



SUSTAINABILITY  
REPORT

2022

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## ABOUT THE REPORT

- This Sustainability Report focuses on the **sustainability strategy, practices, priorities, targets and performance** of ST Engineering's operations across key markets during the financial year between **1 January 2022 to 31 December 2022**
- This Report is approved by the Board and prepared in accordance with Global Reporting Initiative (GRI) Standards, Singapore Exchange Limited (SGX) Listing Rules 711A, 711B and Practice Note 7.6, Sustainability Accounting Standards Board (SASB) Aerospace and Defence standards, and the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- ST Engineering is a participant of the United Nations Global Compact ([UNGCG](#)) and is committed to its Ten Principles. This Report supplements our second Communication on Progress to [UNGCG](#)
- Stakeholders are advised to read the [ST Engineering Annual Report 2022](#) for more information on the Group's business and financial performance
- Feedback regarding the sustainability report can be sent to [sustainability@stengg.com](mailto:sustainability@stengg.com)

## OVERVIEW

# ✓ ASSURANCE & VERIFICATION

✓ ST Engineering is committed to providing a balanced and accurate sustainability report. The information disclosed in this report was a consolidation of data compiled from our material subsidiaries globally.

✓ Our Internal Audit team performed an internal review on the sustainability report for 2022 as mandated by SGX. All recommendations highlighted during the internal review were taken into consideration during the development of the report.

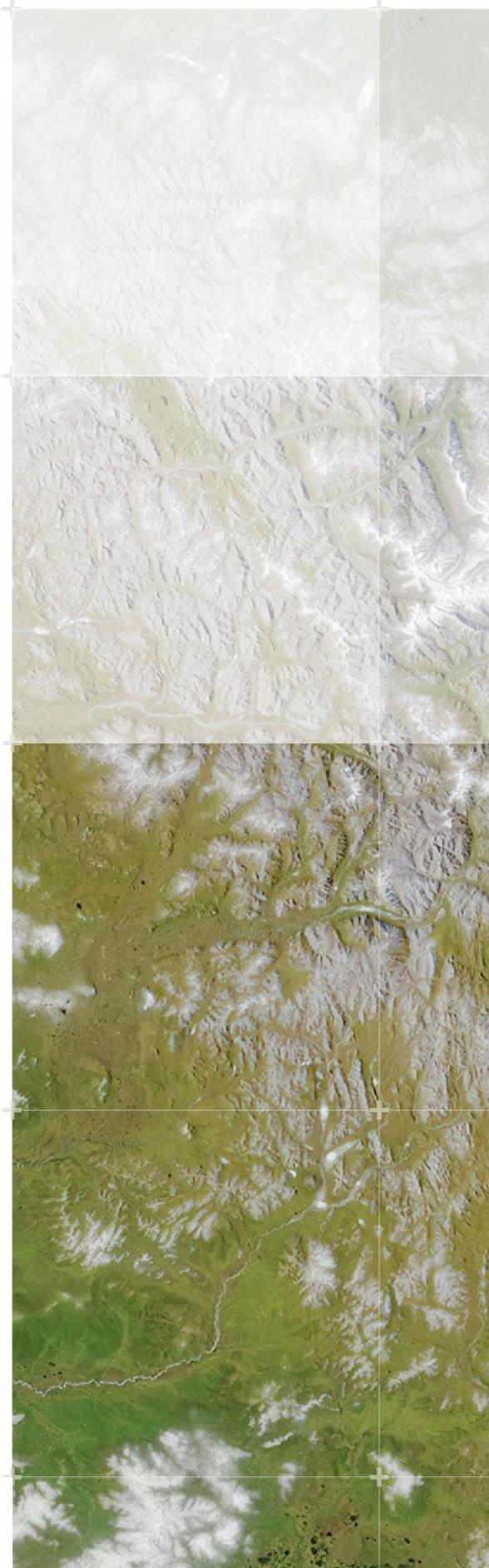
The Greenhouse Gas (GHG) emissions data reported by our Singapore entities are verified under ISO 14064-1:2018 Greenhouse Gases by LRQA Limited. We are progressively extending external verification for GHG emissions to our material entities worldwide over the next few years.

✓ Our intention is for the external assurance of our Sustainability Report to be done progressively in stages.

 View our  
External Assurance Statements

✓ In 2022, ST Engineering was included in the Dow Jones Sustainability Asia Pacific Index as identified by S&P Global through the Corporate Sustainability Assessment. This represents the top 20% out of the 600 largest companies in the Asia Pacific developed region based on long-term Environmental, Social and Governance (ESG) criteria.

✓ ST Engineering is also a component stock of the iEdge SG ESG Transparency Index and the iEdge SG ESG Leaders Index.



# LIST OF ABBREVIATIONS

| ABBREVIATION | DEFINITION                                | ABBREVIATION    | DEFINITION  |
|--------------|---|-----------------|---|
| <b>AC</b>    | Audit Committee                           | <b>NDC</b>      | Nationally Determined Contributions                 |
| <b>CCWC</b>  | Climate Change Working Committee          | <b>OEM</b>      | Original Equipment Manufacturer                     |
| <b>CEO</b>   | Chief Executive Officer                   | <b>OESC</b>     | Operational Excellence Steering Committee           |
| <b>CI</b>    | Continuous Improvement                    | <b>OEST</b>     | Operational Excellence Specialist Team              |
| <b>CoSec</b> | Company Secretary                         | <b>PwD</b>      | Persons with Disabilities                           |
| <b>CSA</b>   | Control Self-Assessment                   | <b>PV</b>       | Photovoltaic  |
| <b>ECRs</b>  | Export Control Regimes                    | <b>RAS</b>      | Risk Appetite Statement                             |
| <b>ERM</b>   | Enterprise Risk Management                | <b>RD&amp;T</b> | Research, Development and Technology Committee      |
| <b>ESG</b>   | Environmental, Social and Governance      | <b>RFR</b>      | Recordable Frequency Rate                           |
| <b>EXCO</b>  | Group Executive Committee                 | <b>RSC</b>      | Risk and Sustainability Committee                   |
| <b>GEC</b>   | Group Engineering Centre                  | <b>RSR</b>      | Recordable Severity Rate                            |
| <b>GHG</b>   | Greenhouse Gas                            | <b>P2F</b>      | Passenger-to-Freighter                              |
| <b>GISO</b>  | Group Information Security Office         | <b>R&amp;A</b>  | Group Risk and Assurance                            |
| <b>GRI</b>   | Global Reporting Initiative               | <b>R&amp;D</b>  | Research and Development                            |
| <b>GSBC</b>  | Group Senior Business Council             | <b>SASB</b>     | Sustainability Accounting Standards Board           |
| <b>GSSO</b>  | Group Strategy and Sustainability Office  | <b>SAF</b>      | Sustainable Aviation Fuel                           |
| <b>GTO</b>   | Group Technology Office                   | <b>SDGs</b>     | Sustainable Development Goals                       |
| <b>GTT</b>   | Green Technology Taskforce                | <b>SFC</b>      | Strategy and Finance Committee                      |
| <b>HQ</b>    | Headquarters                              | <b>SGX</b>      | Singapore Exchange Limited                          |
| <b>HR</b>    | Human Resources                           | <b>SME</b>      | Small and Medium Enterprise                         |
| <b>IA</b>    | Internal Audit                            | <b>STEM</b>     | Science, Technology, Engineering and Mathematics    |
| <b>IEA</b>   | International Energy Agency               | <b>STESU</b>    | ST Engineering Staff Union                          |
| <b>IoT</b>   | Internet-of-Things                        | <b>TCFD</b>     | Task Force on Climate-related Financial Disclosures |
| <b>IPCC</b>  | Intergovernmental Panel on Climate Change | <b>T&amp;Cs</b> | Terms and Conditions                                |
| <b>IT</b>    | Information Technology                    | <b>UN</b>       | United Nations                                      |
| <b>ITC</b>   | Innovation and Technology Committee       | <b>UNGC</b>     | United Nations Global Compact                       |
| <b>KPI</b>   | Key Performance Indicator                 | <b>WSH</b>      | Workplace Safety and Health                         |
| <b>MOU</b>   | Memorandum of Understanding               |                 |   |
| <b>MRO</b>   | Maintenance, Repair and Overhaul          |                 |   |

## OVERVIEW

# SUSTAINABILITY DASHBOARD

### GHG Emissions

**37%**

reduction over  
2010 base year

### Green Energy

**13%**

of electricity consumption  
from Singapore operations  
derived from renewable energy

### Supply Chain

**\$350m**

Value of purchases from  
SMEs in Singapore

### Research and Development

**\$327m**

spent on R&D in 2022

### Accident Rate

**0.4**

RFR\*

**1**

Fatality

**23.9**

RSR\*

### Learning and Development

**22.5**

average training hours  
per employee

### Corporate Community Contributions

#### About

**\$2.9m**

worth of community  
contributions by the  
Group and its employees

### Recognition

Included in Dow Jones  
Sustainability Asia Pacific Index as

**Top 20%**

of 600 largest companies  
in the region, based on  
long-term ESG criteria

### Bribery and Corruption

**Zero**

bribery and corruption  
cases in 2022

### People Managers

**15%**

of male  
employees  
are people  
managers

**14%**

of female  
employees  
are people  
managers

\* Recordable Frequency Rate  
Recordable Severity Rate

# BOARD STATEMENT ON SUSTAINABILITY

## BOARD STATEMENT

The Board of Directors oversees the management, including the review of material environmental, social and governance factors for ST Engineering and takes them into consideration when setting the Group's strategic direction.

We remain steadfast in positively impacting people's lives and the health of our planet by operating responsibly in our communities and in the wider global ecosystem. We create value by addressing real-world problems, including those related to climate change, urbanisation, pandemics, public safety and evolving security challenges. We harness technology and innovation to enable a more secure and sustainable world.

In the medium term, we will focus on our decarbonisation pathways, and the opportunities and risks from climate change.

We link a range of operational, financial and non-financial key performance indicators to our material ESG factors to encourage the adoption of strategies and practices that are aligned to the sustainable and long-term success of the Group.

## OVERVIEW

# MESSAGE FROM THE GROUP PRESIDENT & CEO

Dear shareholders,

### A PURPOSE-DRIVEN GROUP

ST Engineering continues to harness **technology and innovation** to enable a more secure and sustainable world. We maintain our focus on long-term resilience and sustainable value creation for all our stakeholders, which includes **our customers, employees, communities, shareholders, governments and suppliers.**

We now face many challenges from factors such as geopolitical tensions, extreme weather patterns, the pandemic and disruptions across industries. In our encounter with these difficulties, we have continued to step up efforts to integrate sustainability into our strategy and operations.

### DOING OUR PART

2022 was notable for several key milestones in our sustainability journey:

**Climate:** We published our first TCFD analysis as part of this report. It highlights the risks and opportunities for the Group due to climate change and is aligned with the TCFD framework. The scenarios we worked through led us to the following conclusions:



✓ The physical risk to our productive assets and our people is low. We have put in place a process to regularly review our facilities against extreme climate and weather events

✓ We expect **minimal impact on our business in the transition to a low carbon economy.** We will continue to monitor emerging issues including the evolving regulatory and **carbon tax environment**

• We updated our Enterprise Risk Management (ERM) framework to incorporate climate-related considerations and launched an initiative to enhance the monitoring of emerging risks and recommend actions on a proactive basis

**Emissions:** We are on target to halve our absolute GHG emissions by 2030 compared to 2010, as we continue our journey alongside global efforts towards **net zero.** In our Singapore operations, we increased our renewable energy share from 8% to 13% of the total electricity used.

**Safety & Health:** As part of our Total Workplace Safety & Health efforts, **we launched a 24-hour mental support helpline for our employees in Singapore** and raised awareness among our **employees on the importance of their mental health.**

We are sad to report that a fatal accident occurred in December 2022. We implemented a group-wide Safety Time-Out across all

Singapore entities following the accident, reviewed our material handling operations and intensified safety assessments. We continued to emphasise the importance of workplace safety across our businesses and our commitment to "Safety Before Profits".

**People:** We promote the professional and personal development of our employees. For example, we launched a series of employee-centric learning campaigns on topics such as **leadership, digitalisation and cybersecurity**. This promotes a culture of continuous learning among our people as workplace needs and challenges, as well as industry expectations continue to evolve.

**Community:** We serve our communities through a combination of volunteer work, skills-based contributions as well as in-kind and monetary support. In 2022, we contributed close to \$2.9m to community causes.

**Materiality and Disclosures:** In 2022, we reviewed and refreshed our material ESG factors to include Technology & Innovation and Cybersecurity & Data Protection. We continue to deepen and broaden our disclosures in line with the evolving international and local frameworks, including GRI, SASB, SGX and TCFD.

**Data:** We launched a group-wide sustainability reporting platform to improve the accuracy, traceability and **transparency of our data**.

**UNGC:** We submitted our inaugural Communication on Progress to UNGC. It demonstrated our commitment to adhering to the UNGC's Ten Principles in the areas of **Human Rights, Labour, Environment and Anti-Corruption**.

## ENABLING OUR CUSTOMERS

Our commitment to supporting our customers' sustainability efforts is underpinned by our target to increase our sustainability-linked revenue to more than **\$3 billion** by 2026. This was announced at our Investor Day in November 2021. We continue to grow our current businesses to support the:

- ✓ Reduction of GHG emissions
- ✓ Solving of urban and city challenges
- ✓ Growth of the circular economy

**New Solutions:** Our businesses continue to create new solutions including an Arribat Data Centre Cooling System and a Carbon Prospecting Dashboard. This is augmented by a pipeline of new business ventures which we are building through our In.Vent innovation platform. In.Vent enables us to support good business ideas with strong growth potential while being aligned to sustainability considerations and impact.

**Opportunities:** As part of our TCFD journey, we identified several new climate-related opportunities. These include areas relating to **energy management, new materials, the carbon services value chain and other emerging green technology applications**.

**Suppliers:** We initiated a review of our supply chain risks and opportunities to take into account the ongoing **geopolitical, pandemic and climate change impact**. Our Supplier Code of Conduct was also strengthened, including in the areas of conflict minerals, human rights and export control.

## COMMITMENT TO THE JOURNEY

ST Engineering continues to be committed to sustainability, whether in our own operations or through enabling our customers and communities. We will continue to leverage our diverse capabilities and partner with other innovative firms and institutions. This will help us to build the depth of expertise and breadth of technologies, which will enable us to move towards greater sustainability in our businesses and operations globally.

Sincerely,

**VINCENT CHONG SY FENG**  
Group President & CEO

28 February 2023

## OUR SUSTAINABILITY APPROACH

# SUSTAINABILITY FRAMEWORK

### SUSTAINABILITY FRAMEWORK

We believe that creating value for our stakeholders in a sustainable manner is essential to the Group's success. Our business processes reflect long-term and multi-stakeholder considerations, balancing our customers' needs of today with the world's needs of tomorrow.

We believe in doing well while doing good, and adopt a two-pronged approach of "Doing Our Part" and "Enabling Our Customers". This includes offering products and solutions that help our customers operate sustainably.

We do our part by conducting our business in a responsible and ethical manner, complying with all legal and regulatory requirements, using resources efficiently, contributing to the communities that we operate in, broadening our diversity initiatives and developing our people. This nurtures an ecosystem that promotes the continuous growth of our businesses and supports inclusive development.

We enable our customers on their sustainability journeys by harnessing technology and innovation to address real-world problems. Our sustainability-linked products and services incorporate green technologies and climate-related design considerations.

Integrating sustainability into our strategy and operations ensures that our business remains resilient amid an uncertain and volatile world.

### OUR GOVERNANCE STRUCTURE

We believe that success is built on a culture of sustainability in the organisation and is dependent on strong, committed and accountable leadership.

Our Board of Directors holds ultimate accountability, provides strategic direction and considers sustainability issues, including the management of material ESG factors, in the formulation of the Group's strategies and policies. The Board's Risk and Sustainability Committee (RSC) provides oversight on the Group's sustainability issues on behalf of the Board. The RSC sets direction and provides oversight on risk, internal controls and sustainability matters. It also reviews and approves the annual risk and sustainability workplans.

The Group P&CEO, supported by the Group Executive Committee (EXCO), leads the implementation of sustainability as an integral part of the Group's business strategy, including business plans, product and technology development and operational processes.

## RESPONSIBLE GLOBAL CITIZEN

### Doing Our Part Building Trust & Managing Risks



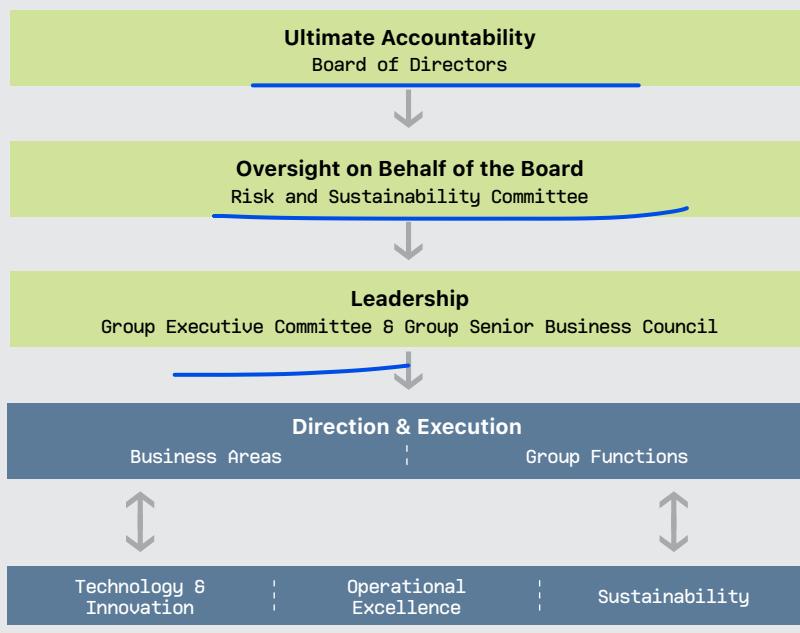
## ENABLER OF A SUSTAINABLE WORLD

### Enabling Our Customers Growing with Partners & Seizing Opportunities

The Group Chief Strategy and Sustainability Officer works with the EXCO and senior business leadership in the Group Senior Business Council (GSBC) to ensure that sustainability is at the core of the Group's business strategy, and that ESG considerations are integrated into both our immediate and long-term business plans.

Reporting to the EXCO, our business area management teams and Group Functions play critical roles in shaping and supporting our strategy. In addition, they work across the Group in key areas such as **Technology and Innovation**, **Operational Excellence** and **Sustainability**. They are enabled by an annual planning process which is underpinned by our strategic planning and financial planning processes, as well as our governance and ERM systems.

Sustainability is the responsibility of every ST Engineering employee. We enable this by mobilising teams across the Group at every level. This includes the Group Sustainability team at Corporate, Operational Excellence Steering Committee (OESC), Operational Excellence Specialist Teams (OEST), business area sustainability-focused teams, Climate Change Working Committee (CCWC) and various operations-level teams and individuals across our global sites. Every employee's effort is important to ST Engineering's sustainability journey.



# OUR SUSTAINABILITY APPROACH

## OUR COMMITMENT

We are committed to conducting our business in a responsible manner. We adhere to labour laws and regulations where we operate and have zero tolerance for unethical labour practices such as child labour, forced labour, slavery and human trafficking in any of our operations.

We prohibit discrimination and harassment at our workplaces and are committed to safe and healthy working conditions and the dignity of the individual. We support the right to freedom of association and encourage effective communication and consultation.

Our commitments are guided by international human rights principles encompassed in the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, UNGC and the United Nations (UN) Guiding Principles on Business and Human Rights. These principles of respecting peoples' dignity and their inherent rights are reflected in our policies, operations and relationships with our stakeholders.

We do not design, produce or sell anti-personnel mines, cluster munitions, white phosphorus munitions and their related key components. We are committed to complying with all applicable laws, regulations, trade sanctions and embargoes (collectively referred to as "Export Control Regimes (ECRs)") governing the export of goods, services, software, technology and information ("Controlled Items") in all of the jurisdictions we operate in.

We source responsibly and invest in the people and the communities where we operate. In support of our Code of Business Conduct and Ethics, and good corporate governance practices, we established ERM and compliance policies and processes.

We have zero tolerance for fraud and corrupt practices, and our Code of Business Conduct and Ethics forms the backbone of our commitment to ethical business conduct and regulatory compliance. We continue to commit to meeting all relevant regulatory and customers' contractual requirements, including those relating to cybersecurity, data governance and protection, and business continuity.

Beyond full compliance with legal and regulatory requirements, we align our management systems to international and industry standards. Our ERM policy provides directions for managing and reporting enterprise risks across the Group. The objective of this policy is to build a robust risk management process where enterprise risks are evaluated, monitored and treated in a holistic and integrated manner. Accordingly, our processes adopt a precautionary approach, with risk identification being carried out at the initial stage as well as continuously as the business or project progresses. Risk analysis comprises material internal and external evaluation to ensure that all aspects are considered.

## HOW WE PRACTICE OUR COMMITMENT TO HUMAN RIGHTS



### Suppliers

We expect our supply chain partners to adhere to business principles consistent with our own, outlined in our Supplier Code of Conduct. This includes the fair and ethical treatment of labour within their own companies, as well as that of their suppliers.



### Customers

We offer products and services that generate a positive impact for our customers as well as the communities where they serve. This includes improvements in quality of life, health, safety and security.



### Employees

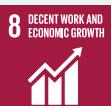
All our employees are required to adhere to honest and ethical conduct and act in accordance with our Code of Business Conduct and Ethics. This includes treating each other with respect, and abiding by our core values of Integrity, Value Creation, Courage, Commitment and Compassion.

## OUR CONTRIBUTION TO GLOBAL GOALS

✓ Engineering is a participant of the UNGC, supports its Ten Principles and is committed to advancing the broader goals of the UN Sustainable Development Goals (UN SDGs). References on the practical actions taken to implement the UNGC principles, in each of the four issue areas (human rights, labour, environment and anti-corruption) can be found in the UNGC index pages.

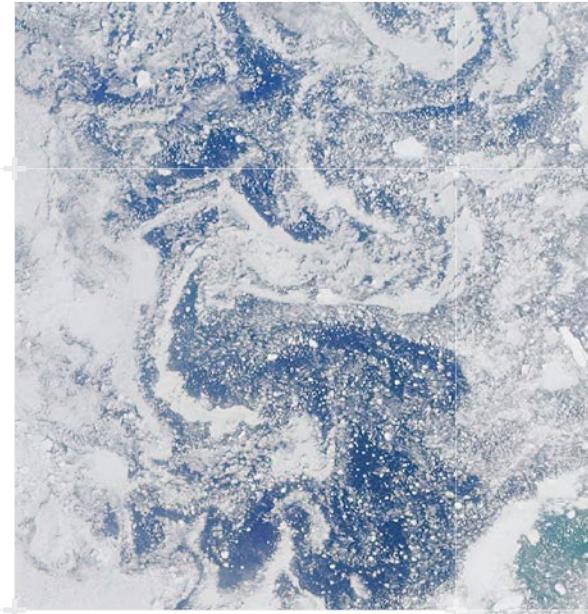
✓ We affirm our support of all 17 UN SDGs and identified six goals where the Group has more contributions in terms of our internal practices, and in the products and services that we offer to our customers.



| Why is it more relevant   | How we contribute   | UN SDGs   |
|---|---|---|
| ✓ We provide meaningful and sustainable jobs, and contribute to the economic growth of the communities where we operate.  | → • Creation of gainful employment wherever we operate<br>• Generation of business opportunities for local institutions and Small and Medium Enterprises (SMEs)<br>• Payment of government taxes and levies<br>• Enhancement of local communities' well-being through corporate community contributions   | →  8 DECENT WORK AND ECONOMIC GROWTH           |
| ✓ We enable our customers and support industry ecosystems in building resilience and fostering innovation.                | → • Provision of products and services that help build and maintain the resilience of infrastructure, including critical infrastructure at the city and national levels<br>• Partner with local and global companies to create value and strengthen the industries that we participate in<br>• Incorporation of sustainability as part of our strong innovation culture   | →  9 INDUSTRY INNOVATION AND INFRASTRUCTURE   |
| ✓ We harness technology and innovation to enable cities and communities to be more secure and sustainable.                | → • Smart mobility to reduce congestion and increase productivity<br>• Smart environment solutions to reduce GHG emissions<br>• Robust digital platforms enabling secure and time-sensitive communication, and enhancing city and building management<br>• Cybersecurity and physical security solutions  | →  11 SUSTAINABLE CITIES AND COMMUNITIES     |
| We stay lean and minimise the environmental impact of our operations, and are committed to enabling the circular economy. | → • Offer a wide range of conversion solutions, including for aircraft, ships and vehicles, that can extend the life of valuable assets<br>• Responsible production through upfront sustainable design considerations, and strict adherence to industrial standards and regulatory requirements<br>• Responsible consumption through responsible procurement and lean operations backed by a strong continuous improvement and innovation culture | →  12 RESPONSIBLE CONSUMPTION AND PRODUCTION |
| We play our part to help address the global challenges of climate change.   | → • Development of greener products and services<br>• Reduction of GHG emissions<br>• Reduction of water consumption<br>• Reduction of waste through Reduce, Reuse and Recycle initiatives  | →  13 CLIMATE ACTION                         |
| We have a strong heritage in public security and have zero tolerance for unethical behaviour.                             | → • Development of products and services to help maintain peace, public security and safety<br>• Maintenance of a strong Code of Business Conduct and Ethics<br>• Engagement with suppliers on our Supplier Code of Conduct   | →  16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

## OUR SUSTAINABILITY APPROACH

# MEASURING PERFORMANCE



We measure a range of financial, non-financial and operational Key Performance Indicators (KPIs). These have a significant impact on the resilience and sustained performance of our Group's businesses globally, whether in the short, medium or long-term. Our KPI areas include those indicated in the table below.

We design the remuneration of our senior management to motivate them to strive for sustained growth and adopt strategies aligned to the long-term performance of the Group. The remuneration package comprises components linked to the achievement of annual performance targets, including material risks and sustainability performance.

 Read more about our Executive Remuneration Structure in page 89 of our 2022 Annual Report

### **FINANCIAL PERFORMANCE**

- Revenue, Profit, Working Capital

### **PEOPLE DEVELOPMENT**

- Learning & Development
- Performance Management

### **OPERATIONAL EXCELLENCE**

- Continuous Improvement
- Health & Safety
- Quality

### **TECHNOLOGY & INNOVATION**

- R&D Investments
- New Products & Services
- Venture Building

### **ENVIRONMENT**

- GHG Emissions
- Water & Waste

indicators of  
performance

# MATERIAL STAKEHOLDERS & ENGAGEMENT

We believe that creating sustainable value for all our stakeholders is essential to the Group's long-term success. Engaging our stakeholders regularly enables us to understand and address their concerns, while strengthening crucial relationships which our business relies on.

Material stakeholders are identified as part of the Group's ERM process, based on the magnitude that these parties can impact or be impacted by the Group's activities.

| Stakeholder   | Our Responsibility   | Engagement Efforts  |
|---|--|---|
| <b>Customers</b><br>                       | → We forge enduring relationships with our customers and ensure that our products and services stay relevant, are safe and reliable, and meet their expectations. We do what it takes to understand our customers, their needs and their challenges. We work closely with them to co-create solutions that enable them to be more effective in their operations.   | → <ul style="list-style-type: none"> <li>Regular customer surveys</li> <li>Company visits</li> <li>Customer service training for all relevant employees</li> <li>Regular project review meetings</li> <li>Technology seminars</li> <li>Dialogue sessions</li> </ul>   |
| <b>Employees &amp; Other Workers</b><br> | → People are our most valuable asset. We focus our efforts in growing and enhancing their capability and capacity, strengthening a passionate and engaged workforce, and being at the forefront of people practices.   | → <ul style="list-style-type: none"> <li>Regular town halls</li> <li>Annual business conventions</li> <li>Continuous performance discussions</li> <li>Team activities, including celebrations, team building and wellness initiatives</li> <li>News updates via our Corporate Intranet</li> </ul>   |
| <b>Local Communities</b><br>             | → We contribute to the development of our host communities. We act responsibly, protect the environment and contribute to our communities' well-being through our corporate community contributions. We also work closely with local government agencies to support their economic development imperatives that are in line with our growth plans. Where possible, we ensure that our health and safety policies, including pandemic precautions, protect our community beyond our workplaces. | → <ul style="list-style-type: none"> <li>Corporate community contributions</li> <li>Collaborations with educational institutions to develop Science, Technology, Engineering and Mathematics (STEM) talent</li> <li>Partnerships with SMEs</li> <li>Support our workforce by implementing health and safety policies to protect them</li> </ul> |
| <b>Suppliers &amp; Collaborators</b><br> | → We cultivate strong, ethical and mutually beneficial relationships with suppliers and collaborators. Our worldwide partners are the cornerstones of our global businesses.   | → <ul style="list-style-type: none"> <li>Engagements with partners including strategic programmes with SMEs</li> <li>Surveys and feedback sessions with suppliers on procurement policies</li> </ul>  |
| <b>Shareholders &amp; Investors</b><br>  | → In line with our strong emphasis on corporate governance, we continue to build investor trust and confidence through open dialogue and two-way communication with shareholders and the investment community.   | → <ul style="list-style-type: none"> <li>Quarterly market update</li> <li>Half-yearly financial results briefings</li> <li>Investor conferences and roadshows</li> <li>Investor Day</li> <li>Annual General Meeting &amp; Extraordinary Meeting</li> <li>Facility visits</li> <li>Group and one-on-one meetings</li> </ul>                      |
| <b>Regulators &amp; Government</b><br>   | → We disclose pertinent information in a clear and concise manner, and on a timely basis. We comply with legal and regulatory requirements in the jurisdictions where we operate in.   | → <ul style="list-style-type: none"> <li>Providing feedback to the public</li> <li>Regulatory consultation exercises</li> <li>Incorporate trends and learning points in our business through regular engagements with regulators and governments</li> </ul>   |

## OUR SUSTAINABILITY APPROACH

# MATERIALITY ASSESSMENT

In assessing materiality, ST Engineering considers factors that impact our businesses and our stakeholders, from both financial and non-financial perspectives. Our six material stakeholders include customers, employees and other workers, local communities, suppliers and collaborators, shareholders and investors, and regulators and governments.

We conducted our first materiality assessment according to GRI G4 guidelines in 2013 and identified our initial material ESG factors. These were mapped onto the key business risks of the Group to ensure completeness and a clear understanding of the risks each material factor posed.

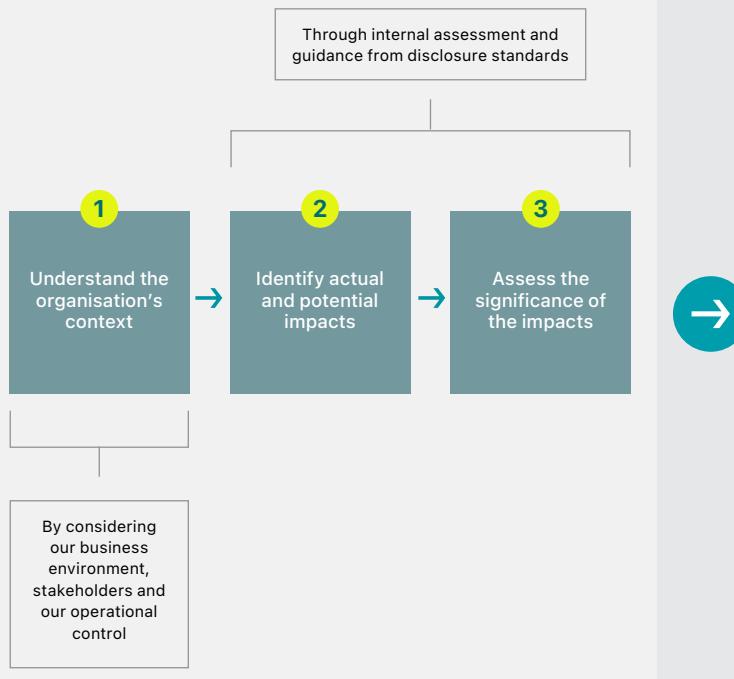
We reviewed and updated our key business risks and material

factors in 2015 and 2019. In 2019, the Group's material ESG factors were reorganised into 10 areas for greater focus and clarity. They were mapped into Environmental, Social and Governance categories and aligned with the UN SDGs.

We conducted a review of our material ESG factors in 2022 according to GRI 3: Material Topics 2021 guidelines.

## MATERIALITY REVIEW PROCESS

### Identify and Assess Impacts on an Ongoing Basis



### Determine Material Topics for Reporting



## **2022 MATERIALITY REVIEW PROCESS**

It is important to first understand the context of our businesses and our ecosystem. We do this by considering the industry domains that the Group operates in, which includes but are not restricted to, Aerospace and Defence, Maritime, Information and Communication Technologies, Transportation and Smart Cities.

Additionally, we consider our six material stakeholders as well as the sustainability context of our entities, focusing on those in which we have operational control.

Based on our organisation's business and sustainability context, we set about identifying actual and potential impacts. We made reference to GRI standards, and identified these impacts through our internal assessment and by referencing disclosure standards such as SASB – Defence and Aerospace

standards, SGX Core ESG Metrics and TCFD recommendations. The requirements from these standards give us an idea of the typical impact that an organisation like ours can expect to have. The initial process led us to identify a preliminary list of 42 topics over four broad areas (Economic, Environmental, Social and Governance) that impact or may impact others based on our business activities. We do this by considering their significance (likelihood and severity).

Through a combination of surveys and interviews, we prioritised each topic by engaging with relevant stakeholders such as our employees, managers, senior management and our customers. A topic was considered significant if more than 75% of our stakeholders agreed that it was important to the Group. This threshold resulted in a shortlist of **23 topics**, that were further grouped and distilled into **10 material factors**.

Through the review, we identified synergies between four of our previous material factors: Economic Performance, Productivity, Green Products and Solutions, and Quality. These have been regrouped into:

1. Economic Performance & Productivity
  2. Sustainable Quality Products & Solutions

Additionally, two new material factors were identified:

1. Technology & Innovation
  2. Cybersecurity & Data Protection

We will continue to monitor topics that are not defined as material but might become more important moving forward.

## MATERIALITY MATRIX

The responses from our survey also enabled us to quantify the relative importance of each material factor to the Group and our stakeholders. The result was the Group's Materiality Matrix.

## GROUP'S MATERIALITY MATRIX



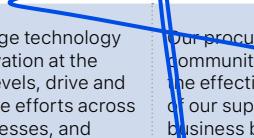
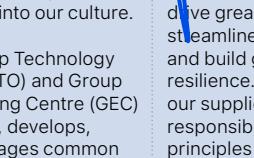
# OUR SUSTAINABILITY APPROACH

## OUR MATERIAL FACTORS

**Why it is Material**

**How we Manage It**

**UN SDGs**

|  |  | ECONOMIC  | ENVIRONMENTAL   |  |
|--|--|---|---|--|
|  |  <b>Economic Performance &amp; Productivity</b> <p>We are committed to delivering a sustainable and balanced triple bottom line of "People, Planet, Profit". Inclusive growth and productive value creation for our stakeholders are key to our long-term viability.</p>  |  <b>Technology &amp; Innovation</b> <p>We improve lives and make the world more secure and sustainable through technology and innovation. Our ability to harness disruptive technology and to direct our engineering expertise towards building innovative products and solutions allows new business growth and differentiates us from our competitors.</p> |  <b>Responsible &amp; Resilient Supply Chain</b> <p>We depend on a resilient and sustainable supply of goods and services to meet our business needs. We are committed to managing our suppliers ethically and working with them to ensure a responsible and resilient supply chain.</p> |  <b>Environmental Protection</b> <p>Climate change is an issue of urgency and importance. A low carbon business strategy is not only good for the environment, but also enables us to better respond to climate change related regulations and price volatilities of hydrocarbon resources.</p>      |
|  <b>Our strategic planning community reviews the Group's strategy in the context of global trends and developments. We focus on operational excellence to ensure that we continue to add value to our stakeholders and have a positive impact on our communities. Productivity efforts are coordinated by the Group Continuous Improvement Office.</b> |  <b>We manage technology and innovation at the highest levels, drive and coordinate efforts across our businesses, and embed it into our culture. The Group Technology Office (GTO) and Group Engineering Centre (GEC) identifies, develops, and leverages common competencies to increase our development strategy, speed and quality. The Innovation and Technology Committee (ITC) provides guidance and support to leaders of each business area.</b> |  <b>Our procurement community champions the effective management of our suppliers to align business behaviours, drive greater efficiencies, streamline processes and build greater resilience. We work with our suppliers to embed responsible procurement principles into our processes.</b>  |  <b>Environmental efforts are coordinated by OEST Environment. All our material business units in Singapore are certified to ISO 14001 Environmental Management Systems. Our global operations abide by relevant environmental regulations and requirements.</b>                      |  <b>Our quality efforts are coordinated by OEST - Quality. The majority of our operations are certified to ISO 9001 Quality Management Systems or the equivalent. We design, manufacture and service our products in accordance with industry standards and meet all regulatory requirements.</b> |



## OUR MATERIAL FACTORS

|                    | SOCIAL  |   | GOVERNANCE  |  |
|--------------------|---|---|---|--|
| Why it is Material |  <b>People Excellence</b> <p>We are only as strong as our people. With a capable, motivated and agile workforce, we are able to strengthen our talent pipeline to pursue sustainable growth.</p>   |  <b>Total Workplace Safety &amp; Health</b> <p>We are committed to "Safety Before Profits". A safe and healthy workplace protects workers from injury, stress and illness, and reduces absenteeism and turnover. It also increases productivity and raises employee well-being. This duty of care extends to our visitors and contractors working within our premises.</p> |  <b>Corporate Community Contributions</b> <p>We are committed to being a good corporate citizen in the places where we operate. Making a positive impact in our host communities is aligned with our core value of compassion.</p> |  <b>Ethical Business &amp; Regulatory Compliance</b> <p>We comply with applicable laws and regulations in the jurisdictions where we operate.</p>  |
| How we Manage It   | <p>Our people and culture strategy seeks to enhance our capability and capacity for growth, build a passionate and engaged workforce, and position us at the forefront of people practices. This proposition is realised through talent attraction and management, career development, diversity and inclusion, a fair reward system, work-life integration and harmonious union relations.</p> | <p>Workplace safety and health efforts are coordinated by OEST - Workplace Safety and Health (WSH). All our material business units in Singapore are certified to ISO 45001 Occupational Health and Safety Management Systems. Our global operations abide by relevant workplace safety regulations and requirements.</p>   | <p>Corporate community contributions are coordinated by the Corporate Social Responsibility Committee. We measure, report and communicate our corporate community investments and philanthropy efforts.</p>   | <p>The Group Risk and Assurance (R&amp;A) function works with Group Legal to oversee matters relating to governance, risk and compliance. It has put in place a regulatory compliance framework to continually train our global workforce on our Code of Business Conduct and Ethics. The department also works with relevant functions and operations to strengthen compliance.</p> |
| UN SDGs            |  <b>8 DECENT WORK AND ECONOMIC GROWTH</b>  |  <b>11 SUSTAINABLE CITIES AND COMMUNITIES</b>  |  <b>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</b>  |  |

## OUR SUSTAINABILITY APPROACH

# CLIMATE CHANGE

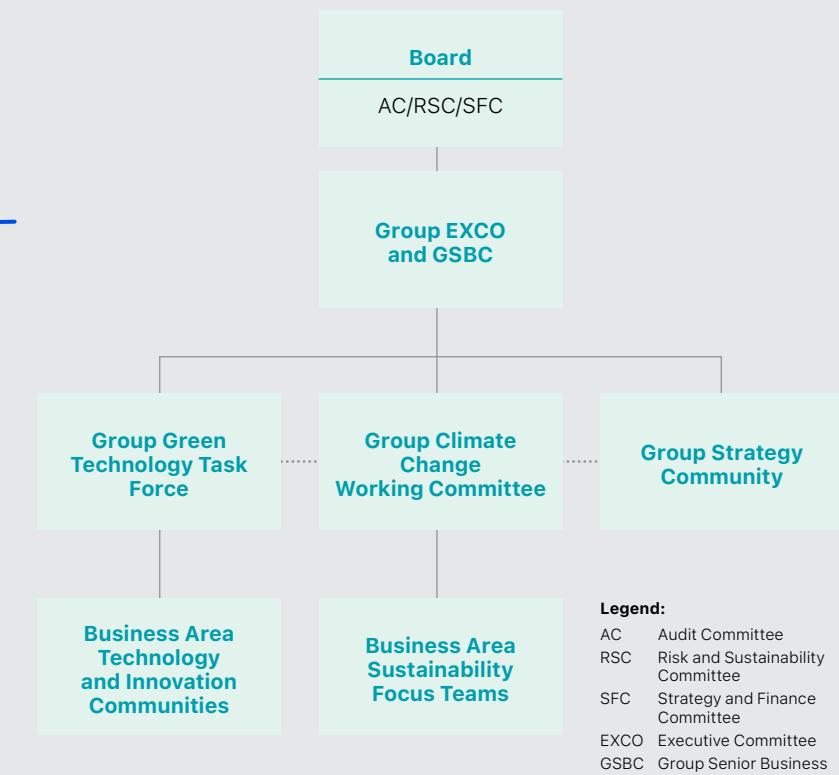
### A WHOLE OF ST ENGINEERING EFFORT

ST Engineering recognises the impact of climate change. We support the efforts to address it both globally and locally where we operate. In our journey towards net zero, we do our part to reduce GHG emissions and adopt environmental-friendly practices in our business, while encouraging our employees to inculcate sustainable habits in their daily lives. We develop products and solutions that will help our customers reduce their carbon footprint, in their journey towards net zero.

We agree that the recommendations of TCFD are useful for our stakeholders. Hence, we have aligned our disclosures with the **TCFD framework**.

In 2021, we started our journey on TCFD by ensuring that the impact of climate change is taken into consideration in the strategies of each of our business areas. We also conducted a preliminary physical climate risk assessment for our major operating sites across the world.

In 2022, with the support of consultants, we assessed key areas in our existing practices against TCFD disclosure requirements



and their implications. A climate scenario analysis was then carried out for a material portion of our business. This was crucial in providing insights on the potential extent of climate-related risks to our business as well as the potential opportunities. We incorporated these considerations into our strategy, decision-making and **ERM approach**.

Our future steps include **continuous assessment of the physical and transition risks** and opportunities for the rest of our global portfolio, developing mitigation plans, and defining strategic opportunities.

This inaugural report addresses the disclosure recommendations of the **four core elements of the TCFD framework**.

### OUR GOVERNANCE: LEADERSHIP FROM THE TOP

Strategies and actions to address climate change are directed at the highest levels in ST Engineering. Our sustainability governance structure includes the Board and its relevant committees, EXCO, GSBC, CCWC, and various working groups across our businesses and geographies. This ensures that **climate-related risks and opportunities are effectively managed**.

The Board provides oversight on all sustainability matters, including **climate-related risks and opportunities**. Briefings and discussions on climate-related topics are conducted regularly at Board meetings, including those supported by external subject matter experts.

The RSC exercises oversight on ST Engineering's sustainability strategy, material ESG issues, workplans, performance targets, sustainability reporting and climate-related initiatives.

In 2022, the RSC's scope and responsibilities were updated to cover climate change. The RSC has oversight of climate-related risks, opportunities as well as initiatives that drive climate mitigation and adaptation strategies. Climate-related plans and progress are regularly reviewed by the RSC.

The EXCO reviews and approves ST Engineering's climate strategy and ESG decisions for the Group's global operations. The EXCO is accountable to the Board for the implementation of the climate-related strategy and direction.

The Group Chief Strategy and Sustainability Officer assists the EXCO in ensuring that the impact of climate change is taken into consideration in all business strategies and operational plans. Various committees, working groups and focus teams across the Group and its business areas support the execution of these plans.

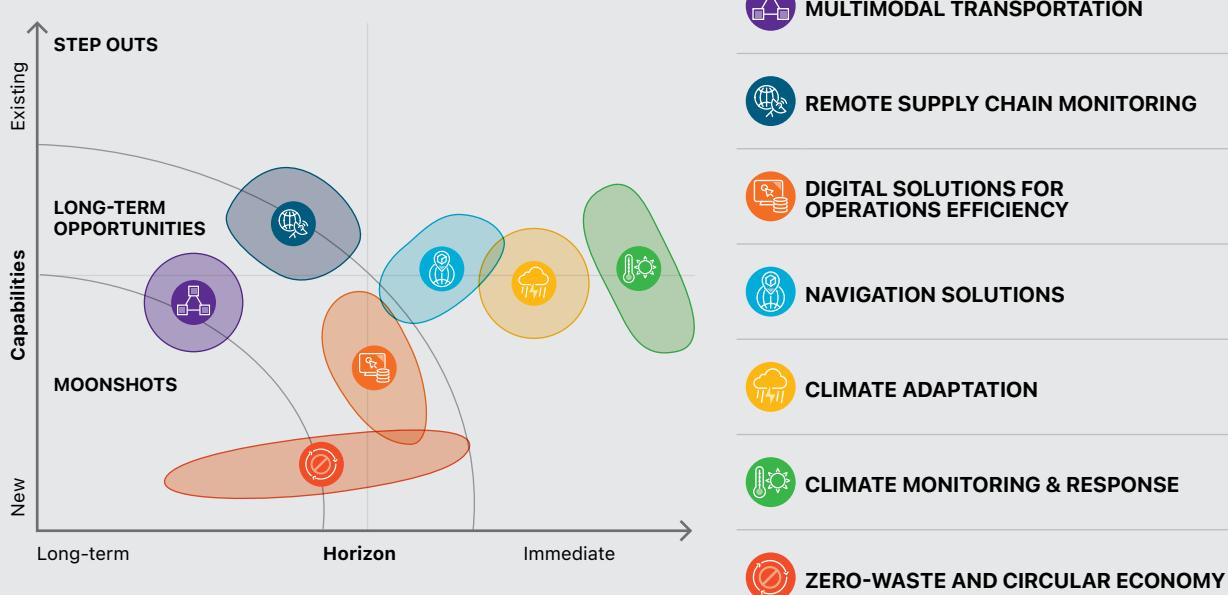
Given the increased focus on climate change, the CCWC was established in 2022 as a key platform for integrating and executing climate-related efforts. The CCWC comprises global operations leaders across all our business areas and is chaired by the Group Chief Strategy and Sustainability Officer and sponsored by the Group Chief Financial Officer.

Business leaders, regional heads and function heads are responsible for addressing the risks and opportunities in their respective areas of responsibility. Plans and actions needed are discussed at various management fora and incorporated into the strategic planning and annual budgeting processes.

### OUR STRATEGY: MINIMISING RISKS AND MAXIMISING OPPORTUNITIES

ST Engineering recognises the risks and opportunities presented by climate change to our business. We are committed to communicating our approach and strategies for climate mitigation, adaptation and resilience to our stakeholders. In assessing the impact of climate change on our business over the short, medium,

### CLIMATE OPPORTUNITIES MAPPING



## OUR SUSTAINABILITY APPROACH

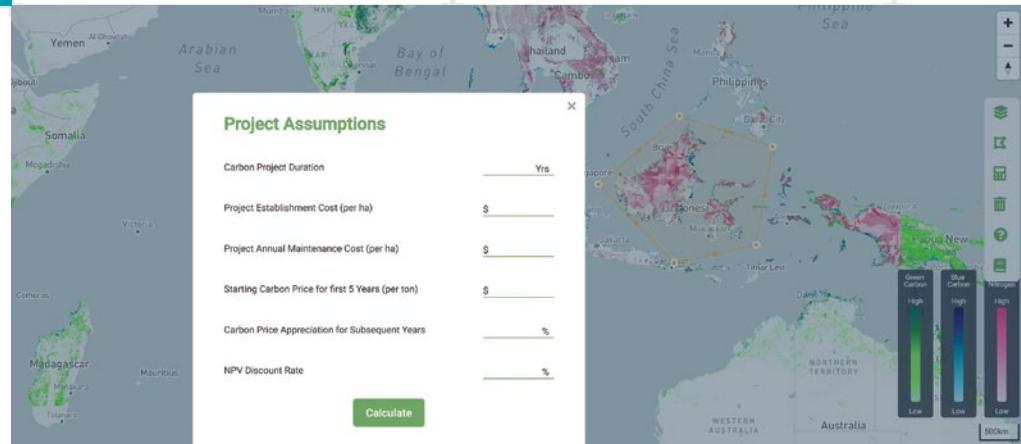
and long-term, it is clear that the world's focus on leveraging technology and innovation to address climate change presents opportunities for the Group.

### Maximising Opportunities

Amongst our diverse sustainability-linked offerings is a range of climate-focused products and solutions. The three focus areas of our sustainability-linked businesses include:

- **Reducing GHG emissions –** Our products and solutions reduce emissions by saving fuel, reducing waste, minimising road congestion and boosting energy efficiency
- **Solving urban and city challenges –** Our Smart City deployments and Internet-of-Things (IoT) -based connected solutions optimise operational efficiency and improve energy savings. We also develop and deploy sustainable hybrid and electric transportation solutions
- **The circular economy –** We design, build, operate and maintain sustainable waste management and waste-to-energy facilities that support eco-friendly waste disposal, management and wastewater recycling. Additionally, our aircraft and ship conversions provide a new lease of life through repurposing and reuse, thus saving significant resources

We reviewed our climate change opportunities in both our existing business areas as well as emerging ones in 2022. We identified opportunities in energy management and efficiency, recycling and reuse, and are also exploring technology-enabled carbon verification solutions.



### Carbon Prospecting Dashboard

At the 2022 World Economic Forum – Champions for Nature event in New York, ST Engineering Geo-Insights (our satellite data and geospatial analytics business) and the Centre for Nature-based Climate Solutions of the National University of Singapore, jointly launched the Carbon Prospecting Dashboard.

This dashboard is an interactive, open platform software that supports the prospecting, development and management of nature-based carbon credit projects worldwide. It enables policymakers and investors to identify high potential areas that can be developed for high-quality carbon credits by taking into account factors such as the estimated yield of carbon credits.

A major focus in our 2022 climate risk and opportunity study is in commercial aerospace. The risk of the rising cost of carbon, the opportunities in resource and operational efficiency, as well as the shift towards greater adoption of Sustainable Aviation Fuel (SAF) are strong drivers for the commercial aerospace industry to decarbonise. For that reason, we began our TCFD journey with a focus on commercial aerospace.

The opportunities identified build on existing capabilities in our commercial aerospace business. We continue to refine our suite of solutions to meet our customers' decarbonisation goals and rising demands to transition to a low-carbon economy. This includes growing the scope of circular economy-friendly businesses

such as our Passenger-to-Freighter (P2F) conversions, as well as advancing opportunities for materials recycling and reuse. This enables us to continue to partner with our customers on their decarbonisation journeys.

One of the key functions identifying and coordinating climate-related opportunities is our GTO. Its roles include technology scanning and trend identification, Research and Development (R&D) data gathering and analysis, and the formulating of group-wide initiatives. This leads to the development of new products, technologies and solutions for our global markets. GTO works in close partnership with GEC, business area leaders, the Group Strategy and Sustainability

Office (GSSO) and ST Engineering Ventures. Externally, the GTO is plugged into the R&D ecosystem, particularly in the geographies we operate in.

A Green Technology Task Force (GTT) was established in 2022 to synergise and dovetail the Group's efforts in technology development for sustainability, including the objectives of CCWC. The GTT will develop a green technology roadmap for the near, medium and long-term to identify technology areas relevant for the Group based on the projected climate scenarios, potential risk and growth opportunities. It will also develop strategies for the deep technology areas identified for the Group in the five to ten-year horizon, contributing to business growth and new sustainability-linked revenue.

### Minimising Risks

In assessing our physical and transition risks, the scenarios help us to quantify the potential direct damages and operational risks to the Group's assets and key suppliers. Consistent with the scope of our study, we selected scenarios relevant to our business, with a specific focus on commercial aerospace. We modelled the climate impact on assets utilising the Representative Concentration Pathway 8.5 scenario taken from the Intergovernmental Panel on Climate Change (IPCC), with a timeline of up to 2100. We also referred to Nationally Determined Contributions (NDC) scenarios and utilised sector specific decarbonisation scenarios including International Air Transport Association Fly Net Zero for aviation for transition risks up to 2050. For our other businesses, we conducted an initial high-level analysis based on general decarbonisation scenarios such as the International Energy Agency

(IEA) Net Zero Emissions by 2050 scenario and the IEA Sustainable Development scenario.

Going through the scenarios and outcomes, we concluded that the business impact of climate change to the Group is low. However, in assessing the business impact of the energy transition, we identified three watchpoints:

1) We are cognisant that carbon tax and costs are likely to be passed to the Group through suppliers, for goods and services with embodied carbon. Accordingly, the carbon price and sector specific regulations is a crucial space to monitor.

2) Shifts in demand and innovation calls within our industries will need increased attention and action. These include tracking sectoral structural shifts such as competitors' efforts to launch greener products, and investing into climate-related business and technology opportunities.

3) The impact on our supply chain from climate change needs to be examined in more detail. This is an addition to the challenges caused by other macro trends, such as China-U.S. trade relations, the Russian-Ukraine conflict and the rising inflation and energy costs. We have started the process of looking at our key suppliers and remain committed to strengthening our supply chain resilience.

### OVERVIEW OF SCENARIOS

| Scenario  | Description   |
|---|---|
|  "Status Quo"<br>2°C rise by 2050,<br>2.6°C by 2100                            | <b>Status Quo:</b> <ul style="list-style-type: none"> <li>Emissions continue to grow at business-as-usual rates</li> <li>Carbon price increases by committed rates</li> <li>SAF adoption remains at today's rate</li> </ul> |
|  "Nationally Determined Contributions"<br>1.8°C rise by 2050,<br>2.1°C by 2100 | <b>Nationally Determined Contributions Aligned:</b> <ul style="list-style-type: none"> <li>Some decarbonisation action taken</li> <li>Based on published climate action plans</li> </ul>                                    |
|  "Net Zero"<br>1.5°C rise by 2050,<br>1.4°C by 2100                            | <b>Net-zero Aligned:</b> <ul style="list-style-type: none"> <li>Emissions, carbon price, sustainable aviation fuel adoption changes in line with International Air Transport Association Fly Net Zero scenario</li> </ul>   |

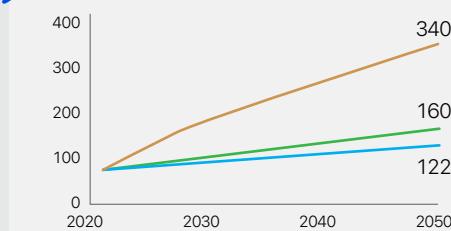
Note: Temperature rise compared to pre-industrial levels;  
International Air Transport Association, International Energy Agency, consultant analysis

if this is the scenario  
this will happen

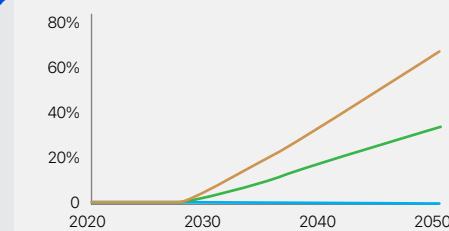
## OUR SUSTAINABILITY APPROACH

### RANGE OF KEY ASSUMPTIONS – "Status Quo" – "Nationally Determined Contributions" – "Net Zero"

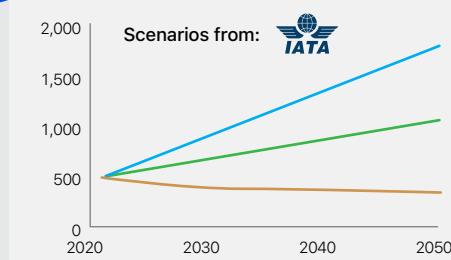
Carbon price across scenarios: SGD / ton



SAF adoption across scenarios: %

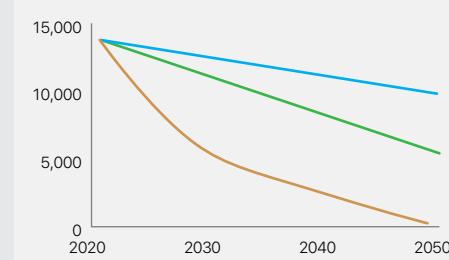


General emissions across scenarios: MN tons



Assumptions: 3-6% efficiency improvements by 2050, hydrogen/electric adoption

Power emissions across scenarios: MN tons



Used for adjusting scope 2 emissions projections

Sources: International Air Transport Association, International Energy Agency, external consultant's analysis

These considerations are built into our five-year business plans.

We identified sustainability-related risks and opportunities as part of our annual five-year strategic plan review. This was discussed and endorsed by the Board's Strategy and Finance Committee (SFC), and formed the foundation for initiatives relating to climate change in subsequent years.

Moving forward, we will deepen our climate risk and opportunities study to cover relevant operations not reviewed in the initial phase. We are also in the process of reviewing climate risks in our broader supply chain and will address these risks through various sustainability initiatives.

### OUR RISK MANAGEMENT APPROACH: STRENGTHENING PREPAREDNESS

We recognise that climate change poses different types of risks to our business. These include physical risks, such as flooding, extreme weather events and increasing temperatures, which can disrupt or negatively impact our employees, assets and supply chains. We also acknowledge the potential financial impacts that can result from transition risks, which include regulatory, market and reputational risks.

The R&A function provides leadership in the implementation of a group-wide ERM framework that allows risks to be identified, assessed, monitored and managed by the business leaders.

The Group deploys an ERM Framework to identify the key risks that may impede the achievement of its business goals in the short, medium and long-term. It sets out a consistent definition of risk and risk tolerance limits to ensure that business units have a common understanding when identifying and assessing risks. Besides business risks, this framework also analyses the financial and non-financial impact of risks arising from sustainability areas, including environmental, social and governance.

In 2022, the R&A function reviewed the existing risk universe in the Group ERM manual and incorporated climate-related physical and transition risk events. This resulted in the addition of a new Climate Change risk category.

Each business unit utilises the risk likelihood and impact parameters to identify their key risk exposures over a five-year horizon, while assessing and managing risks within their own risk register through detailed action plans, annual business budgeting and planning processes.

In addition, R&A will be enhancing the Group's ERM framework to encompass risk assessment on a longer term horizon, coupling it with the monitoring of emerging risks to address the long-term impact of climate change.

### OUR METRICS AND TARGETS: TRACKING PROGRESS

#### Enabling Our Customers

Aligned with our purpose to harness technology and innovation to enable a more secure and sustainable world, we set a target at our 2021 Investor Day to increase our sustainability-linked revenue to more than \$3b by 2026. This revenue target will drive our businesses to pursue products and solutions that would enable our customers' sustainability journeys, including reducing the impact of their operations to climate change.

#### Doing Our Part

The Group has made steady strides in our decarbonisation journey. We have disclosed our GHG emissions since 2014. In 2019, we achieved the 36% intensity reduction target by 2030 set in 2018. We will continue to track overall emissions intensity as a measure of revenue for the Group to evaluate the efficiency of our business. In 2021, we committed to halve our carbon emissions by 50% by 2030, with 2010 as a baseline. This is aligned with the aspiration of our major shareholder for the decarbonisation pathway of their portfolio. In 2022, we reduced our absolute GHG emissions by 37% compared to our 2010 baseline. Key metrics on carbon emissions,



Solar panels at our Land System business.

energy usage, water usage and waste management are published in the Environmental Protection section of this Sustainability Report. Monitoring and reporting these metrics help us identify areas with highest climate-related risks and to track progress towards our goals.

Aside from environmental related metrics and targets, other relevant climate-related metrics and targets such as supply chain, are elaborated under the respective material ESG factors in this Sustainability Report.

#### OUR CONCLUSION

Our current TCFD-aligned analysis is as follows:

- The physical risk to our productive assets and our people is low. We have put in place a process to regularly review facilities against extreme climate and weather events

- We expect minimal impact on our business in the transition to a low carbon economy. We will continue to monitor emerging topics including the evolving regulatory and carbon tax environment
- The world's focus on leveraging technology and innovation to address climate change presents opportunities for the Group. This is aligned with our target to increase our sustainability-linked revenue to more than \$3b by 2026

We have updated our Group ERM framework to incorporate climate-related considerations. Additionally, we will be revising our ERM framework to encompass risk assessment on a longer term horizon and couple it with the monitoring of emerging risks. This will help the Group to address the long term impact of climate change. Our GTT will drive and coordinate efforts across our businesses to leverage the unique opportunities presented.

## ECONOMIC

# ECONOMIC PERFORMANCE & PRODUCTIVITY

An enterprise's growth, grounded on diversity, inclusiveness and productivity improvements, will produce better economic performance, and create meaningful jobs and benefits for the local communities. Driving economic performance and productivity is key to the resiliency of our business.

Continuous Improvement (CI) increases the productivity and profitability of our business and is at the heart of our engineering heritage. Over the years, our CI initiatives have helped us to improve our processes, enabling us to work smarter and more efficiently.

### OUR COMMITMENT

We are committed to delivering a sustainable and balanced triple bottom line of "People, Planet, Profit" through the integration of sustainability with our business and operations, community impact, productivity, and returns to our shareholders.

Wherever we operate, we are committed to paying our share of taxes and the transparent reporting of what we pay.

### OUR APPROACH

#### Continuous Improvement is at the Heart of our Engineering Heritage

Over the years, a culture of CI has helped us improve our processes, enabling us to work smarter and more efficiently.

Improvements in our workstream processes protect our environment by enabling us to conserve natural resources, create less waste and reduce pollution. Our CI efforts also contribute to safer workplaces by digitalising selected labour intensive workstreams and increase our product quality by improving manufacturing processes. These come with the added benefit of lowering our operational costs.

We recognise the importance of upskilling our employees through CI training. We continue to grow our library of e-learning modules to ensure our staff are well trained on continuous improvement topics.

### OUR GOALS

#### Our 2022 Goals

- Continue to make economic contributions, provide good jobs and invest in our communities
- Increase year-on-year planned productivity savings by 5%
- Drive and intensify CI activities through the newly established Group CI office

#### Our Achievements

- In 2022, our total economic contribution was \$8,747m
- We increased our year-on-year productivity savings by 32%
- In 2022, the Group CI Office strengthened our CI framework, aligned our business units and provided on-site support

#### Our 2023 Goals

- Continue to increase year-on-year planned productivity savings by 5%
- Enhance CI activities through further digitalisation and automation

We enhance our CI culture by organising awareness activities like CI seminars and workshops. Events such as these help to inculcate a strong CI culture which will encourage employees to actively seek opportunities to remove non-value-added steps in our processes, improve productivity and enhance our economic performance.

### Cross-Geography Exchanges

In 2022, the Group CI Office organised an exchange at Elbe Flugzeugwerke GmbH facilities in Europe for our colleagues from Middle River Aerostructure Systems in the U.S. Through this exchange, our business units gained insights on deployment of CI principles, exchanged ideas on productivity tools and shared their composite manufacturing experiences which is a process used in both facilities.



### Enhancing Our CI Culture

In 2022, the Group CI Office organised a cross-business workshop "Our Strides in Continuous Improvement @ ST Engineering" in Singapore to share best practices among our business units, encourage appreciation of the usage of CI tools and inspire our employees to start their CI journey. The event included a tour of Commercial Aerospace's engine facility.



### We Digitalise and Automate to Improve Productivity

Automation and digitalisation of processes can help to reduce the lead time for labour intensive tasks, allow the monitoring of real time data, help identify anomalies and predict potential problems.

### Automatic Metallurgy Sample Preparation

Our Commercial Aerospace business designed a Robotic Metallurgy Laboratory Sample Preparation system. This first of its kind metallographic preparation system helps to improve productivity as samples can be prepared unattended, round-the-clock. It also improves quality as samples can be prepared in a consistent manner and with greater sample integrity.

## ECONOMIC

- ECONOMIC PERFORMANCE & PRODUCTIVITY



### Preparing for Industry 4.0

Our Satcom business, iDirect's Manufacturing Competence Centre in Belgium, leveraged CI in an ever-changing industrial environment to grow into several new verticals while paving the way for Industry 4.0 readiness. It was the first factory to receive the prestigious Factory-of-the-Future award in Belgium, back in 2015. This was reaffirmed in 2018 and 2021 and will next be reviewed in 2024.

**Many of our CI initiatives have the added benefit of reducing our operational costs.**

In 2022, we achieved

# \$31m

of realised productivity savings from continuous improvement programmes



### MastPlot Reduces Lead Time and Costs

Traditionally, it takes up to three weeks with the support of a contractor to complete the analysis of sea trials. From the feedback of our customers and the testing team on the lag time between sea trials and the result analysis, our quality assurance engineers from the Marine business developed an in-house programme to reduce the analysis time to one week. This decreased the lead time of post-sea trial analysis, thereby achieving cost savings of at least 50%.

### Improvements in our Vehicle Inspection Workflow

Our Urban Solutions business has been experiencing peak hour surges for vehicle inspection services during lunchtime and late afternoons. The peak hour surges coupled with the incorporation of additional inspection procedures such as high idling emission test, has resulted in a longer waiting time for our customers. The team employed CI tools such as Ishikawa diagrams, Value Stream Mapping and Spaghetti diagrams to optimise the vehicle inspection process flow. This resulted in more than 40% reduction of the time required, as well as significant cost savings, for each vehicle inspected.



## **Our Economic Performance Leads to Inclusive Growth and Value Creation**

The Group's economic performance is material to our sustainability goals. We contribute economically to the communities we operate in through local procurement, direct and indirect employment, dividends paid to shareholders, taxes paid to governments, and investment in community programmes. Apart from our financial contributions, we also develop innovation capabilities, transfer know-how and technology to local SMEs, and provide internship and training opportunities.

## **OUR GOVERNANCE AND FRAMEWORK**

The management of the Group's productivity efforts begins from our top management and extends to employees throughout the company.

The Group CI Office provides a structured and dedicated approach to enhance CI activities. It also strengthens the Group's CI framework and concept by reviewing and enhancing our CI toolkit, and by training our employees to equip them with a strong CI foundation. The Group CI Office is overseen by the executive sponsor of OESC and consists of CI Practitioners who work closely with the CI Councils of our business areas to provide on-site deployment guidance.

### **Direct Economic Value Generated and Distributed**

| <b>Group Economic Contribution</b>    | <b>(\$m)</b> |
|---------------------------------------|--------------|
| Bought-in material and services       | 5,254        |
| Employee wages, salaries and benefits | 2,591        |
| Dividends and interest paid           | 823          |
| Government taxes and levies           | 79           |
| <b>Total</b>                          | <b>8,747</b> |

Our Group CI and Innovation framework was set up to focus on CI across our businesses and focuses on six drivers:

- Enabling a productive work environment
- Encouraging innovation and the use of technology
- Developing people and enhancing skills
- Organising work systems and reviewing work processes
- Adopting best practices through networking
- Measuring what matters

We embed CI activities into our day-to-day operations to drive productivity. Key actions undertaken include:

- Setting and tracking productivity targets
- Training our staff on CI tools such as 5S, Define Investigate Verify Ensure (DIVE) methodology, Kaizen, Quick Changeover, Pareto Analysis, Standard Work, Total Productive Maintenance and Value Stream Mapping

- Pursuing the use of new technology including automation, data analytics and digitisation such as Robotic Process Automation
- Organising the ST Engineering Best-of-Best CI Award to promote and recognise teams that demonstrate excellence in creating value and raising productivity
- Reviewing our structure, systems and processes periodically to achieve higher efficiency and effectiveness

The Group's economic performance is driven by the EXCO and is overseen by the Board.

The Board meets quarterly to review our financial performance.

The SFC reviews the Group's strategy in the evolving context of global trends and developments annually. They are supported by our corporate functions, including Group Finance and GSSO.

## ECONOMIC

# TECHNOLOGY & INNOVATION

Technology and innovation are at the core of our business. We are committed to sustaining our business through investing in R&D and cultivating an innovative culture.

We take a group-wide approach towards innovation so that we can leverage our strengths across business areas while building distinct capabilities. To keep up-to-date with new and disruptive technologies, we also leverage on external capabilities that will help us to accelerate innovation. We are focused on developing technologies that will place us at the digital forefront.

### OUR COMMITMENT

We are committed to improving lives, and making the world more secure and sustainable through technology and innovation. We have an ability to harness disruptive technology and direct our engineering expertise towards building innovative products and solutions. These strengths are at the core of our business success and help us to fulfil our commitments.

### OUR APPROACH

#### We Recognise the Importance of R&D

We believe in prudent and focused R&D investment, driven by business and product roadmaps that support our business growth. In 2022, we refreshed our Group Technology Strategy in support of our five-year business plan.

In 2022, we spent

\$327m  
on R&D. This translates  
to a R&D intensity of  
3.6%

### OUR GOALS

#### Our 2022 Goals

- Continue to spend up to 5% of our annual revenue on R&D, of which up to 75% will be on digital technologies

#### Our Achievements

- Our R&D spend in 2022 is more than 3% of our annual revenue. 75% of the R&D is on digital technologies

#### Our 2023 Goals

- Maintain R&D spend of up to 5% of our annual revenue, of which up to 75% is R&D in digital technologies
- Identify new technologies to deliver future growth in line with our sustainability and digital strategy

## Our R&D Efforts are Driven and Coordinated Across our Businesses

R&D investments are identified by each business area to complement its business strategy, product focus as well as to develop its technological leadership.

Our GTO identifies and develops **strategic technology capabilities**, with a strong focus on **advanced technologies**, that can be leveraged across the various business areas. In 2022, we established the group's technology roadmaps on **5G, quantum technology, advanced materials and alternative energy technology**.

Our GEC has five engineering competency centres with a common pool of skilled engineers in **data analytics, video analytics, cybersecurity, smart Maintenance, Repair and Overhaul (MRO) and autonomous systems of systems**. We have gradually delivered solutions in these five areas through a common software platform with reusable components that increases their development speed and quality.



[Read more about our new products and solutions](#)

## We Encourage and Facilitate Innovation

Our innovation approach comprises driving synergy and deepening capability building in the Group, as well as leveraging external capabilities to accelerate innovation. We are focused on **developing technologies** that place us at the digital forefront.

## Drive Synergies and Deepen Capability Building

We focus on finding synergies in our existing products and services, and enhancing our capabilities in key technological areas. Efforts include:

- Improving our core engineering capabilities
- Forming strategic technology centres
- Leveraging business needs for product development

We cultivate a culture of innovation through many initiatives. These include employee training on topics such as **Design Thinking, organising webinars to drive cross-business engagement and collaboration, conducting design clinics, and organising our annual innovation competition – InnoChamp**.

## InnoChamp

The annual InnoChamp competition serves to celebrate the innovative spirit of our people and innovations that they have made to the products and business models of our existing businesses. These achievements help us to continue to create value, differentiate ourselves and gain a competitive edge.

The Group also has a broad spectrum of capabilities, reflected in the entries of InnoChamp, which makes us unique among organisations and contributes to our differentiated capabilities.

InnoChamp underscores our commitment to innovate in both disruptive and incremental ways. To further increase our growth, we will also need to collaborate to create synergies and find ways to scale our products in our existing businesses.

Over

# 1,700

Full-Time Equivalent  
R&D Roles in the Group

## In.Vent

In.Vent focuses on creating completely new businesses from new ideas based on products, technologies or solutions that will create new markets for the Group with the possibility of setting up and running a new line of business.

In 2022, a second challenge saw strong participation across the Group, where three finalists were selected to go through a 10-week Venture Building sprint to further develop their business plans and go-to-market product strategies.

In.Vent challenges us to conceive and develop new businesses through innovative products, services and business models that disrupt the status quo. This will help drive us towards our aspiration of becoming a **global technology, defence and engineering powerhouse**.



## ECONOMIC

### ► TECHNOLOGY & INNOVATION

#### Broaden Outreach to Leverage External Capabilities

We complement our in-house R&D efforts by broadening our outreach to leverage external capabilities. This is achieved through four areas:

- **Open lab** – We unlock value from both our business units and startups by providing a platform for them to engage each other and incubate solutions for markets of mutual interest

- **Corporate venture capital** – We identify and invest in start-ups that present new business opportunity areas and **disruptive technologies**. Start-ups play a critical role in helping the Group identify new business opportunity areas and disruptive technology. A USD\$150 million venture capital fund was established to enable the Group to invest in selected areas of technology and tap into start-ups with strong complementary competencies and new **collaboration opportunities**

- **Research Translation @ ST Engineering** – We work with external partners to invest in and conduct research that can support our business needs. This promotes knowledge transfer among our partners and accelerates the pace of innovation

- **Industry collaborations** – We collaborate with partners to accelerate product development with our industrial knowledge and expertise



#### Research Translation @ ST Engineering

Research Translation @ ST Engineering is the flagship programme at the Group to nurture collaboration with Institutes of Higher Learning and research institutes globally.

Through its goal of strengthening collaboration between ST Engineering with the Institutes of Higher Learning and research institutes, external researchers are encouraged to carry out part of their research within the industrial environments of the Group. This can help to speed up the translation of their research into commercially viable

products and solutions. In tandem, the Group benefits through greater access to expertise in the latest technology trends and in learning from the frontiers of research.

In 2022, the Group announced the creation of the inaugural ST Engineering Distinguished Professor awards, as part of Research Translation @ ST Engineering to recognise researchers with outstanding contributions to the strategic goal of achieving impactful research translation.

## OUR GOVERNANCE AND FRAMEWORK

Our efforts to harness advanced technology and promote innovation that supports business growth are guided by the Board, particularly through its Research, Development and Technology Committee (RD&T).

The RD&T sets policies and direction for major R&D investments and activities at the Group. Its role is also to promote R&D, an innovative culture and to identify areas of synergy with respect to R&D capabilities, facilities, and resources. This primarily focuses on identifying new technologies that will enhance the core businesses of the Group and enable us to build new businesses.

The RD&T is supported by the Group's EXCO, respective Presidents of each business area and the Group Chief Technology and Digital Officer. The business areas are involved in the identification of R&D investments that complement their industry-specific business strategy, product focus and technological leadership development.

The ITC was formed with senior management representation from GTO, GEC and GSSO to provide guidance and support to the technology, engineering and strategic planning leaders of each business area. This ensures that the R&D investments complement each business area's business strategy, product focus and can help to develop its technological leadership.

The Group is committed to doing our part and enabling our customers in their sustainability journey. The GTT was set up in 2022 to explore emerging green technology innovations and to provide leadership, direction and cross-business coordination in these fast-evolving areas.

 Read more about the Green Technology Taskforce

**Technology and innovation are at the core of our business. We are committed to sustaining our business through investing in R&D and cultivating an innovative culture.**

## ECONOMIC

# RESPONSIBLE & RESILIENT SUPPLY CHAIN

ST Engineering's supply chain is a key component of our competitiveness and resilience. Our **supply chain** is complex and diverse due to the range of businesses, as well as the multiple geographies we operate in. For example, our Singapore operations has over 9,800 suppliers. Of these, 73% are based in Singapore, 17% in Europe and North America, and the remaining 10% in other parts of the world.

Our suppliers support our **manufacturing, systems integration, MRO and services offerings** through a variety of contracts that range from short to long-term.

### OUR COMMITMENT

We are committed to procuring goods and services sustainably and responsibly to meet our business needs.

In 2022, our total procurement spent amounted to

**\$5.2b**

### OUR GOALS

#### Our 2022 Goals

- Incorporate the Vendor Code of Conduct<sup>1</sup> as a standard business requirement to all active suppliers who are supporting our Singapore operations
- Include ESG criteria in the screening of new suppliers who are supporting our global operations

#### Our Achievements

- Incorporated the Supplier Code of Conduct into the General Terms and Conditions (T&Cs) of our purchase orders in our Singapore operations
- Expanded the ESG screening criteria in the accredited third-party screening system to include factors such as human rights, genocide, war crimes and environmental violations

We used this for suppliers supporting our Singapore operations and implemented its use in more than 20 international business entities and subsidiaries. This will be progressively adopted by all our global units

#### Our 2023 Goals

- To progressively include ESG elements as part of the tender award evaluation criteria
- To develop a **supply chain resilience framework**

<sup>1</sup> Our Supplier Code of Conduct was previously referred to as our Vendor Code of Conduct

## Overview of ST Engineering Group Supply Chain

|                          | Type of Goods and Services Procured   |
|--------------------------|---|
| Aerospace                | <ul style="list-style-type: none"> <li>Aircraft airframes, engines, parts and components</li> <li>Engineering services and on-wing support</li> <li>Materials and production consumables, including chemicals</li> <li>Aviation fuel, oil, lubricants</li> <li>Fabrication and assembly services</li> </ul>   |
| Urban Solutions & Satcom | <ul style="list-style-type: none"> <li>Electronic and electrical products, equipment, hardware, parts and components</li> <li>Communications equipment, hardware, parts and components</li> <li>ICT Infrastructure and systems, hardware, software and services</li> <li>Vehicle fuel, oil and lubricants</li> <li>Fabrication and assembly services</li> </ul> |
| Land Systems             | <ul style="list-style-type: none"> <li>Vehicle engines, transmissions, electronics, electrical sub-systems, tyres, parts and components</li> <li>Castings, forgings, extruded parts</li> <li>Materials: Metals, rubber, plastics, chemicals, etc.</li> <li>Vehicle fuel, oil and lubricants</li> <li>Fabrication and assembly services</li> </ul>               |
| Marine                   | <ul style="list-style-type: none"> <li>Marine equipment, hardware, parts and components</li> <li>Navigation, communication and automation equipment and software</li> <li>Materials: Metals, rubber, plastics, chemicals, etc.</li> <li>Marine fuel, oil and lubricants</li> <li>Fabrication and assembly services</li> </ul>                                   |
| Digital Systems & Cyber  | <ul style="list-style-type: none"> <li>Electronic and electrical products, hardware, parts and components</li> <li>Communication products, hardware, parts and components</li> <li>ICT Infrastructure hardware and systems, software and services</li> <li>Cybersecurity products, hardware, software and services</li> </ul>                                   |

## OUR APPROACH

### We Do Not Procure Conflict Minerals

Our company's offerings are typically at systems-level and we procure finished electronics products. When we do buy electronics components, we mostly do so at sub-system level, and from reputable contract manufacturers. We expect these suppliers to have conflict minerals policies for their own supply chain.

### We Conduct Multi-Faceted Evaluations

We adopt various sourcing strategies, which include the use of weighted criteria for tender contracts. This ensures that suppliers are assessed fairly both technically and commercially.

Our Supplier Code of Conduct communicates our business and ESG expectations to our suppliers. Our suppliers are expected to adhere to this code and failure to do so will trigger further actions. In 2022, we incorporated the Supplier Code of Conduct into the General T&Cs of our purchase orders in our Singapore operations.

We also explore processes and systems that help us incorporate ESG criteria into our screening process to identify suppliers with high sustainability risks. High-risk factors we look at include, but are not limited to, bribery and corruption cases, human rights violations, environmental violations and violations to sanctions.

## ECONOMIC

### ► RESPONSIBLE & RESILIENT SUPPLY CHAIN

We identify sustainability risks through the use of an accredited third-party tool to screen new and existing suppliers for ESG violations. In 2022, we expanded our ESG screening criteria to include topics such as **human rights, genocide, war crimes and environmental violations**. We implemented the same ESG-criteria and standardised processes in Singapore, as well as in more than 20 international business entities and subsidiaries.

Suppliers that have been identified in our screening process as having ESG risks or who do not meet our expectations will be further reviewed, investigated and determined if corrective actions can or need to be taken. We will re-evaluate our business relationship with a supplier if they are unwilling to comply with our Supplier Code of

Conduct, violate our ESG criteria or are unresponsive in implementing corrective actions highlighted during the screening process.

In 2022, none of our suppliers were identified as having significant negative ESG impact. Of the suppliers that were assessed for compliance to our Supplier Code of Conduct, none required corrective action plans.

This continuous engagement ensures that our suppliers are in turn, able to support the Group's **growth in technology, product capability** and **competitiveness**.

### We Partner with Our Suppliers for Growth

We engage suppliers through our supplier management programmes and maintain close relationships. We also believe in tandem growth with our suppliers and aim to procure locally where possible. Furthermore, we continuously collaborate and engage with local SMEs to expand their capabilities.

**Value of Purchases from SMEs in Singapore**

**\$350m**



### Growing Together

In 2022, we have successfully initiated strategic engagement programs with several local SMEs in Singapore. These suppliers were selected for their good performance and track record with ST Engineering. To support their growth, we assisted them in linking up to industry partners and expanding the scope of their capabilities where relevant. After discussions on requirements and prototyping, we were able to leverage and build up their existing capabilities to support our requirements and new projects across the Group. These collaborations not only facilitated the growth of the SMEs but also had the added benefit of improving our supply chain resiliency by localising a significant package of work.

## OUR GOVERNANCE AND FRAMEWORK

The Group Chief Procurement Officer oversees our procurement community which champions the effective management of our supply chain.

Our procurement community is guided by our Responsible Procurement framework and aligns our suppliers' business behaviours, drives greater efficiencies, streamlines processes and enables greater visibility of our supply chain.

Our approach towards responsible procurement is guided by five principles:

- We are committed to ethical procurement
- We do not compromise on the quality and safety of our products and services
- We believe in cost-effective procurement practices
- We safeguard the health and safety of workers
- We protect the environment

These principles underpin our Responsible Procurement framework which comprises three pillars:

- **Supplier Conduct** – this provides a firm foundation for our framework and is aligned to our sustainability agenda. Our Supplier Code of Conduct defines our principles and standards and lays down the basic behaviours and practices we require of our suppliers concerning their responsibilities towards their stakeholders and the environment



[Read our  
Supplier Code of Conduct](#)

- **Supplier Management** – this streamlines the systems and processes we employ to screen, onboard and assess the performance of our suppliers, giving them a consistent experience while working with the Group

- **Supplier Relationship** – this categorises our suppliers based on profit impact and supplier risks into four categories: strategic, leverage, bottleneck and non-critical, for more effective management of the relationships

Through the above framework, we:

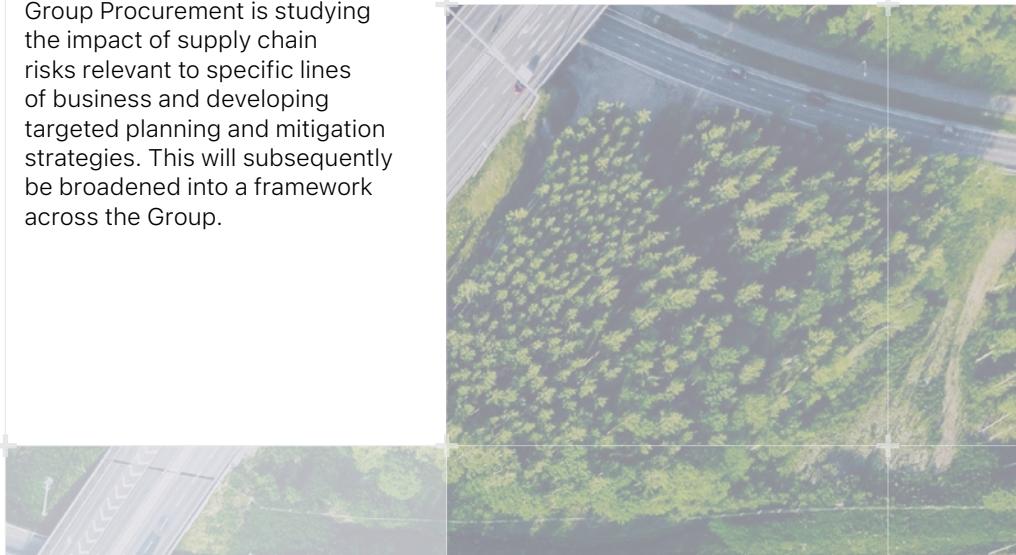
- Refine our Global Procurement Policy to enable effective and efficient procuring processes
- Uphold our Supplier Code of Conduct
- Enhance our systems and processes for better supplier management, including the use of recognised third party platforms to carry out independent checks on suppliers
- Measure and review the performance of our suppliers for continual improvement or remedial action, including blacklisting them from future business as appropriate
- Work with our suppliers to improve their sustainability performance and those of their suppliers

Group Procurement is studying the impact of supply chain risks relevant to specific lines of business and developing targeted planning and mitigation strategies. This will subsequently be broadened into a framework across the Group.

In Singapore,

# 55%

of our procurement was spent locally where orders were issued to a company based in Singapore



## ENVIRONMENTAL

# ENVIRONMENTAL PROTECTION

An organisation's business activity has the potential to negatively impact the environment by misusing natural resources, emitting GHG irresponsibly and polluting the physical environment.

At ST Engineering, we **recognise the impact of environmental degradation and climate change**, and strive to conduct our business responsibly without compromising the needs of future generations.

## OUR COMMITMENT

We are committed to a pathway towards **net zero** and target to halve our absolute Scope 1 and 2 GHG emissions by 2030 compared to a 2010 base year. We strive to **conserve resources such as water and energy, minimise waste and pollution**, and be part of the circular economy.

Our employees from our Land Systems business partnered with South West Community gardeners and received the Gold award in the Singapore Gardeners' Cup 2022. The team spent weeks to plan, prepare and build their garden themed "The Dance of Dragonflies" using recycled materials such as aluminium cans, ring pulls, used wood and stones.

## OUR APPROACH

### Environmental Protection Shapes Our Culture

We encourage our employees to be stewards of our environment on two levels: operational and personal.

Employees continuously look for ways to improve **operational efficiencies, minimise water use and waste generation, and reduce GHG emissions**.

Our employees also participate in group-wide Eco-Initiatives which we initiated in 2021 and our continued efforts in 2022 across our global units have produced results. For example, Miltope's, U.S. environmental protection awareness campaign led to employees being conscious of turning off lights 88% of the time with a 69% improvement from pre-campaign levels.

These efforts across many of our business units collectively cultivates an eco-conscious culture and helps shape our habits at workplaces as well as the communities we live in.

## OUR GOALS

### Our 2022 Goals

- Continue to reduce absolute GHG emissions and expand initiatives globally, especially in renewable energy use
- Continue to reduce waste generation from operations and maintain waste recycling at 50% or better

### Our Achievements

- We identified areas to further increase our operational efficiency and reduce our emissions  
In our Singapore operations, we continued to expand our onsite **solar photovoltaics (PVs)** installations. We also commissioned a renewable energy study for our U.S. operations
- We achieved a waste recycling rate of 75%

### Our 2023 Goals

- Implement a sustainability reporting platform to improve the accuracy, traceability and transparency of our environmental data across our global units
- Optimise our building facilities to reduce our operational emissions**



### Eco-Initiatives Tours to the NEWater Visitor Centre and the Sustainable Singapore Gallery

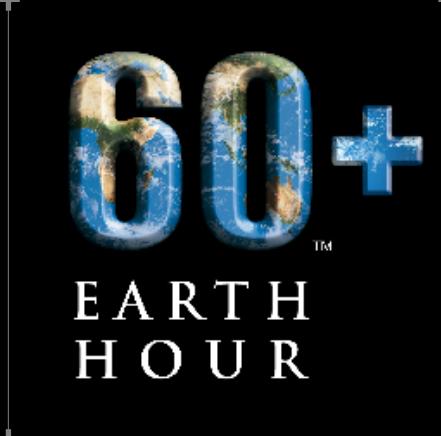
In 2022, our colleagues in Singapore organised educational tours to the Sustainable Singapore Gallery in Marina Barrage and the NEWater Visitor Centre. They delved into what sustainability means to the community and the importance of conservation.



The Eco-Initiatives activities changed my mindset about sustainability. I learnt that sustainability is something that can be done by each and every individual. Simple acts such as **disposing waste into designated bins** or even just bringing your own water bottle when you're out can add up and have a positive impact on our planet.

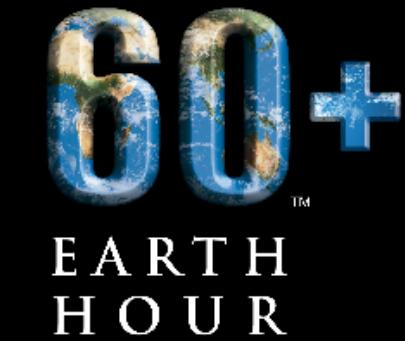


**ASHLEY NGUYEN**  
Executive Procurement (Singapore)



### Celebrating Earth Hour

Our operations participated in Earth Hour 2022 by dimming or turning off non-essential lights at our workplaces. Employees were also encouraged to switch off their lights at home together with their community.



We comply to all applicable environmental laws and regulations in the geographies we operate in. In 2022, we had no significant fines or non-monetary sanctions related to environmental issues.

### We Recognise the Impact of Climate Change and the Importance of Addressing It

We are committed to a pathway towards net zero. We target to halve our absolute Scope 1 and 2 GHG emissions by 2030 compared to a 2010 base year. We work towards reducing our absolute GHG emissions using carbon reduction as the preferred approach, before adopting neutralisation methods such as offsets and investments in nature-based solutions.

### We Are Guided by Global Best Practices and Local Laws and Regulations

We have robust environmental management systems that are based on well-established international standards. For example, in Singapore, our material business units are certified to ISO 14001 Environmental Management Systems.

We continuously work towards obtaining external assurance for our environmental data. Our material Singapore business units' GHG emissions are externally validated in accordance with ISO 14064-1 Greenhouse Gases by a reputable third-party certification body. We will work towards progressively obtaining external assurance of our global GHG emissions.

## ENVIRONMENTAL

### ► ENVIRONMENTAL PROTECTION

We do our part in mitigating and adapting to the effects of climate change. Our efforts include:

- Reducing our energy consumption by conducting energy audits and improving production energy efficiency
- Reducing Scope 1 emissions by:
  - Optimising energy efficiency, and replacing equipment and fixtures with energy efficient models when due for replacement
  - Optimising our operational activities such as delivery runs, engine test cell usage and electrification of our vehicle fleet
- Reducing Scope 2 emissions by:
  - Installing solar PV systems across our global sites
  - Optimising and re-engineering our production and operational processes
- Reducing Scope 3 emissions by:
  - Reducing air and land travel, and conducting virtual meetings where possible
- Preventing the contamination of the surrounding air by:
  - Using air pollution control equipment such as scrubbers
  - Monitoring and minimising stack emissions, and the level of air pollutants

The base year for our absolute Scope 1 and 2 GHG emissions calculations is 2010, as the Group established its initial GHG inventory process in 2009 for Singapore operations. We adopt an operational control approach when reporting our GHG emissions and energy data, which includes our international business units. The base year emissions were recalculated, where applicable, or estimated using proxies where needed. In 2022, the Group acquired new entities and businesses. The environmental data for these acquisitions have not been reflected in our 2022 data but will be included in subsequent years.

We are progressively expanding the tracking and disclosure of our Scope 3 GHG emissions. In 2022, we conducted a study to determine the GHG emissions on our employees' commute to and from work and started our journey to gather the upstream and downstream emissions from our supply chain.

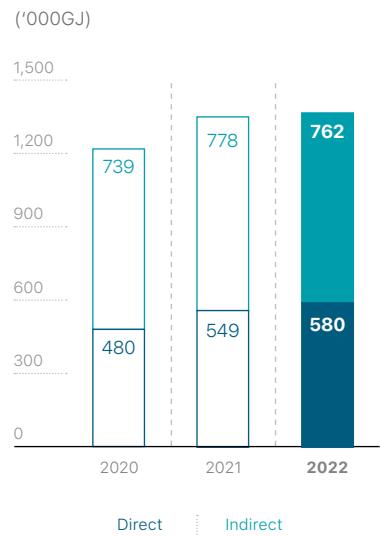
In 2014, the Group set a target for its Singapore operations to reduce GHG intensity as a measure of revenue by 16% by 2025, compared to a 2010 base year. This target was raised in 2018 to 36% by 2030, in alignment with Singapore's Nationally Determined Contribution pledge and was met in 2019. In 2022, our GHG emissions intensity was 12 tCO<sub>2</sub>e/\$million revenue.

### TOTAL EMISSIONS



In 2022, our energy intensity<sup>6</sup> was 149 GJ / \$million revenue. This includes the energy derived from fuel, electricity, heating and cooling.

### TOTAL ENERGY CONSUMED



<sup>2</sup> tonnes of carbon dioxide equivalent

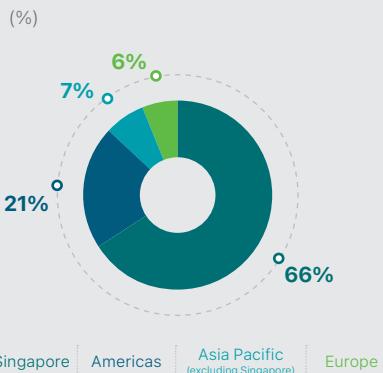
<sup>3</sup> Direct GHG emissions from sources owned or controlled by the Group

<sup>4</sup> Indirect GHG emissions from the generation of purchased electricity consumed

<sup>5</sup> Indirect GHG emissions from business travel by air and land

<sup>6</sup> Energy intensity = energy / SGD revenue

## REGIONAL BREAKDOWN OF SURVEY RESPONDENTS



### Employee Commute Survey

In 2022, we conducted a group-wide employee commute survey as part of our efforts to expand our GHG Scope 3 inventory. This includes emissions from the transportation of employees between their homes and their worksites via:

- Personal automobile
- Automobiles such as taxis, cabs and private-hire services
- Public local and regional buses
- Local, regional and intercity rail
- Other modes of transportation. For example, walking and the use of personal mobility devices

Our employees provided information on the frequency, distance and mode of transportation used in their commute. Using the results, we extrapolated our results from the sample size obtained from the survey responses using a distance-based approach.

We include the following gases for conversion to CO<sub>2</sub> equivalent in our GHG inventory – CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFC<sub>5</sub>, SF<sub>6</sub> and NF<sub>3</sub>. In our Singapore operations, our GHG inventory also includes CFC, HCFC, CCl<sub>4</sub> and CH<sub>3</sub>CCl<sub>3</sub> where applicable.

We will progressively expand the gases included in our GHG inventory across our international units.

Additionally, we take guidance from reputable sources for computation methodologies, conversion factors and calculation tools:

| Information  | Tools   |
|--|---|
| Density of Aviation Kerosene   | Environmental Technology Centre, Environment Canada   |
| Acetylene Emission Factor  | Acetylene Emission Factor   |
| Singapore Grid Electricity Emission Factor   | Energy Market Authority - Singapore   |
| Density of Motor Gasoline and Diesel   | The Engineering Toolbox   |
| Emission factors and Net Calorific Values (NCV) for Aviation Gasoline, Motor Gasoline, Diesel, LPG and CNG | 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 |
| Density of Natural Gas   | The Engineering ToolBox   |
| Global Warming Potential Values  | GHG Protocol  |



### Our Renewables Journey

We have made significant strides in our decarbonisation journey. Solar PV programmes have made a significant contribution to this effort. In Singapore alone, we have installed an equivalent of over 17 football fields of solar PV panels with a combined capacity of 16.8 megawatt-peak (MWp).

Our U.S. sites have also started on their solar implementation efforts. For example, our facility in San Antonio, U.S. installed a 0.3 MWp solar PV system on six of its hangar roofs and is considering an expansion. We also embarked on a study to identify additional renewable energy options for our U.S. business units.

These efforts will accelerate the adoption of renewable energy in our business operations and reduce our overall GHG emissions.

## ENVIRONMENTAL

### ► ENVIRONMENTAL PROTECTION

#### Upgrading our Infrastructure and Equipment to Reduce Emissions

We improve our operational efficiencies by upgrading the infrastructure and equipment at our facilities. This includes initiatives such as replacing switchgears with dry air-insulated models which eliminate the use of sulphur hexafluoride ( $SF_6$ ).



#### Optimising our Heating, Ventilation and Cooling (HVAC) Systems

In 2022, we implemented a "smart" building management system to enhance chiller plant performance and efficiency in our Singapore operations.

This system collects and analyses system data to optimise operations. The pumps and fans were converted from fixed to variable speed drives, allowing dynamic set points to be controlled by machine learning algorithms. This helped to reduce our emissions by at least 80 tCO<sub>2</sub>e/year.

Similarly, our U.S.-based subsidiary, Miltope, achieved operational energy reductions through seasonal preventative maintenance, reprogramming software and implementing smarter thermostats in their HVAC systems.



#### Supporting the Electrification of Transport

Every action counts towards our efforts in reducing our GHG emissions, including electrifying our vehicle fleets. For example, our Mobile and Pensacola operations in the U.S. invested in electric vehicles and charging infrastructure to reduce emissions in the daily journeys between both sites.

Additionally, our Urban Solutions business rolled out seven electric vehicle charging stations at our Singapore operations for employees, visitors and our own vehicle fleets, with more charging stations in the pipeline.

The accessibility of the charging stations at our operational locations help to support the clean energy transition in our respective communities.

#### We Use Water Efficiently

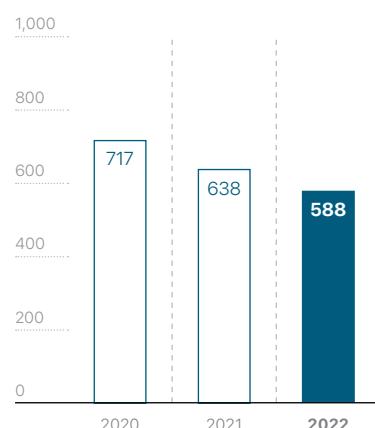
We use water from municipal sources. This is predominantly for building and equipment cooling, cleaning, general sanitation, and operational activities, such as aircraft and vehicle washing.

We monitor water usage, impact and management in our operations. In our Singapore operations, we conduct environmental aspect and impact evaluations as part of ISO 14001 Environmental Management Systems. Based on the results of the evaluation, we implement control measures to mitigate our environmental impact such as raising awareness among our employees on the importance of water conservation, and embarking on water recycling and conservation programmes.

We strive to reduce the water intensity of our business. In our Singapore operations, we aim to reduce our water usage intensity target by 15% on a business-as-usual basis by 2025, with 2015 as the base year. In 2022, our water consumption intensity as a measure of revenue in Singapore was 65 m<sup>3</sup>/\\$million revenue. This was a decrease of 65% compared to the intensity in our 2015 base year.

#### WATER CONSUMED<sup>7</sup>

('000m<sup>3</sup>)



<sup>7</sup> Based on our water consumption in our material Singapore operations

We continue to:

- Install water saving devices such as water thimbles and flow reducing valves
- Promote water conservation awareness through toolbox briefings and campaigns
- Perform regular checks to detect leakages in pipes and faucets
- Optimise our operations to reduce usage of water
- Install rainwater harvesting systems and review water recycling options

#### Rainwater Harvesting on Site

In 2022, our Marine business in Singapore installed a rainwater harvesting system onsite to collect, store and treat rainwater. The treated rainwater is used in place of potable water for instances like irrigation and cleaning.

#### We Manage Waste and Effluent

We strive to reduce our waste generated in our business and regularly promote 3R (Reduce, Reuse and Recycle) initiatives. We redesign processes to reduce the generation of waste, toxic waste and effluent.

In our Singapore operations, we target to maintain a recycling rate of 50% or better. Recyclable waste materials are collected by licensed waste contractors for recycling. In 2022, our Singapore operations recycled 75% of 26,900 tonnes of waste generated. The recyclables included metal, wood, batteries, e-waste and paper products.

#### WASTE RECYCLED<sup>8</sup>

|                        | (%) |
|------------------------|-----|
| Blasting Grit & Cement | 52  |
| Metal                  | 24  |
| Waste Oil              | 18  |
| Wood                   | 4   |
| Paper                  | 0.6 |
| Plastic                | 0.5 |
| Batteries & E-Waste    | 0.1 |
| Others                 | 0.8 |

<sup>8</sup> Based on waste collected and recycled in our Singapore operations.

Any toxic waste generated is handled in accordance with local laws and regulations. For example, all toxic waste in Singapore is registered with the National Environment Agency's e-consignment system that allows for the tracking of the quantity, characteristics and movement of the toxic waste from the organisation to the collector, and finally to the disposer.

We adhere to all applicable laws and regulations regarding effluent discharge in areas which we operate. For example, in our Singapore operations, we comply to the minimum effluent standards set by the Public Utilities Board, National Environment Agency and the Maritime Port Authority, which differs depending on the type of waterbody that we are discharging to. We employ the use of dilution tanks, sensors, oil interceptors and pre-treatment of our effluents prior to discharge to ensure that we meet all applicable regulations.

#### We Strive to be a Good Neighbour

We aim to mitigate the noise generated by certain segments of our operations. Our measures include:

- Keeping all noise within legal limits and within permitted hours
- Replacing noisy equipment with quieter models and providing sound insulation where applicable
- Monitoring and reviewing noise emission levels from our operations
- Conducting boundary noise checks in accordance with regulatory guidelines

#### OUR GOVERNANCE AND FRAMEWORK

OEST – Environment oversees the Group's environmental protection efforts, provides a platform for business areas to share best practices, advises the respective management teams, and manages and coordinates key environmental initiatives across the Group.

OEST – Environment supports the OESC Chairman who reports to the OESC Executive Sponsor. The OESC Executive Sponsor is a member of the Group's senior management. The team comprises representatives from each business area who focus on data gathering, reporting and initiatives for:

- GHG emissions (absolute Scope 1, 2 and 3 emissions; emissions intensity)
- Energy (from fuel, electricity, heating and cooling)
- Water (water intensity; recycling)
- Waste (waste generated; recycling)

Our integrated Environment, Health and Safety policy and Environmental Pledge sets out our environmental expectations and standards.

## ENVIRONMENTAL

# SUSTAINABLE QUALITY PRODUCTS & SOLUTIONS



Delivering sustainable quality products and solutions is crucial to eliminating defects and waste, **improving product safety and reliability**, and maintaining the trust of our customers.

Our goal for our suite of **sustainability-linked products and solutions** is to enable our customers on their sustainability journeys. We do this by **creating new innovative products and solutions, and improving our existing designs** to meet the required standards and specifications. This supports the growth of our businesses as well as that of our customers.

### OUR COMMITMENT

We are committed to timely delivery, responsive support, and **high quality and safety standards**. We strive to use **environmentally friendly substances and materials** in our products and solutions whenever possible and adhere to all **regulatory requirements** on the use of hazardous substances.

### OUR APPROACH

#### We Promote a Quality Culture

Quality training modules are integrated into our new employee onboarding programme to promote the **right quality processes and behaviours**. Employees are trained to internalise the behaviours of ability, customer focus, teamwork, integrity, outperformance, nimbleness and safety. This will help build and sustain our quality culture. In 2022, more than 11,000 of our employees in Singapore completed our Seven Quality Behaviours e-learning course and this is progressively being rolled out to our global entities.

We regularly conduct **quality seminars** to keep our employees updated on the latest requirements and industry best practices. In 2022, we conducted an Engineering Seminar on "Safety Risk Management Process" which saw over 200 participants across our global operations.

In conjunction with World Quality Day on 10 November 2022, we brought together our quality professionals to share, network and stress the importance of quality.

### OUR GOALS

#### Our 2022 Goals

- Identify and develop **core quality-related e-learning modules to enhance staff knowledge on quality management**
- Progressively roll out the Seven Quality Behaviours to all international business units
- Explore **sustainability-related technologies** including those that potentially enable new business verticals
- Continue to **quantify the environmental impact of our products and solutions to our customers**

#### Our Achievements

- We incorporated quality e-learning modules into our new hire onboarding program to drive employee quality mindset from the start
- We rolled out our Seven Quality Behaviours training to our U.S. entities
- We **completed exploratory studies on new sustainable materials and emerging low-carbon technology**
- Our business areas have **completed their preliminary product carbon footprint assessment** on various products and solutions

#### Our 2023 Goals

- Enhance efforts to promote activities to reinforce our quality culture
- Increase the use of green technology in our products and solutions**



### We Adopt Global Quality Standards

We have a robust quality management system that is based on well-established international standards. The majority of our operations are certified to ISO 9001 Quality Management Systems or the equivalent. In addition, all our operations abide by the requirements of their industry regulatory bodies. We actively work with our suppliers and collaborators to ensure the quality of bought-in parts and services. By regularly seeking feedback from our customers, we are able to strengthen our offerings.

To support our customers in the transition to a low carbon economy, we work towards quantifying the life cycle analysis of our products and solutions for our customers according to global standards and best practices. Our efforts to adopt global standards in these analyses can help us systematically identify and subsequently, mitigate the negative environmental impact that our products may have on the environment.

### We Leverage Technology to Improve Quality and Sustainability

We continuously improve the sustainability and quality of our existing suite of products by employing the use of technology to improve our operational processes and reduce the GHG emissions of our products.



### Quantifying the Impact of our P2F Solution

Our P2F conversion solutions provide a new lease of life to older commercial aircraft by reusing aircraft structural materials, thus reducing the embodied carbon. This provides our customers with a cost-effective and relatively low carbon option compared to new-built aircraft.

In 2022, our Commercial Aerospace business partnered with research institutions to begin our journey to quantify the P2F's product carbon footprint, taking reference from ISO 14040 Environmental Management – Life Cycle Assessment, and ISO 14067 Carbon Footprint of Products. This is an ongoing effort to systematically quantify the environmental impact of our products.



## ENVIRONMENTAL

### ► SUSTAINABLE QUALITY PRODUCTS & SOLUTIONS

#### Automating our Production Lines

Our Land Systems business automated a labour-intensive precision metal component production line by using custom-built and cutting-edge technology.

The automation of this process ensures greater control, reliability and quality of the product, resulting in **less rejects and resource wastage**.



#### We Offer a Suite of Sustainable Products and Solutions

Alongside product quality, functionality and cost-effectiveness, we consider sustainability to be a key factor in product and process development. We go beyond functional innovation and take into account ecological considerations such as **water and energy conservation, minimisation of pollution, reduction of waste by-products, recyclability of our products and solutions, and circular economy principles**.

These are covered in the specification and concept stage of our products and solutions development process.

Our products, services and solutions focus on three key themes: **reducing GHG emissions, solving urban and city issues, and the circular economy**.

Much of our development and investment into sustainability-linked products is focused on environmental benefits. However, our products also have significant social and governance benefits such as **safety, security, emergency response, crisis management, worker productivity, health and access to education**.

#### Reducing GHG Emissions

We reduce emissions by **saving fuel, reducing waste, minimising road congestion, boosting energy efficiency and accelerating digitalisation**.

- **Congestion Management Systems (including Smart Junctions)**
- **Training and Simulation Systems**
- **Eco-efficient Ship Designs and Systems**
- **MRO of Aircraft, Ships and Vehicles**
- **Eco-friendly Aircraft Engine Wash Solutions**
- **Low-energy Cooling Systems**

#### Sustainable Cooling for Data Centres

With increasing digitalisation set to drive demand for data centre services, there is a need for more effective cooling technologies to mitigate the environmental impact of data centres and support its growth in a more sustainable manner.

In 2022, we launched the Airbitat DC Cooling system to enable more **sustainable cooling** for data centres. Our system is modular, scalable and has flexible integration options. It can achieve **over 20% energy savings** when used in data centres operating in tropical areas, significantly **reducing carbon emissions**.



## Solving Urban and City Issues

In our Smart City deployments, our IoT-based solutions optimise **operational efficiency, improve energy savings and deliver long lasting utility services** to city residents. We also develop and deploy **sustainable hybrid and electric transportation solutions**.

- Rail Solutions
- Smart Street Lighting
- Fleet Management Systems
- Electric and Autonomous Vehicles
- Respiratory Protection Products
- Command, Control and Communications (including in hospitals and emergency dispatch)
- Cybersecurity for Critical Infrastructure

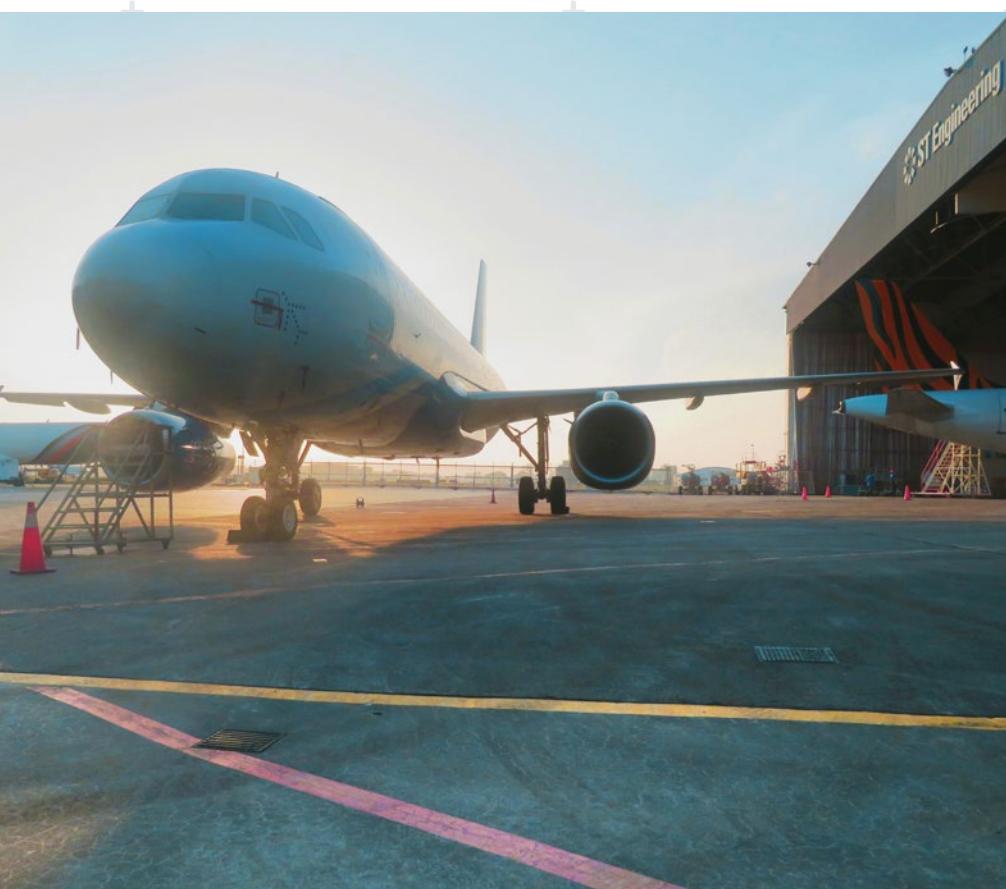
## Circular Economy

Our aircraft and ship conversions allow us to **repurpose and reuse**. This saves resources, time and costs. Our **MRO operations also extend the life of capital assets, whether aircraft, vehicles or ships**. We design, build, operate and maintain **sustainable waste management and waste-to-energy facilities** that support **eco-friendly waste disposal, management and wastewater recycling**.

- Integrated Waste and Water Treatment Solutions
- P2F Conversions
- Ship Conversions
- Environmental Solutions and Recycling

## Exploring Frontier Sustainable Solutions

We anticipate the future needs of our customers and actively explore emerging solutions within the green technologies space. In 2022, the GTT was set up to explore emerging green technology innovations and to provide leadership, direction and cross-business coordination in these developing areas. Our focus areas include **new sustainable materials, advanced electrification technologies, emerging low-carbon technologies and solutions supporting carbon sequestration**.



## Exploring SAF Adoption in Engines

We support our customers and industry initiatives towards greater **SAF adoption as an alternative to fossil fuels**.

Our Commercial Aerospace business is exploring and conducting developmental studies in **preparation to deploy the next generation SAF for greener engines** test cell operations. In 2022, we signed a Memorandum of Understanding (MOU) with a major engine Original Equipment Manufacturer (OEM) with plans to conduct engine trial tests in 2023.

## ENVIRONMENTAL

- SUSTAINABLE QUALITY PRODUCTS & SOLUTIONS

### A Surface Coating to Protect High Value Assets

Our Defence Aerospace business developed a multi-functional surface protection coating that helps to improve the durability, quality and reliability of high value assets. It also helps to reduce drag, thereby increasing operation efficiency and reducing the water and chemicals required during washing.

The coating can be deployed in any segment that requires surface protection, including the aviation, electronics, marine and automobile sectors.



### We Ensure that Quality Extends Beyond Product Delivery

Our quality commitment extends beyond product delivery through a range of post-delivery services including training and MRO.

### Supporting High Readiness Assets and Operations

Our Marine business designed and built the new fleet of Singapore's Police Coast Guard 5<sup>th</sup> Generation patrol boats. The new fleet will replace the service's current fleet to conduct pursuit and arrest, coastal surveillance and force protection, harbour patrol and security, and search and rescue operations.

In 2022, we delivered the last pair of boats and provided high quality training to the operational crew, commencing the maintenance service.

## OUR GOVERNANCE AND FRAMEWORK

The quality and safety of our products and services are paramount to our continued success. Policies and procedures are in place to enable us to deliver safe and reliable products and solutions to our customers. The majority of our operations are certified to ISO 9001 Quality Management Systems or equivalent.

Where relevant, our business units are certified to [AS 9100D Quality Management Systems - Requirements for Aviation, Space and Defense Organisations](#). This includes having processes in place to:

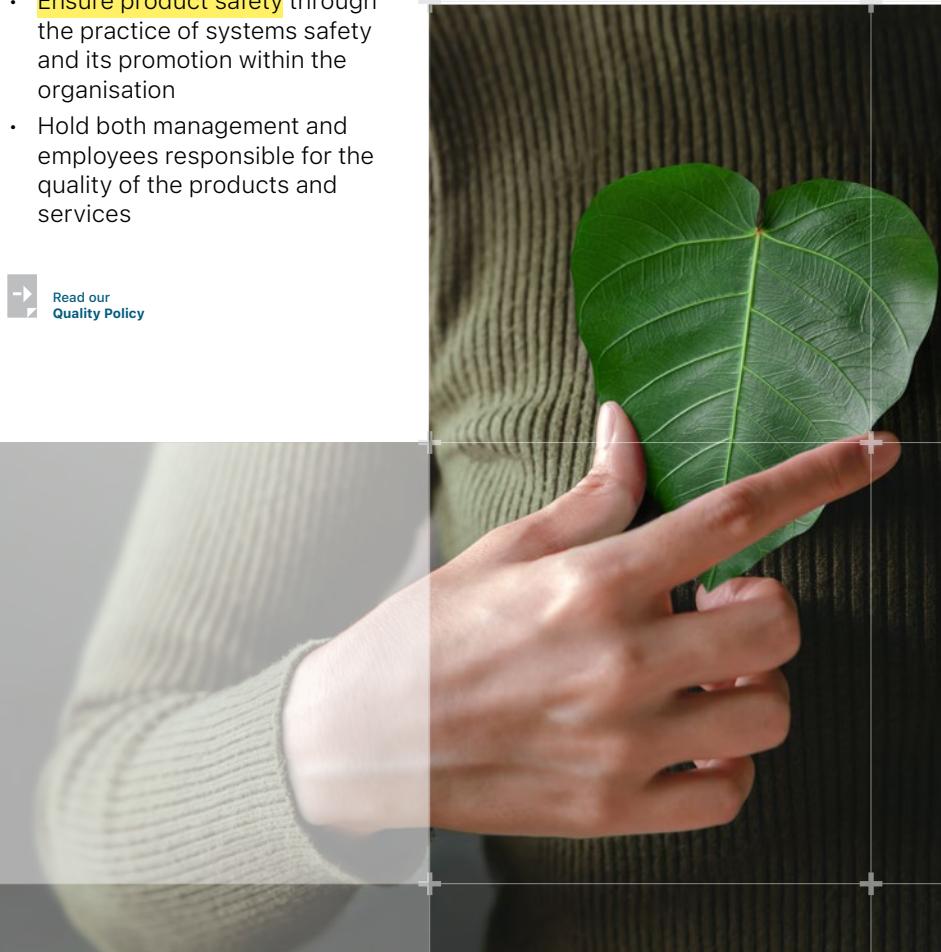
- [Inspect, identify and prevent counterfeit parts from entering our production lines](#)
- Identify and control product safety
- Manage the airworthiness of products manufactured and OEM products used in our production line. Airworthiness Directives are publicly available and can be found on the appropriate regulatory sites

Our quality efforts are coordinated by OEST – Quality, which comprises business area representatives. Our approach are as follows:

- Put in place systems and processes to ensure that all our employees comply with our Quality Policy
- Set up effective measurement, [closely monitor](#), and analyse if [quality objectives and targets have been met](#)
- Incorporate mandatory Seven Quality Behaviours and Quality Management Foundation e-learning in employee onboarding program
- Ensure the quality of bought-in products and services through our supplier approval and monitoring processes
- Organise regular quality seminars and briefings to share lessons learnt and to promote best practices
- [Ensure product safety](#) through the practice of systems safety and its promotion within the organisation
- Hold both management and employees responsible for the quality of the products and services

To explore emerging green technology innovations, the GTT was set up to provide leadership, direction and cross-business coordination in these developing areas. The GTT is co-chaired by our Group Chief Technology and Digital Officer and Group Chief Strategy and Sustainability Officer. It consists of representatives from our business areas as well as GTO, GEC and GSSO.

 [Read our Quality Policy](#)



## SOCIAL

# PEOPLE EXCELLENCE

People are the cornerstone of our business. Attracting and retaining employees, supporting their learning and development, taking care of their well-being, and promoting diversity and inclusion are key priorities for ST Engineering.

Our People Strategy focuses on three broad areas: **renewing our capabilities and building capacity for sustainable growth, building a high-performing, engaged and global-ready workforce, and strengthening our people practices**. For 2023, our goals are to strengthen engagement by taking targeted actions based on feedback from our employees in the Global Employee Engagement Survey 2022, and to advance diversity and inclusion initiatives at the workplace to foster inclusion and belonging.

## OUR COMMITMENT

We are committed to investing in people development and building a steady pipeline of STEM talent to help us achieve our aspiration of becoming a global technology, defence and engineering powerhouse.

## OUR APPROACH

### We Take Care of Our People Holistic Approach to Health and Well-being

We adopt a holistic approach to the health and well-being of our people. This encompasses our employees' physical, social and emotional health. Aside from our management of the total workplace safety and health of our people, we also place importance on their well-being.



Read about our Total Workplace Safety and Health approach

## OUR GOALS

### Our 2022 Goals

- Renew capabilities and build capacity for sustainable growth
- Build a high-performing, engaged and global-ready workforce
- Strengthen people practices to enable an agile and global Human Resources (HR) organisation

### Our Achievements

- We strengthened our learning and development framework, enhanced manager development pathways and deepened our engineering, technology and innovation capabilities
- We expanded employee engagement initiatives to foster a deeper sense of identity and connection across teams and within the larger organisation
- We promoted employee well-being, and diversity and inclusion efforts to build a more resilient and inclusive workforce

### Our 2023 Goals

- Strengthen people practices by taking targeted actions based on feedback from our employees in the Global Employee Engagement Survey 2022
- Advance diversity and inclusion initiatives at the workplace to foster mutual understanding and a sense of belonging



 ST Engineering



We identified three focus areas that directly impact and strengthen the well-being of our employees.

- **Strong Bodies.** Good health and energy enhance productivity and efficiency
- **Strong Minds.** Positive emotions and resilience improve mental capacity to overcome life challenges
- **Strong Ties.** Strong team spirit promotes cohesion and collaboration among our employees

Our workplace wellness plans are regularly reviewed to ensure that the activities organised help enhance employee well-being and foster team bonding.

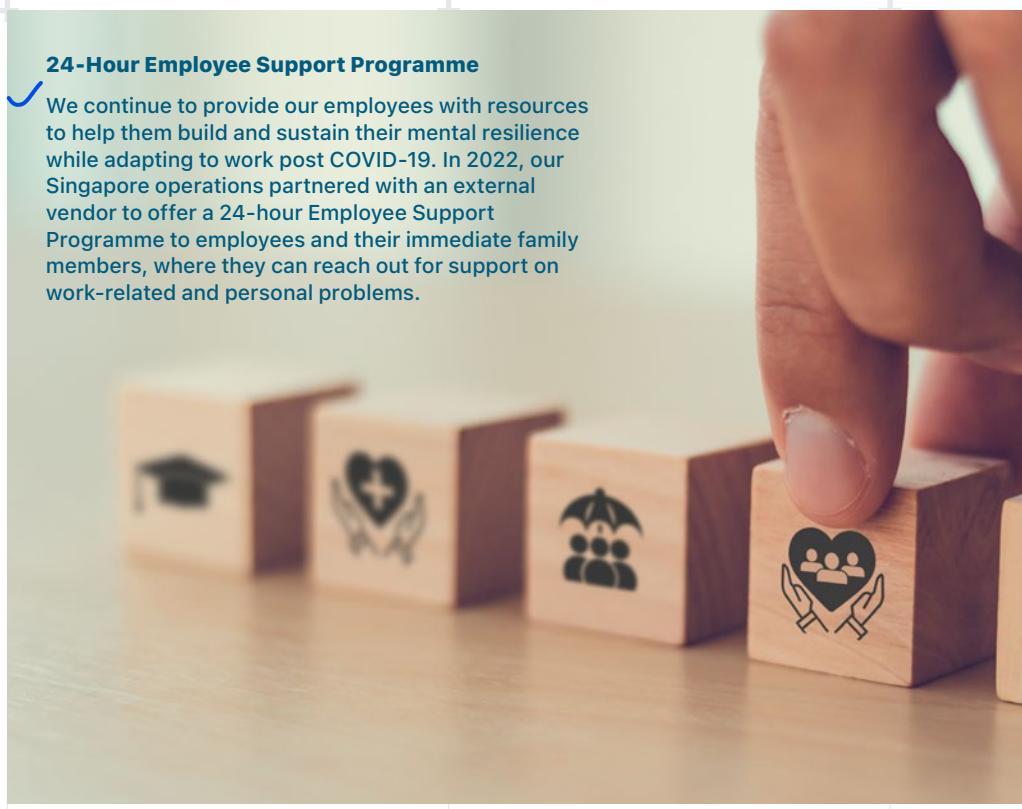


#### **Team Bonding at ST Engineering MOVEmment**

ST Engineering MOVEmment is both a charity drive and a healthy lifestyle campaign that aims to encourage our employees to stay fit and healthy. In 2022, ST Engineering MOVEmment was kicked off with a carnival, team bonding games and a ceremonial flag-off at the Bay East Garden. The team category of the ST Engineering MOVEmment was an effective way to encourage team building and bonding.

#### **24-Hour Employee Support Programme**

We continue to provide our employees with resources to help them build and sustain their mental resilience while adapting to work post COVID-19. In 2022, our Singapore operations partnered with an external vendor to offer a 24-hour Employee Support Programme to employees and their immediate family members, where they can reach out for support on work-related and personal problems.



#### **Freedom of Association**

We respect our employees' fundamental rights to freedom of association, including the right to be members of trade unions. We do the following:

- Take guidance from national or local industrial relations laws and regulations
- Maintain strong relationships with the unions through frequent activities and dialogues to discuss, clarify and resolve issues, and seek buy-in on new initiatives
- Ensure our unions, where applicable, are represented in key committees such as safety, welfare and training so that concerns can be promptly surfaced and addressed

In Singapore, the Group recognises ST Engineering Staff Union (STESU) as the collective negotiating body in respect of all the terms and conditions of service of the employees covered under the scope of the collective agreement.

27% of employees are represented by STESU and all employees are treated equitably regardless of their membership status.

The Union actively supports the Group's effort to introduce multi-skilling and re-skilling of our workforce to increase the productivity of the workforce for the benefit of the Group and its employees. The ST Engineering management continues to work closely with the Union on the initiatives to strengthen our engagement with employees and workers, and nurture union leaders for the future.

The Group may embark on organisational or operational changes in response to external and internal factors. In consultation with our unions (where applicable), such changes are communicated in a timely way to the affected employees. This will help them understand and prepare for the upcoming changes.

## SOCIAL

### ► PEOPLE EXCELLENCE

#### We Invest in Their Development

We strive to **improve performance, upskill and build a motivated workforce** that drives the organisation's success.

#### Cultivating Leaders

Leaders are paramount in promoting organisational growth and success. Our leadership development framework is anchored on the following leadership dimensions:

- Think global
- Drive performance
- Drive innovation
- Engage and inspire

We manage our leadership succession by identifying key roles critical to the business as well as potential talents. Additionally, we provide flexible career tracks where employees can move between management or technical roles to gain exposure.

Our manager development roadmap and learning programmes are curated to shape and build leaders. In 2022, we introduced an enhanced manager development framework with new training content and programmes. All these serve to build up our current and future leaders' repertoire of experiences, skills and knowledge.

#### Training, Development and Lifelong Learning

Our focus is on growing the capabilities of a future ready workforce that is equipped with new economy skills and empowered for success.

Growing and maintaining a critical mass of qualified and experienced personnel is essential to achieving the Group's strategic objectives. Our training development plans and performance management systems work in tandem to support the career progression of our employees. We regularly carry out Learning Needs Analysis for our employees and develop annual training plans to meet their development needs.

We built on our experience with the long-standing and successful Company Training Committee at our Aerospace business. We continued to work closely with STESU, our Union in Singapore, through the Group Company Training Committee, to provide skills upgrading and retraining programmes for our employees. This enables them to meet the **current and future needs** of their respective industries. In doing so we hope to maintain and grow the **capability and professionalism** of all our employees so that our businesses continue to be competitive as we transform and digitalise.

We continue to offer personalised, bite-sized and on-demand learning opportunities to employees group-wide. More than 10,000 employees have been actively utilising these digital learning opportunities for topics such as **design thinking, leading change and developing business acumen**. To make it more engaging for learners, we introduced a year-long themed campaign, called Skill-up@ST Engineering, via LinkedIn Learning to share specially curated content on topics such as **leadership** and **innovation**.

**In 2022,  
Average Training  
per Employee**

**22.5  
hours**

Lifelong learning is a key tenet of our people development approach. We partner with local education institutions and approved Continuing Education and Training centres to upskill our engineers and technicians. We train them in **technical skills, such as data analytics, digitalisation, robotics and automation**, and soft skills such as **leadership, negotiation and personal effectiveness**. We also adopt the 70:20:10 learning and development model that blends experiential, collaborative and formal elements of learning.

#### Retirement

We comply with applicable local laws, regulations and guidelines for retirement and re-employment. For example, in Singapore, an employee who retires upon reaching the statutory retirement age, may be re-employed on an offer and acceptance basis for special skills and/or project work.

In keeping with our lifelong learning culture, relevant training will be provided to upgrade the skills of employees who are re-employed in different positions after their retirement age.



### MOU with Temasek Polytechnic

Digitalisation, robotics and automation present endless opportunities for our engineers and technicians to learn and grow at work, so that they can perform their tasks more effectively and efficiently.

We signed a MOU with Temasek Polytechnic in Singapore to collaborate on the upskilling of our engineers and technicians. This is part of an ongoing partnership to jointly develop the Factory Integrated Technology Workforce Upskilling Programme that will train more than 200 of our engineers and technicians in digitalisation, automation and e-Facilities Management/e-Logistics.

### Upskilling our Employees in Automation and Digitalisation

To keep our employees abreast with the latest skills and knowledge in Information Technology, the Digital Academy in Digital Systems offers training programmes for Cloud, Agile Software Development, DevOps and Data Analytics. Employees have a chance to immerse in the learning of these technologies through a series of course work, labs and on-the-job training.

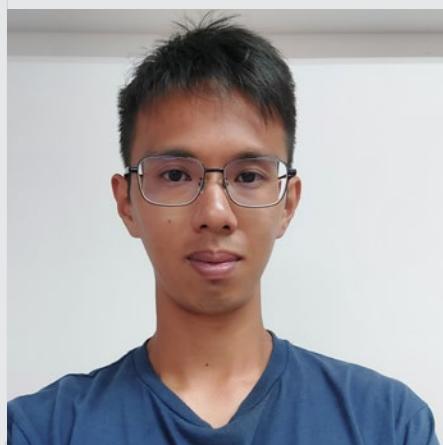
Our employees at our Land Systems business actively attend courses to enhance their engineering, operations, MRO services and supply chain and facility management digitalisation knowledge as part of a three-year learning roadmap. The training roadmap also included the Factory Integrated Technology Workforce Upskilling Programme with Temasek Polytechnic, the Career Conversion Programme and LinkedIn Learning.



After completing the Specialist Diploma in Robotics and Automation, I can better appreciate and apply the approach towards integration of robotics automation systems for robot-assisted production and troubleshooting. With more companies adopting new technologies and digitalisation, upskilling helps employees to stay relevant within their industry, so it is a win-win for both the employer and the employee.



**VICTOR CHOY**  
Assistant Engineer  
AME, Land Systems  
(Singapore)



The SkillsFuture Digital Workplace course helped me to understand the role of digitalisation in the workplace, and how it improves efficiency in our day-to-day work. It is important that we catch up with the emerging technologies so that we can complete our tasks more efficiently.



**YEW KIAN MENG**  
Principal Technician  
Assembly Centre, Land Systems  
(Singapore)

## SOCIAL

### ► PEOPLE EXCELLENCE

#### Facilitating Global Exchanges and Connections

Our employees are posted to our business units across geographies to gain the exposure required to excel in a globalised economy. We support them through a range of advisory services, and **cultural awareness** and **language training** to help their assimilation.



During my overseas stint, I was given the opportunity to be part of the P2F Programme team that was ramping up the conversion capabilities at our **MRO facilities** in the U.S. I learnt to work with people from diverse backgrounds to contribute towards the success of the programme. The experience has been enriching and fulfilling, both personally and professionally.



**ANG LIANG SHENG**  
Production Planning and Control Manager  
MAE, Commercial Aerospace (U.S.)



My recent trip to Singapore and Malaysia has allowed me to have fruitful exchanges with diverse stakeholders, as I had the opportunity to meet with colleagues from Group level corporate functions to align business priorities and share best practices. This is consistent with our approach to building robust and globally integrated Management Systems by forging strong partnerships and engaging in joint efforts with colleagues across geographies.

Together with my colleagues from iDirect's U.S. operations and Group Sustainability, I visited Malaysia to engage with a leading supplier. We learnt about each other's sustainability priorities, discussed the **carbon footprint of our products** and conducted a quality audit. Our meetings were productive and deepened our partnerships with our colleagues and our supplier.



**GUY DE WINNE**  
VP Global Performance  
iDirect, Satcom (Belgium)



My overseas assignment in Hong Kong helped me to gain a more holistic understanding of our company's operations. Being able to apply a different lens of culture, communication and working styles to our local landscape is valuable. The experience allowed me to be more mindful and introspective of our own working practices, hence enhancing the mindset of bettering ourselves and the company.



**SAMANTHA LEE**  
Manager  
Group Strategy and Sustainability Office (Singapore)



## We Build a Passionate and Engaged Workforce

Listening to our employees is a critical part of our people engagement strategy.

These efforts are facilitated through regular town halls, including our Annual Convention, and employee-focused group sessions with our Group P&CEO and respective business leaders. The staff communication channels provide a platform for updates and dialogue on strategy, market developments and business, as well as people and policy matters. It also builds employee confidence in our leadership actions and the direction of the Group as we **address market challenges and opportunities**.

We periodically conduct employee engagement surveys to present employees an additional platform to provide feedback. In 2022, our employees took part in the Employee Engagement Survey supported by an external market leader in employee engagement, to provide feedback on their experience at work and to help the organisation identify key action areas to build an engaged and **high-performance culture**. The survey covered a wide range of topics on our employees' sentiments on issues such as well-being, inclusion and belonging across a five-point scale.

## We Leverage Diversity and Inclusion

Our diverse workforce inculcates a dynamic culture that provides opportunities for the **exchange of ideas, innovation and personal growth**. This can be achieved and sustained in an environment that fosters **mutual respect, and values a good mix of capabilities, perspectives and ideas**.



### Annual Convention 2022

The Annual Convention 2022 was based on the theme of Innovation, Sustainability and People Excellence. The event drew 1,200 ST Engineering employees in person and 800 employees dialling in from our business units around the world. The convention provided employees with the opportunity to be updated on the Group's strategic direction to capture sustainable growth, as well as engage in conversations with business leaders on topics such as **talent retention and continuous learning**.

We facilitate this by working on four key areas:

- **Gender** – we focus on **women empowerment and gender equality** through initiatives such as Women@ST Engineering, and unconscious bias training programmes
- **Generation** – we focus on fostering an environment where members of a multi-generational workforce can collaborate and learn from one another, and provide mutual support in a fast-evolving world
- **Geography** – we focus on **encouraging the exchange of ideas and perspectives across diverse work cultures** that leads to creative and innovative solutions
- **Persons with Disabilities (PwDs)** – we focus on **promoting an environment where PwDs have equal access to opportunities for growth and development**



### Women@ST Engineering

Women@ST Engineering supports our diversity and inclusion efforts through the engagement of both our female and male colleagues in the areas of addressing unconscious bias in the workplace and facilitating inclusive professional development. We also complement our employees' management of their roles in their personal lives in areas such as family caregiving, health and wellness.

In 2022, we had the pleasure of inviting Ms Sim Ann, Senior Minister of State, Ministry of Foreign Affairs and Ministry of National Development to join us at our Leadership Forum as one of the panel members and speakers. The event provided an opportunity for our employees to hear from high achieving professional men and women on their personal journeys. The discussion also helped promote a better appreciation of the issues faced by women both at the workplace and at home.

## SOCIAL

### ► PEOPLE EXCELLENCE

We are committed to fair employment practices, and comply with all national and local labour laws and regulations where we operate. We offer merit-based equal opportunities to all, including promoting training and skills development.

#### We Do Not Condone Discrimination or Harassment

We are committed to providing all employees with a conducive workplace environment that is free from harassment, discrimination and other prohibited conduct.

We do not condone personal bias or prejudice and we advocate for fair recognition. We do not discriminate according to age, race, religion, national origin, ethnic and social background, gender, marital status, physical or mental attributes.

We uphold Principle Six of UNGC on eliminating discrimination:

- We recruit and select employees based on merit, such as skills, experience or ability to perform the job regardless of age, race, religion, national origin, ethnic and social background, gender, marital status, physical or mental attributes
- We treat our employees fairly and with respect and dignity
- We provide our employees with equal opportunities for training and development based on their strengths and needs
- We reward employees based on their ability, performance, contribution and experience

Our employees are guided by our Code of Business Conduct and Ethics. A vital tenet of our Code of Business Conduct and Ethics is to promote non-discrimination and anti-harassment at the workplace. Our employees develop an understanding of the different

types of discrimination and how it can affect the workforce through our training session on our Code of Business Conduct and Ethics.

Similarly, our suppliers are guided by our Supplier Code of Conduct that requires them to respect fundamental international principles regarding non-discrimination, anti-harassment and fair employment practices.

The Company adheres to the principles of fairness, impartiality and confidentiality in its handling of grievances. We provide a safe channel for employees to raise issues which are promptly looked into and addressed to build trust and maintain industrial harmony. No individual will suffer reprisals or retaliation for reporting genuine grievances, making complaints or participating in an investigation. Management at all levels, supported by their respective HR teams, is responsible for ensuring that we provide a work environment free from discrimination or harassment.

In 2022, we had no cases of discrimination lodged. Grievances due to harassment, discrimination and other prohibited conduct are managed according to our grievance management process which governs the reporting and handling of employee grievances. This ensures that all cases are promptly investigated and resolved.

#### We Reward Performance

We adopt a performance-based approach with direct linkage between performance and rewards. In the short and medium-term, sustained contributions are rewarded through a pay-for-performance principle where the Group's KPIs business area goals, individual performance, internal equity and industry practices are considered.

#### Performance Management

Annual performance appraisal sessions serve as a platform for employees to discuss their work progress and career aspirations with their supervisors. Our annual performance management process involves goal setting, continuous performance reviews and full-year assessments against targets.

During their annual performance review, all employees with direct reports are evaluated on their people management skills and outcomes. These include line managers in each business, those leading horizontal functions, as well as those with supervisory responsibilities in ad hoc teams.

#### Compensation and Benefits

Our Group Compensation and Benefits Framework includes short, medium and long-term financial and non-financial performance targets to motivate and reward employees for creating sustainable stakeholder value.

Compensation and benefits programmes are reviewed regularly and benchmarked against their respective markets using global market surveys and consultancy firms. This ensures that we are internally equitable, market competitive and in compliance with nationally or locally mandated requirements.

Share plans are available to incentivise eligible employees. We also reward creative solutions and contributions by employees through various business and employee recognition awards to celebrate role models and our employees' innovative spirit.

The Group has established a stronger link between employee remuneration and our ESG performance. ESG-related goals and targets have been

incorporated into the Group's KPI scorecard, which all employees, including the Group's senior management, are assessed against. The Group's KPIs determines the variable bonus pool for employees.

The Group's employee benefits are provided in accordance with local regulations and aligned to local employment practices. These may include but are not limited to annual leave, marriage leave, family care leave, compassionate leave and medical leave. They also include insurance for medical, life, personal accident, work injury compensation and business travel. Our retirement provisions are in accordance with local legislation.

Our Flexible Work Arrangement policy provides flexibility in work hours and work arrangements such as part-time working options, and work-from-home arrangements.



Read about our Employee Benefits Scheme on page 217 of our 2022 Annual Report

### We Attract and Nurture Talent

Our talent attraction and management efforts focus on engaging, assessing and hiring diverse and qualified candidates based on the specific skills, knowledge, and experience they can bring to the job.

We widen our talent search via social media posts or through the various networking groups instead of relying only on job postings, outreach and referrals. Our detailed job descriptions and specifications define goals, accountability, and success measures of the role. This targeted strategy has made ST Engineering one of the most attractive employers in the market.

### A Choice Employer

# No. 4

of the 100 Most Attractive Employers for Engineering/Natural Sciences students<sup>8</sup> (Universum)

<sup>8</sup> More than 7,000 students from Singapore universities

We also focus our efforts on nurturing students in the communities we operate in. This ensures that we grow our local talent pipeline and workforce.

### Singapore-Industry Scholarship

2022 marks our 11<sup>th</sup> year offering the Singapore-Industry Scholarship, the only multi-industry scholarship programme in partnership with the Singapore government. The scholarship aims to grow and nurture future industry leaders, particularly in the technology, defence and engineering businesses. This year, we gave out scholarship awards to eight new recipients, having awarded a total of 118 scholarships to date.

### Nurturing Talent in Pensacola, U.S.

In our U.S. offices, besides giving out the Pensacola Mayor's Scholarship annually to develop talent for the aviation sector, we also nurture qualified aircraft maintenance technicians through our **training programme** with United Parcel Express.



## SOCIAL

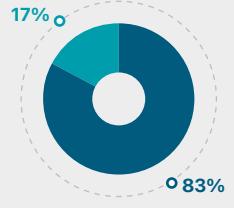
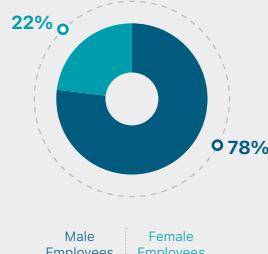
### ► PEOPLE EXCELLENCE

## OUR PEOPLE DATA<sup>10</sup>

### EMPLOYEE PROFILE

(%)

#### By Gender

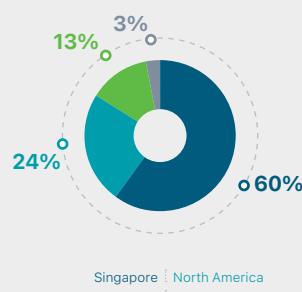


### MANAGEMENT PROFILE<sup>9</sup>

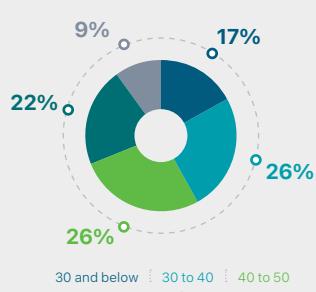
(%)



#### By Region



#### By Age Group



**15%**

male employees are  
people managers

**14%**

female employees are  
people managers

### EMPLOYEE RETENTION<sup>12</sup>

#### Rate of Employee Turnover

##### By Gender

|        |     |
|--------|-----|
| Male   | 13% |
| Female | 14% |

##### By Age Group

|              |     |
|--------------|-----|
| 30 and below | 20% |
| 30+ to 40    | 16% |
| 40+ to 50    | 11% |
| 50+ to 60    | 8%  |
| Above 60     | 10% |

#### Rate of New Hires

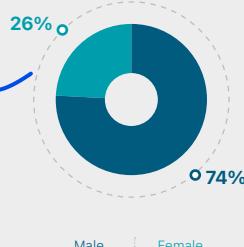
##### By Gender

|        |     |
|--------|-----|
| Male   | 20% |
| Female | 25% |

##### By Age Group

|              |     |
|--------------|-----|
| 30 and below | 50% |
| 30+ to 40    | 24% |
| 40+ to 50    | 16% |
| 50+ to 60    | 10% |
| Above 60     | 6%  |

#### Proportion of New Hires



### TRAINING AND DEVELOPMENT

#### Total Training Hours

**22.5**  
hours

#### Average Training Per Employee<sup>13</sup>

**24.8**  
hours

Male

**14.6**  
hours

Female

**24.6**  
hours

Non-Executive

**22.6**  
hours

Executive

**16.2**  
hours

Manager

<sup>9</sup> Based on the population of each management category

<sup>10</sup> Based on the Group's staff strength of 24,582 (including our subsidiaries) as at 31 December 2022

<sup>11</sup> Supervised workers refer to short-term contract workers hired through local contractors who work in the Group's facilities and are supervised by ST Engineering

<sup>12</sup> Based on the total employee population of each gender and age group

<sup>13</sup> Based on the total employee population of each gender and employee category

## OUR GOVERNANCE AND FRAMEWORK

Our people and culture strategy seeks to **enhance our capability and capacity for growth, build a passionate and engaged workforce, and position us at the forefront of people practices.**

We implement our people and culture strategy in the following areas:

- Health and Wellness
- Labour Relations
- People Development and Learning
- Diversity and Inclusion
- Employee Engagement
- Performance Management and Rewards
- Recruitment

The Group Chief Human Resources Officer and the HR leadership team oversee the policies and facilitate the engagement on all people issues across the Group. The Group Chief Human Resources Officer reports directly to the Group President & CEO. He works closely with the Board, the EXCO and senior management to advise them on global best practices and the implementation of the Group's people policies.

Our Group Company Training Committee includes participation from STESU and provides **skills upgrading and retraining programmes for our employees.**

Our Engineering Competency Management Framework identifies key competencies of various engineering domains, benchmarks existing technical capability and identifies areas for further development. This will facilitate stronger engineering career pathways in the Group.

Our Compensation and Benefits Framework is reported to the Board's Executive Resource and Compensation Committee. The Executive Resource and Compensation Committee has access to consultants to advise on market trends, and compensation and benefits matters. We also work closely with our employee unions on compensation and benefits issues.



## SOCIAL

# TOTAL WORKPLACE SAFETY & HEALTH



Safety and health are paramount to our everyday work. Prioritising safety and health leads to a cycle of increased employee health and wellness, high productivity, and lower downtime.

We continuously work towards a safer and healthier working environment for our employees, stakeholders and partners globally.

### OUR COMMITMENT

We are committed to "Safety Before Profits", and strive to create a safe and healthy workplace. We target to have zero fatalities in our operations, and work towards lowering our major injuries and ill health cases year-on-year.

### OUR APPROACH

#### Our Management Commitment

ST Engineering's management is committed to providing a safe and healthy working environment for all our employees and workers.

OEST - WSH coordinates our total WSH efforts and is sponsored by a member of the Group's senior management. The team meets every quarter to discuss, coordinate and strategise on total WSH implementation and share best practices.

#### We Adopt Global Health and Safety Standards

All our global operations abide by

their relevant workplace safety regulations and requirements. For example, in Singapore, our material business units are certified to ISO 45001 Occupational Health and Safety Management Systems. They also comply with the approved codes of practices specified by the Singapore Ministry of Manpower, Singapore Civil Defence Force, National Environment Agency, and all applicable industry-specific legal requirements.

Internal and external verifications are regularly carried out to evaluate our health and safety system performance, effectiveness of control procedures, and compliance to global standards.

Global health and safety requirements extend beyond our employees to our workers<sup>14</sup>. We do this by incorporating WSH as a component of our Supplier Code of Conduct. This includes the requirement for our suppliers to have an internationally recognised occupational health and safety management system and comply to our Environment, Health and Safety (EHS) policy when working on our premises. Those who fail to adhere to our EHS policy may be administered disciplinary actions by our on-site supervisory teams. These conditions have also been included into our procurement T&Cs.

<sup>14</sup> Workers refer to people who are not employees but whose work and/or workplace is controlled by the Group

### OUR GOALS

#### Our 2022 Goals

- Enhance focus on total WSH
- Promote technology-enabled WSH

#### Our Achievements

- We focused on the total WSH of our employees by expanding on our mental health support as well as general health and safety awareness

WSH Performance reporting indicators have been revised to better meet global reporting standards

- Some key WSH Innovation projects implemented include Workplace Injury Reporting System, e-Permit-To-Work and e-Safety Observation Card

Additionally, ST Engineering participated and won WSH Innovation Awards at the national level in Singapore

#### Our 2023 Goals

- Improve our Recordable Frequency Rate (RFR) and Recordable Severity Rate (RSR) by 5%
- Digitalise key work processes to better manage WSH

In 2022, we aligned the Group with global WSH practices by replacing the traditionally used safety performance indicators of Accident Severity Rate and Accident Frequency Rate with RFR and RSR. We also standardised the definitions of our leading indicators (hazard reporting and near-miss reporting) and lagging indicators (penalties by authorities, dangerous occurrences, property damage incident) across all our global entities.

### We Focus on a Collective Total Workplace Safety and Health

We adopt a holistic approach to better manage staff safety and health.

We conduct regular checks of our operational areas to test for hazardous materials, noise, and general air quality. Additionally, we send our employees for annual occupational health check-ups on areas such as audiometry. These measures help us to identify health and safety risks early on and implement appropriate mitigation measures.

We also take care of our employees' well-being by providing general health screening, mental health support and return to work (from injuries) programmes.

 Read about how we take care of our employees' well-being



#### Management Safety Walkabout

The Group P&CEO and President of Defence and Public Security conducted a safety walkabout.

This holistic approach protects our employees from both short and long-term injury, stress, and illness. It also reduces absenteeism and turnover, increases productivity and quality, and raises employee well-being.

Our collective approach means that our care extends beyond our employees and workers, to the people around them.

#### Health and Safety is Embedded in Our Culture

We adopt a "Zero Accident" mentality and believe that safety starts with individuals. We make conscientious efforts to embed a culture of WSH vigilance among our employees through a combination of:

- Health and safety competency trainings
- Awareness campaigns
- Regular equipment and tool inspection and maintenance
- Safe work procedures and regulations
- Daily safety toolbox meetings
- Incident reporting, investigation, analysis and sharing of lessons learnt

New employees and workers undergo a WSH induction programme as part of the onboarding process. We also provide specialist safety training on specific work-related hazards such as lifting, welding and confined space.

We embed WSH into the Group's risk appetite statements and cardinal rules.



#### Safety Pledge

"We at ST Engineering are committed to Safety Before Profits."

We believe that Safety Starts with Me and pledge to abide by all safety rules, stop all unsafe practices and watch for the health, wellness and safety of everyone within our premises.

We shall, through our diligence and continuous improvement efforts, achieve our goal of Zero Accident."

[www.stengg.com](http://www.stengg.com)

#### ENVIRONMENTAL HEALTH & SAFETY (EHS) CARDINAL RULES



##### FIRE SAFETY

Do not smoke outside designated areas. Keep clear of fire protection system and equipment.



##### WORK AT HEIGHTS

Use fall prevention and protection devices when working at heights.



##### CONFINED SPACE ENTRY

Enter confined space only if trained and authorised. Comply with confined space entry and emergency procedures.



##### WASTE DISPOSAL

Dispose and discard waste materials in accordance with requirements.



##### VEHICULAR SAFETY

Operate vehicles only if trained and authorised. Comply with safe operating requirements.



##### MACHINE / EQUIPMENT SAFETY

Operate equipment only if trained and authorised. Comply with safe operating requirements. "Lockout Tagout" before performing any maintenance task.



##### LIFTING OPERATIONS

Carry out lifting operations only if trained and authorised. Comply with safe lifting plan.



##### ELECTRICAL SAFETY

Use approved appliances and equipment with safety mark. Do not overload electrical circuits.

## SOCIAL

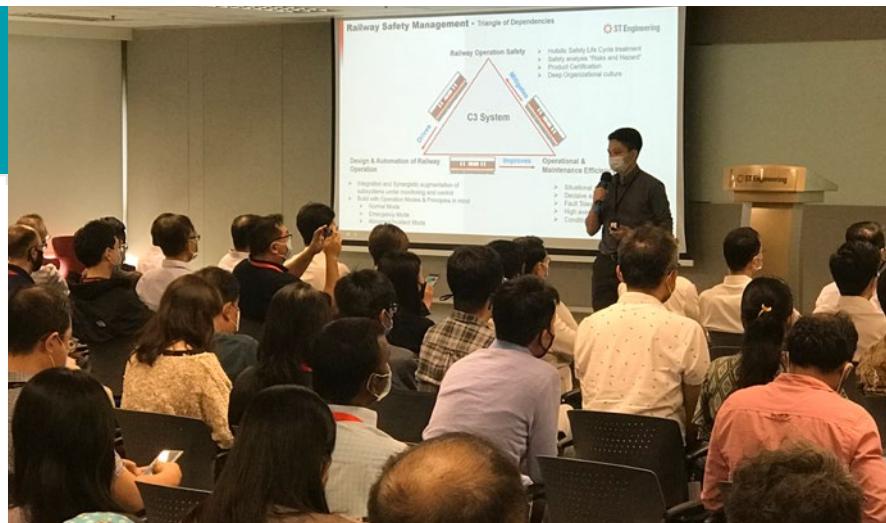
### ► TOTAL WORKPLACE SAFETY & HEALTH

#### We Design Safety into our Work Processes

Technological advancements in recent years have placed us in a good position for significant breakthroughs in both business productivity and WSH performance.

We employ the use of technologies such as our digital Workplace Incident Reporting System and our electronic Compliant Statutory Management System to **improve the efficiency, accuracy, and traceability of our WSH systems**.

We also seek to innovate work processes to improve their safety.



#### Designing Safety into our Systems

Our inaugural Engineering Seminar 2022 brought together more than 200 internal and external thought leaders, engineering professionals and practitioners to share and promote safe system design and safe work processes. Participants learnt best practices to manage and mitigate risks. They also found out more about the triangle of dependencies for safety management: **systems safety, operational safety, and operational and maintenance efficiency**.



A safety management system is important because without it, it is impossible to ensure responsibility and accountability. The second, and arguably most important factor, is people. This is why we need to have a **good safety culture** where employees constantly learn and take courses on safety.



**BENJAMIN LOW YI XING**  
Senior Engineer  
Urban Solutions (Singapore)



#### ME Tech Instinct Improves Track Installation

Track installation on vehicles traditionally relied on methods that were labour intensive and required precise coordination among technicians. As the tracks are heavy, installation tends to result in awkward working postures and exposure to potential hand and finger injuries.

The ME Tech Instinct team designed ways to eliminate hazards, substituted workstreams to reduce handling risks and introduced engineering control for process improvements. This included re-packaging the track links, re-engineering track installation, and improving the track clamping jigs and fixtures.

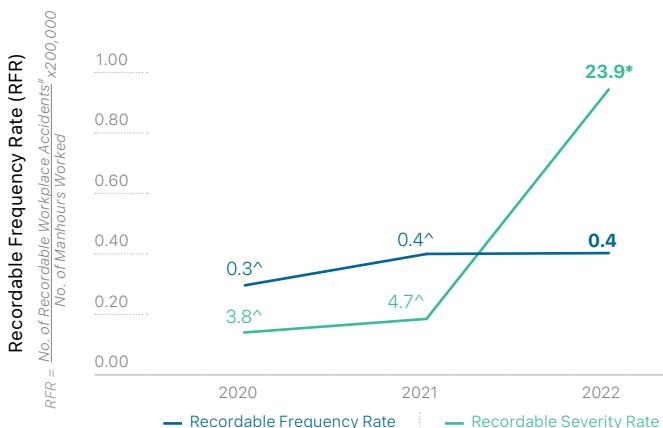
#### We are Recognised for our Workplace Safety and Health Efforts

In 2022, two individuals and four teams from ST Engineering were recognised for their efforts by the WSH Council in Singapore and were awarded a total of nine awards and two commendations at the national WSH Awards 2022.

#### Workplace Safety and Health Officer Award

Melvyn Ting's commitment to safety and his comprehensive approach to WSH was recognised by a Singapore nationwide WSH Officer Award. He was featured in Singapore's national news, where he shared about how he made the traditional 4M Method of risk assessment more holistic by adding three more 'M's: minutes, medium and mandatory.

## OUR SAFETY DATA



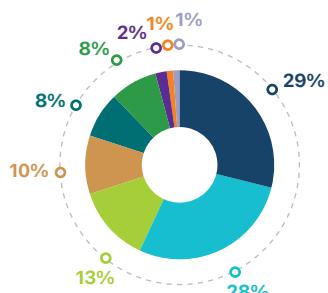
### Notes

- \* High severity rate is due to a fatality in 2022
- # Recordable Workplace Accident refers to fatalities and any work-related injury or illness that results in days away from work (medical leave above 1 day)
- ^ RFR and RSR data for 2020 and 2021 is based on the previous WSH indicators used – Accident Frequency Rate and Accident Severity Rate (indicators consists of injuries with medical leave of more than 3 days). RFR and RSR data for 2022 captures frequency and severity based on medical leave 1 day and above.

A fatal accident occurred in December 2022 during the transfer of machinery. A group-wide Safety Time-Out was implemented across all Singapore entities. This included:

- A review of our material handling operations, especially those involving forklifts
- Enhanced safety inspections across all worksites
- Augmenting workplace safety communications
- Results of reviews during the time-out were used to enhance safety practices across the group

## Main types of work-related injuries (124 cases)



| Types of Injuries           | (%) |
|-----------------------------|-----|
| Struck by Objects           | 29  |
| Slips, Trips and Falls      | 28  |
| Caught in-between Objects   | 13  |
| Cut/Stabbed by Objects      | 10  |
| Falls from Height           | 8   |
| Fractures/Sprains/Back Pain | 8   |
| Contact with Chemical       | 2   |
| Burns                       | 1   |
| Machinery in Motion         | 1   |

## Main types of work-related ill health (2 cases)

| Type of Injury         | Breakdown (%) |
|------------------------|---------------|
| Noise Induced Deafness | 100           |
| Others                 | 0             |

## OUR GOVERNANCE AND FRAMEWORK

Our total WSH efforts are coordinated by OEST-WSH. The team supports the OESC Chairman who reports to the OESC Executive Sponsor. The OESC Executive Sponsor is a member of the Group's senior management. The team comprises representatives from our various business areas and meets every quarter to discuss, coordinate and strategise on total WSH implementation and share best practices.

We continue to use control self-assessment and audit processes to ensure we remain compliant with the relevant statutory and regulatory requirements.

WSH is a journey and we commit to continually improve our systems. We have put in place an integrated EHS policy and a Safety Pledge to align the Group towards achieving a common WSH mindset, as well as aligned goals and objectives.



Read our Environment, Health and Safety Policy

# CORPORATE COMMUNITY CONTRIBUTIONS

Sustainability is embedded in ST Engineering. We recognise that our lives are deeply intertwined with the communities we operate in. We strive to do good as we do well, so that we flourish and grow together.

We serve our communities through a combination of volunteer work, skills-based contributions as well as in-kind and monetary support, to build an inclusive, resilient and vibrant society. We actively promote a purpose-driven giving culture through corporate initiatives and volunteerism among our employees.

Our outreach efforts are guided by three focus areas: Improving lives through charitable gifts, enriching lives through education, and touching lives through engineering. These are aligned to the UN SDGs and enable us to contribute to the sustainable growth of the communities we operate in.

In 2022,  
contributed about

**\$2.9m\***

in community contributions

\* Includes other donations and sponsorships not listed here.

## OUR COMMITMENT

We are committed to being a good corporate citizen where we operate. Making a positive impact in the communities we operate in is aligned with our core value of compassion.

## OUR APPROACH

### We Improve Lives Through Charitable Gifts

We collaborate with the community, our employees, charities and organisations to create opportunities for our employees to serve actively in community outreach programmes to improve lives. This promotes a purpose-driven giving culture that improves lives through charitable gifts such as time spent in volunteer work, in-kind gifts and monetary support.

We form meaningful partnerships and are recognised for our contributions to the communities we operate in.

## OUR GOALS

### Our 2022 Goals

- Hold the second run of ST Engineering MOVEment as an internal fundraising event
- Encourage staff volunteerism

### Our Achievements

- Expanded participation in the ST Engineering MOVEment to global offices as an internal fundraising event
- Encouraged employee volunteerism by providing support options and resources

### Our 2023 Goals

- Target higher employee participation for group-wide fundraising through the ST Engineering MOVEment
- Facilitate community service programmes and partnerships to drive employee volunteerism

Over  
**\$530,000**  
to Community Chest's SHARE programme

**\$438,000**  
to President's Challenge 2022

**\$120,000**  
towards STEM education in Singapore and America



Awarded the Charity Platinum Award



### International Volunteer Day

We organised a volunteer event on International Volunteer Day at Xin Yuan Community Care, a charity in Singapore, to spread cheer to their seniors. On top of putting up a mini concert, folding origami flowers and hearts together, and treating more than 100 beneficiaries to a hearty lunch, we also gave hundreds of goodie bags comprising daily essentials and donated \$22,000 to Xin Yuan for its daily operations.



### Keep Fit and Do Good

Over 4,500 employees in Singapore and the U.S. participated in our ST Engineering MOVEment - a four-week physical wellness corporate initiative to walk, run or cycle for charity. Based on the total mileage achieved by the participants, more than \$470,000 was raised to help the underserved in communities.

In addition to the money raised from the mileage achieved by the participants, we raised \$13,000 for The Straits Times School Pocket Money Fund in Singapore from employee donations made when collecting their ST Engineering MOVEment T-shirts. The Fund supports students from low-income families by providing pocket money to help them through school.

### Community Food Support

In the U.S., our employees donated and volunteered with Food For Neighbours, an organisation that helps students struggling with hunger.

We fed more than 1,700 students at 29 middle and high schools in Northern Virginia. Employee volunteers also collected and sorted over 18,000 pounds of food for its Red Bag Programme. In recognition of our generous provision of resources and manpower, we were named Food For Neighbour's first Community Champion.

Similarly in Singapore, our employees volunteered at Willing Hearts, a soup kitchen that prepares, cooks and distributes meals to the needy. Together with other volunteers, they delivered 10,000 meals to beneficiaries including the elderly, disabled, low-income families and migrant workers, in over 70 locations within a single day.

We also organised a four-day food donation drive for Ju Eng Home, a nursing home with over 500 senior citizens in Singapore. More than 1,500 items were collected based on a wish list. The items were sorted and packed in-house before delivery to the nursing home.



## SOCIAL

### ► CORPORATE COMMUNITY CONTRIBUTIONS



#### Community Upgrading

We were among the 80 toll industry volunteers from the International Bridge, Tunnel and Turnpike Association to spruce up the recreation complex for the Boys and Girls Clubs of Northeast Ohio in Cleveland, U.S. Volunteers built a new multi-purpose basketball and tennis court as well as repaired and reshaped the baseball field to benefit 170 kids who visit daily.

In Singapore, we carried out **maintenance works** for MWS Bethany Nursing Home's facilities. This also included installing metal arches in the gardens and repainting the guardrails at the nursing home's compound. We also donated personal protective equipment for the staff's usage and sponsored lunch for everyone.



#### Gifts from the Heart

In Singapore, we volunteered with Lions Befrienders, an organisation that provides programmes and services to maintain engagement with socially isolated seniors in the community. We actively engaged them and provided companionship by doing handicrafts together.

In North America, we donated a variety of toys for children to spread the festive cheer. We did this through programmes such as Jackson County Sheriff's Department's Santa Wears a Badge, San Antonio Police Officers Association's Blue Cares as well as the U.S. Marine Corps Reserve's Toys for Tots.



## We Enrich Lives through Education

We believe that education can help to create a brighter, better world and provide opportunities to nurture talent and build up a thriving pipeline for sustainable, long-term growth.

Apart from investing in local capabilities through talent development programmes, we also **work with partners and collaborators to provide resources and create diverse learning pathways across industries and demographics.**

In 2022, we provided over

# 1,200

STEM internships



## Growing Local Talent Pipeline and Workforce

We invest in local capabilities for the economy and businesses to grow sustainably. In our U.S. offices, besides giving out the Pensacola Mayor's Scholarship annually to develop Northwest Florida aircraft talent, we also nurture qualified aircraft maintenance technicians through our **training programme** with United Parcel Express.

## Assumption Pathway

2022 marks our ninth year of progressive and holistic support for Assumption Pathway School. This year, we gave out one Achievement award and two Best Progress awards, and placed 15 students on a two-week industry experiential programme, while funding enrichment and innovation projects.



We continued to support their first student-run, on-the-job-training external cafe at our Jurong East, Singapore office, creating authentic learning opportunities and experiences beyond the familiarity of the school compound to strengthen the students' competencies and employability.

## SOCIAL

### ► CORPORATE COMMUNITY CONTRIBUTIONS

#### We Touch Lives through Engineering

We use our technologies, expertise and engineering skills to provide solutions and knowledge transfer to communities or through their intermediaries to enhance their quality of life.



#### Free Vehicle Roadworthiness Inspections

Since 2020, we have drawn on our engineering capabilities to provide complimentary vehicle roadworthiness inspections. This year, we extended these free inspections to the Society for the Physically Disabled's fleet of 11 vans so that they can also channel resources to other pressing operations and do more for those in need.

#### Enabling Disaster Relief through Satellite Tech and Assets

Our technology enabled the Verizon Frontline Disaster Response Team to support the community in the aftermath of Hurricane Ian in Florida. Our modems inside "Big Red", a climate-controlled trailer for first responders, helped to re-establish cellular connectivity where infrastructure had been damaged to resume mission-critical voice and data services. This helps responders to effectively assess the damage, share information and take recovery action.





### Supporting Emergency Preparedness

We participated in the 2022 Central States Communications Exercise in the U.S. with our technology. This national disaster scenario exercise is designed to improve emergency preparedness and public safety by facilitating interoperable communications between local, state, tribal, and federal levels of the government and was held in the Quapaw Nation, located where Oklahoma, Missouri, and Kansas meet. Over 50 entities from nearly two dozen states were represented.



### Expertise Sharing and Industry Consultancy

We contribute to a better world by way of employees sharing their engineering and technological expertise via taking on external appointments. These include serving as the Chairman of the Singapore Blockchain Innovation Steering Committee to help strengthen Singapore's blockchain ecosystem and facilitate the adoption of blockchain systems for real-world applications; leading the Women in Tech Chapter at the Singapore Computer Society to build confidence and nurture interests in women of all ages and backgrounds for a more vibrant technology sector; as well as being part of the Digital Committee for the social service sector and helping to chart its digital strategy for broad-based digitalisation and stakeholder satisfaction.



### OUR GOVERNANCE AND FRAMEWORK

We measure, report, and communicate our corporate community investments, and philanthropy efforts. These programmes and engagement activities are coordinated by our Corporate Social Responsibility Committee which comprise of employee volunteers across our different business areas in global offices. Together, we make a concerted effort to push our corporate community contributions in three key areas:

- Improving Lives through Charitable Gifts
- Enriching Lives through Education
- Touching Lives through Engineering

## GOVERNANCE

# ETHICAL BUSINESS & REGULATORY COMPLIANCE

Good governance refers to having the appropriate people, policies and processes to manage the business and affairs of the company to enhance long-term stakeholder value whilst upholding high standards of compliance and ethical business practices.

As a company listed in Singapore, we are bound by SGX listing rules and practice guides, and we comply with all the requirements stipulated in Singapore's Code of Corporate Governance (2018).

### OUR COMMITMENT

We are committed to conducting our business in a responsible manner, and comply with all applicable laws and regulations including **export control, data privacy, trade sanctions and embargoes**.

We **do not tolerate fraud, bribery, corruption and misconduct in all our business units globally, and throughout our supply chain**. We are determined to foster and **maintain an environment where anyone can report any wrongdoing, in good faith, without the fear of retaliation**.

### OUR APPROACH

#### Our Leaders Keep Abreast of Best Practices and Key Risk Trends

The Board goes through regular training to enhance their collective

knowledge and skills. In 2022, this included **anti-corruption and sustainability topics**. Additionally, the Company Secretary (CoSec) arranged briefings by external consultants and industry professionals to keep the Board abreast of developments in these areas. More details on the Directors' training can be found in the "Director Induction, Training/Development" section of the Corporate Governance Report in our Annual Report.

The Group R&A function provides GSBC with timely and relevant updates on risks pertaining to the macro-environment, including impact of geopolitical developments in the regions where our business operates, as well as potential opportunities for and threats to our Group. During these sessions, plans are formulated to address both risks and opportunities.

In 2022, we had  
**ZERO**

- substantiated cases of bribery and corruption
- significant fines or non-monetary sanctions for non-compliance with environmental, health and safety regulations

### OUR GOALS

#### Our 2022 Goals

- Enhance staff awareness of key compliance topics such as export control and personal data protection
- Refresh the Control Self-Assessment (CSA) process to enhance the basis of assurance provided to the Board

#### Our Achievements

- In 2022, we launched three mandatory e-learning courses on topics such as Personal Data Protection and International Trade Compliance for relevant employees
- In 2022, we rolled out the refreshed CSA process for our Singapore operations. This will be progressively implemented for our international business units in 2023 and 2024

#### Our 2023 Goals

- Enhance Group ERM Framework for proactive monitoring of emerging risks on a longer-term horizon, such as climate change and geopolitical trends
- Strengthen risk culture and awareness through training, communication, and campaigns

Every quarter, Cluster Presidents and Presidents of the business areas will review their respective dashboard of key business risks with the RSC by rotation. During these engagements, emerging trends, critical uncertainties, areas for improvement and action plans are thoroughly discussed and addressed. In 2022, there were no significant regulatory non-compliances.

### We Are Guided by Our Code of Business Conduct and Ethics

Our Code of Business Conduct and Ethics forms the foundation of the Group's commitment to ethical business conduct and regulatory compliance. It was developed based on key principles guided by the Group's Core Values namely, **Integrity, Value Creation, Courage, Commitment and Compassion**.

These principles guide our employees on areas such as:

1. Workplace conduct – **such as non-discrimination, and workplace safety and health**
2. Security over information and assets – **such as the importance of confidentiality of information entrusted to the company**
3. Business conduct – **such as zero tolerance for corruption and bribery, avoidance of potential conflicts of interest, as well as awareness of anti-trust and anti-competitive behaviour**
4. Social responsibility – **such as caring for the environment and engaging our communities**
5. Reporting concerns – **such as our policy on whistleblowing**



[View our Business Code of Conduct and Ethics](#)

All reporting lines, responsibilities and accountabilities are clearly defined in our businesses.

Employees are able to reach out to their direct line manager or R&A business partners for clarifications, and guidance on our Code of Business Conduct and Ethics.

Employees are informed about the consequences of violating the standards in our Code of Business Conduct and Ethics. Employee misconduct may result in disciplinary action which may be reflected in their performance appraisal and can impact their renumeration. Employee misconduct of a serious nature may also result in termination.

### We Have Zero Tolerance for Fraud and Corrupt Practices

The Group has zero tolerance towards fraud and corruption, reinforced by our detailed policies and compliance procedures.

### ANTI-BRIBERY AND CORRUPTION RISKS

The Group's operations are assessed for risks related to bribery and corruption as part of the ERM framework. The significant corruption-related risks as identified relate primarily to using third-party suppliers and intermediaries, corruption by employees, and gifts, hospitality, donations and sponsorships to business partners and public officials. Our anti-bribery and corruption policy is included in our Code of Business Conduct and Ethics, and is available to all our employees.

### CONFLICT OF INTEREST

Our Conflict of Interest Policy provides guidance on the different types of conflicts, ranging from financial interest to employee relationships. All employees are required to submit an annual declaration of conflict of interest. All declarations are subject to review by management, and employees are to comply with the recommended actions to address any conflict.

### GIFTS AND HOSPITALITY

The Group has a Gifts and Hospitality policy, setting out

clear guidelines and principles on the giving and receipt of gifts and hospitality items. This includes charitable donations and sponsorships, where recipients are reviewed and subject to appropriate due diligence before approval by senior management.

### INTERMEDIARIES

The appointment and re-engagement of intermediaries are governed by formal policy and procedures that entail a risk-based and thorough due diligence review process supported by independent, established service providers. The due diligence process includes:

- (a) **onboarding and ongoing screening against sanctions lists and negative media publicity**
- (b) **mandatory anti-bribery and corruption training**
- (c) **compliance with our anti-bribery and corruption policy and clauses as part of the terms and conditions of the agreement**

In addition, intermediaries are subject to due diligence checks by established, independent third-party service providers prior to and post appointment.

### LOBBYING AND POLITICAL CONTRIBUTIONS

Political contributions, donations or sponsorships must be approved by management in accordance with the Group's approval limits policy and be made with the highest ethical standards and in compliance with all applicable laws of the jurisdictions where the Group operates in. These must not confer a personal benefit or be given to gain a business advantage or to influence a business outcome or an official action.

The Group's lobbying contributions and expenses in the United States are reported to the Senate and is accessible via their website (<https://ida.senate.gov/system/public/>).

## GOVERNANCE

### ► ETHICAL BUSINESS & REGULATORY COMPLIANCE

#### We Comply with All Applicable Export Control Regimes

The Group complies with all applicable laws, regulations, trade sanctions and embargoes (collectively referred to as ECRs) governing the export of goods, services, software, technology, dual-use goods and information ("Controlled Items") of all of the jurisdictions that the Group operates in. Export sales may also require compliance with extraterritorial laws like international sanctions lists issued by the U.S.

The Group also strives to ensure that transactions undertaken by any party operating on behalf of the Group, including agents, distributors and resellers, comply with applicable ECRs. Strict adherence to this policy is required, except to the extent that a more stringent local law applies.

#### EXPORT CONTROL

The Group Export Control Policy is applicable to all our businesses. It aims to ensure that all our exports are not used for unauthorised purposes and comply with the applicable ECRs. Our businesses have put in place export control procedures to embed compliance into the day-to-day business processes, namely commodities classification, screening of customers or end-users, end-use destinations, end-use purposes and record keeping.

Compliance with ECRs and the maintenance of an effective export control system are supported by Export Control Officers who are appointed at the Group, regional, country and line of business levels.

In the event of any violations, immediate reporting and corrective measures are to be carried out under the supervision of senior management and the EXCO. All violations are to be promptly

recorded in a central database for management review and monitoring of corrective actions. Significant violations are reported to the RSC, where lessons learnt are distilled and shared.

Business units comply with all record keeping regulatory and internal policy requirements that are applicable to their export activities. Records maintained shall be made available for inspection by government officials, upon reasonable notice.

#### EXPORT REVIEW PROCESS

The Group adopts a risk-based approach to monitor transactions. This includes procedures such as the review of sales transactions against sanctions, as well as due diligence screening of customers and end-users. To ensure that the transaction is eligible for export, the relevant team carries out:

- i. **Pre-export reviews.** We review the classification of the export item including technical data, software, and hardware prior to sharing, transferring, releasing to a third party or dual-use. An assessment will also be conducted to ascertain that the classification of export and re-export items, transactions and activities are correct. Additionally, an assessment will be made on whether additional due diligence is required if any "red flags" or diversion risks are detected
- ii. **ECRs, licenses and authorisation reviews.** We review the status of the transaction under the applicable ECRs and determine if all the necessary licenses or authorisations have been obtained
- iii. **Destination, party and end-use review.** We review the transaction against all applicable destination, party and end use restrictions

#### We Empower our Employees to Uphold Business Ethics and Integrity

The Group has detailed policies for our employees, as well as training and compliance procedures that are accessible to employees.

Our Code of Business Conduct and Ethics is disseminated to employees globally in the form of handbooks and video messages from the EXCO. To reinforce awareness and compliance of our Code of Business Conduct and Ethics, the Group mandates that all employees complete the e-learning module and self-attestation on a yearly basis. Our employees also receive regular training to reinforce awareness on the Group's anti-corruption policies and procedures, and export control compliance. Targeted training is provided for employees whose job functions entail greater involvement with Controlled Items.

Whistleblowing channels have been established for our employees and other stakeholders to report any potential violations of our Code of Business Conduct and Ethics, irregularities and regulatory non-compliances. Our whistleblowing channels provide our employees and other stakeholders a platform to raise concerns, in confidence, about possible improprieties in business conduct, financial reports or other matters, without the fear of reprisal. No form of retaliation to the informant (internal or external) is tolerated for any report made in good faith.

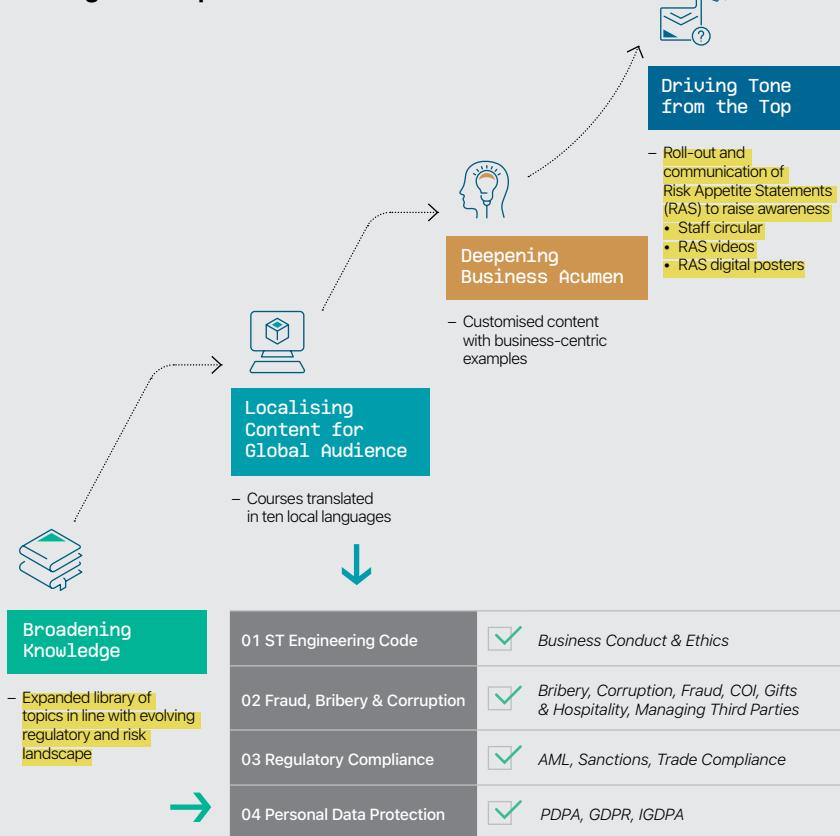
Appropriate disciplinary actions will be taken in the event of any breach or non-compliance.



Read more about our Whistleblowing Policy and Procedures

## GROUP RISK & COMPLIANCE TRAINING PROGRAMME

### Building our competencies



compliance framework and policies to ensure adherence to all applicable regulations and laws in the jurisdictions that we operate in. Our policies include but are not limited to:

- **Code of Business Conduct and Ethics**
- **Gifts and Hospitality Policy**
- **Export Control Policy**
- **Whistle-Blowing Policy**

The Group Head, R&A reports to the Group Chief Financial Officer. The R&A function provides leadership in the implementation of a group-wide ERM framework and ensures the continued effectiveness of relevant policies and procedures in all our business units.

[Read more about our Risk and Assurance function on page 96 of our 2022 Annual Report](#)

The CSA framework is designed to reinforce control ownership and awareness of key risks throughout the Group. The primary objective of CSA is to identify weaknesses on internal controls and facilitate the formulation of action plans to address any lapses in a timely manner. The Board receives, at regular intervals, updates from the Board Committees on the key business risks, the material controls to manage these risks, and the Internal Audit (IA) reports on the operational effectiveness of material controls.

The Group IA function is headed by the Group Head Internal Audit who reports directly to the Audit Committee (AC). The IA function examines and evaluates the adequacy and effectiveness of the Group's governance, risk management and internal controls. The Group Head Internal Audit operates independently and has the right to audit the ERM framework.

[Read more about our Control Self-Assessment and our Internal Audit function on page 101 of our 2022 Annual Report](#)

## OUR GOVERNANCE AND FRAMEWORK

We have a single-tier Board system consisting of an appropriate level of independence and diversity of thought and background in its composition to enable it to make decisions in the best interests of the Company and all shareholders. The Board is supported by CoSec who ensures that board processes and regulatory requirements are followed.

[Read more about our Board on page 79 of our 2022 Annual Report](#)

The RSC assists the Board in its risk governance responsibility, overseeing the responsibilities delegated to the senior management. This ensures that there is a sound system of controls in place for identifying and managing risks to safeguard

stakeholder interests and the Group's assets. It also oversees sustainability matters, including those related to climate change. In addition, significant risk and control issues are communicated to the Board, and remedial actions are taken promptly to minimise lapses. The RSC is supported on risk related matters by the R&A function which in turn liaises with Risk Champions appointed by the respective business areas.

[Read more about our Risk and Sustainability Committee on page 96 of our 2022 Annual Report](#)

The Group's R&A function is integral to ensuring that ST Engineering manages its key risks well, complies with legal and regulatory requirements where it operates, and has the appropriate governance and controls in place. This is facilitated by a regulatory

Refer to Annual Report 2022

## GOVERNANCE

- CYBERSECURITY & DATA PROTECTION

# CYBERSECURITY & DATA PROTECTION

ST Engineering understands the need for strong cybersecurity and data protection as digital technology, and highly connected economies and businesses bring new vulnerabilities from a proliferation of cyber threats.

Cybersecurity threats evolve quickly and may include computer viruses, attempts to access information, denial of service and other breaches. It is commonly recognised that attempts to disrupt or improperly access Information Technology (IT) systems through cyber-attacks or otherwise may cause financial loss, reputational loss, business disruption, and/or data and proprietary information loss.

## OUR COMMITMENT

We are committed to protecting our data and systems including those entrusted to us by adopting best practices in cybersecurity. We are also committed to complying with all applicable data protection laws and regulations in the various countries we operate in.

## OUR APPROACH

### We focus on “People, Process and Technology”

We continue to strengthen our cyber and data resilience with a system of capabilities that comprises People, Process and Technology. This holistic approach manages cybersecurity risks and the associated data breaches by seeking to keep abreast of the threat landscape and environment. We also implement a multilayered security framework to ensure there are relevant preventive, detective and recovery measures.

We safeguard internal assets from emerging threats by extending our layered cybersecurity controls, conducting regular reviews of our digital footprints and carrying out regular cybersecurity exercises.

Cybersecurity and data protection is everyone's responsibility. We regularly train our employees on cybersecurity threats, data privacy and handling, relevant regulations, and best practices.

Violations of cybersecurity and data protection policies by our employees will trigger mandatory remedial training, impact their performance evaluation and may result in disciplinary actions against offenders.

## OUR GOALS

### Our Achievements

- Identified cybersecurity and data protection as a material factor
- Conducted regular anti-phishing exercises
- Trained employees on personal data protection regulations

### Our 2023 Goals

- Continue mandatory training for cybersecurity and data protection policies
- Link cybersecurity key performance indicators to executive performance

### We Prepare for Contingencies

In the event of a cyber and/or data security breach, employees are to follow the Group's escalation process that is readily available on our corporate intranet. Additionally, we have a **disaster recovery system** in place across our core business operations that is designed to enable the recovery of data and the continuation of vital IT infrastructure following disruptions caused by natural disasters, human error, technical failures or malicious third-party cyber-attacks.

We **continuously review and enhance measures designed to prevent, detect and respond to unauthorised activity in our systems against a constantly evolving cyber landscape and increasing sophistication of cyber-criminals.**

### OUR GOVERNANCE AND FRAMEWORKS

The Board has oversight on the Group's cybersecurity strategy and cybersecurity topics are regularly reported to the RSC, AC and the Board.

Cybersecurity in the Group is overseen by the Group Cybersecurity Committee which is chaired by the Group Chief Information Security Officer and supported by the GISO. The Group Chief Information Security Officer reports directly to the Group President & CEO.

We ensure that our cybersecurity measures are **in line with industry standards and put in place a Group Cybersecurity Management Procedure to guide our businesses.** Our IT infrastructure and Information Security Management System takes reference from ISO 27001 –

Information Security Management, National Institute of Standards and Technology, and other relevant industry standards.

Our focus on data governance and protection in the Group is overseen by the Group Data Governance Committee which is chaired by the Group Chief Information Officer and comprises representatives from business areas and Group HQ functions. The committee provides oversight, and escalates key risks and violations on data governance and protection to the management in a timely manner. The committee also monitors changes in the regulations and recommends the adoption of relevant best practices.

Our policies and procedures on data handling ensure compliance with all the applicable data protection laws and regulations.



# GLOBAL REPORTING INITIATIVE (GRI)

## GRI CONTENT INDEX

ST Engineering has reported in accordance with the GRI Standards for the period 1 January 2022 to 31 December 2022

| GRI STANDARDS                                | DISCLOSURE  | PAGE / RESPONSE   |
|--|---|---|
| The Organisation and its Reporting Practices |   |   |
| GRI 2-1                                      | Organisational details  | Annual Report 2022, pages 3 and 142   |
| GRI 2-2                                      | Entities included in the organisation's sustainability reporting            | Annual Report 2022, page 239<br>Some data from TransCore (acquired in 2022) are not included in this report   |
| GRI 2-3                                      | Reporting period, frequency and contact point                               | Sustainability Report 2022, page 1  |
| GRI 2-4                                      | Restatements of information   | Nil   |
| GRI 2-5                                      | External assurance  | Sustainability Report 2022, page 2  |
| <b>Activities and Workers</b>                |   |   |
| GRI 2-6                                      | Activities, value chain and other business relationships                    | Annual Report 2022, pages 26 – 63<br>Sustainability Report 2022, page 33  |
| GRI 2-7                                      | Employees   | Sustainability Report 2022, page 56   |
| GRI 2-8                                      | Workers who are not employees   | Sustainability Report 2022, page 56   |
| <b>Governance</b>                            |   |   |
| GRI 2-9                                      | Governance structure and composition  | Sustainability Report 2022, pages 5 and 8 – 9<br>Annual Report 2022, pages 79 – 108   |
| GRI 2-10                                     | Nomination and selection of the highest governance body                     | Annual Report 2022, pages 86 – 89   |
| GRI 2-11                                     | Chair of the highest governance body  | Annual Report 2022, page 14   |
| GRI 2-12                                     | Role of the highest governance body in overseeing the management of impacts | Sustainability Report 2022, pages 8 – 9   |
| GRI 2-13                                     | Delegation of responsibility for managing impacts                           | Sustainability Report 2022, pages 8 – 9   |
| GRI 2-14                                     | Role of the highest governance body in sustainability reporting             | Sustainability Report 2022, page 1  |
| GRI 2-15                                     | Conflicts of interest   | Annual Report 2022, pages 21 – 23 and 84 – 89   |
| GRI 2-16                                     | Communication of critical concerns  | Sustainability Report 2022, pages 68 – 69<br>Annual Report 2022, pages 96 – 108   |
| GRI 2-17                                     | Collective knowledge of the highest governance body                         | Sustainability Report 2022, page 68<br>Annual Report 2022, page 80  |
| GRI 2-18                                     | Evaluation of the performance of the highest governance body                | Annual Report 2022, pages 88 – 89   |
| GRI 2-19                                     | Remuneration policies   | Annual Report 2022, pages 89 – 96   |
| GRI 2-20                                     | Process to determine remuneration   | Annual Report 2022, pages 89 – 96   |
| GRI 2-21                                     | Annual total compensation ratio   | Annual Report 2022, pages 95 and 217  |
| <b>Strategy, Policies and Practices</b>      |   |   |
| GRI 2-22                                     | Statement on sustainable development strategy                               | Sustainability Report 2022, page 5  |
| GRI 2-23                                     | Policy commitments  | Sustainability Report 2022, page 10   |
| GRI 2-24                                     | Embedding policy commitments  | Sustainability Report 2022, pages 18 – 73   |
| GRI 2-25                                     | Processes to remediate negative impacts                                     | Sustainability Report 2022, page 54   |
| GRI 2-26                                     | Mechanisms for seeking advice and raising concerns                          | Sustainability Report 2022, page 71<br>Annual Report 2022, page 104   |
| GRI 2-27                                     | Compliance with laws and regulations  | Sustainability Report 2022, page 68   |
| GRI 2-28                                     | Membership associations   | ST Engineering and/or its key subsidiaries are members of the following organisations:<br>a) Aerospace & Defense Secure Enterprise Platform (Exostar)<br>b) Advanced Remanufacturing and Technology Centre (ARTC)<br>c) Association of Company Emergency Response Teams (Singapore)<br>d) Association of the Metal and Electrical Industry of Saxony (VSME)<br>e) Association of Singapore Marine Industries (ASMI) |

| GRI STANDARDS                                 | DISCLOSURE   | PAGE / RESPONSE   |
|---|--|---|
| GRI 2-28                                      | Membership associations  | f) Civil Air Navigation Services Organisation (CANSO)<br>g) German Aerospace Industries Association (BDLI)<br>h) German Chamber of Commerce and Industry (IHK)<br>i) Institute of Engineers, Singapore (IES)<br>j) International Motor Vehicle Inspection Committee (CITA)<br>k) National Aerospace and Defense Contractors<br>l) National Advanced Mobility Consortium<br>m) National Training and Simulation Association<br>n) Non Destructive Testing Society (Singapore)/ Singapore National Aerospace NDT Board (NANDTB)<br>o) Singapore Business Federation (SBF)<br>p) Singapore Chinese Chamber of Commerce and Industry<br>q) Singapore Cybersecurity Consortium<br>r) Singapore Institute of Directors (SID)<br>s) Singapore Institution of Safety Officers<br>t) Singapore Manufacturing Federation<br>u) Singapore National Employers Federation (SNEF)<br>v) Singapore Shipping Association<br>w) The Association of Electronic Industries in Singapore (AEIS)<br>x) United Nations Global Compact (UNGC) / UN Global Compact Network Singapore (GCNS) |
| <b>Stakeholder Engagement</b>                 |  |   |
| GRI 2-29                                      | Approach to stakeholder engagement   | Sustainability Report 2022, page 13   |
| GRI 2-30                                      | Collective bargaining agreements   | Sustainability Report 2022, page 49   |
| <b>Material Topics 2021</b>                   |  |   |
| GRI 3-1                                       | Process to determine material topics   | Sustainability Report 2022, pages 14 – 15   |
| GRI 3-2                                       | List of material topics  | Sustainability Report 2022, pages 16 – 17   |
| <b>Economic Performance and Productivity</b>  |  |   |
| GRI 3-3                                       | Management of material topics  | Sustainability Report 2022, pages 24 – 27   |
| GRI 201-1                                     | Direct economic value generated and distributed                                | Sustainability Report 2022, page 27   |
| GRI 201-2                                     | Financial implications and other risks and opportunities due to climate change | Sustainability Report 2022, pages 19 – 23   |
| GRI 201-3                                     | Defined benefit plan obligations and other retirement plans                    | Annual Report 2022, pages 217 - 223   |
| GRI 201-4                                     | Financial assistance received from government                                  | Annual Report 2022, pages 152, 186 and 217  |
| <b>Technology and Innovation</b>              |  |   |
| GRI 3-3                                       | Management of material topics  | Sustainability Report 2022, pages 28 – 31   |
| <b>Responsible and Resilient Supply Chain</b> |  |   |
| GRI 3-3                                       | Management of material topics  | Sustainability Report 2022, pages 32 – 35   |
| GRI 204-1                                     | Proportion of spending on local suppliers                                      | Sustainability Report 2022, page 35   |
| GRI 308-1                                     | New suppliers that were screened using environmental criteria                  | Sustainability Report 2022, page 34   |
| GRI 308-2                                     | Negative environmental impacts in the supply chain and actions taken           | Sustainability Report 2022, page 34   |
| GRI 414-1                                     | New suppliers that were screened using social criteria                         | Sustainability Report 2022, page 34   |
| GRI 414-2                                     | Negative social impacts in the supply chain and actions taken                  | Sustainability Report 2022, page 34   |
| <b>Environmental Protection</b>               |  |   |
| GRI 3-3                                       | Management of material topics  | Sustainability Report 2022, pages 36 – 41   |
| GRI 302-1                                     | Energy consumption within the organisation                                     | Sustainability Report 2022, page 38   |
| GRI 302-2                                     | Energy consumption outside of the organisation                                 | ST Engineering does not consider this material to our operations.   |

# GLOBAL REPORTING INITIATIVE (GRI)

## GRI CONTENT INDEX

| GRI STANDARDS                                     | DISCLOSURE   | PAGE / RESPONSE  |
|---|--|--|
| GRI 302-3   | Energy intensity   | Sustainability Report 2022, page 38  |
| GRI 302-4   | Reduction of energy consumption  | ST Engineering is in the midst of consolidating this data globally.  |
| GRI 302-5   | Reductions in energy requirements of products and services   | ST Engineering is in the midst of consolidating this data globally.  |
| GRI 303-1   | Interactions with water as a shared resource   | Sustainability Report 2022, page 40  |
| GRI 303-2   | Management of water discharge-related impacts  | Sustainability Report 2022, page 41  |
| GRI 303-3   | Water withdrawal   | Sustainability Report 2022, page 40  |
| GRI 303-4   | Water discharge  | Sustainability Report 2022, page 41  |
| GRI 303-5   | Water consumption  | Sustainability Report 2022, page 40  |
| GRI 305-1   | Direct (Scope 1) GHG emissions   | Sustainability Report 2022, pages 38 – 39  |
| GRI 305-2   | Energy indirect (Scope 2) GHG emissions  | Sustainability Report 2022, pages 38 – 39  |
| GRI 305-3   | Other indirect (Scope 3) GHG emissions   | Sustainability Report 2022, pages 38 – 39  |
| GRI 305-4   | GHG emissions intensity  | Sustainability Report 2022, pages 38 – 39  |
| GRI 305-5   | Reduction of GHG emissions   | ST Engineering is in the midst of consolidating this data globally.  |
| GRI 305-6   | Emissions of ozone-depleting substances (ODS)  | ST Engineering does not consider this material to our operations.  |
| GRI 305-7   | Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions                                | ST Engineering does not consider this material to our operations.  |
| <b>Sustainable Quality Products and Solutions</b> |  |  |
| GRI 3-3   | Management of material topics  | Sustainability Report 2022, pages 42 – 47  |
| GRI 416-1   | Assessment of the health and safety impacts of product and service categories                                  | Sustainability Report 2022, pages 42 – 47  |
| GRI 416-2   | Incidents of non-compliance concerning the health and safety impacts of products and services                  | ST Engineering considers this information to be confidential.<br><br>Refer to Sustainability Report 2022 pages 42 – 47 for how we manage the health and safety impacts of our products and services. |
| <b>People Excellence</b>                          |  |  |
| GRI 3-3   | Management of material topics  | Sustainability Report 2022, pages 48 – 57  |
| GRI 401-1   | New employee hires and employee turnover   | Sustainability Report 2022, page 56  |
| GRI 401-2   | Benefits provided to full-time employees that are not provided to temporary or part-time employees             | Sustainability Report 2022, page 54  |
| GRI 401-3   | Parental leave   | ST Engineering is in the midst of consolidating this data globally.  |
| GRI 402-1   | Minimum notice periods regarding operational changes   | Sustainability Report 2022, page 49  |
| GRI 404-1   | Average hours of training per year per employee  | Sustainability Report 2022, pages 50 and 56  |
| GRI 404-2   | Programs for upgrading employee skills and transition assistance programs                                      | Sustainability Report 2022, pages 50 – 52  |
| GRI 404-3   | Percentage of employees receiving regular performance and career development reviews                           | Sustainability Report 2022, page 54  |
| GRI 406-1   | Incidents of discrimination and corrective actions taken   | Sustainability Report 2022, page 54  |
| GRI 407-1   | Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | Sustainability Report 2022, page 49  |
| <b>Total Workplace Safety and Health</b>          |  |  |
| GRI 3-3   | Management of material topics  | Sustainability Report 2022, pages 58 – 61  |
| GRI 403-1   | Occupational health and safety management system   | Sustainability Report 2022, pages 58 – 59  |

| GRI STANDARDS                                     | DISCLOSURE  | PAGE / RESPONSE  |
|---|---|--|
| GRI 403-2   | Hazard identification, risk assessment, and incident investigation  | Sustainability Report 2022, pages 59 – 60  |
| GRI 403-3   | Occupational health services  | Sustainability Report 2022, pages 59 – 61  |
| GRI 403-4   | Worker participation, consultation, and communication on occupational health and safety                       | Sustainability Report 2022, pages 59   |
| GRI 403-5   | Worker training on occupational health and safety   | Sustainability Report 2022, page 59  |
| GRI 403-6   | Promotion of worker health  | Sustainability Report 2022, pages 48 – 49  |
| GRI 403-7   | Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | Sustainability Report 2022, pages 58 – 61  |
| GRI 403-8   | Workers covered by an occupational health and safety management system  | Sustainability Report 2022, page 59  |
| GRI 403-9   | Work-related injuries   | Sustainability Report 2022, page 61  |
| GRI 403-10  | Work-related ill health   | Sustainability Report 2022, page 61  |
| <b>Corporate Community Contributions</b>          |   |  |
| GRI 3-3   | Management of material topics   | Sustainability Report 2022, pages 62 – 67  |
| GRI 413-1   | Operations with local community engagement, impact assessments, and development programs                      | Sustainability Report 2022, pages 62 – 67  |
| GRI 413-2   | Operations with significant actual and potential negative impacts on local communities                        | Sustainability Report 2022, pages 62 – 67  |
| <b>Ethical Business and Regulatory Compliance</b> |   |  |
| GRI 3-3   | Management of material topics   | Sustainability Report 2022, pages 68 – 71  |
| GRI 205-1   | Operations assessed for risks related to corruption   | Sustainability Report 2022, page 69  |
| GRI 205-2   | Communication and training about anti-corruption policies and procedures                                      | Sustainability Report 2022, pages 69 – 71  |
| GRI 205-3   | Confirmed incidents of corruption and actions taken   | Sustainability Report 2022, page 68  |
| <b>Cybersecurity and Data Protection</b>          |   |  |
| GRI 3-3   | Management of material topics   | Sustainability Report 2022, pages 72 – 73  |
| GRI 418-1   | Substantiated complaints concerning breaches of customer privacy and losses of customer data                  | ST Engineering considers this information to be confidential.<br><br>Refer to Sustainability Report 2022 pages 72 – 73 for how we manage our customers' privacy and prevent loss of customer data. |

## UNITED NATIONS GLOBAL COMPACT (UNGC)

### TEN PRINCIPLES – INDEX

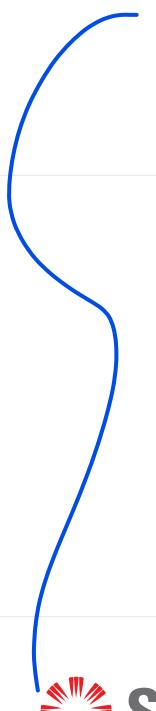
| PRINCIPLE  | PAGE / RESPONSE  |
|--|--|
| <b>Human Rights</b>  |  |
| 1 Businesses should support and respect the protection of internationally proclaimed human rights; and                     | Sustainability Report 2022, page 10  |
| 2 make sure that they are not complicit in human rights abuses.  | Sustainability Report 2022, page 10  |
| <b>Labour</b>  |  |
| 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; | Sustainability Report 2022, pages 10 and 49  |
| 4 the elimination of all forms of forced and compulsory labour;  | Sustainability Report 2022, page 10  |
| 5 the effective abolition of child labour; and   | Sustainability Report 2022, page 10  |
| 6 the elimination of discrimination in respect of employment and occupation.   | Sustainability Report 2022, pages 10, 53 and 54  |
| <b>Environment</b>   |  |
| 7 Businesses should support a precautionary approach to environmental challenges;  | Sustainability Report 2022, pages 11, 18 – 23, and 36 – 41                                     |
| 8 undertake initiatives to promote greater environmental responsibility; and   | Sustainability Report 2022, pages 36 – 41  |
| 9 encourage the development and diffusion of environmentally friendly technologies.  | Sustainability Report 2022, pages 18 – 23  |
| <b>Anti-Corruption</b>   |  |
| 10 Businesses should work against corruption in all its forms, including extortion and bribery.                            | Sustainability Report 2022, pages 68 – 71<br>Annual Report 2022, pages 80, 98, 99, 101 and 108 |

## SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB)

### AEROSPACE & DEFENSE | VERSION 2018-10

| CODE                              | TOPIC / ACCOUNTING METRIC  | PAGE / RESPONSE   |
|-----------------------------------|--|---|
| <b>Energy Management</b>          |  |   |
| RT-AE-130a.1                      | (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable | Sustainability Report 2022, pages 4, 38 – 39  |
| <b>Hazardous Waste Management</b> |  |   |
| RT-AE-150a.1                      | Amount of hazardous waste generated, percentage recycled                             | ST Engineering is in the midst of consolidating this data globally.<br><br>Refer to Sustainability Report 2022, page 41 for more information of how we manage hazardous waste in our operations.      |
| RT-AE-150a.2                      | Number and aggregate quantity of reportable spills, quantity recovered               | ST Engineering is in the midst of consolidating this data globally.<br><br>Refer to Sustainability Report 2022, page 41 for more information of how we manage effluents and spills in our operations. |

| CODE   | TOPIC / ACCOUNTING METRIC   | PAGE / RESPONSE   |
|--|---|---|
| <b>Data Security</b>                             |   |   |
| RT-AE-230a.1                                     | (1) Number of data breaches, (2) percentage involving confidential information  | ST Engineering considers this information to be confidential.   |
| RT-AE-230a.2                                     | Description of approach to identifying and addressing data security risks in (1) company operations and (2) products                                  | Sustainability Report 2022, pages 72 and 73   |
| <b>Product Safety</b>                            |   |   |
| RT-AE-250a.1                                     | Number of recalls issued, total units recalled  | ST Engineering considers this information to be confidential.<br><br>Refer to Sustainability Report 2022 page 47 for more information on how we manage product safety and quality.  |
| RT-AE-250a.2                                     | Number of counterfeit parts detected, percentage avoided  | ST Engineering considers this information to be confidential.<br><br>Refer to Sustainability Report 2022 page 47 for more information on how we manage product safety and quality in ST Engineering.  |
| RT-AE-250a.3                                     | Number of Airworthiness Directives received, total units affected   | All Airworthiness Directives are publicly available. The most recent information concerning those directives can be found on the appropriate regulatory sites.<br><br>Refer to Sustainability Report 2022 page 47 for more information on how we manage product safety and quality in ST Engineering. |
| RT-AE-250a.4                                     | Total amount of monetary losses as a result of legal proceedings associated with product safety   | ST Engineering considers this information to be confidential.<br><br>Refer to Sustainability Report 2022 page 47 for more information on how we manage product safety and quality in ST Engineering.  |
| <b>Fuel Economy &amp; Emissions in Use-phase</b> |   |   |
| RT-AE-410a.1                                     | Revenue from alternative energy-related products  | ST Engineering does not generate revenue from alternative energy-related products.  |
| RT-AE-410a.2                                     | Description of approach and discussion of strategy to address fuel economy and greenhouse gas (GHG) emissions of products                             | Sustainability Report 2022, pages 42 – 47   |
| <b>Materials Sourcing</b>                        |   |   |
| RT-AE-440a.1                                     | Description of the management of risks associated with the use of critical materials  | Sustainability Report 2022, pages 32 – 35   |
| <b>Business Ethics</b>                           |   |   |
| RT-AE-510a.1                                     | Total amount of monetary losses as a result of legal proceedings associated with incidents of corruption, bribery, and/or illicit international trade | Sustainability Report 2022, pages 68 – 71   |
| RT-AE-510a.2                                     | Revenue from countries ranked in the "E" or "F" Band of Transparency International's Government Defence Anti-Corruption Index                         | ST Engineering does not report revenue breakdown by individual country.   |
| RT-AE-510a.3                                     | Discussion of processes to manage business ethics risks throughout the value chain  | Sustainability Report 2022, pages 68 – 71   |
| <b>Activity Metrics</b>                          |   |   |
| RT-AE-000.A                                      | Production by reportable segment  | Annual Report 2022, pages 3, and 144 – 147  |
| RT-AE-000.B                                      | Number of employees   | Sustainability Report 2022, page 56   |



ST ENGINEERING HUB  
1 ANG MO KIO ELECTRONICS PARK ROAD,  
#07-01, SINGAPORE 567710  
TEL : (65) 6722 1818

[www.stengg.com](http://www.stengg.com)

(Regn. No. 199706274H)

