

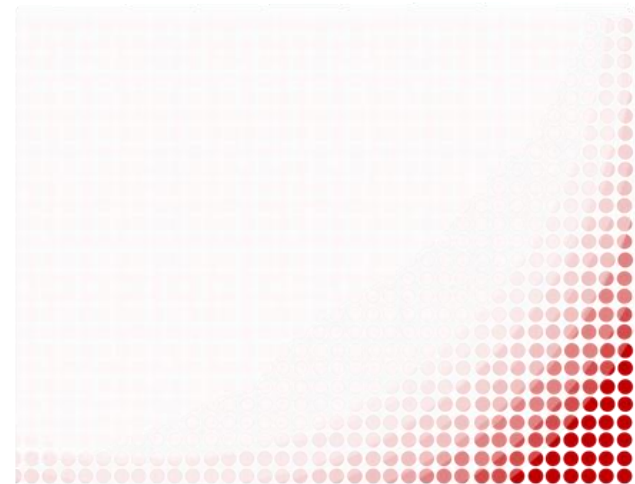
# **Our Management Approach to Sustainability**



# Contents

- 1. About This Report ..... 1
- 2. Sustainability Governance..... 2
- 3. Board Oversight of Risk and Sustainability ..... 2
- 4. Enterprise Risk Management System ..... 3
- 5. Measuring Performance..... 4
- 6. Defining Materiality ..... 5
- 7. Pursuing Sustainability through Business Excellence (BE) ..... 6
  - 7.1 SPRING Singapore BE Framework..... 6
  - 7.2 ST Engineering BE Council..... 7
- 8. Ethics and Compliance ..... 8
  - 8.1 Fraud Risk Management Framework..... 8
  - 8.2 Communications and Training ..... 9
  - 8.3 Fraud and Corruption Risk Assessment ..... 9
- 9. Productivity ..... 10
- 10. People Excellence..... 11
  - 10.1 Nurturing Talent and Grooming Leaders..... 11
  - 10.2 Diversity and Inclusion..... 12
  - 10.3 Career Development..... 12
  - 10.4 Rewarding Our People ..... 13
  - 10.5 Promoting Work-Life Harmony..... 14
  - 10.6 Union Relations..... 14
- 11. Occupational Health and Safety..... 15
  - 11.1 Workplace Safety..... 16
  - 11.2 Occupational Health ..... 17
- 12. Environment..... 19
  - 12.1 Climate Change and Energy ..... 21
  - 12.2 Water Management and Conservation ..... 22
  - 12.3 Waste Management ..... 23
  - 12.4 Pollution Control..... 23
  - 12.5 Noise ..... 24
  - 12.6 Environmental Products and Services ..... 25
- 13. Product Quality and Safety ..... 26
  - 13.1 Qualification of Vendors ..... 27

13.2 System Safety.....	27
14. Responsible Sourcing .....	28
14.1 Principles of Responsible Sourcing .....	28
15. Community.....	30
16. Global Operations – United States.....	31
16.1 Our Approach.....	31



## 1. About This Report

This report sets out the management approach in accordance to the Global Reporting Initiative (GRI) Standards Core option. The GRI Content Index is available on <https://www.stengg.com/en/sustainability/our-performance/our-sustainability-reports/>.

This document should be read in conjunction with the Annual Report (AR).

Information relating to Economic Performance, including its management approach is addressed in the Operating Review and Outlook section of our AR. Our sustainability targets, initiatives undertaken and performance for the year are also addressed in the Risk and Sustainability Highlights section of our AR. Other details of our material issues are covered in our website at <http://www.stengg.com/en/sustainability/>.

The report, unless otherwise stated, is focused on the Singapore operations, which account for more than 50% of total revenue.

We believe it is more meaningful for our stakeholders to have separate reports for each material geographical region as this allows us to take into consideration the different business and social environments of our overseas operations.

Specifically, we have been and continue to work towards reporting for our operations in the United States, which accounts for more than 20% of total revenue.

## **2. Sustainability Governance**

Singapore Technologies Engineering Ltd (ST Engineering or the Group) believes that creating sustainable value for our stakeholders is essential to the Group's long term success. Our business processes reflect long-term and multi-stakeholder considerations, balancing customers' needs for today with longer term developments.

We are equally committed to conduct our business in a responsible manner. As a responsible military technology manufacturer we do not design, produce and sell anti-personnel mines and cluster munitions and any related key components. We do not design or produce any white phosphorous munitions.

Our corporate governance and enterprise risk management systems support our strategy development. Specific areas such as innovation and technology, environment, health and safety, are addressed through our Business Excellence committees and the overall responsibility for sustainability lies with ST Engineering's President and CEO.

Incentives are designed to attract and retain talent, and to encourage executives to adopt strategies that are aligned to the long-term interests of the Group. Incentives are aligned to the long-term strategic, financial and operational goals of ST Engineering. Individual performance objectives are adapted based on the function of the employee. Variable components of compensation and performance appraisals are tied to various key business indicators, which include non-financial indicators such as safety and people development.

Continuous improvement is an integral element across management approaches of all material issues. This includes regular evaluation against peers and industry best practices.

We define sustainability in line with the United Nations' Brundtland Commission: the goal of sustainability is to "meet the needs of the present without compromising the ability of future generations to meet their own needs."

Meeting legal and regulatory requirements is core to our global operations, and embedded into our Code of Business Conduct and Ethics. Beyond full compliance to legal and regulatory requirements, we align our management systems to international standards such as ISO, OHSAS and GRI. Accordingly, our processes adopt a precautionary approach.

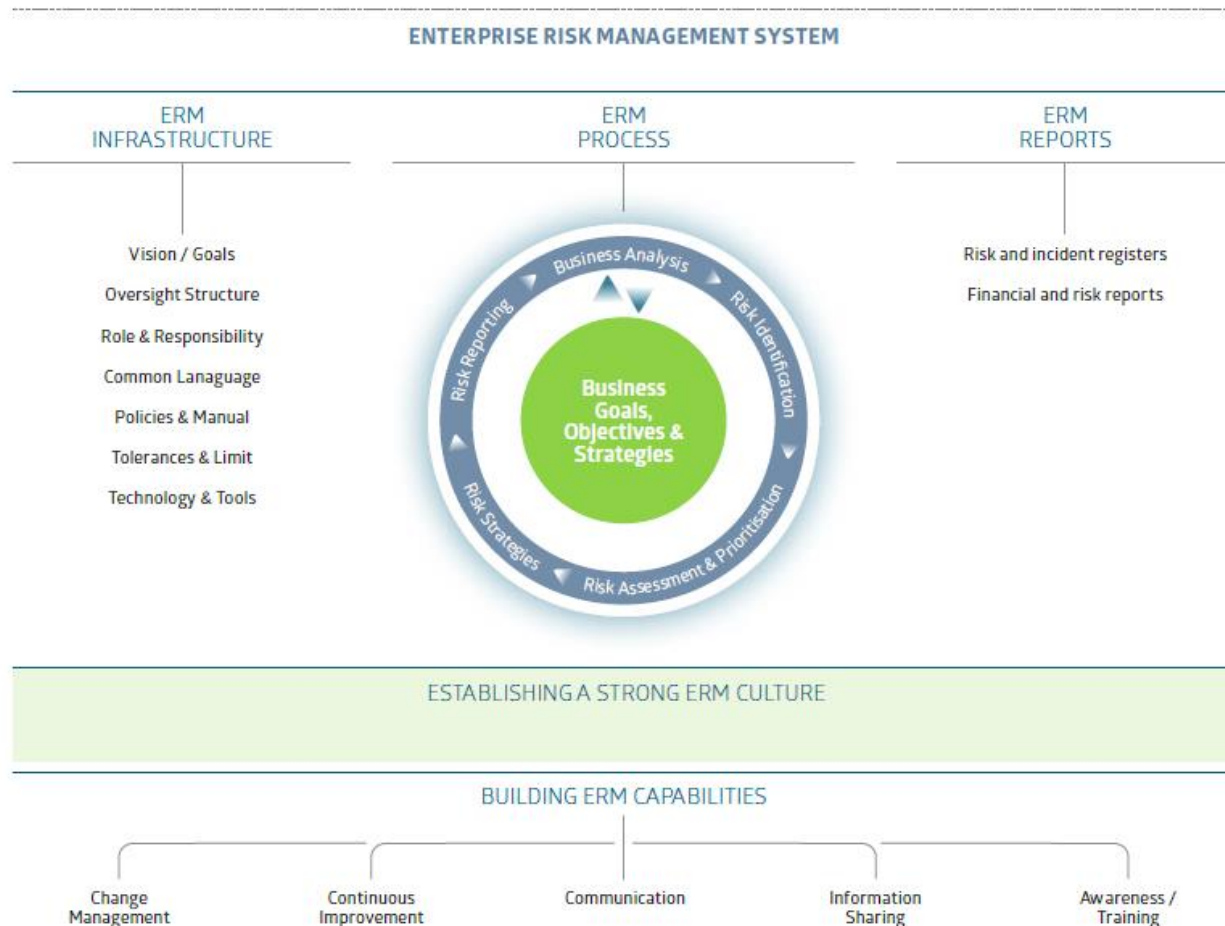
We continue our journey to adapt and embed good practices in sustainability. We do so progressively and systematically with evident leadership involvement, to ensure management and employees understand how different facets in sustainability are relevant to us.

## **3. Board Oversight of Risk and Sustainability**

The governance of risk and sustainability issues by the Board is performed by the Risk and Sustainability Committee whose responsibility is one of oversight. The responsibility for the ongoing management and monitoring of risks and sustainability issues rests with the management team of ST Engineering.

## 4. Enterprise Risk Management System

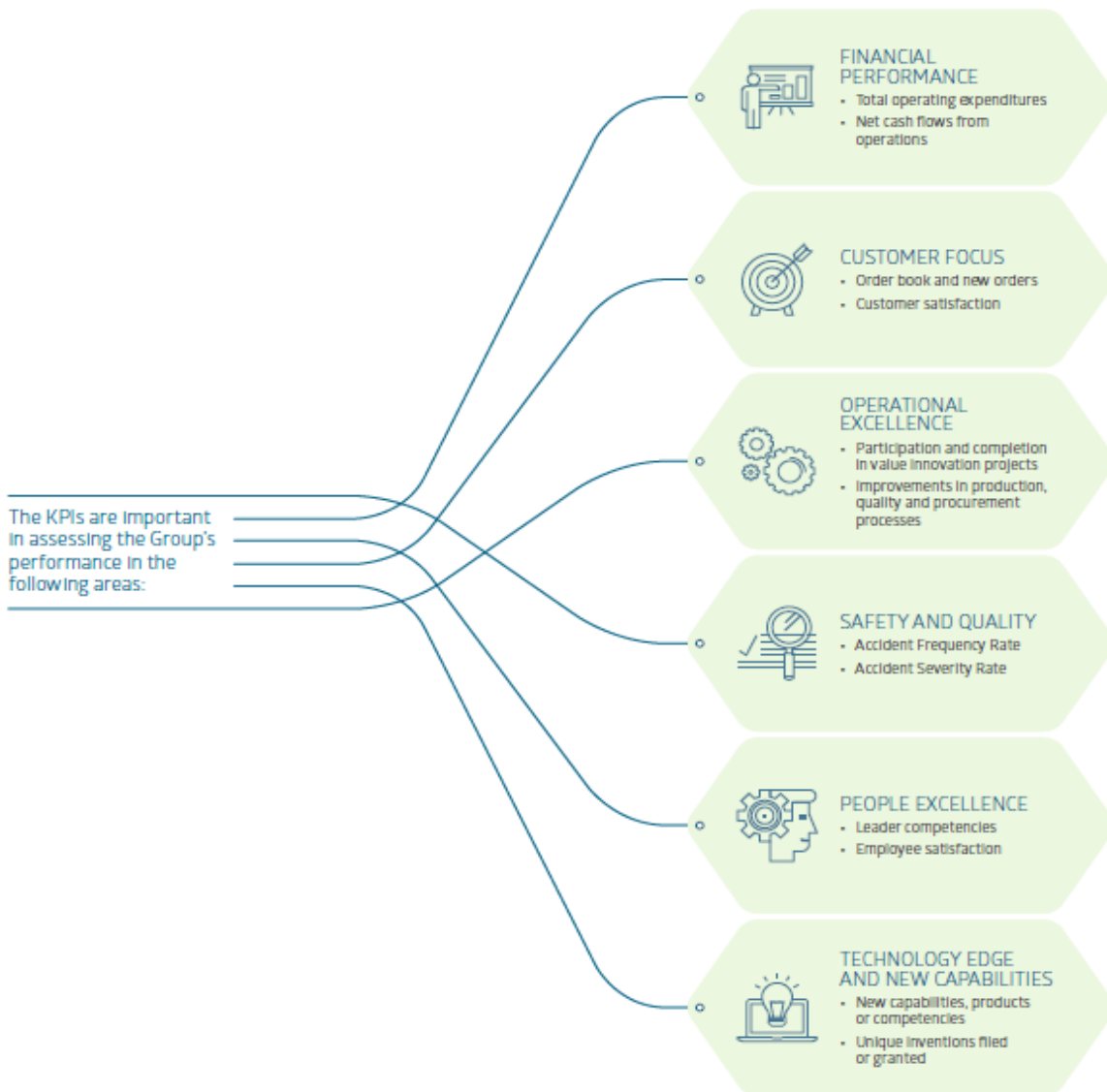
The ST Engineering Enterprise Risk Management Framework was established in 2005 to provide discipline for the Group to identify, assess, control and monitor key business risks. It sets out a consistent definition of risk and risk tolerance limits to ensure that business units have a common understanding when identifying and assessing risks. This allows us to focus on those risk issues that may materially affect the Group's long-term objectives and sustainability. The framework makes risk management a part of ST Engineering's culture and integrates risk management into our philosophy, practices and business plans.



Not only do the Board and Management have a shared understanding of the risk philosophy and overall appetite for risk as they establish the strategies and objectives, our business managers must also be aware of the Group's risk appetite and policies so as to know how much risk they should take on and how these risks should be managed and mitigated in order to preserve and create value.

## 5. Measuring Performance

We measure a range of operational, financial and non-financial Key Performance Indicators (KPIs) to help manage our long-term performance and achieve our business strategies and plans. To encourage our executives to adopt strategies that are aligned with the long-term interests of the Group, we tie the variable components of compensation and performance appraisals to these KPIs. These KPIs are also linked to the material risks of the Group. By linking risks to compensation, we hope to foster risk-related decisions when our business managers pursue economic returns.





## 6. Defining Materiality

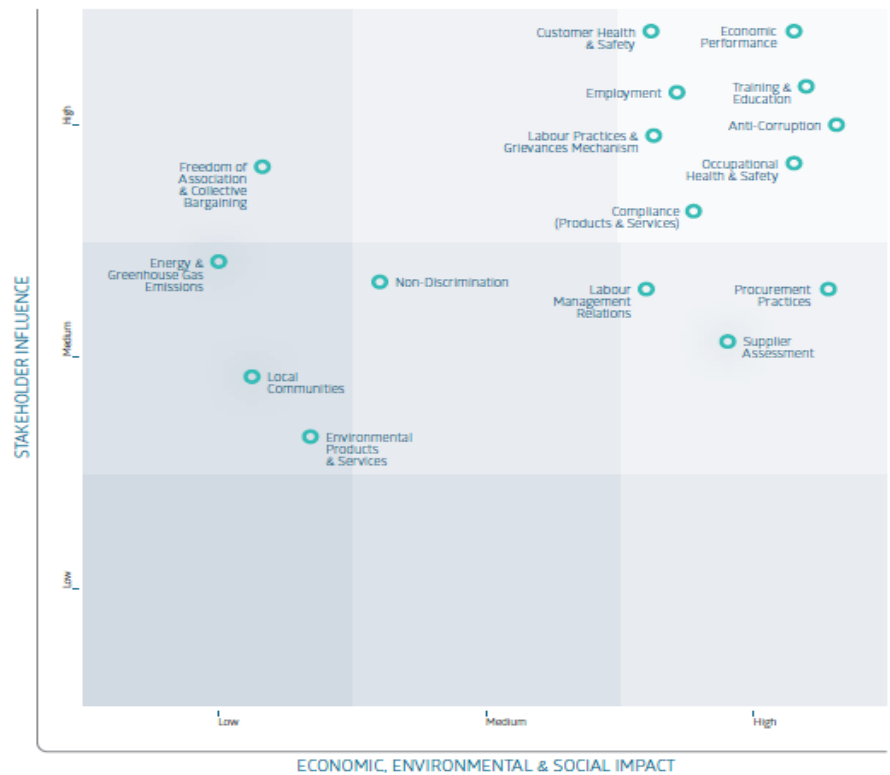
In assessing materiality, the Group looks at both the financial and non-financial impact which we are prepared to absorb to meet corporate objectives. In the materiality assessment, we also take into account the significance of such impact on the various key internal and external stakeholders comprising: shareholders and investors; customers; regulators and governments; employees and other workers; and suppliers. See the table below.

### IMPACT CONSIDERATION

STAKEHOLDER	FINANCIAL	QUALITY, HEALTH & SAFETY	COMPLIANCE	REPUTATION
Shareholders & Investors	○			○
Customers		○		○
Regulators & Governments			○	○
Employees & Other Workers		○		○
Suppliers	○			○

In 2013, the Group conducted a materiality assessment of aspects in the GRI G4 guidelines led by the Risk Management department. Responsibilities for management and reporting were assigned for each material aspect. The material aspects were mapped onto the key business risks of the Group to ensure completeness and a clear understanding of areas of risks each material aspect posed. In 2015, the key business risks and material aspects were reviewed and revised where relevant.

### INFLUENCE AND ASSESSMENT IMPACT OF MATERIAL ASPECTS



## 7. Pursuing Sustainability through Business Excellence (BE)



ST Engineering has been an early adopter of the SPRING Singapore's Business Excellence (BE) Framework for its Singapore operations, soon after the framework was first set up in 1994. It has since 2007 operationalised the framework through the activities of a BE Council.

### 7.1 SPRING Singapore BE Framework

The SPRING Singapore BE Framework is a globally benchmarked developmental tool, aligned to international excellence frameworks adopted for the Malcolm Baldrige National Quality Award, EFQM (European Foundation for Quality Management) Excellence Award, Japan Quality Award and the Australian Organisational Excellence Awards.

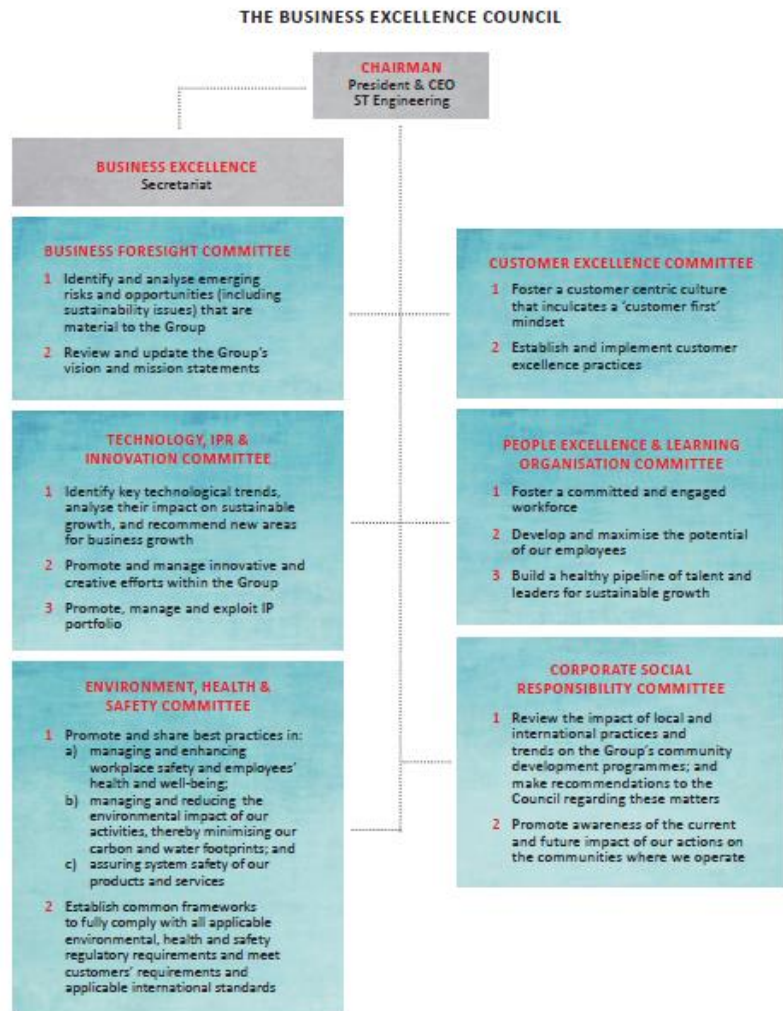
The BE Framework provides organisations with a roadmap for excellence to align their strategies and goals to their objectives, for sustainable performance. Such operational excellence extends beyond the organisation's shop-floor, incorporating the whole supply chain, optimising processes between the organisation, customers and suppliers. Throughout the entire production, supply chain and order-to-delivery cycle, operational excellence is about knowing where everything is, how much is needed, when, where and what is supposed to be done to deliver a quality, finished product that fulfils customer requirements. Besides supply chain visibility, operational excellence helps companies to deliver quality products consistently with sustainable performance where potential risks are identified upfront and proactively mitigated.

## 7.2 ST Engineering BE Council

The BE Council was established in 2007 to provide direction and oversight of the business excellence journey of the Group. The BE Council is chaired by the Group's President & CEO. Supported by its six component committees, and various corporate departments, the Council provides guidance and approves targets set by the component committees. A major objective of the BE Council is to ensure that the principles of high performing organisations and sustainability are incorporated within business decision making to achieve positive and sustainable outcomes for all stakeholders including shareholders, customers, business partners, employees, union members and the community at large.

The BE component committees are chaired by members of the senior management team, and involve the relevant management and operating staff from all business sectors.

The committees share the results of their initiatives and performance at an annual Business Excellence Seminar. Employees who have made outstanding contributions in the areas of innovation, productivity, environment, health and safety are also recognised during this event.



## 8. Ethics and Compliance

ST Engineering, with its operations in several parts of the world, is subject to applicable laws and regulations of various jurisdictions. Failure by us to comply with these laws and regulations may result in criminal liabilities such as fines and penalties, and/or suspension or debarment from government contracts. Accordingly, Management and the Board are always kept abreast of significant developments in new laws and regulations.

The Group has in place a regulatory compliance framework that proactively identifies applicable laws and regulatory obligations, and embeds compliance into day-to-day business processes. Annually, a report is prepared showing performance in this area. It sets out information such as training conducted, audits performed and audit findings, violations, fines and penalties, if any. This report is shared at the Sector Risk and Audit Committee and the Risk and Sustainability Committee meetings, where lessons learnt from major violations of laws are distilled and shared.

Examples of those laws and regulations which the Group deems to be of material importance include anti-corruption laws, aviation laws and regulations, export controls and safety and environmental regulations. Our fraud risk management framework helps to mitigate the risk of fraud, and is deployed Group-wide.

### 8.1 Fraud Risk Management Framework

ST Engineering has zero tolerance for fraud and corrupt practices. We have the following framework for combating fraud and corruption.



Senior management sets the tone and promotes an anti-fraud culture throughout the Group, through a set of Core Values and the Code of Business Conduct and Ethics.

## 8.2 Communications and Training

Training on the Code is compulsory for all employees and is conducted annually.

Training on the core anti-fraud and anti-corruption policies is carried out annually by way of staff briefings and structured online learning courses for all relevant employees. Contracts with intermediaries (such as agents, consultants and advisers), include anti-corruption undertakings and representations. All intermediaries undergo periodic anti-corruption training.

## 8.3 Fraud and Corruption Risk Assessment

Fraud and corruption risk assessment is carried out at the business unit level and at the market level. The significant corruption risks identified were:

- Corruption by intermediaries;
- Corruption by employees;
- Gifts and entertainment to government officials construed as kickbacks or bribes.

The aim of these risk assessments is to generate awareness of such risks among the employees, and to ensure that there are adequate controls in place to prevent as well as to detect such occurrences.

At its quarterly meetings, the Risk and Sustainability Committee reviews the following:

- Progress and results of the Fraud Risk Assessments (an assessment of risks related specifically to corruption and fraud) against the annual work plan;
- Progress of training on the Code and other anti-corruption / anti-fraud training against the annual training plan;
- Substantiated fraud and corruption related incidents. Lessons learnt and actions taken to strengthen the related controls are shared, including updates, if any, to the policies and procedures;
- Offset contracts.

## 9. Productivity

Productivity is fundamental to the Group maintaining its competitive edge and underpins how we achieve our sustainability objectives. This takes the form of labour productivity and capital productivity and are closely watched by each sector and its business units to continuously improve the value proposition to their customers. At ST Engineering, we believe that our people are key to our productivity. A highly engaged and happy workforce is a productive one. This is especially so since the Group relies on knowledge workers to solve complex customers' problems and deliver differentiating solutions. Employee engagement programmes are hence a key part of the Group's productivity movement.

Productivity is about eliminating waste and focusing on value adding work. It is about pursuing our objectives more efficiently and effectively out of the resources we have. From better utilization of facilities, equipment and materials, and the upgrade of the skills and knowledge of our people, to the efforts to increase collaborations within our teams, we strive continually to improve our value proposition to our customers.

As productivity is key to all business sectors and their business units, productivity activities are embedded into their day-to-day operations. Such initiatives include Continuous Improvement projects, Kaizen projects, Quality Improvement Teams, EVA projects, Idea and Innovation Competitions, and the Staff Suggestion Scheme.

We believe that every employee is an expert in their job and thus best positioned to seek improvements. We empower employees through our continuous learning approaches to learn to spot and eliminate waste in our business processes. Exemplary contributions are shared and acknowledged through awards such as Top Kaizen Awards and Best EVA Awards. Award winning teams and individuals are also recognised at our annual Business Excellence Seminar.

## 10. People Excellence

Investment in our people is the key to our continued success and delivery of strategic advantage locally and globally. Our human capital management and development programmes are driven by our People Excellence and Learning Organisation (PELO) Committee.

We report and analyse key performance indicators monthly at the business sector level. Such indicators include turnover and training utilisation rates. Our business sectors also have talent management and development programmes that are adapted to their specific industry needs.

### Why Is It Material?

Investing in our people is the key to our continued success and delivery of strategic advantage both locally and globally.

### How We Manage?

The PELO Committee drives our human capital management and development programmes. The Committee explores areas that the Group can work to further enhance existing policies and practices to bring about greater excellence among our employees.

Key indicators, such as turnover and training utilisation rates, are reported and analysed monthly at business sector level. Selected indicators are also reported quarterly at Group level.

Our Employee Value Proposition articulates our commitments in:

- Investing in high performing teams by providing continuous development opportunities to our people, nurturing and grooming leaders;
- Providing continuous learning and development opportunities to strengthen our technical and leadership competencies;
- Developing a workforce that promotes innovation and entrepreneurship, guided by our core values;
- Rewarding excellence and encouraging work-life harmony.

All business sectors have talent management and development programmes that are adapted to their specific industry needs.

### 10.1 Nurturing Talent and Grooming Leaders

We aim to attract the right talents to support our global growth. We constantly review and enhance our Employee Value Proposition, taking into account the diverse needs of employees, as well as the aspirations of the younger generation. As part of our plan to identify and develop talent early, we award various types of scholarships to outstanding students, for studies at both local and

overseas institutions. To support regional expansion, we offer scholarships to students at top universities in China and India. Internships, thoughtfully designed to provide exposure to various business and career opportunities, are also available to ITE, polytechnic and university students, allowing them to get to know the Group and consider a career with us. We establish long term initiatives with institutions of learning and professional bodies to develop industry related technical skills for the aviation and marine sectors.

We regard our employees who are past retirement age as a valuable and stable resource. Thus, we offer retirement planning and re-employment opportunities to all employees leading up to and beyond the retirement age and work collaboratively with the union to facilitate the re-employment of older employees.

We identify, groom and secure a pipeline of leaders to take up key positions in the Group. Senior employees may be selected for Senior Leadership Development Programme and Executive Education Programmes in leading universities such as Harvard, Stanford and INSEAD.

## **10.2 Diversity and Inclusion**

As the Group with a global footprint, we encourage fair employment practices worldwide and offer equal opportunities based on merit to all our employees. We do not judge based on personal bias or prejudice, and we respect other people's rights and act fairly in giving recognition to our employees. We do not discriminate according to age, race, nationality, ethnic group, gender, marital status or disability. We are committed to providing a work environment that is free from discrimination or harassment of any type, where the recruitment, employment and development of people are based on qualifications, skills and competencies to do the job. In our recruitment drive, we practise non-discrimination and fairness. We signed the Employer's Pledge of Fair Employment Practices with The Tripartite Alliance for Fair Employment Practices (TAFEP) in 2008.

## **10.3 Career Development**

Our training development plan and performance management system work in tandem to support the career progression of our employees. The Group provides employees with various opportunities for career progression. As an engineering company, employees may move up the general management track, or along the engineering specialist path. The two distinct career tracks provide room for career growth for employees with different aspirations. Employees who are versatile can move between tracks to gain exposure.

All our business sectors in Singapore are People Developer's Standard certified. Staff at all levels are provided with continuous learning and development opportunities to ensure they stay competent and relevant in today's competitive business environment. The learning and development framework systematically identifies learning needs, implement and facilitate the learning plans, monitor and review the outcome, effectiveness and impact learning has on the business.



Broad learning directions are charted to support the Sector's strategic objectives and thrusts, and to build competent resources. Learning needs analysis is carried out annually by individual staff, together with their supervisor, to map out the staff's development needs using the learning and development model as a guide.

To further assist executives in learning about their leadership development needs, they are encouraged to use the Leadership Enhancement Portal (LEAP) to assess themselves against ST Engineering's eight leadership competencies for their own management level. LEAP is an interactive and online system that also offers a range of learning activities such as self-study materials, in-place activities, development support and coaching, related projects/assignments and others. It assists executives in developing their leadership competencies by allowing them to chart out a Personal Development Action Plan (PDAP). This works towards empowering the executives to take charge of their own learning and development in today's dynamic and evolving business environment.

Leadership Foundation and Excellence Courses have been customised in line with the leadership competencies and core values to support the growth and business directions of the company. To support global growth, cross-cultural talks/seminars, EQ courses, Certification in Commercial Law, language classes and overseas executive education programmes in the world's top 10 business schools have been put in place. Overseas stints, which include postings and attachments, are also part of our plans to familiarise and orientate our employees to different cultures and equip them for the expansion of our businesses.

Our performance management and recognition system is designed to inculcate a customer centric culture for excellence, to reinforce positive behaviours and practices. This system is aligned with our HR strategies to become a preferred employer and to build competent and committed employees. All employees, regardless of genders receive annual performance and career development reviews with their supervisors, where they discuss their current work progress and career aspirations. These reviews also serve as a platform to identify skill gaps required for the current and next level of job requirements.

In line with ST Engineering's strategic objectives and thrusts, short and long term business targets are identified and cascaded down as Performance Indicators (PIs) and objectives to companies and departments. Open appraisal is practised when employees and supervisors discuss and agree on goals and objectives that will contribute towards achieving the PIs. Individuals are assessed based on their performance, efforts, contributions on the job and towards innovation, quality, safety and teamwork.

#### **10.4 Rewarding Our People**

We offer competitive remuneration, and reward contribution with performance-based pay and bonuses. Regular salary reviews are conducted to ensure that our remuneration package remains competitive. We grant eligible employees performance shares with PIs that drive efficiency, productivity and profitability. The Group also gives out awards to recognise deserving employees.

We place strong emphasis on individual as well as group performance. There is a range of monetary and non-monetary rewards and recognition schemes. Monetary awards are in the form of bonuses, Share Ownership Scheme, cash awards and incentive payments, while non-monetary awards include Kaizen award, Model Employee award, safety award, housekeeping award, appreciation/acknowledgement letters and others.

To ensure that the performance and recognition system is effective and aligned to the HR Strategies that contribute to people excellence, Senior Management, HR and line managers continuously review the system through formal mechanisms such as Employee Opinion Survey, management reviews and review against industry practices; and through informal channels such as discussions with employees, tea sessions and staff suggestion schemes.

### **10.5 Promoting Work-Life Harmony**

We recognise that employees increasingly seek a balance between work and personal life. We provide a supportive work environment with a degree of work schedule flexibility through a framework for flexible work arrangements.

Our Sports and Recreation Clubs organise activities catering to the needs and interests of different employee profiles. These activities include sports like badminton, soccer and bowling; customised wellness programmes ranging from talks and annual health screenings to kickboxing, shiatsu and cardio dance; and social activities such as canteen sales, prawn-catching and karaoke contests.

### **10.6 Union Relations**

ST Engineering recognises that harmonious labour management relations are build on trust and fairness. We respect all employees' fundamental rights to freedom of association, including the right to be members of trade unions. In Singapore, we take guidance from the Industrial Relations Act and strive to maintain excellent relations with the unions. We ensure our unions maintain representations on key committees such as safety and welfare so that concerns that affect daily activities are better heard. Union-Management meetings are held at least twice a year. At these Union-Management meetings, both parties discuss and resolve staff issues expeditiously, clarify policies and seek buy-in on new initiatives, improve the management-employee relationship and generally enhance the working climate. Monthly staff branch union meetings are means to discuss, clarify and resolve issues, and seek buy-in on new initiatives.

## 11. Occupational Health and Safety

ST Engineering is committed to 'Safety Before Profit'. Our employees and workers should be entitled to a safe work environment.

We recognise that good health and safety performance improves employee morale and work effectiveness, as well as our Group's reputation; simultaneously, we are aware of the negative impacts resulting from lost time, higher costs, and delays.

Our Environment, Health and Safety (EHS) Committee is assisted by the Occupational Health Sub-Committee and the Workplace Safety Sub-Committee which meet every quarter to review the Group's overall performance in environmental health and safety and the progress of each sub-committee.

Our business sectors also encourage individuals and teams to develop innovative solutions to health and safety challenges by awarding and recognising specific business sectors at the group, industry, and national levels.

### Why Is It Material?

ST Engineering is committed to 'Safety Before Profit'. The health and safety of our employees and contractors working on our products and delivering our services, as well as the health and safety impact arising from the use of our products are very important to us. We recognise the positive impact of health and safety in enhancing our Group's reputation, and increasing work effectiveness through attracting talent, improving employees' morale and decreasing absenteeism. At the same time, we are cognizant of the negative impacts manifested through lost time, schedule delays and higher costs.

### How We Manage?

The EHS Committee drives our health and safety efforts. Our objectives are set out in the EHS Statement. The EHS Committee ensures health and safety management systems are properly implemented and improved upon, sets performance indicators and monitor them.

All health and safety efforts are driven by two sub-committees – the Occupational Health and Workplace Safety Sub-Committees. These two sub-committees develop annual work plans and targets, which are reviewed and approved by the EHS Committee. Performance against plans and targets are reported and discussed at periodic EHS Committee meetings.

Each business sector monitors leading and lagging health and safety indicators on a monthly basis, with group-wide data reviewed on a quarterly basis. Data is analysed over the past years, then presented and discussed at management review meetings and EHS Committee meetings.

## How We Manage?

The EHS Committee meets regularly to set direction and review the overall health and safety performance and progress of each of the sub-committees. The sub-committees also meet regularly to monitor and discuss practices and initiatives to enhance their respective areas. Benchmarking exercises are conducted across business sectors to identify opportunities for cross-learning.

The EHS Committee also organises recognition events to acknowledge efforts of individuals and teams who contribute ideas to improve our health and safety practices. The ST Engineering EHS Excellence Award recognises outstanding efforts in EHS innovation and helps raise the profile of EHS issues among our employees. To encourage individuals and teams in the various business sectors to find innovative solutions to health and safety challenges, the business sectors compete for rewards and recognition at the Group, industry and national levels.

Through our monitoring and continuous improvement efforts, we aim to achieve our goal of zero accidents. We believe that 'Safety Starts With Me' and strive to build a culture whereby all staff abide by all safety rules and proactively stop all unsafe practices they see in the workplaces. The Group's duty of care extends to all employees, visitors, supervised workers and sub-contractors working within our premises.

### 11.1 Workplace Safety

Our approach to workplace safety management is underpinned by legislative requirements, client requirements as well as industry safety standards. A workplace safety culture is promulgated through the deployment of safety programmes and the measurement of key performance indicators in the operational areas. All sectors have implemented a safety management system based on the occupational safety guidelines under the OHSAS 18001 standard or equivalent.

All our Singapore business units are certified to OHSAS 18001:2008 standards by established certification bodies and they also adhere to the Workplace Safety and Health (WSH) Act. In addition, the Singapore business units in all sectors have implemented the Behaviour-based Safety (BBS) programme. BBS aims to eliminate substandard work practices, a primary cause of injury, by shaping mindsets to achieve a safety focused culture and environment.

The Workplace Safety Sub-Committee is established to benchmark best practices among ST Engineering companies in safety-related policies, procedures and practices and to conform to applicable local legislations and internal standards. The Sub-Committee promotes the best possible practices through company visits and performs cross audits to identify any gaps. The Sub-Committee also measures and monitors both leading and lagging indicators, such as accident frequency rates, accident severity rates, dangerous occurrences, and penalties from authorities such as the Singapore Ministry of Manpower (MOM) and the Singapore Civil Defence Force.

Our management and employees are continuously working hand in hand and in collaboration with the WSH Council and MOM to explore new ways and methods in mitigating hazards at the workplace to reduce, if not eliminate accidents and injuries and moving towards achieving a better and sustainable safety culture.

The collective agreements with our trade unions include various elements of safety and health: (1) provision of adequate and appropriate personal protective equipment (PPE) (2) provision of a safe workplace as well as access to workplace; (3) provision of relevant and regular competency trainings prior to undertaking any work; (4) provision of worker representation in workplace safety and health activities and programmes; (5) introduction of engagement mechanism as a platform for workers to address their concerns on safety and health at the workplace.

## 11.2 Occupational Health

To promote high standards of quality life, health and productivity, hazards to health at workplace must be eliminated as much as possible.

The primary function of the Occupational Health Sub-Committee is to protect and promote the health of company's employees and all those operating in the company's circle of influence. Our occupational health programmes focus on risk assessment, hygiene monitoring, medical examination, noise induced deafness management and promotional activities.

The occupational health risk assessment programme involves regular reviews and surveillance inspections of the work environment. Employees identified to be exposed to occupational health hazards shall undergo an annual medical examination. We also organise inter-sector studies and sharing and engage our vendors to keep abreast of best practices in these focus areas.

Key performance indicators are developed to measure and monitor promotional activities, training, medical examination as well as occupational diseases.

Trainings are regularly conducted to raise awareness on occupational health matters, affecting employees at workplace. These topics include:

- Hearing Conservation
- Respiratory Protection
- Manual handling
- Ergonomic
- Occupational Diseases
- Physical and Chemical Health Hazards
- Bio-Mechanical Health Hazards and Associated Occupational Diseases
- Control of Health Hazards

In addition, the Group also conducts regular health talks and launches promotional campaigns to raise both occupational health and general health awareness.

Our occupational health risk management programme involves regular reviews and surveillance inspections of the work environment.

Examples include:

- (1) Testing of indoor air quality on annual basis or as necessary in accordance to the Guidelines for Good Indoor Air Quality in Office Premises.
- (2) Conduct six-monthly medical examinations for persons exposed to lead and manganese
- (3) Conduct yearly respiratory training and fit testing for employees who are required to wear respirator.
- (4) Regular noise monitoring and noise mapping, and employees exposed to loud noise are sent for audiometric test annually.

Employees identified to be vulnerable to occupational health hazards are required to undergo annual medical examination.

## 12. Environment

ST Engineering believes that the efficient use of resources is key to environmental sustainability; it also provides us with opportunities to meet the rising demand for energy efficient products and cuts our operating costs.

Environmental efforts are driven by the Environment Health and Safety (“EHS”) Committee. The Group sets annual performance objectives and targets relating to the environment. These targets are supported by a work plan, which is an integral part of the EHS Committee’s annual plan. This work plan and EHS Committee’s annual plan are reviewed quarterly.

Our business sectors conduct a range of briefings and trainings on environmental compliance. Other means of promulgating environmental awareness include sharing of best practices, study visits to other organisations with excellent environmental management practices as well as publications of newsletters which are distributed to our employees and customers.

ST Engineering continually explores energy efficiency and environmental friendly initiatives, including technological investments that provide a reasonable rate of return. All business units in Singapore are certified to ISO 14001 “Environmental Management Systems”, and are audited by reputable third party certification bodies on a yearly basis.

### **Why Is It Material?**

#### ***Climate Change and Energy***

Climate change, widely thought by climate scientists to be caused by an increase in greenhouse gases in the atmosphere, is an issue of increasing urgency. Correspondingly, climate change is an issue of increasing importance to ST Engineering. We believe that a low carbon business strategy not only enables us to better respond to climate change regulations and price volatility of hydrocarbon resources, it also provides us with opportunities to meet the rising demand for energy efficient products. Being energy efficient also cuts our operating costs.

#### ***Environment Protection***

Environmental protection is the practice of protecting the natural environment, for the benefit of the environment and eco-systems. Resources such as water are valuable. ST Engineering believes in conserving the use of water and ensuring that our operations are conducted in the most water efficient manner. Likewise, pollution and wastes are stringently controlled to protect the environment and the communities where we operate.

## How We Manage?

The EHS Committee drives our environmental initiatives. Our environmental objectives are set out in the EHS Statement as follows:

### **ST ENGINEERING ENVIRONMENT, HEALTH AND SAFETY (EHS) STATEMENT**

We at ST Engineering are committed to protecting the environment for our future generations; promoting the wellbeing and safeguarding the occupational health and safety of our employees; and ensuring the safety of our products and services for our customers.

We fulfil this commitment by:

1. Complying fully with applicable EHS regulations.
2. Working with our business partners on their compliance with applicable EHS regulations and our EHS requirements.
3. Integrating EHS best practices into our daily activities.
4. Permeating a positive EHS culture with a strong sense of individual and collective responsibility among our employees and business partners working within our premises.
5. Improving our products and processes continually to reduce our environmental impact in the areas of emissions, waste material generation, water utilisation and energy consumption.
6. Setting realistic annual targets and monitoring our performance to continually enhance the effectiveness of our environmental, health and safety management systems towards both minimising our carbon and water footprints, and achieving zero incident in workplace injury, occupational disease and environmental pollution.
7. Ensuring our products and services are safe to produce, operate, support and service while minimising environmental impact through the use of system safety principles.



## How We Manage?

The EHS Committee aims to achieve environmental sustainability and excellence by minimising environmental impacts through the following steps:

- Analysing our energy consumption profile and its impact on climate change;
- Taking initiatives towards better resource management through conservation programmes;
- Making continuous effort on caring for the environment and prevention of environmental pollution; and
- Benchmarking efforts and investing in technology towards environmental sustainability.

The Singapore Environmental Protection and Management Act sets out the main requirements for the management and control of pollution of the environment. All business units in Singapore establish policies and procedures to ensure compliance. These procedures are ISO 14001 compliant, and are subject to annual audits by third party certification bodies. Major audit findings as well as regulatory non-compliances that resulted in fines and other penalties by the Authority are also reported to the Sector Risk and Audit Committee and the Group Risk and Sustainability Committee.

All energy and environment protection efforts are driven by two sub-committees – the Energy Sub-Committee and the Environment Sub-Committee. The two sub-committees develop annual work plans and targets, which are reviewed and approved by the EHS Committee. Performance are reported and reviewed at periodic EHS Committee meetings.

## 12.1 Climate Change and Energy

Climate change is a global issue that will require new and innovative technologies to mitigate its effects. ST Engineering acknowledges the role we play to mitigate and adapt to the effects of climate change by developing low-carbon and clean energy technologies as well as the business risks and opportunities arising from climate change.

We took the first step in 2010 by mapping out the carbon footprint of the significant operations in Singapore, and subsequently auditing the data against ISO 14064 in 2011. In 2012, we set the target to reduce greenhouse gas intensity by 16% from base year of 2010 for Singapore operations by 2025.

The Energy Sub-Committee was established in October 2014 to drive the Group's climate change and energy initiatives. The Sub-Committee reviews climate change risks and their impacts, and explores energy efficiency and conservation initiatives, including technological investments that provide a reasonable rate of return.

The Energy Sub-Committee keep abreast of climate change trends and issues and review the impacts and opportunities that arise.

Some of the trends and corresponding risk impacts reviewed by the Energy Sub-Committee included:

1. Countries and customers may require us to do emissions reporting before any business can be conducted;
2. Increasing fiscal measures such as additional taxes on fuel and energy, as well as changes in product efficiency regulations and standards imposed by countries as they seek to manage the impact of climate change;

The work plan of the Energy Sub-Committee is adjusted annually to take into account actions that must be taken in response to the trends and issues. These actions have included adopting ISO 14064-1 to monitor and report the level of greenhouse gas (GHG) emissions, as well as third party verification; implementing the ISO 50001 energy management system as a structured approach to manage operational energy efficiency and identify opportunities for further reduction of energy use; building up the necessary technical capability and competency to respond to different market needs and requirements in terms of green product design and manufacturing standards/regulations.

It also implements energy conservation measures and tracks performance against the group's GHG intensity targets.

In line with our commitment to transparency, ST Engineering participated in the Carbon Disclosure Project in 2014 for the first time, and was named Best New Responding Company (for Hong Kong and South East Asia).

To date, all Singapore business units are verified to ISO 14064-1 by reputable third party auditors.

ISO 50001 EnMS (Energy Management System) is an ISO management system released in June 2011 and launched in Singapore in August 2011 with the aim of focusing on energy planning to attain efficient use of energy. By adhering to this ISO standard, ST Engineering will be able to improve overall energy performance, reduce energy costs and GHG emissions. The operating entities in Singapore achieved ISO 50001 certification in 2015.

## **12.2 Water Management and Conservation**

Our businesses use water in their facilities for processes, products, cooling, cleaning and general sanitation uses. Our source of water is solely from municipal water supplies.

In compliance with Singapore's Public Utilities Board Water Efficiency legislation taking effect from 2015, all business units consuming more than 60,000 cubic metres water in the preceding year are required to manage and report their water usage using the Water Efficiency Management Plan.

Our business units establish water consumption targets and monitor them against the actual water consumption. In the effort to reduce water consumption, water conservation initiatives are

monitored, reported and reviewed at the Environment Sub-Committee. These initiatives include installation of water meters at strategic locations within the facilities, installation of water-saving devices such as water thimbles and flow reducing valves, and the use of NEWater for certain processes. Water conservation awareness is also promoted through toolbox briefings, talks, productivity projects and other campaigns such as World Water Day. Checks are regular carried out to detect leakages in pipes and faucets, when there is abnormal trending in water consumption.

### 12.3 Waste Management

There are 2 main categories of waste:

- Toxic Industrial waste – waste that is potentially detrimental to the environment and/or human health, and requires special management, treatment and disposal. Toxic waste is not recyclable, and ST Engineering engages licensed toxic industrial waste collectors to collect the waste for treatment and disposal. The waste collectors ensure that the waste is stored and treated at approved premises and facilities;
- General waste - waste that is non-toxic and non-hazardous, and does not require regulatory licensing, or specialised vendor to collect. These include recyclable and non-recyclable wastes. Recycle bins are situated within our premises for staff to dispose of their recyclable waste such as e-waste, paper, cartridges, metal cans or plastic bottles. Non-recyclable waste includes food waste, sludge and other general refuse that is not reusable.

In-line with Singapore National Environment Agency's (NEA's) efforts to encourage recycling and reusing of waste, we promote the 3R initiative – to Reduce, Reuse and Recycle waste, with emphasis on reducing waste generation at source. One example is to reduce paper usage by not printing out emails, printing on both sides of a paper and recycling use of paper waste such as envelopes or carton boxes.

Another example is the recycling for electronic wastes by recycling the use of computers, monitors, printers, cables, etc. We monitor the quantity of such wastes collected by NEA-approved vendors which sent such wastes to approved facilities for recycling.

### 12.4 Pollution Control

The use of machineries and equipment in the course of production may result in emission of air impurities such as smoke, soot, odours and chemical gases such as sulphur dioxide that pollute our air. In certain cases, the use of HFCs and PFCs for repair and maintenance works may cause Ozone Depleting Substances (ODS) to be released into the environment. To manage and prevent air pollution resulting from such emissions, we prohibit the use of open fires within our premises to dispose flammable and combustible materials. Additionally, we have air-pollution control equipment such as flue chimneys, scrubbers, spray booth exhausts and discharge stacks installed to prevent our emissions from contaminating surrounding air. We ensure that any unused

ODS are contained in approved containers and stored in a designated area on premise, or bin centre before a licensed waste collector transports it for disposal. Qualified laboratory services are periodically arranged to conduct measurements on the stack emission and level of air pollutant, to ensure they are within legal limits.

Hazardous effluents and waste such as oil, chemical solvents may result from our operations, potentially causing water and land contamination if not disposed properly. Licensed toxic industrial waste collectors are engaged to remove waste from our premises for disposal or treatment. To prevent illegal dumping and disposal of toxic industrial wastes, the movement of every consignment of wastes from our premises via a carrier to a collector is tracked using web-based electronic system.

On prevention of pollution, we analyse our premises to identify potential pollution sites and water discharge points. We install oil interceptors at our premises to capture greases and solids as to prevent discharge into the sewage system. The oil interceptor is periodically maintained by authorised contractors.

We also carry out regular inspections for any signs of land contamination, and to ensure that our machineries are in proper working conditions. Periodic trade effluents samplings are conducted to ensure discharge is within legal limits. pH meters (pH stands for 'potential for Hydrogen') are installed at manholes to monitor pH levels, and we ensure that the necessary license from the Authority is obtained before we discharge our trade effluents into the sewage and waterways.

In terms of Control of Vectors, machineries that use water, or create condensation, can turn into breeding grounds for water-borne bacteria and vectors, if not maintained. Our cooling towers are monitored on a regular basis and disinfected semi-annually to prevent bacteria build up.

Last but not least, monthly inspection of plant facilities and equipment to check for inefficiencies that may lead to water wastage. Equally important, chemically contaminated water from aircraft washing, painting, sheet metal anodising, Non-destructive Testing work are collected at designated points and re-collected by licensed toxic waste collector.

## **12.5 Noise**

To manage noise resulting from our operations within legal limits, we conduct, monitor and review noise emission level from our work areas to the surrounding environment. Measurement of boundary noise levels is carried out by competent persons. If the operations are assessed to be excessively noisy, mitigation and control measures such as replacing noisy equipment with quieter models and providing sound insulation such as mufflers, dampers, acoustic enclosures, vibration isolators or noise barriers to minimise noise emissions to the environment are implemented.

## 12.6 Environmental Products and Services

Cities and organisations are increasingly looking to reduce their environmental impact. Our innovation and productivity initiatives incorporate these considerations into our product development.

Energy efficiency, in particular, is an area of focus. Besides developing energy efficient products, we also design mid-life upgrades with state-of-the-art technology to ensure that products continue to perform in an energy efficient manner. This is important as most of our products have a long service life, and tend to consume significantly more energy than when first manufactured.

## 13. Product Quality and Safety

Our customers rely on our products to perform their intended functions reliably and safely over the products' lifecycle. This means our products must not only meet the technical specifications of our customers and prevailing industry standards, but be reliable over the product's lifecycle and be safe to produce, operate and maintain. The same applies to our services, which must not only serve their purpose but meet customers' expectations on turnaround time and responsiveness.

To ensure the quality, reliability and safety of our products, ST Engineering takes a multi-faceted approach. As a start, the Quality Management System (QMS) of all operations in Singapore are third party certified to meet the requirements of the ISO 9000 family of quality management systems standards. Next, we design, manufacture and support our products in accordance with prevailing industry standards and meet all regulatory requirements. In addition, we abide by international systems safety standards, and are a leading practitioner and advocator of systems safety in Singapore and the region.

### Why Is It Material?

Our customers rely on us for products and services to meet their operational needs. This means our products and services must serve the intended purpose for the expected duration reliably and safely each and every time. This is an area of concern to all our stakeholders and is critical to our reputation.

### How We Manage?

All operations in Singapore are third party certified to the ISO 9000 family of quality management standards. Next, we conform to industry standards and meet all relevant regulatory requirements. This includes abiding by international systems safety standards to ensure the safety of our products.

All these requirements are set out in relevant policies, standard operating procedures and work instructions at the Group, sector and business unit levels.

To ensure that we achieve consistent quality across our product lines and services, we actively monitor, measure and analyse our processes to achieve the objectives and targets set. We work with our business partners to ensure quality of bought-in parts and also empower our employees to improve our products and services through continuous improvement programmes such as Kaizen, Innovation and Quality Circle and suggestion scheme. In addition, we place a strong emphasis on customer satisfaction, seeking frequent feedback from them to continuously improve our offerings.

### 13.1 Qualification of Vendors

As part of the QMS, operations have in place an established set of documented procedures to select, evaluate and approve vendors. Vendors are evaluated independently by Quality personnel based on a set of defined questionnaires and are approved by the Quality Manager. Approved vendors are maintained in a Vendor Approved List which is used by the purchasing department for the sourcing and purchasing of critical components, parts and materials and even services. Vendors are subject to continuous monitoring and approval renewal periodically.

### 13.2 System Safety

Ensuring safe product design is an important consideration prior to achieving product quality and reliability. We assess and manage the safety implications of our products to achieve acceptable risks, throughout the entire product life cycle, from the start at the design stage – this is essentially “System Safety”.

ST Engineering started implementing system safety practices in the 1990s and has since been actively promoting System Safety in Singapore. Its subsidiary company, ST Kinetics was the first Singapore Corporate Member of the International System Safety Society in 2002. The International System Safety Society (Singapore Chapter) was formed in 2003 with the efforts of many of our employees and our customers. Our employees actively share and participate in the international conferences and local sharing to exchange idea and learn.

The System Safety Sub-Committee under the Environment, Health and Safety (EHS) Committee is charged to ensure the continuation of system safety excellence throughout the group, and to keep up-to-date with design safety and system safety international standards. Its annual work plans and targets are reviewed and approved by the EHS Committee and performance are reported and discussed at periodic EHS Committee meetings. Under the System Safety Sub-Committee, all the four business sectors proactively identify areas for improvement and implement new initiatives to promote system safety.

We constantly learn from the international community on assessment techniques and industrial best practices to benchmark ourselves with the best in the industry. As more products incorporate embedded smart features, software safety is also becoming an important area of focus.

System safety is also being extended to our key suppliers where education and awareness is introduced to help suppliers to be competent in assessing the safety of their sub-components and assemblies. In turn, this improves the overall safety integrity of our products to our users.

## 14. Responsible Sourcing

Responsible sourcing is recognised as an important focus within the overall supply chain for ensuring the sustainability of our business activities. Our responsible approach to business is therefore reflected in the commitment to manage our strategic vendors and ensure a robust and sustainable supply chain. At ST Engineering, as part of responsible sourcing, we are committed to put in place programmes such as Vendor Relationship Management, Vendor Code of Conduct to align a common set of business behaviours and technology solutions to drive efficiencies, streamline processes and enable visibility for better supply chain management.

### Why Is It Material?

We recognise our dependency on the timely delivery and quality of key materials provided, and quality of performance by vendors. These are risks that we manage diligently and mitigate where possible. To ensure our long term growth and profitability, we must manage the supply chain in an effective and sustainable manner.

### How We Manage?

Responsible Sourcing is about sustainable procurement and the responsible supply of goods and services. Our strategy is to develop an on-going engagement with our key vendors to understand their sustainability practices, and work with them to embed our principles of sustainability within our procurement activities over time. We believe that this approach provides an opportunity to build and strengthen the relationships with our vendors and at the same time achieve our goals.

### 14.1 Principles of Responsible Sourcing

The following are our principles for responsible sourcing:

#### 1. We practice value for money procurement

Value for money is the core principle underpinning our procurement. The price of a good or service is not the sole determining factor in assessing value for money. Other considerations such as vendor ability to meet our requirements below i.e. on quality and safety, ethical procurement, employee health and safety as well as environmental management are also important.

#### 2. We do not compromise on the quality and safety of our product and services

Our products are designed and manufactured, and our services provided, in a manner that seeks to reduce the risk of hazard to operators, the public, property and the environment. We apply our quality and safety practices in compliance with our company policy, contract requirements, applicable laws, regulations and standards. We expect our vendors to support this fundamental principle and we work closely with them to ensure that these practices are



adhered to strictly.

**3. We practise ethical procurement**

We strive to ensure full and open competition and to eliminate the possibility for unfair competitive advantages. Employees involved in procurement must observe high ethical standards and maintain fair and unbiased dealing with vendors. Honesty, integrity and transparency must be demonstrated via appropriate record-keeping and audit trails. We expect our vendors to respect and conform to these standards. We do not engage in business activities with a vendor who is designated a Specially Designated National by the US Department of the Treasury's Office of Foreign Assets Control or which may cause us to violate laws, rules and regulations in the various countries in which we operate.

**4. We protect the health and safety of our workers**

We are committed to work with our vendors to establish and maintain safe working conditions for their workers and to ensure that their activities do not adversely impact the health and safety of their workers by acquiring OSHAS 18001 (Occupational Health and Safety Management Systems) certification or equivalent standard.

**5. We protect the environment**

We adopt strategies to avoid unnecessary consumption and waste. Only materials and services that are necessary for the manufacturing and delivery of products and services to fulfil customers' orders, or required for the efficient and effective operation will be purchased. We minimise environmental impacts over the life of the goods and services by choosing products or services that have lower adverse impacts associated with any stage in their production, use or disposal. We are committed to work with our vendors to establish, maintain and improve their environmental management systems by acquiring ISO 14001 (Environmental Management Systems) certification or equivalent standard.

## 15. Community

ST Engineering is committed to being a good corporate citizen and a company our employees are proud to belong to. We support the lesser served segments of societies where we operate. We cultivate employees with compassion.

We believe that engineering and its study form a very important part of any STEM (science, technology, engineering and math) education programme. STEM capabilities are fundamental to how engineers find solutions to the problems everyday - from a multi-faceted and inter-disciplinary perspective. Thus, we seek to leverage on our unique expertise to promote and enable the development of STEM literacy in our communities.

### Why Is It Material?

Engineers build structures and processes for the benefit of human kind – what we design and build aims to improve and safe lives. Engineering skills are therefore crucial to building a better and sustainable society. We promote and advance the continuous learning in the engineering field with hope of ensuring a sustainable pipeline of engineers.

At ST Engineering, supporting communities where we operate enables us to cultivate employees with compassion, one of our core values. We are committed to be a good corporate citizen, a firm that our employees are proud to belong to.

### How We Manage?

We focus our efforts on the less fortunate in society. We contribute to the community both at the Group and business sector level. In recent years, ST Engineering has been exploring long-term partnerships with the community. In order to assess our contributions and impact on the community systematically, we adopt the London Benchmarking Guidelines. Besides contributing both charitable gifts and time to our local communities, we also leverage on our vast engineering resources and expertise to benefit the society at large.

We develop attachment programs and offer bond-free scholarships to students with the aim of exposing them to the exciting and challenging field of engineering.

In addition, through ST Kinetics, we have served the local chapter of the non-profit System Safety Society since its inception in 2003, and have been actively promoting system safety to organisations in Singapore and overseas.

## 16. Global Operations – United States

### 16.1 Our Approach

Vision Technologies Systems, Inc. (VT Systems) was established as the regional headquarter for all our legal entities in the United States. Reporting to the President and CEO of ST Engineering, the CEO of VT Systems has profitability oversight for the US as a region. Besides legal and financial responsibilities, the VT Systems CEO has responsibility for implementing sustainability policies for the US operations. The VT Systems Board reviews the sustainability performance of US operations before it is reviewed by the Risk & Sustainability Committee.

VT Systems business units conduct business with public sector customers, agencies or other representatives of federal, state, or local government regularly. As the laws related to contracting with the US Government are far reaching and complex, VT Systems have put in place policies and procedures to ensure that business with the Government are carried out in accordance with all applicable laws and regulations.

In the same light, policies and procedures are also in place to ensure that our business units operate in compliance with the local laws related to the environment, workplace safety and health. Sustainability programmes are developed with due consideration to these legislations in the US.

VT Systems is committed to providing equal opportunities for all employees in a work environment free from discrimination and harassment of any type. Our inclusive policies protect applicants and employees from discrimination based on race, colour, religion, sex, age, marital status, national origin, sexual orientation, citizenship status, disabilities or protected veteran status. Discrimination is prohibited in any condition of employment or career development. Each of VT Systems' operating subsidiaries also appoints a Compliance Officer who is responsible for communicating the policies, training of the personnel, as well as developing and maintaining a violation reporting mechanism. In order for employees to develop to their maximum potential and achieve their career goals, our employees undergo relevant periodic training. Training hours are tracked, reviewed and analysed (by employee categories and demographics).

As responsible corporate citizens, VT Systems and our employees in the US also support local communities and charities by providing voluntary services as well as financial and in-kind contributions. Decisions on such community engagement and charitable activities are made at the business unit level so as to ensure that our efforts are most meaningful and of the highest degree of relevance to the local community.