLUSION AND TALENT MANAGEMENT

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Diversity, Inclusion and Talent Management	Hours of training per employee per year (in-person and/or virtual, on the job training etc.) to be aligned with career development plans	47	6		≥40 hours / employee annually
	Implement a diversity and inclusion policy	NEW*	Policy drafted		100% implemented
	Update and implement clear succession planning and talent development framework	NEW*	Frameworks being developed by Group HR		100% implemented

 To improve  On track  Target achieved

*Note: New item added under sustainability reporting scope as of FY2021

DIVERSITY, INCLUSION AND TALENT MANAGEMENT

In Singapore and Malaysia under the Building Materials business, a total of 1,103 training sessions equivalent to 30,399 hours were conducted for employees. The training sessions and hours for operations were ramped up in 2022 after cessation of lockdowns/circuit breakers and return to normality. This includes standard trainings covering health and safety, laws and regulations, risk and compliance, energy and waste management and systems for controls and quality checks.

Furthermore, a new HR reporting template was developed in 2022 which has expanded the Group’s criteria for training hours and hence, includes new segments related to people development. This includes trainings such as operational tool-box talks, core values and skills-based development programmes as well as educational and wellness talks.

In 2022, the Group also rolled out a structured performance appraisal and goal setting process. Various trainings and engagements listed below were conducted to gather feedback and inputs from the businesses.

- Management trainee programme
- Leadership training
- HR initiatives – breakfast with HR, monthly engagement at batching plants
- Pictures of the trainings and HR initiatives / engagement

HLA GROUP TRAINING HOURS FOR EMPLOYEE BY BUSINESS

YEAR	TRAINING HOURS		TRAINING HOURS / EMPLOYEE	
	BUILDING MATERIALS	POWERTRAIN SOLUTIONS	BUILDING MATERIALS	POWERTRAIN SOLUTIONS
2020	5,289	271,350	4.3	40.5
2021	6,798	373,661	5.9	53.6
2022	30,399	8,613	23.19	1.5

Talent management at GYMCL is heavily focused on operational trainings on production and improving technical expertise due to the nature of the business. This is supported by the Yuchai Vocational College which has 46 training rooms that can accommodate more than 1,000 employees for on-the-job training such as in engineering and technological innovation. In 2022, training hours dropped significantly as a result of nation-wide lockdowns in China due to the pandemic. Hence, a total of 8,613 hours were conducted for employees.



Occupational Health & Knowledge sharing sessions



GYMCL employee physical & health examination



Sports and recreational activities organised for GYMCL employees

DIVERSITY, INCLUSION AND TALENT MANAGEMENT



2022 PERFORMANCE

In 2022, HLA recorded a total headcount of 7,020 full-time employees under its Building Materials and Powertrain Solutions business operations across Singapore, Malaysia and China.

The Building Materials business has a total headcount of 1,311 employees with 63% based in Malaysia and the remaining 37% located in Singapore. The gender ratio between male and female is around 9:1, with about 21% under union or collective bargaining agreements.

Over in China, the number of workers employed in China stood at 5,709 as at 31 December 2022. The gender ratio is approximately 8.5:1.5 between men and women. GYMCL employees are 100% unionised.

Overall, the Group recorded an employee turnover rate of 24.4% in 2022 compared to employee turnover rate of 6.1% in 2021. The higher turnover rate is largely attributed to GYMCL with a turnover rate of 27% compared to 12.8% under the Building Materials business. This is due to a significant headcount reduction under their operations in China due to weaker commercial vehicle demand caused by pandemic related lockdowns.

HLA GROUP EMPLOYMENT TYPE AND GENDER FOR 2022 BY BUSINESS

EMPLOYMENT TYPE	TASEK		BMG		GYMCL		TOTAL
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
Permanent	455	62	490	79	3,558	613	5,257
Temporary	11	4	208	2	1,319	219	1,763
TOTAL	466	66	698	81	4,877	832	7,020
	532		779*		5,709		

Note: Table excludes corporate office employees based in Singapore and China

***Note:** 37% of BMG employees are based in Malaysia

DIVERSITY, INCLUSION AND TALENT MANAGEMENT

HLA GROUP HIRING & TURNOVER RATE FOR 2022 BY AGE, GENDER AND BUSINESS UNIT

REGION	NEW HIRES						TURNOVER					
	AGE GROUP			GENDER			AGE GROUP			GENDER		
	<30	30-50	>50	MALE	FEMALE	TOTAL	<30	30-50	>50	MALE	FEMALE	TOTAL
Tasek (Rate ³)	47	32	8	76	11	87	17	47	17	71	10	81
	8.8%	6.0%	1.5%	14.3%	2.1%	16.4%	3.2%	8.8%	3.2%	13.3%	1.9%	15.2%
BMG (Rate ³)	99	139	5	228	15	243	33	45	9	72	15	87
	12.7%	17.8%	0.6%	29.3%	1.9%	31.2%	4.2%	5.8%	1.2%	9.2%	1.9%	11.2%
GYMCL (Rate ³)	227	48	7	237	45	282	518	896	128	1,393	149	1,542
	4.0%	0.8%	0.1%	4.2%	0.8%	4.9%	9.1%	15.7%	2.2%	24.4%	2.6%	27.0%

Note: Table excludes corporate office employees based in Singapore and China



COMMUNITY ENGAGEMENT

HLA's entrepreneurial spirit is the basis for our core value "Create an Impact Beyond our Business". We are committed to the overall well-being of our employees and their families and the local communities that we operate in.

By developing sustainable and innovative programmes, we align ourselves more closely with our Sustainability Framework and 2025 Vision and promote lasting employee engagement, support for communities, and build sustainable value for our business.



PROGRESS ON 2025 TARGETS

In 2022, the Group's HR team has been working closely with our Building Materials businesses in Singapore and Malaysia to develop a clearer focus on the types of community engagement and volunteer activities to engage in moving forward. Hence, corporate social responsibility committees have been established and are currently developing regular engagement plans and long-term goals. During the year, a total of 22 employees in Singapore from the corporate office and Building Materials business participated in 2 community engagement activities, while a total of 111 employees in Malaysia attended 7 community engagement activities.



HLA employees in Singapore on a farming excursion at Green Eco-Circle Farm



HLA'S COMMITMENT TO RAISING SUSTAINABILITY AWARENESS AMONGST YOUTH

We continued to collaborate with Dazhong Primary School and support their Sustainability Education and Leadership Programme to provide curated workshops facilitated by Terra SG, a social enterprise dedicated to effecting positive social and environmental changes, for 40 students on the programme in 2022.

Throughout the year, the 40 eco-champions from Dazhong Primary School participated in a myriad of activities around climate change, carbon reduction and environmental sustainability conducted through upcycling workshops and eco carnivals. These events were supported by HLA's Sustainability and Corporate Affairs as well as HR departments through collaborative curation and participation.



COMMUNITY ENGAGEMENT

In the area of stakeholder engagement planning, we have conducted a new stakeholder engagement training first starting with Tasek, Malaysia, to refresh our approach in this area. The plans are in the midst of being formalised while we target to complete the training for Building Materials, Singapore, in 2023. Lastly, we recorded one complaint from the community in Malaysia. The authorities subsequently contacted the site and explanation was given based on internal investigation. There was no contingent liability or penalty resulting from the incident.

COMMUNITY ENGAGEMENT

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
	Percentage of employee participation in volunteering or community engagement activities (excluding Powertrain Solutions)	NEW*	12%	🟡	≥30%
	Complaints from local communities at all operational sites (Building Materials)	0	1**	🔴	Zero incidents
Community Engagement	All sites to establish and implement stakeholder engagement plans (excluding Powertrain Solutions)	NEW*	33% (Engagements plans completed for Malaysia)	🟡	100%
	Initiatives towards sustainable cities and communities and/or sustainable construction initiatives	NEW*	Joint venture with bus manufacturer, Beijing Xingshunda on fuel cell powertrain systems	🟡	Initiation & implementation of projects, partnerships, collaborations and/or R&D

🔴 To improve 🟡 On track 🟢 Target achieved

***Note:** New item added under sustainability reporting scope as of FY2021

****Note:** One incident was recorded by our operations in Malaysia when operational instability caused by a sudden variation in temperature on 11 February 2022 led to visible emissions. A review of operational procedures was conducted to prevent reoccurrence and as at 31 December 2022, no further incidents has been logged.

COMMUNITY ENGAGEMENT

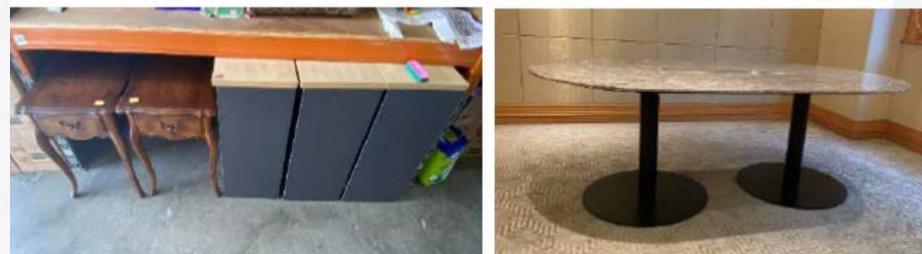


SUPPORTING THE CIRCULAR ECONOMY FOR OFFICE FURNITURE

As part of our commitment to a low-carbon and circular economy, HLA partnered with Sustainable Office Solutions (“SOS”) to manage and minimise waste that would otherwise go to landfill from the corporate office renovation project in Singapore.

91.4% of the furniture, comprising 234 pieces weighing 16,563 kg were diverted from incineration, of which 41% were redistributed locally.

38% of the furniture (88 pieces) were donated to Helping Joy Limited, Migrants and Itinerant People and Patina, with the remaining 20% sent for material recycle. The exercise avoided 15,682 kg CO₂ emissions (calculated according to ISO 14064-2).



COMMUNITY ENGAGEMENT

Over the years, GYMCL has been volunteering in programmes that help to alleviate poverty in the Guangxi Zhuang Autonomous Region and promote opportunities for the young and needy. A special poverty alleviation project was established through agriculture to provide rural communities with stable income streams.



2022 PERFORMANCE

GYMCL employees regularly volunteer with local communities to strengthen relations, participate in community building and support various charitable initiatives. The key activities conducted in 2022 include:

Jointly organised a blood and hematopoietic stem cell donation with Yulin Red Cross Society from 8 to 9 May 2022. A total of 57 employees participated and 11 volunteered to be on the hematopoietic stem cell donor database of China;



On 1 June 2022, 9 employees participated as volunteers at Yuchai Community, Nanjiang Street before the Dragon Boat Festival. This also included the donation of oil, rice and meat to make the sticky rice dumplings which were then distributed to the senior citizens in the local community;



During the summer holidays, 50 volunteer teachers and 48 students participated in the tutoring activity from 16 to 20 August 2022. The tutoring encompasses the main subjects of primary school and junior middle school with individual attention given to every student. Other interest classes such as badminton, table tennis, volleyball, eloquence and reading, music and dance, and English were also provided.





BUILDING RESILIENCE FOR THE LONG-TERM

Our business is built on prudence, hard work, integrity and trust. To ensure financial strength and the resilience of our business, we embedded responsible and sustainable practices into our governance and management systems through robust policies, procedures and training. This means having effective recruitment strategies as they increase our chances to hire talent. In turn, we look after their safety, health and well-being.

SUMMARY TABLE OF 2025 TARGETS - BUILDING RESILIENCE FOR THE LONG-TERM

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2022 PROGRESS	STATUS	2025 TARGET*
Ethical Conduct and Compliance	Employees receive yearly training on COBC, including bribery & corruption	100%	✔	100% implemented
	Corruption and fraud incidents across operations	Zero incidents	✔	Zero incidents
Cybersecurity and Data Protection	Recovery plan in place with tracking of recovery KPIs (group wide)	Initial review, gap analysis & development of 3-year roadmap by Group IT	✔	100% implemented
	To strengthen cybersecurity and data protection policies	Initial review, gap analysis & development of 3-year roadmap by Group IT	✔	100% implemented
Supply Chain Management	Develop and roll out a new Supplier Code of Conduct to reflect ESG criteria	Draft policy, framework and assessment circulated for final internal review	✔	By 2023 & all new suppliers to be screened with the new criteria
	High value suppliers screened as per ESG criteria on a yearly basis	Draft policy, framework and assessment circulated for final internal review	✔	100% implemented
Occupational Health, Safety and Welfare	Fatalities & lost time injuries across operational sites	Fatality - 0 LTI - 14	✔	Zero incidents
	Third-party fatality and injury from transportation of products on the road	Zero incidents	✔	Zero incidents
	Operational sites to implement ISO 45001 (Building Materials)	37.5%	✔	100% implemented

✔ To improve ✔ On track ✔ Target achieved

Note: Powertrain Solutions business has in 2022, committed to the same targets under the Group unless specified separately

***Note:** Some of the 2025 targets have been fine-tuned to better reflect the nature of our businesses

HLA GROUP



ETHICAL CONDUCT & REGULATORY COMPLIANCE

We conduct our business with the highest ethical standards and have zero tolerance towards fraud, corruption, bribery and money laundering. We expect our employees to exhibit high levels of professionalism and ethical behaviour in the Group’s day-to-day business and operations. This is guided and reiterated through our Core Values “Do the Right Things”, HLA Group’s COBC and Anti-Fraud, Anti-Bribery & Anti-Corruption (“FBC”) Policies.

Employees are required to read and declare their understanding and compliance of the COBC annually. The COBC governs aspects such as conflicts of interests, compliance with legal and regulatory provisions, and ensuring proper internal controls within the organisation. Any breaches of COBC may result in investigation, disciplinary actions or termination of the employee, as guided by the respective country labour laws. This is managed and reviewed periodically by the Group HR and approved by the CEO.

Whistleblowing procedures are in place so that employees can confidentially raise their concerns for matters such as improprieties in financial reporting, other malpractices and misconduct. The ARC oversees the whistle-blowing process and is supported by the Head of Internal Audit of HLA. The whistle-blower is given appropriate protection against any reprisals if disclosures are made in good faith. More information about HLA Group’s Whistleblowing Policy can be found in the Corporate Governance Report published within the Annual Report.

All policies related to COBC and whistleblowing can be found at:

- <https://tasekcement.com/>
- <https://investor.cyilimited.com/governance-principles-policies>
- <https://www.hlasia.com.sg/corporate-governance>

PROGRESS ON 2025 TARGETS

Overall, none of the businesses under the Group have reported any cases that resulted in legal action for corruption, non-competitive behaviour, anti-trust and monopoly practices in 2022.

HLA did not incur any material fines and sanctions related to environmental and social aspects for FY2022. We understand the importance of adhering to the regulations of each jurisdiction and pro-actively ensure compliance.

ETHICAL CONDUCT AND COMPLIANCE PERFORMANCE FOR BUILDING MATERIALS

To improve On track Target achieved

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Ethical Conduct and Compliance	Employees receive yearly training on code of conduct, including bribery & corruption	NEW*	100%		100% implemented
	Corruption and fraud incidents across operations	Zero incidents	Zero incidents		Zero incidents

*Note: New item added under sustainability reporting scope as of FY2021

HLA GROUP



CYBERSECURITY & DATA PROTECTION

Amidst a constantly changing business environment, HLA has determined potential strategic, operational, financial and reputational implications against possible business disruptions and the importance of maintaining viable capabilities to continue critical business functions operationally with minimum impact in the event of a crisis.

The Group is in the process of digitalising our front and back-end processes and has set up remote working infrastructure for our employees as part of the Group's Business Continuity Plan ("BCP").

We have put in place cybersecurity measures for Singapore and Malaysia operations including the regular roll-out of software updates and security patches, mail filters, physical restriction to servers and data back-up.

There is also frequent communication with employees on the identification of possible cyber events:

- Advocate 100% reporting culture on any unknown emails, phone calls, or suspicious activities and any possible social engineering activities against the company;
- Build cybersecurity awareness on techniques and types of phishing activities.

Data of employees and customers requires protection under the Personal Data Protection and Commission Act. HLA is committed to preventing unauthorised access and disclosure to avoid data breaches that results in significant harm or impact to our employees or customers. Policies and statements on our personal data policy can be found at:

- <https://tasekcement.com/group-personal/>
- <https://www.hlasia.com.sg/corporate-governance>



CYBERSECURITY & DATA PROTECTION



HLA CYBERSECURITY ROADMAP

HLA businesses increasingly rely on a variety of information technology and cloud services for our operations. Systems and technologies platforms, as well as those provided by third-party service providers, may be vulnerable to damage, disruption, or intrusion caused by circumstances beyond our control, such as physical or electronic break-ins, catastrophic events, power outages, computer system or network failures, security breaches, computer viruses and cyber-attacks.

The Group's IT team is working to establish guidelines, structure and the support framework necessary to ensure appropriate emergency escalation response, resumption and recovery of key business functions and processing workflows in a timely manner coupled with effective communication channels among key management and employees group wide.

Core activities outlined include:

- Reviewing and consolidating Business Impact Analysis (group wide)
- Developing a Cyber Incident Response Plan and integrating it with existing Business Continuity Plans (group wide)
- Perform Cyber Threat Assessments to determine the most likely scenarios for the business to prioritise investments based on risk profile
- Consistent cybersecurity systems/tools/practice implemented group wide
- Implementing cybersecurity controls and monitor services

The timeline and road map have been set out till 2025 with an aim to ensure all businesses under HLA establishes the same level of cyber defence maturity over the next few years.

OPERATION TECHNOLOGY

- Obsolesce technology management
- Operation patching

END USER TRAINING

- Awareness training
- Regular messaging
- Quarterly tests

CLIENT SIDE PROTECTION

- Email filter
- Data loss prevention
- Device encryption
- Device compliance and configuration management
- USB management
- Mobile device management

SYSTEMS AND INFRASTRUCTURE

- Business Impact Analysis
- Penetration Test
- Vulnerability Assessment
- Patch management
- Cloud compliance management
- IT DR planning



ORGANISATION LEVEL

- Data Protection Policy
- Cyber Risk Scenario Planning
- Events Monitoring

CYBERSECURITY & DATA PROTECTION

CYBERSECURITY AND DATA PROTECTION PERFORMANCE

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Cybersecurity and Data Protection	Recovery plan in place with tracking of recovery KPIs (group wide)	NEW*	Initial review, gap analysis & development of 3-year roadmap by Group IT	☑	100% implemented
	To strengthen cybersecurity and data protection policies	NEW*		☑	100% implemented

☑ To improve ☑ On track ☑ Target achieved

***Note:** New item added under sustainability reporting scope as of FY2021



2022 PERFORMANCE

As part of performance measurement, HLA tracks the number of cyber events (not limited to breaches) that have taken place. This excludes attempted phishing that comes in the form of emails or phone calls. The services and applications impacted are mainly through Outlook e-mail and Wi-Fi. All cybersecurity breaches and events are investigated thoroughly and reports are furnished to HLA Management Team, where applicable.

HLA GROUP CYBERSECURITY AND DATA BREACH OCCURRENCES

YEAR	2020	2021	2022
Number of cybersecurity breaches / events on IT assets / network	1	2	0
Number of data breaches that needs to be reported to PDPC	0	0	0

BUILDING MATERIALS UNIT



SUPPLY CHAIN MANAGEMENT

Suppliers are evaluated based on quality, price, delivery and general service and support. Each criterion is given a weightage and scorecard from 0 to 100, which will then be graded as Outstanding, Good, Average or Re-Qualification.

This practice establishes the pre-qualification process for significant tenders, particularly on supplier selection criteria including local regulations compliance and certified quality management systems. Major suppliers are evaluated yearly on quality of goods and services. Ad-hoc visits to our suppliers' sites are also part of the evaluation, especially for new suppliers. For those who do not meet the benchmark, warnings are issued and counselling provided. Those with serious lapses are immediately terminated.

At Tasek, supplier evaluation is conducted annually which covers suppliers, contractors and transporters. Evaluation criteria covers quality, delivery, competency, housekeeping and HSE compliance, and is scored and graded from A to D, with A being the highest score.

Suppliers, contractors and transporters that are graded D will be removed from the approved supplier list. If any supplier has been issued a non-conformance report ("NCR") or given a penalty due to non-compliance or breach of regulations, two points will be deducted for every NCR and penalty collected during the annual evaluation.



PROGRESS ON 2025 TARGETS

HLA has developed the new Supplier Code of Conduct which sets the minimum ESG requirements for suppliers or contractors who are in our value chain. The ESG requirements covers four key areas that include business conduct, human rights, health & safety and environmental & climate change. The new Supplier Code of Conduct will be integrated into all sourcing / procurement activities and supplier management processes which includes registration/on-boarding and contracts/ purchase agreements. A self-assessment questionnaire has also been developed for our high value suppliers and this will assist HLA to better understand our supplier ESG practices and risks and to provide our high value suppliers with an opportunity to demonstrate compliance and acceptance to the code.



SUPPLY CHAIN MANAGEMENT

SUPPLY CHAIN MANAGEMENT

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Supply Chain Management	Develop and roll out a new Supplier Code of Conduct to reflect ESG criteria	NEW*	Draft policy, framework and assessment circulated for final internal review	☑	By 2023 & all new suppliers to be screened with the new criteria
	High value suppliers screened as per ESG criteria on a yearly basis	NEW*		☑	100% implemented

☑ To improve ☑ On track ☑ Target achieved

Note: New item added under sustainability reporting scope as of FY2021



2022 PERFORMANCE

Our Building Materials business in Singapore assessed the following ratings in their supplier evaluations over the last three years:

SUPPLIER ASSESSMENT PERFORMANCE UNDER BUILDING MATERIALS

YEAR	NO. OF SUPPLIERS EVALUATED	AVERAGE RATING	REQUALIFICATION REQUIRED
2020	80	82	None
2021	94	85	None
2022	126	83	None

Note: All suppliers evaluated scored Good / Outstanding

Tasek's cement division assessed the following ratings in their supplier evaluations over the last three years:

SUPPLIER ASSESSMENT PERFORMANCE UNDER TASEK'S CEMENT UNIT

YEAR	NO. OF SUPPLIERS EVALUATED	AVERAGE RATING	SCORED D
2020	134	84	0.02%
2021	166	88	None
2022	201	87	None

No suppliers were rated D since 2021. Those rated D in 2020 have since improved their rating in 2021 after they have developed and made satisfactory progress on their improvement plans.

BUILDING MATERIALS UNIT



OCCUPATIONAL HEALTH, SAFETY AND WELFARE

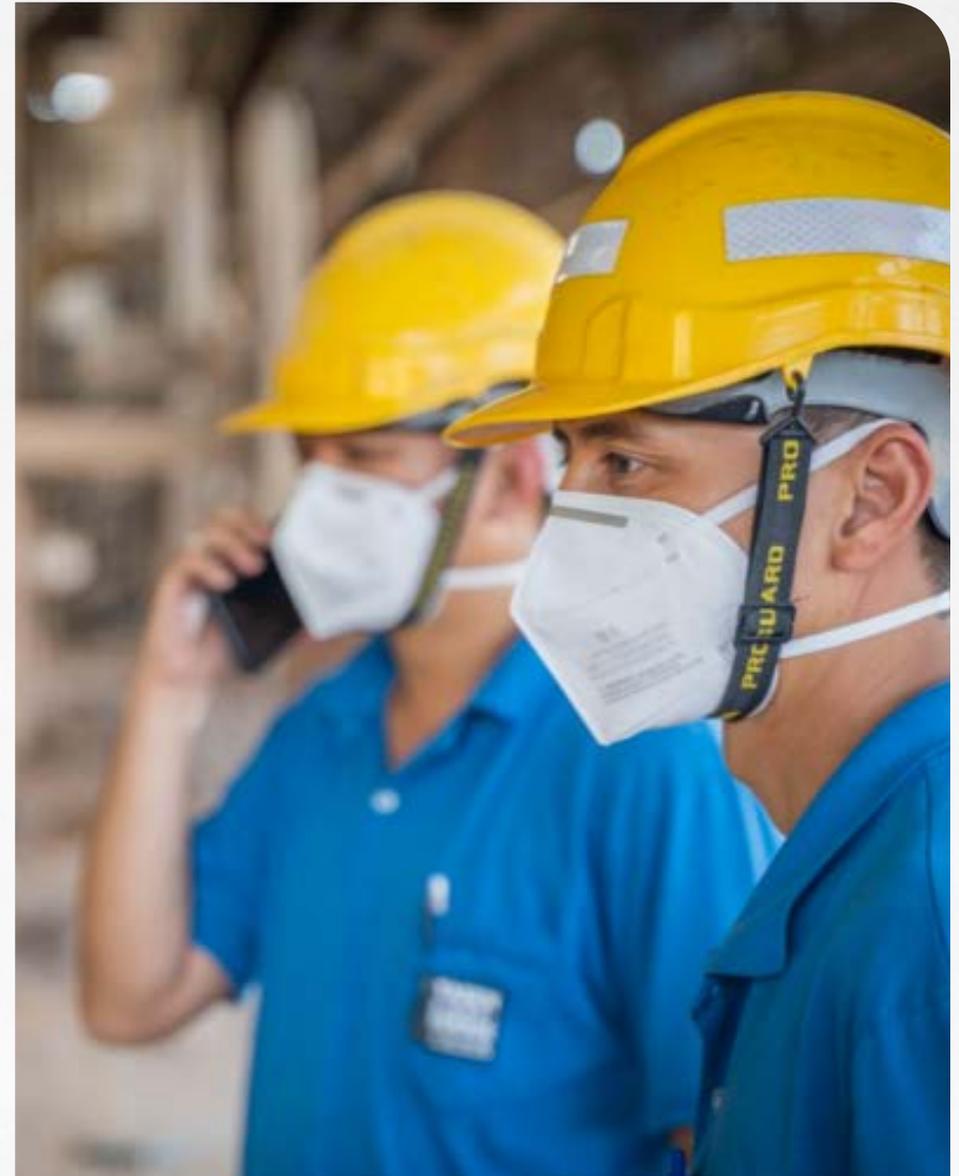
Health and safety is a strategic priority and a key contributor to the resiliency of our businesses.

A dedicated SHE department ensures compliance within local rules and regulations, identification of health and safety hazards and the corresponding risk mitigating actions, conducts regular on-site inspections, as well as organises health and safety trainings for employees and contractors.

New employees, contractors and visitors are given basic safety trainings as part of the induction programme. Refresher courses are conducted periodically for technical, engineering and operations personnel. Operational areas have been zoned with safety signages and appropriate personal protective equipment (“PPE”) are provided to employees to mitigate both health and safety risks.

Hazard identification, risk assessment and control is conducted for all the operational activities to minimise or eliminate unacceptable high-risk activities. The SHE department carries out various programmes with operations personnel that includes inspections, audits, investigations of incidents, review of safety procedures and practices, yearly emergency drill, safety trainings, toolbox talks and dialogues with contractors and transporters.

Pre-employment health screening and annual occupational health surveys are also conducted for those in high-risk operational positions. Employees who violated health and safety measures are first given counselling, warnings and followed by disciplinary actions. For contractors, we have a penalty system in place whereby repeat offenders will not be allowed to enter manufacturing sites and/or work premises.



OCCUPATIONAL HEALTH, SAFETY AND WELFARE

PROGRESS ON 2025 TARGETS

OCCUPATIONAL HEALTH, SAFETY AND WELFARE

MATERIAL ISSUES	KEY PERFORMANCE INDICATORS	2021	2022	STATUS	2025 TARGET
Occupational Health, Safety and Welfare	Fatalities & lost time injuries across operational sites	Fatality - 0 LTI - 9	Fatality - 0 LTI - 14	🔴	Zero incidents
	Third-party fatality and injury from transportation of products on the road	0	0	🟢	Zero incidents
	Operational sites to implement ISO 45001	37.5%	37.5%	🟡	100% implemented

🔴 To improve 🟡 On track 🟢 Target achieved

14 lost time incidents were reported in 2022. Most of the incidents were attributed to non-compliance to procedures, PPE requirements (working without gloves) and poor safety awareness. In 2023, the focus will be on improving safety leadership at management and supervisory levels and developing the safety management system across operational sites.

There is also an increase in overall man hours with the change of reporting template for health & safety which was implemented in 2022. 26% of the working hours reported under contractors are from HLBM

and Island Concrete projects at Pulau Punggol Barat and RMX EcoHub at Jurong Port, respectively.

All our manufacturing sites have a safety management system in place. In Singapore, the precast and ready-mix concrete businesses are certified BizSAFE STAR and BizSAFE Level 4 respectively, while operations in Malaysia are certified according to ISO 45001 requirements.

The number of incidents reported below refers to incidents that have happened within BMU. There were zero fatalities across our sites in 2022.

STATISTICS ON REPORTABLE SAFETY INCIDENTS UNDER BUILDING MATERIALS BUSINESS

YEAR	EMPLOYEES				CONTRACTORS			
	NUMBER OF INJURIES	HOURS WORKED	INJURY RATE (per mil hours)	FATALITIES	NUMBER OF INJURIES	HOURS WORKED	INJURY RATE (per mil hours)	FATALITIES
2020	10	3,234,355	3.1	0	3	1,161,404	2.6	2
2021	9	3,174,539	2.8	0	0	1,370,632	0	0
2022	8	4,702,822	1.7	0	6	4,163,306	1.4	0

***Note:** All injuries recorded are reported to the respective authorities, as per country legislation and requirements. There was no contingent liability, penalty or financial implication resulting from this incident

OCCUPATIONAL HEALTH, SAFETY AND WELFARE



TASEK PRESENTS 10 LIFE SAVING RULES

Tasek 10 Life Saving Rules were developed to communicate the compliance requirements for high risk activities at worksites.

The 10 rules are further cascaded and implemented via:

- Back to basics including basic training and briefing for all staff;
- Management to lead by example (safety leadership) in PPE compliance, conducting spot checks and on-site interventions;
- Implementation and revision of procedures;
- Enforcement by Management with rewards for those exhibiting positive behaviour.



BYPASSING SAFETY CONTROL

Obtain authorisation before overriding or disabling safety critical equipment



HOT MATERIAL & HOT SURFACE

Prevent contact with hot materials & hot surface



WORK AUTHORISATION

A work permit describes what you must do to stay safe



WORKING AT HEIGHT

Protect yourself against a fall when working at height



SAFE MECHANICAL LIFTING

Follow prescribed lift plan



CONFINED SPACE

Obtain authorisation before entering confine space



ENERGY ISOLATION

Verify isolation before work begins



HOT WORK

Control flammables and ignition sources



LINE OF FIRE

Keep yourself and others out of the line of fire



DRIVING

Follow safe driving rules

POWERTRAIN SOLUTIONS UNIT



CYBERSECURITY AND DATA PROTECTION

GYMCL formulated a series of policies that include "Information Security Risk Management Policy" and "Cybersecurity Management Policy" which standardised the approach and management of information in the company. The policies are aligned with national regulations in China, governing cybersecurity, data security and personal information protection.



2022 PERFORMANCE

GYMCL recorded zero incidents of cybersecurity breaches, events on IT assets and network and data breaches related to customer data in 2022.



SUPPLY CHAIN MANAGEMENT

GYMCL suppliers are required to pass ISO 9001 certification, or obtain IATF 16949 and Occupational Health and Safety Certifications. This check is conducted by the Purchasing Department in accordance with the "Parts Suppliers Assessment Procedure".

Listed on the New York Stock Exchange, CYI also complies with the Conflict Minerals Regulation. CYI's policy requires all GYMCL suppliers to obtain certifications that reflect their disuse of conflict materials in smelters and refiners, or disclose sources of the minerals used.

Diligence on suppliers is conducted according to the Organisation of Economic Co-operation and Development ("OECD") for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas ("OECD Guidance").



2022 PERFORMANCE

After an evaluation, all 359 of GYMCL suppliers passed the ISO9001 or IATF 16949 quality system certification. All suppliers obtained the occupational health and safety certification.

GYMCL SUPPLIER ASSESSMENT PERFORMANCE

	2020	2021	2022
Suppliers assessed	208	397	359
Percentage of Suppliers meeting the requirements (%)	100%	98%	98%

POWERTRAIN SOLUTIONS UNIT

In compliance with the Conflicts Mineral Regulation, CYI conducted a Reasonable Country of Origin Inquiry (“RCOI”) of GYMCL suppliers in 2021 using Version 6.1 of the Electronic Industry Citizenship Coalition and the Global e-Sustainability Initiative Conflict Mineral Reporting Template (“CMRT”). The purpose was to determine whether any of the 3TGs (Tin, Tantalum, Tungsten and Gold) supplied for manufacturing of engines in FY2020 were from recycled or scrap sources originated in the Covered Countries.

The RCOI requested these suppliers to obtain information through their supply chain regarding the country of origin of 3TGs and the smelters and refiners used in the supply of materials to CYI. In order to make this inquiry as complete as possible, these suppliers were requested to send the same CMRT to their suppliers (direct and indirect) for data collection. CYI sent the CMRT to a total of 212 suppliers and all responses to the RCOI using the CMRT were received as of 31 March 2022. 207 suppliers confirmed that the products they supplied to GYMCL in FY2021 were DRC Conflict-Free. The RCOI for FY2022 is currently in progress and will be reported in our 2023 SR.



POWERTRAIN SOLUTIONS UNIT



OCCUPATIONAL HEALTH, SAFETY AND WELFARE

At GYMCL, safety is a priority at every stage of the production process. Regular initiatives are carried out to educate and train employees on work safety practices and techniques to ensure the highest levels of personal safety.

The manufacturing facility based in Yulin is ISO 45001 certified and all operational sites are required to undergo the “National Safety Culture Construction Demonstration Enterprise” examination and certification in China to meet regulatory requirements in work safety standardisation, which GYMCL has achieved.

Regular physical and occupational health examinations are also organised for all employees to support their general health and well-being.

In managing its response to COVID-19, a key action undertaken was to organise and achieve 100% vaccination rate for all employees. Other preventative measures such as increased sanitisation and disinfection of the premises, social distancing in areas where staff congregate and socialise, wearing of masks and temperature taking before entering the workplace, meetings and remote working were also put in place.



2022 PERFORMANCE

Zero fatalities and no serious injuries were recorded in 2022 for our operations in China as tabled below.

STATISTICS ON REPORTABLE SAFETY INCIDENTS

YEAR	NUMBER OF SERIOUS INJURIES	HOURS WORKED	FATALITIES
2020	0	16,078,077	0
2021	0	16,364,000	0
2022	0	14,049,000	0



RESPONSES TO TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURE RECOMMENDATIONS

HLA has taken the initiative to assess and disclose its climate risks in phases over the next few years. The Task Force on Climate-related Financial Disclosures (“TCFD”) recommendations are being gradually adopted in line with SGX requirements to enhance the Group’s disclosures in FY2022 and beyond.

TCFD RECOMMENDED DISCLOSURE	DESCRIPTION
GOVERNANCE	
<p>a) Describe the organisation’s governance around climate-related risks and opportunities</p>	<p>The Board of Directors (“the Board”) has the overall responsibility over HLA’s risk management and climate-related risks and opportunities. The Board is responsible for ensuring transparency and visibility into the Group’s risk management practices. The Audit & Risk Committee (“ARC”) supports the Board in managing, monitoring and reporting sustainability issues and ESG factors. The ARC reviews and evaluates internal controls, processes and performance annually and ensures that all requirements for sustainability compliance are met and reported to the Board.</p> <p>For information on the Board’s oversight of climate-related risks and opportunities, please refer to the Sustainability Governance Structure on page 8 of this Report.</p>
<p>b) Describe management’s role in assessing and managing climate-related risks and opportunities</p>	<p>HLA has an established reporting and internal escalation process for managing environmental risk, with individual business units reporting to the Sustainability Committee, which reports to the ARC. The ARC then reports its findings to the Board on a bi-annual basis. The Sustainability Committee, which is led by the CEO and supported by the Head of Sustainability and Corporate Affairs and the Sustainability Manager, sets the overall ESG management and strategic direction, and works with each of the owners to identify, prioritise and manage the material ESG issues, and performance targets as part of the overall process.</p> <p>These issues are monitored by the ARC and the Board through KPIs and more recently in 2021, include carbon intensity reduction targets that the Group aims to achieve by 2025 (refer to section on Metrics and Targets on page 15 for details). HLA intends to develop more ambitious climate-related targets under this process in the coming years.</p> <p>HLA’s Board and Management Team have also undergone capacity building and training on climate-related risks and opportunities, to equip them with the relevant skills to assess, manage and monitor current and emerging climate risks.</p>

TCFD RECOMMENDED DISCLOSURE

DESCRIPTION

STRATEGY

a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.

Through a scenario analysis, HLA has identified several key physical and transitional risks in the short, medium and long-term (2030, 2050, 2080) that have the potential to affect the Group's operations. The time horizons were chosen in accordance with the time frame when various physical and transition risks are likely to take place.

The scenario analysis considers two scenarios, the 1.5°C Scenario (RCP 2.6) and >3°C Scenario (RCP 8.5), and a baseline year of 2019 has been adopted for the analysis.

A non-exhaustive list of key physical risks, transition risks and opportunities is listed as follows:

Physical risks:

- Rising mean temperature
- Rising sea levels
- Increased flash flood risk
- Increased drought risk
- Increased risk of extreme weather events

Transition risks:

- Carbon pricing
- Changing customer expectations
- Market risks
- Enhanced transition policies and regulations

Opportunities:

- Use of lower emission sources of energy
- Growth of new/alternative energy powertrain solutions
- Growth of sustainable building material markets
- Use of emerging technologies to reduce carbon emissions

TCFD RECOMMENDED DISCLOSURE

DESCRIPTION

STRATEGY

b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.

HLA has carried out a prioritisation of climate-related risks and opportunities as part of climate risk assessment, to better understand the potential risks relevant and their significance to the Group and its operations.

Building Materials business:

- Physical risks – Increased flooding from extreme precipitation, rising sea levels, increased instances of heatwaves and extreme temperatures, and rising mean temperatures, increase in transmissibility and geographic range of diseases
- Transition risks – Increase in carbon pricing, increasingly stringent green building regulations, changing customer behaviour and increased costs of raw materials
- Opportunities – Opportunity from growing market for sustainable building materials, efficiency from use of lower-emissions renewable sources of energy

Powertrain Solutions business:

- Physical risks – Increased flooding from extreme precipitation, rising sea levels, increased instances of heatwaves and extreme temperatures, and rising mean temperatures, increase in transmissibility and geographic range of diseases
- Transition risks – Increase in carbon pricing, increasingly stringent powertrain solutions emission regulations, changing customer behaviour and increased costs of raw materials
- Opportunities – Opportunities to access NEV market and expand product offerings

The physical risks identified under both the Building Materials and Powertrain Solutions businesses are similar. The physical assessments across HLA's prioritised operational sites have been evaluated and further analysis needs to be done to ascertain the short, medium and long-term financial impact.

The transition risks for both businesses are also similar due to the nature of these industries. Both the built environment and transportation industries play a significant role in the development of urban cities and infrastructure. The regulatory environment is evidently shifting towards the normalisation of greener products and hence, this is likely to pose risks based on the Group's ability to transition into greener products in time. In further assessing this area, it is also likely that the key opportunity for both businesses would be in adopting strategies to expand its green product range to innovate and respond to potential changes in regulatory requirements. The Group continues to evaluate these risks and opportunities in order to better quantify the potential impact for each business unit to integrate into its risk management framework and disclose with more accuracy.

As part of HLA's short-term strategy, the Group implemented 2025 ESG targets in 2021 to address the above transitions risks and steps are currently being taken to place greater emphasis on the sustainability ambitions within the Group in order to embed strategic initiatives and changes to meet future challenges.

TCFD RECOMMENDED DISCLOSURE	DESCRIPTION
STRATEGY	
<p>c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	<p>HLA has conducted a qualitative scenario analysis to determine its level of resilience against climate risks in the short (2030), medium (2050), and long term (2080).</p> <p>Overall, in the short term, it is expected that HLA's assets are not particularly vulnerable to physical risks, but would be more affected by transition risks. For instance, increases in carbon pricing, enhanced product regulations and changing customer behaviour risk would potentially make its products less competitive.</p> <p>In the medium to long term, these transition risks would have a larger impact on the business as lower-emission substitutes become cost competitive and carbon prices rises. As such, in the coming years, we will look into quantifying the potential financial impact of these risks on its business. Steps are also being taken to explore strategies that may help transform the business and mitigate against these risks.</p>
RISK MANAGEMENT	
<p>a) Describe the organisation's processes for identifying and assessing climate-related risks.</p>	<p>HLA has in place a sustainability framework, which provides a clear articulation of the Group's sustainability priorities.</p> <p>As a first step in the Group's journey to identify and assess climate-related risks, interviews were conducted to engage with various business unit leaders to better understand what they perceive as climate-related risks to the Group's business operations.</p> <p>Risks were then qualitatively assessed through a bespoke risk assessment framework provided by the consultants. These risks were scored using indicators of intensity, likelihood, exposure and vulnerability under the two climate scenarios and short, medium and long-term timeframes. The risk scores were ranked, and risks with a high risk score were included as part of the risk assessment for this exercise.</p> <p>HLA intends to expand the analysis further by quantifying the potential impact of the identified climate-related risks including climate-related opportunities.</p>

TCFD RECOMMENDED DISCLOSURE	DESCRIPTION
RISK MANAGEMENT	
<p>b) Describe the organisation's processes for managing climate-related risks.</p>	<p>Short-term risks are addressed by taking steps to assess and mitigate potential damage. Medium and long-term risks are discussed with the Board when shaping the direction of the Group's strategy.</p> <p>For example, to reduce energy consumption, the Building Materials business has taken steps to use alternative fuels to replace coal with substitute materials such as pulverised fly ash and ground-granulated blast furnace slag. This reduces the carbon intensity of cement production.</p> <p>For the Powertrain Solutions business, HLA is also looking to increase the sales of greener products by meeting the growing demand for New Energy Vehicles. This is in line with changes in demand for Powertrain Solutions that are increasingly evident in the commercial vehicle market in China.</p>
<p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.</p>	<p>HLA intends to integrate climate risk into the Group's risk management framework across the businesses and geographies. This encompasses its existing enterprise risk management framework, which would include the assessment of the prioritised climate risks and mitigation or adaptation strategies that respond to the identified climate risks.</p>
METRICS & TARGETS	
<p>a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.</p>	<p>In 2021, HLA developed key metrics and targets across various parts of the Group's businesses, as part of its commitment towards a low-carbon and circular economy.</p> <p>These short-term targets specified under the 2021 Sustainability Report and are being monitored till 2025 for each prioritised environmental material issue, which include a 50% reduction in CO₂ emission intensity (over Group Revenue) (against a 2016 baseline), 30% coal substitution by alternative fuel, and an achievement of 20% sales of new energy/alternative energy products against total Powertrain Solutions sales by 2025. The progress of these targets are monitored and reported to the ARC and Board on a bi-annual basis.</p>
<p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p>	<p>Scope 1 emissions are 1,334,897 t CO₂ and Scope 2 emissions are 237,175 t CO₂.</p> <p>HLA is expanding its reporting scope to include Scope 3 emissions in the coming years.</p>

TCFD RECOMMENDED DISCLOSURE

DESCRIPTION

METRICS & TARGETS

c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

To improve its GHG data coverage, HLA will prioritise and begin tracking its Scope 3 emissions to develop a clearer overview of its value chain impact in terms of GHG emissions. This will support the Sustainability Committee to provide better informed recommendations to the Board and Management Team in developing a decarbonisation roadmap.

Moving forward, HLA also aims to explore adaptation and/or mitigation strategies in order to develop a decarbonisation roadmap with viable Scope 1, 2 and 3 strategies encompassing more ambitious emissions reduction targets.

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GRI STANDARDS		
DISCLOSURE NUMBER	DESCRIPTION	PAGE REFERENCE / REASONS FOR OMISSION, IF APPLICABLE
GENERAL DISCLOSURES		
Organisational Profile		
102-1	Name of the organisation	Cover and Back Cover; Annual Report Cover and Back Cover
102-2	Activities, brands, products, and services	6; Annual Report - About Us, 1, 4, 5
102-3	Location of headquarters	Annual Report - 34
102-4	Location of operations	16; Annual Report - 4, Inside Back Cover (Operating Network)
102-5	Ownership and legal form	Annual Report - 33, 134 (Investment in subsidiaries), 225 (Analysis of Shareholdings)
102-6	Markets served	Annual Report - 4, 33, 210 (Segment Info)
102-7	Scale of the organisation	Annual Report - 1, 3, 33, 90 (Balance Sheets), 174 (Revenue)
102-8	Information on employees and other workers	41 - 44
102-9	Supply chain	Annual Report - 5
102-10	Significant changes to the organisation and its supply chain	1
102-11	Precautionary principle or approach	Annual Report - 56 - 68 (Principle 9 & 10)
102-12	External initiatives	Nil
102-13	Membership of associations	The Cement & Concrete Association of Malaysia, China Internal Combustion Engine Industry Association
Strategy		
102-14	Statement from senior decision-maker	2 - 5; Annual Report - 8 - 10 (Chairman's Message), 19 - 22 (CEO's Review), 28 - 32 (Sustainability Board Statement)
102-15	Key impacts, risk and opportunities	15, 40, 50, 63 - 68 (TCFD Disclosures)
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GRI CONTENT INDEX

GRI STANDARDS		
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102-43	Approach to stakeholder engagement	9 - 11; Annual Report - 71 (Principle 13)
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102-46	Defining report content and topic boundaries	8 - 13
102-47	List of material topics	13
102-48	Restatements of information	Nil
102-49	Changes in reporting	Nil
102-50	Reporting period	1; Annual Report: 1 January 2022 - 31 December 2022
102-51	Date of most recent report	1
102-52	Reporting cycle	1
102-53	Contact point for questions regarding the report	cas@corp.hla-grp.com
102-54	Claims of reporting in accordance with the GRI Standards	1
102-55	GRI content index	69 - 72
102-56	External assurance	We have not sought external assurance for our 2022 Sustainability Report

GRI CONTENT INDEX

GRI STANDARDS		
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Circular Economy and Waste		
103	Management approach (including 103-1, 103-2 & 103-3)	23 - 26, 36
301-2	Recycled input materials used	25
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305-4	GHG emissions intensity	18
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103	Management approach (including 103-1, 103-2 & 103-3)	29 - 31, 37 - 38
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306-3	Waste generated	26, 36
306-4	Waste diverted from disposal	26
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303-5	Water consumption	26, 36



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