Our sustainability report is presented across the following platforms:

• A summary of our sustainability efforts for the year 2017, including an overview of the initiatives and our performance for the current year, is reported in this section. Unless otherwise stated, data and activities relate to our Singapore operations only. Information on sustainability efforts relating to our operations in the US is reported on pages 86 to 87.

• Our management approach, including our corporate governance, enterprise risk management system, and materiality, is captured in the document ‘Our Management Approach to Sustainability’, which is available on our website at www.stengg.com;

• The Global Reporting Initiative Content Index is also available on our website at www.stengg.com;

• We have a dedicated sustainability section on our website which provides an overview of our sustainability commitment in general.

This section should be read in conjunction with the information published in the ‘Sustainability’ section of our website at www.stengg.com.
THE STATEMENT FROM THE BOARD

The Board is pleased to present our Sustainability Report 2017, which sets out the Group’s environmental, social and governance (ESG) performance for the year. This report is prepared in accordance with the SGX Sustainability Reporting Guide and the Global Reporting Initiative Standards: Core option.

The Group’s sustainability strategy is underpinned by our core values: Integrity, Value Creation, Courage, Commitment and Compassion. For more than 50 years, ST Engineering has built a successful technology, defence and engineering business based on good business fundamentals, a commitment to performance with integrity, and zero tolerance for fraud and dishonest conduct. We conduct our business in a responsible manner, by ensuring that our products not only meet technical specifications and prevailing industry standards, but are also reliable over their life cycles and are safe to produce, operate and maintain.

Our sustainability strategy involves multistakeholder considerations that balance today’s needs with longer term developments. As a global technology, defence and engineering group in the aerospace, electronics, land systems and marine sectors, our employees bring technology and innovation together to create solutions that help to protect the communities and environment.

The Board has delegated to the Risk and Sustainability Committee (RSC) the responsibility to oversee and monitor the sustainability efforts. The responsibility for implementing the sustainability efforts rests with the President & CEO of ST Engineering and the Management Committee.

Through the Group’s Enterprise Risk Management Framework, significant risks and material ESG factors identified are assessed against our business portfolios and the external environment, and reported to the RSC. The RSC meets quarterly with the management to review and discuss the Group’s risk and sustainability performance. The RSC reviews and endorses the Sustainability Report.

AS A RESPONSIBLE DEFENCE TECHNOLOGY MANUFACTURER, WE DO NOT DESIGN, PRODUCE AND SELL ANTI-PERSONNEL MINES, CLUSTER MUNITIONS, WHITE PHOSPHOROUS MUNITIONS AND THEIR RELATED KEY COMPONENTS.
The Group deploys the Enterprise Risk Management Framework to identify the most important risks that will act as barriers to achieving its business goals in the short, medium and long term. Besides business risks, risks arising from changes in the environment, social issues as well as governance are also identified. The Framework provides discipline for the Group to identify, assess, control and monitor risks. It sets out a consistent definition of risks and risk tolerance limits to ensure that business units have a common understanding when identifying and assessing risks.

The RSC oversees management in the identification of risks as well as the implementation of risk management policies and strategies. Further details on the Group’s risk governance, including responsibilities of the Board, Audit Committee and RSC can be found in the Corporate Governance Report from page 88 to 116.

Important risks identified by the Group are set out below. A detailed description of the risks is set out in our website at www.stengg.com.

### OUR RISKS

- **Growth & Competition**
  - Product and technology obsolescence
  - Mergers and acquisitions
- **Ethics & Governance**
  - Cyber risk
  - Bribery and corruption
  - Regulatory compliance
- **Operations**
  - Contract compliance
  - Business disruption
  - Product liability and safety
- **Human Capital**
  - Talent management and succession planning
  - Occupational health and safety
- **Financial**
  - Credit
  - Foreign exchange

---

### ANTI-BRIBERY AND CORRUPTION TRAINING IN SINGAPORE

![Graph showing number of employees trained]

The Group has zero tolerance for corruption. We review and update our policies regularly to ensure their relevance. We also engaged a consultant to review our Anti-Corruption Framework to maintain its robustness.

Training on our Code of Business Conduct and Ethics is compulsory for all employees and is carried out annually. Additionally, all relevant employees are required to undergo Anti-Bribery and Corruption training once every two years.
## RISK & SUSTAINABILITY HIGHLIGHTS

### OUR SUSTAINABILITY PERFORMANCE

<table>
<thead>
<tr>
<th>2016 Performance</th>
<th>What we said we would do in 2017</th>
<th>What we did in 2017</th>
<th>What we will do in 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safe &amp; Conducive Workplace</strong></td>
<td>Reviewed existing Safety Operating Procedures against the National Total Workplace Safety &amp; Health (WSH) Guidelines. Gaps identified were corrected for implementation. Organised campaigns and activities to promote health and safety. Conducted cross audits to benchmark best practices. Mixed results for Accident Frequency Rate (AFR) and Accident Severity Rate (ASR), with room for improvement.</td>
<td>Work towards achieving a Vision Zero target of no fatalities and improve on both the AFR and ASR. Benchmark best practices through cross audits. Share WSH best practices and resources. Drive WSH excellence by monitoring the leading indicators and organising awareness initiatives and programmes.</td>
<td>Improved both the AFR and ASR, with no workplace fatalities in 2017. Conducted cross audits and shared best practices across the sectors.</td>
</tr>
<tr>
<td><strong>Protecting Our Environment</strong></td>
<td>Installed the solar PV System for Singapore operations. Achieved verification in ISO 14064-1. Singapore operations commenced implementation of ISO 14001:2015. Reviewed our pollution control and waste management practices. Achieved reduction in Greenhouse Gas (GHG) intensity by 23% (unaudited) with the base year as 2010.</td>
<td>Continue implementation and sharing of best practices for ISO 14001:2015. Conduct visits to learn about new initiatives in environmental sustainability, and study their feasibility for implementation. Explore new initiatives for improving water efficiency.</td>
<td>Conversion to the new ISO 14001:2015 progressed as planned, with all business units in Singapore expected to achieve the new accreditation by 2018. Implemented various water-efficient initiatives.</td>
</tr>
</tbody>
</table>
## OUR SUSTAINABILITY PERFORMANCE

<table>
<thead>
<tr>
<th></th>
<th>2016 Performance</th>
<th>What we said we would do in 2017</th>
<th>What we did in 2017</th>
<th>What we will do in 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsible Sourcing</strong></td>
<td>Established a central procurement organisation led by a Chief Procurement Officer.</td>
<td>Strengthen central procurement organisation structure, resource and partnerships.</td>
<td>Augmented our central procurement organisation with manpower and technological solutions.</td>
<td>Develop a strategic vendor management programme to strengthen vendor segmentation discipline aimed at improving responsible sourcing initiatives. Establish Vendor Code of Conduct.</td>
</tr>
<tr>
<td><strong>Responsible Corporate Citizen</strong></td>
<td>Embarked on developing a device to assist caregivers and wheelchair users to mount small flights of steps in and out of their homes. Successfully launched the ST Engineering Volunteer Week, with major activities across all business areas.</td>
<td>Review and develop a sustainable model for CSR investments, initiatives and activities. Achieve 50 Good Deeds.</td>
<td>Developed an ST Engineering community outreach framework, in line with the LBG Model. Achieved with a total of 8,842 man-hours in volunteer work.</td>
<td>Organise the ST Engineering Volunteers Week 2018. Increase the Group’s participation rate in the Community Chest’s SHARE programme.</td>
</tr>
</tbody>
</table>
Productivity is an enabler that underpins how we achieve our sustainability objectives, and improving it is a continuous process. Through various productivity programmes such as Economic Value-Added projects, Kaizen and Total Productive Maintenance, we encourage our employees to constantly explore new and better ways of working. We recognise high performing teams who demonstrate the use of technology, innovation, and continuous improvement tools to enhance their process, product, services and work environment through our annual Team Excellence Convention.

**OUR PRODUCTIVITY EFFORTS**

The Aerospace sector rolled out its latest Aerobook 3.0, an e-tool that seamlessly integrates the various aspects of the aircraft maintenance process. Aerobook 3.0 allows aircraft engineers and technicians to access pertinent maintenance information while on their job. Productivity is enhanced as aircraft engineers and technicians spend more time working on the aircraft, which leads to improved turnaround time.

The Electronics sector automated the hazardous work permit application and approval process. The e-Permit-To-Work system reduced the overall time taken to apply for and receive approval for hazardous work by more than 50%. The system also allows easy document search and retrieval, enhancing overall work productivity.

The Land Systems sector continued to digitise its business processes. For its MRO operations, it launched several initiatives, including the introduction of a Wifi enabled workshop environment to allow technicians to quickly access and disseminate information, and the digitisation of the maintenance acceptance process that enhanced the productivity of Quality Assurance teams.

The Marine sector rolled out a hazard reporting smartphone application that allows staff to report hazards instantaneously. This application facilitated the prompt processing of hazard reporting, reducing processing time by up to two thirds compared to the manual process. The smartphone application also encouraged reporting of hazards, which saw an increase by up to 30%.

During the year, ST Engineering also advanced its shared services project into implementation phase for its Singapore operations across seven functions comprising Finance, Human Resource, Information Technology, Procurement, Estate & Facilities Management, Corporate Communications and Legal.

**WHAT WE WILL DO IN 2018**

- Review the framework for productivity initiatives.
SAFE & RELIABLE PRODUCT

Product Quality encompasses all faculties of engineering including system safety and product reliability.

All major operations in Singapore have Quality Management Systems (QMS) that provide a set of policies and procedures to meet the stringent requirements of authorities and customers. The QMS are certified to international and relevant industry standards, including the latest ISO 9001:2015 QMS, AS9100D (for operations involved in aircraft maintenance and repair), AS9110D (for operations involved in aviation design and production), AS9120D (for operations involved in aviation spares management) and National Aerospace and Defense Contractors Accreditation Programme (for special processes such as non-destructive testing).

System safety is a discipline of managing the safety implications of our products throughout the entire product life cycle, assessing and managing safety from the start at the design stage. We continued to enhance our product safety processes by adopting best practices and implementing new initiatives such as those listed below.

WE ACHIEVED FULL COMPLIANCE WITH PRODUCT SAFETY REQUIREMENTS IN 2017.

AEROSPACE

Adopted the Unmanned Aerial Vehicle (UAV) Battery Safety Standard to ensure compliance with the criteria for selecting safe batteries in the operation of UAVs.

Initiated a Master Minimum Equipment List substantiation process to identify the critical safety items and differentiate them from the non-critical safety items. This list facilitates the prioritisation of efforts in the maintenance of aircraft and improves availability.

ELECTRONICS

Developed a Requirement Management Tool to identify and record hazards that may arise while developing and working on requirements of a project. The tool helps to ensure compliance with MIL-STD-882 on Standard Practice for System Safety.

LAND SYSTEMS

Implemented a checklist of standard safety requirements to improve overall safety assessment of our platform products.

MARINE

Developed an alternative method of identifying hazards by focusing on the Marine Class Rules and Reliability, Availability and Maintainability analysis. This alternative method provides a second perspective to hazards, and strengthens the overall rigour in analysing failure modes and their effects.

WHAT WE WILL DO IN 2018

- Complete the conversion of Quality Management System to ISO 9001:2015 standards.
- Review the framework for quality management.
The Group recognises that people are a key contributor to our success and growth. In 2017, the Group reviewed and refreshed our Aspiration Statement. To support the new aspiration, three focal areas have been identified to further shape our workforce to support a world-class and high-performance organisation:

1. Enhancing capability and capacity for growth
2. Strengthening a passionate and engaged workforce
3. Being at the forefront of people practices

During the year:

- We reviewed our leadership competency framework to sharpen our focus on developing leaders who are visionary, inspiring and transformational, and who will lead with a people-first mindset, based on principles. The ability to mobilise, engage and develop our people in the future workplace has been identified as a core competency. The leadership development programmes were recalibrated in tandem with the revised leadership competencies.

- The Employee Opinion Survey was refreshed and re-launched as the Employee Engagement Survey to all 15,000 employees in Singapore. The new survey measures existing levels of engagement and weighs our engagement score against external benchmarks. The results will form the basis for follow-up actions to identify areas of strengths and opportunities to further enhance engagement with our employees. The new survey will be extended to our employees globally in phases.

In the coming years, we will continue to develop other initiatives that deepen our skillsets and enhance core competencies, and promote leadership development and talent retention.
WORKFORCE PROFILE FOR SINGAPORE OPERATIONS

<table>
<thead>
<tr>
<th>Employees</th>
<th>Supervised Workers*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>79%</td>
<td>95%</td>
</tr>
<tr>
<td>21%</td>
<td>5%</td>
</tr>
</tbody>
</table>

* Supervised workers refer to workers hired through local contractors. They are on short-term contracts, work in our facilities and are supervised by ST Engineering.

AVERAGE TRAINING HOURS PER EMPLOYEE

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.2 hrs</td>
<td>23.0 hrs</td>
</tr>
</tbody>
</table>

33.4 hrs

TURNOVER RATE

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1%</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

7.3%

WHAT WE WILL DO IN 2018

- Review and enhance the Group performance appraisal system.
SAFE & CONDUCIVE WORKPLACE

It is our duty to ensure that our employees return home safely to their loved ones. In view of the mixed performances in our AFR and ASR in 2016, we stepped up efforts to improve our performances. For 2017, we managed to maintain our AFR at 2016’s level, and greatly improved our ASR to below 2015’s level. We also achieved our target for zero workplace fatality.

One area we focused on was to strengthen the safety culture of the organisation. We place high value on safety by encouraging shared responsibility among our employees, as well as reinforcing the concept that safety, health and work activities are inseparable.

(1) T.H.I.N.K (Tasks • Hazard • Information • No risk taking • Know your job) programme reminds our people to be more vigilant of their work surroundings and potential risks and make an informed decision before proceeding with their tasks.

(2) Automation helps to strengthen safety processes:

The Marine sector initiated the use of smartphones for reporting hazards. This not only improves the speed of reporting, but also encourages more people to do so.

The Electronics sector implemented the e-Permit-To-Work system which speeds up the processing time for hazardous work applications, and enhances overall compliance to procedures.

OUR MAJOR OPERATIONS IN SINGAPORE ACHIEVED OHSAS 18001 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATION.
WHAT WE WILL DO IN 2018

- Develop new procedures at the workplace to increase our state of preparedness in the event of a terrorist attack.

- Improve the cross audit programme to focus on specific critical workplace safety issues to ensure compliance with procedures and safety standards.
PROTECTING OUR ENVIRONMENT

We commenced our journey towards clean energy in 2014 when we test-piloted the use of a PV system at our Jalan Boon Lay facility. To date, clean energy output from this project amounted to 0.72 giga-watt hour (GWh). Although modest, we continue to invest in solar energy. During the year, an agreement was reached to develop two grid-connected rooftop solar projects at two other facilities in Changi and Seletar, Singapore. These new projects will further contribute a combined capacity of 4.1MWp of clean solar energy.

When fully operational, we estimate our investments in solar energy will replace 8.9% of our existing electricity source of energy, thereby reducing our overall GHG by 4,408 tonnes of Carbon Dioxide Equivalent (tCO₂e) annually.

We continue to manage our water demand and consumption judiciously. We monitor our consumption regularly to ensure that there is no abnormal spike and install water-efficient fittings in our facilities wherever feasible. To date, we have installed either auto-closing features or electronic sensors to about 58% of our taps. We also use NEWater wherever possible, with its usage accounting for about 21% of our total water consumption.

<table>
<thead>
<tr>
<th>STAGE OF DEVELOPMENT</th>
<th>NUMBER OF PROJECTS TO REDUCE ENERGY CONSUMPTION</th>
<th>TOTAL ESTIMATED ANNUAL CO₂ SAVINGS (tCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO BE IMPLEMENTED</td>
<td>5</td>
<td>392.7</td>
</tr>
<tr>
<td>IMPLEMENTATION COMMENCED</td>
<td>2</td>
<td>1,384.9</td>
</tr>
<tr>
<td>IMPLEMENTED</td>
<td>8</td>
<td>2,458.8</td>
</tr>
</tbody>
</table>

"OUR MAJOR OPERATIONS IN SINGAPORE HAVE BEEN CERTIFIED UNDER ISO 50001 SINCE 2015."
In 2017, the Energy Market Authority (EMA) released revised Electricity Grid Emission Factors from 2012 onwards, as additional information on heat generation by co-generation plants are available. The differences in figures are less than 2%. We report our audited figures from 2013-2016, which are based on figures previously published by EMA.

Notes:
Energy consumption and GHG emissions figures for 2016 were adjusted as a result of audit, and restated accordingly.
Scope 1: Direct GHG emissions from sources owned or controlled by Singapore entities
Scope 2: Indirect GHG emissions from generation of purchased electricity consumed by Singapore entities
Scope 3: Indirect GHG emissions from business travels by air carried out by Singapore entities

WHAT WE WILL DO IN 2018

• Review the intensity target for GHG emissions. (Original target: 16% reduction in intensity on a business as usual basis by 2025, with the base year as 2010.)
• Improve water intensity by 1.5% from 2017 levels.
RESPONSIBLE SOURCING
While timely sourcing of quality, safe and cost-effective goods and services for our products and solutions is critical, upholding responsible sourcing practices, within the Group and along our supply chain, is just as important.

In 2017, we augmented our central procurement organisation with manpower and technological solutions. The Spend Analytics Tool was deployed to identify areas of significant spending, with the aim of rationalising the number of key suppliers, and driving greater economic value for the group. As we embark on the journey of responsible sourcing, we are committed to engaging our suppliers on sustainability issues, and encouraging integration of sustainability considerations into our procurement decisions. Rationalising the number of suppliers and focusing on the ones with the greatest spend maximise the effectiveness of our programmes to manage sustainability impacts along the supply chain.

TOTAL PURCHASE VALUE

$2.45b

DISTRIBUTION OF PURCHASES BY GEOGRAPHICAL LOCATION

14% Europe

18% US / Canada

53% Singapore

11% Asia (ex Singapore)

3% Middle East

Australia/New Zealand and Oceania

DISTRIBUTION OF PURCHASES BY BUSINESS SECTORS

31% Aerospace

41% Electronics

20% Land Systems

8% Marine

WHAT WE WILL DO IN 2018

• Develop a strategic vendor management programme to strengthen vendor segmentation discipline aimed at improving responsible sourcing initiatives.

• Establish a Vendor Code of Conduct.
RESPONSIBLE CORPORATE CITIZEN

The contributions of the Singapore’s operations to our community totalled $1.92m in 2017 and these went to address several key issues. On education, our contributions went to organisations such as the Assumption Pathway School and providing bond free tertiary scholarships to both local and overseas students. To raise awareness on the impact of climate change on our environment, the Group continued sponsorships for Cloud Forest Theatre and Cloud Forest Gallery (formerly known as +5 Degrees and Earth Check) at Gardens by the Bay. We continued our support to several social welfare homes through cash, in-kind contributions and staff volunteering.

Throughout the year, our employees volunteered for causes that they were passionate about, where every outreach was a charitable act involving at least 50 volunteer man hours. Our employees in Singapore engaged local communities and contributed a total of 8,842 volunteer man hours in 2017.

Over and above our total community contribution, the Group raised funds through our ST Engineering 50th Anniversary Charity Golf, ST Engineering Charity Draw and staff donation drive in support of 15 charities that support person with special needs, person with disabilities and youth at risk.

WHERE OUR COMMUNITY EFFORTS WILL FOCUS ON:

- **Enriching lives through education**
  We believe that education is a basic human right, and that it is the most compelling way to create positive and sustainable change for a better future. We work with partners and collaborators to provide opportunities and assistance to children and young adults so that their lives can be enriched and uplifted through education.

- **Touching lives through engineering**
  As an engineering group, we have the innovative and creative expertise to bring about solutions to enhance living. Our focus in this aspect is the support of persons with disabilities or special needs. We work towards the development of assistive devices and special application engineering solutions to help persons with disabilities or special needs attain independent living and integrate into society.

WHAT WE WILL DO IN 2018

- Organise the ST Engineering Volunteers Week 2018.
- Increase the Group’s participation rate in Community Chest’s SHARE programme.
GLOBAL OPERATIONS: UNITED STATES

In 2016, VT Systems set Group-wide environmental goals, including a 15% reduction in GHG emission intensity levels by 2020 from the base year of 2015. Since imposing these goals, our companies have been working hard to achieve them by implementing measures that would lead to more efficient use of resources as well as minimised impact on the environment.

VT Mobile Aerospace Engineering, a company within the Aerospace sector, made significant reductions in energy consumption by changing the lightings in the hangar bays to LED. The LED replacement project was completed and is expected to reduce energy consumption by more than 15% going forward.

VT Hackney, a company in the Land Systems sector, also made efforts in reducing energy consumption and GHG emissions. In line with federal regulation, VT Hackney changed the foam-blowing agent that was used in their plants to a new type that does not contain Freon, hence emitting less GHG. With this change in the foam-blowing agent, GHG emissions were reduced by 41% in 2017. In addition to the reduction in GHG emissions, VT Hackney also made efforts to reduce energy consumption by replacing old lightbulbs with LED bulbs in their facilities. These efforts, amongst many others, will help us to achieve our goal of a 15% reduction in GHG intensity by 2020.

VT Systems continues to put time and effort into giving back to its surrounding community, supporting a variety of important causes and charitable organisations. Our goal over the past year was to increase the level of participation in events that impact the community, as well as implement programmes that seek to match financial contributions made by the company or by individuals to important causes.

In 2017, VT Systems contributed a total of US$365,228 and 2,781 volunteering man hours to its community, in the form of cash donations, fundraisers, and volunteer hours. The organisations that the Group contributed to included St. Jude’s Children’s Hospital in Memphis, the San Antonio Food Bank, Episcopal Church of the Resurrection in Alexandria, Arlington Food Assistance Center, and the Texas Diaper Bank.

Notes:
Scope 1: Direct GHG emissions from sources owned or controlled by US entities
Scope 2: Indirect GHG emissions from generation of purchased electricity consumed by US entities
Scope 3: Indirect GHG emissions from business travels by air carried out by US entities

GHG EMISSION AND INTENSITY*
WHAT WE WILL DO IN 2018

- Progressively report other targets and performance of the US sustainability efforts.

COMMUNITY CONTRIBUTIONS

US$0.3m

WORKFORCE PROFILE

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>Supervised Workers</td>
<td>90%</td>
<td>10%</td>
</tr>
</tbody>
</table>

* Supervised workers refer to workers hired through local contractors. They are on short-term contracts, work in our facilities and are supervised by VT Systems.

COMMUNITY CONTRIBUTIONS

OUR CONTRIBUTION

- 69% Cash
- 21% Time
- 7% Management Costs
- 3% In-Kind

ISSUES ADDRESSED

- 48% Health
- 25% Social Welfare
- 8% Others*
- 6% Emergency Relief
- 13% Education

* Others include Economic Development, Arts & Culture and Environment issues.