

ANNUAL REPORT 2018

ENGINEERING YOUR FUTURE

 **ST Engineering**



ST Engineering is a global technology, defence and engineering group headquartered in Singapore. As leaders of the aerospace, electronics, land systems and marine sectors, we leverage Industry 4.0 to create people-centric, multi-disciplinary smart engineering solutions.

Our Aerospace sector offers a wide spectrum of aircraft maintenance, engineering and training services for both military and commercial aircraft operators. These services include airframe, component and engine maintenance, repair and overhaul, aircraft design engineering and parts manufacturing, aviation materials and asset management, as well as pilot training.

Our Electronics sector specialises in the design, development and delivery of ICT products, solutions and services addressing the needs of Smart Cities for Connectivity, Mobility and Security.

Our Land Systems sector delivers advanced and customised land systems, security solutions and their related through-life support for defence, homeland security and commercial applications.

Our Marine sector provides turnkey and sustainable defence and commercial solutions in the marine, offshore and environmental engineering industries.

We serve customers in more than 100 countries from our global offices.



MIDDLE EAST

ASIA & OCEANIA

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FINANCIAL HIGHLIGHTS

OPERATING CASH FLOW

\$0.64b

2017: \$0.76b

-16%

ORDER BOOK

\$13.2b

2017: \$13.4b

-1%

EARNINGS PER SHARE

15.85¢

2017: 16.13¢

-2%

DIVIDEND PER SHARE

15.0¢

2017: 15.0¢

RETURN ON EQUITY

22.0%

2017: 22.7%

-0.7%
PTS

RETURN ON SALES

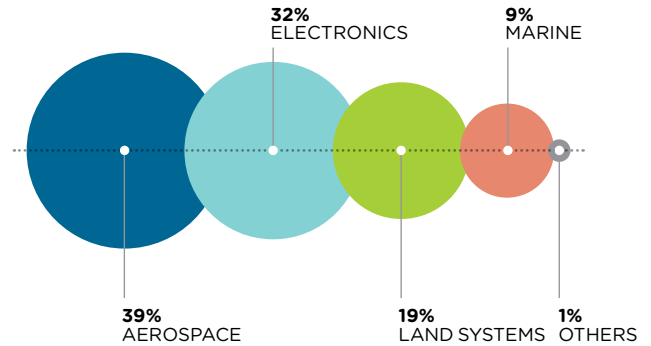
7.7%

2017: 8.1%

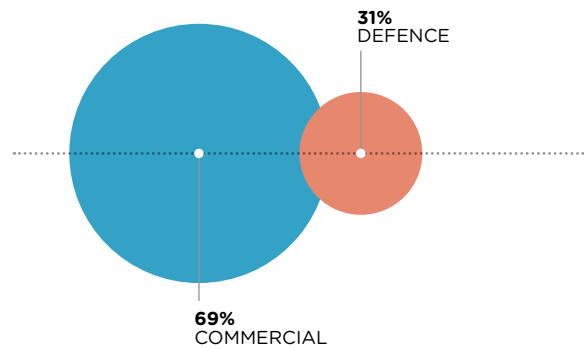
-0.4%
PTS

REVENUE BREAKDOWN

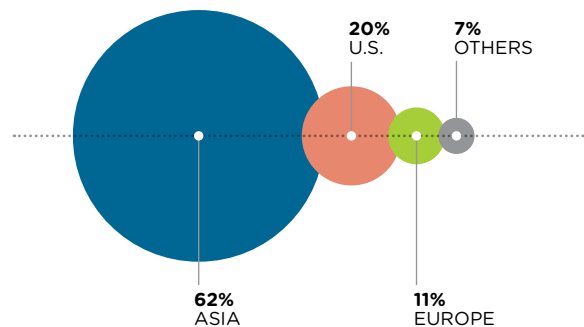
BY SECTORS



BY CUSTOMER TYPE



BY LOCATION OF CUSTOMERS



Comparative figures were restated on the adoption of Singapore Financial Reporting Standards (International) (SFRS(1)) with effect from 1 January 2018.

- Aerospace
- Electronics
- Land Systems
- Marine
- Others

REVENUE BY SECTOR (\$m)



\$6.70b

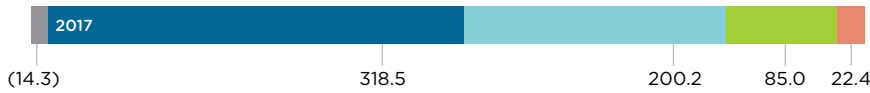


\$6.52b

PROFIT BEFORE TAX BY SECTOR (\$m)



\$620.7m



\$611.8m

NET PROFIT BY SECTOR (\$m)



\$494.2m



\$502.6m

LETTER TO SHAREHOLDERS

KWA CHONG SENG
CHAIRMAN

VINCENT CHONG
PRESIDENT & CEO

“ The year 2018 was busy and rewarding for us as we executed our strategy of building a foundation for growth and sustainable profitability. ”

Dear Shareholders

In 2018, discussions on Industry 4.0 intensified, as the world saw and experienced how technology was disrupting existing businesses and creating winners and losers. In addition, political developments such as the U.S.-China trade tensions and Brexit created much uncertainty that also negatively impacted economic growth around the world.

Fortunately, as a technology, defence and engineering group, we are on the right side of history. We strengthened our core segments and continued to drive changes to reap the benefits from disruption. The year 2018 was busy and rewarding for us as we executed our strategy of building a foundation for growth and sustainable profitability.

Throughout the year, while we were cautious about the short-term market outlook, our plans were not unduly influenced by quarter-to-quarter results. At the end of the financial year 2018, we delivered a resilient set of financial results, recording a 3% year-on-year (y-o-y) growth in Group revenue to \$6.70b. Compared to 2017, Profit before tax (PBT) grew 1% to \$620.7m and Profit Attributable to Shareholders (Net Profit) dropped 2% to \$494.2m. Excluding the \$37m one-off charges incurred, the Group would have fared better with a 7% y-o-y increase in PBT. These one-off charges were incurred for portfolio rationalisation, transaction cost of the proposed acquisition of MRA Systems (MRAS), and the early redemption of the MTN¹. Net Profit would have been 9% higher y-o-y if the one-off favourable U.S. tax adjustment

We ended 2018 with an order book of \$13.2b, providing the Group with a healthy pipeline of revenue for the next few years.

of \$20m recorded in 2017 was excluded as well.

At the business sector level, revenue for the Aerospace sector was 4% up y-o-y at \$2.65b and Net Profit was flat y-o-y at \$244.6m due to the MRAS acquisition-related expenses, partially offset by net divestment gains. Revenue for the Electronics sector grew 7% to \$2.14b and Net Profit was up 10% to \$186.5m. Net Profit for the Land Systems sector dropped 39% y-o-y to \$52.9m although its revenue grew 3% y-o-y to \$1.28b due to the absence of prior year's favourable U.S. tax adjustment, the divestment impact of its road construction business in India and full impairment charges for its road construction business and automotive MRO business in Brazil. At the Marine sector, while revenue dropped 10% y-o-y to \$574m mainly due to lower revenue recognition from its U.S. business, its Net Profit grew 67% to \$45.2m mainly due to better performance of its Singapore operations.

We continued to be well diversified in our revenue stream across business sector, geography and customer type. Revenue mix of the business sectors comprised 39% for Aerospace, 32% for Electronics, 19% for Land Systems and 9% for Marine. Geographically, business units in Asia including Singapore contributed 73% to Group revenue, while our business units in the U.S. and Europe generated 18% and 8% of Group

revenue respectively. Revenue split between Commercial and Defence sales was 69%:31%.

We ended 2018 with an order book of \$13.2b, providing the Group with a healthy pipeline of revenue for the next few years. We expect to recognise \$4.9b from the order book as revenue in 2019.

In 2018, we spent about \$335m on capital expenditure, about 23% more than what we spent in 2017. A significant portion of this expenditure was deployed for capacity expansion to support growth opportunities, such as our new composite manufacturing plant and new aircraft hangar in Germany for the Aerospace sector, and a building extension in the west of Singapore for our Electronics sector. We also funded the purchase of two aircraft for our aircraft leasing business.

Our cash and cash equivalent balance stood at about \$414m, after drawing down our cash for the early redemption of MTN. We remain committed to optimising cash flow, maintaining capital discipline and improving value and returns.

¹ US\$500m Notes issued under the Multicurrency Medium Term Notes (MTN) Programme.

LETTER TO SHAREHOLDERS

For our shareholders, your Board of Directors has recommended a final dividend of 10.0 cents per share. Together with the interim dividend of 5.0 cents per share paid to you in August 2018, the total dividend for the full year will be 15.0 cents per share. This represents a dividend yield of 4.4%, computed using the average closing share price of the last trading day of 2018 and 2017.

FIVE YEAR PLAN: CLEAR FOCUS AND STRATEGY

In March, we shared our five-year plan (2018-2022): the set of goals we have put in place to help us achieve our longer-term aspiration of becoming a global technology, defence and engineering powerhouse.

Our focus and strategy are clear. As presented on page 30, our plan consists of continuing to grow and strengthen our core businesses as well as pursuing new opportunities especially in international defence business and smart city. We will continue to invest our resources to strengthen our key assets and capabilities: our people and culture; our global marketing and customer network; our cutting-edge technology and our many innovations; and our financial strength.

We have also set specific targets: by 2022, we aim to double our revenue from our Smart City businesses to over \$2b; we want our core and other businesses to grow at a compound annual growth rate of two to three times annual global GDP growth rate; we are targeting to have two-thirds of our revenue growth come from overseas markets; and we want

to have our net profits grow in tandem with our revenue.

We are now intensely focused on executing our plan and in this annual letter, we will expand on our strategy to give our shareholders a clearer idea of the roadmap. The business developments and achievements of the four business sectors in 2018 are covered in the *Operating Review and Outlook section* on page 36 to 59.

We are now intensely focused on executing our plan to grow and strengthen our core businesses as well as pursuing new opportunities especially in international defence business and smart city.

Strengthening the Core.

Strengthening our core is about building lines of business that are globally competitive, whether in niche areas or in segments that have the potential scale and competence to be differentiated internationally.

Many of our businesses in the Aerospace sector are already well established. Our airframe MRO business continues to be the world leader; proven by the fact we were once again voted Overall MRO of the Year at the Aviation 100 MRO Global Awards. Our core in airframe, engines and components MRO services continues to perform, leading to further investments to expand our capacities in China and the U.S.. We continue to be a leader in the Passenger-to-Freighter conversion business, having now achieved the stringent programme requirements and milestones for our A330 and A320/A321 conversions. Our conversion programmes are tracking well in

terms of marketing, prototype development and redelivery to our customers.

Shipbuilding and ship repair continue to be strategic to us. What sets us apart in both the defence and commercial segments is our unique edge: we are just one of few shipyards in the world with a full range of capabilities to support the entire lifecycle of a ship, from ship design, shipbuilding and system

integration, to ship upgrades, repair and maintenance. In 2018, we focused on strengthening the operations and profitability of our Marine sector and built up our order book against bottom-of-the-market industry conditions. We saw an improved performance in the sector. The recovery, both in terms of financial performance and order book, reflects the strength, competence and resilience of our Marine business.

We are committed to growing our strategic lines of business and we have been keeping a constant lookout for acquisition targets that can contribute profitable revenue streams and sharpen our competitive edge. In this regard, we are excited by our proposed acquisition of MRAS, an established manufacturer of engine nacelle systems, which is a high-value, high IP content business that complements our Aerospace business. The addition of MRAS into the fold will enable our Aerospace sector to move

further up the value chain into the original equipment manufacturing business of high-value components. This acquisition will be our largest, and is expected to be earnings accretive for the Group and our Aerospace sector from the first year of the transaction close.

**Defence business:
Growing internationally
to pave way for the future.**

To succeed in the international defence business, we need to transition from a Singapore-based production model to one that is more collaborative and closer to our customers. We will pursue options such as the localisation of manufacturing or support operations in-country, the setting up of more teaming and joint venture agreements, licensing and technology transfer, as well as local capability investments.

The experiences from our participation in two large U.S. defence programmes, namely the engineering and manufacturing development programme for the U.S. Marine Corps *ACV 1.1* and the U.S. Army *Mobile Protected Firepower* programme, have furnished us with invaluable learning points and references for future competition. In the U.S. defence marine domain, we have secured contracts from the U.S. Navy for Auxiliary Personnel Lighter Berthing Barges and a new Oceanographic Survey Ship. We were also awarded a contract by a foreign government for two Logistics Support Vessels, to be designed and constructed in our U.S. shipyard.

We will continue our efforts to compete and win in future programmes in the largest defence market in the world. Outside the U.S. market, the other prospective markets include

the Middle East, Latin America and the UK.

We are focused on strengthening our niche defence solutions backed by a portfolio of innovative products such as our family of Infantry Fighting Vehicles, our Next Generation Armoured Fighting Vehicle platform, patrol vessels, 40mm munitions and weapon systems. We also have deep experience and engineering capability to design, build and integrate air, land and naval platforms.

**Smart City: Providing
urgently needed solutions
for municipal governments.**

To help our shareholders and investors better understand our focus, differentiation and strengths in Smart City, we have framed our solutions within three verticals: Smart Mobility, Smart Security and Smart Environment. These verticals are underpinned by enabling technologies and capabilities in cybersecurity, data analytics, digital connectivity, Internet of things, satellite communications, robotics and autonomous systems. Many of these business lines are not new to ST Engineering as we now hold a track record of more than 500 Smart City projects across 70 cities around the world.

We have clear goals for our Smart City business, targeting to achieve \$2b or more in revenue by 2022 from the \$1b revenue generated in

To help our shareholders and investors better understand our focus, differentiation and strengths in Smart City, we have framed our solutions within three verticals: Smart Mobility, Smart Security and Smart Environment.

2017. To get there, strategic partnerships in select areas and markets will be key building blocks to improving our channels. On this front, at the Group level, we have formed consortiums and signed several Memorandums of Understanding (MOU), including with Surbana Jurong and Changi Airport Planners and Engineers to participate in overseas airport development projects; with Keppel Urban Solutions to design and execute Smart City Masterplans in cities across Asia; and with JTC to design, develop and deploy an Open Digital Platform for the Singapore Punggol Digital District.

We have also intensified our Smart City expansion plans in the U.S., Southeast Asia and the Middle East, engaging government authorities and decision makers, and we are actively looking at Smart City projects such as those targeted at infrastructural upgrades. Our offerings will range from specific Smart City applications to more comprehensive end-to-end solutions. In addition, we have branded our integrated Smart City solutions suite as *CitySense*, aimed at addressing the mega-trend of urbanisation and targeting city planners who need customised, reliable and safe technology solutions that are weaved seamlessly into urban planning and development.

LETTER TO SHAREHOLDERS

We are on the right path to achieving our Smart City revenue target, backed by robust orders. Currently, the Electronics sector is the largest contributor to our suite of Smart City solutions but in time to come the Land Systems sector will also contribute with its enhanced capabilities and offerings in robotics and autonomous systems.

Building Global Success.

Today, business competition may stem from big and established enterprises or from start-ups with ingenious and disruptive business models. Our five-year target to achieve two-thirds of our five-year growth revenue from outside Singapore was set with this knowledge. This calls for increased focus and efforts to leverage group scale to better position us to make a greater impact on the world stage.

The adoption of ST Engineering as our masterbrand, moving away from a portfolio of corporate brands, is a significant step taken to leverage group strength for greater impact. Most of our corporate brands were harmonised in June and the change for our U.S. businesses is expected to be completed in 2019. Going to market as one ST Engineering strengthens the cross-selling of our integrated solutions and facilitates deeper stakeholder engagement, which is especially important when entering new markets or segments. A stronger corporate brand also helps to attract and retain talent.

To thrive globally in the longer-term, we need to stay innovative and nimble. Our strategy is to strengthen

collaborations with our industry partners such as Siemens, Cisco, IBM, Keppel and many others to capture new growth internationally or co-create new solutions to deliver greater value. On this front, our MOU for a Strategic Growth Partnership with the Singapore Economic Development Board will catalyse growth opportunities as we jointly identify and develop growth strategies to build globally competitive businesses in selected industries for both ST Engineering and Singapore, beginning with robotics, smart mobility and health technology.

To thrive globally in the longer-term, we need to stay innovative and nimble. Our strategy is to strengthen collaborations with our industry partners to capture new growth internationally or co-create new solutions to deliver greater value.

To support our global growth aspiration, we continue to focus on our people. On page 74, you will read about the significant progress we made in 2018 as part of our journey to build a global, future-ready and high-performing workforce.

Our lifeblood: Technology and Innovation.

In our previous letters to you, we discussed our focus on technology and innovation extensively and outlined how we have been gearing up to embrace Industry 4.0. The year 2018 was no different as we continued our efforts to retool the Group for the challenges ahead. We set up two Strategic Technology Centres to develop deep capabilities in data

analytics and cybersecurity. These centres will provide group-wide support for our efforts to further differentiate our products and solutions. We are readying our workforce as well. Our top 100 managers attended data analytics and cybersecurity executive workshops, leading to a mindset shift from the top. We also put our engineers through courses that are targeted at further enhancing their domain expertise in fast evolving areas such as cybersecurity, robotics and data analytics.

We recognise that we cannot build all our capabilities internally, hence the need for increased collaboration with external technology partners and institutes of higher learning to leverage each other's expertise. Our Corporate Venture Capital unit made four investments in promising technology start-ups with strong capabilities in data analytics, cybersecurity for rail transportation and autonomous vehicles, as well as in transportation technology. Our Open Innovation Lab continues to be an innovation exchange for our engineers to co-create and innovate ideas.

As we seek growth in our strategic thrusts, we

will continue to hone our competitive strengths and prioritise initiatives central to our growth. When necessary, we will make tough decisions to streamline or rationalise our business portfolio. In doing so, we can sharpen our management focus, unlock value and recycle capital to strategic and growth businesses which can yield us better returns. Our specialty vehicle business in India as well as the pilot training business in the U.S. are examples of businesses which no longer fit into our future growth plans, hence leading to their divestment.

STRENGTHENING MANAGEMENT BENCH WITH NEW POSITIONS

In 2018, we created new management positions. We recruited a President of New Ventures and Enterprise to drive our advancement into new business areas such as health and medical technology. We also created a Chief Digital Officer role to lead our digitalisation efforts and to support our increasing efforts to drive a 'think digital think data' culture.

In the U.S., General (Ret.) John Coburn who helmed our headquarters there for 17 years handed over his executive role to Tom Vecchiolla in December, while remaining as non-executive Chairman of our U.S. Advisory Board. Tom, who possesses a wealth of experience in the defence industry, with 17 years in the private sector and 24 years in the public and military sectors, will work along the Management Committee to achieve our U.S. growth ambitions.

CORPORATE GOVERNANCE AT THE HEART OF OUR BUSINESS

Good corporate governance continues to be at the heart of our businesses and this is a commitment shared by the Board, the management team and all employees. As in the past, our Sustainability Report, from page 76 sets out the Group's environmental, social and governance performance for the year.

We are pleased to report that as part of our continuous effort to enhance our governance structure, a new Risk and Assurance function overseeing governance, risk management and compliance will be formed in the second half of 2019.

BOARD RENEWAL AND REJUVENATION

As part of a continuous effort to renew and rejuvenate the board, several changes were made. Olivia Lum Ooi Lin retired as an independent non-executive Director in April. LG Lim Cheng Yeow Perry resigned as a non-independent non-executive Director — along with his Alternate Director, RADM Alan Goh Kim Hua — in May when he stepped down as the Chief of Defence Force, Ministry of Defence. Neo Kian Hong resigned in August as a non-independent non-executive Director when he stepped down as Permanent Secretary (Defence Development) in the Ministry of Defence. Dr Stanley Lai Tze Chang resigned as an independent non-executive Director in late December.

LG Ong Su Kiat Melvyn was appointed as a non-independent non-executive Director, with COL Xu Youfeng as his

Alternate Director in June. Lim Chin Hu and Song Su-Min became independent non-executive Directors in July and September respectively.

We thank our former directors for their invaluable contributions and we look forward to working with our new directors as they expand the breadth and strength of our Board.

OUR APPRECIATION

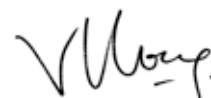
We also want to take this opportunity to show our appreciation to our employees who, in their own way and collectively, have made us a better and stronger organisation. To our customers, business partners and shareholders, we look forward to your steadfast support as we continue our path of sustainable growth and value creation.

We firmly believe that ST Engineering's best years are ahead of us. We are poised for sustained growth backed by the winning combination of our people, our strategy as well as our proven strengths in technology and innovation. We would like to thank you for believing in us and for joining us on this journey.

Sincerely,



KWA CHONG SENG
Chairman



VINCENT CHONG
President & CEO

致股东的信

各位股东：

2018年，随着世界目睹并经历了科技如何颠覆现有业务、如何创造赢家和输家，对于工业4.0的讨论进一步升温。此外，中美贸易争端、英国脱欧等政治发展带来的诸多不确定性也对世界经济增长产生了负面影响。

但身为一间科技、国防和工程集团，我们不仅强化了核心业务，也不断的推动变革以便在这科技日新月异的时代中获利。2018年对我们来说是忙碌而获益不浅的一年，这都归功于我们实施的政策：为增长及可持续盈利奠定坚实的基础。

这一整年下来，虽然我们对短期市场的前景持谨慎态度，但我们并未受到季度业绩的过度影响。在2018财政年度末，我们不负众望，取得一整套稳定的财务业绩，集团收入同比增长3%至67亿元。与2017年相比，税前利润(PBT)增长1%至6.2亿元，股东应占利润(净利润)下降2%至4.94亿元。如果不是因为出现3700万元的一次性费用，本集团会取得同比增长7%的亮眼成绩。这些一次性费用是因为投资组合合理化，拟议收购MRA Systems(MRAS)的交易成本以及提前赎回MTN而产生的。如果也将2017年记录的2000万元的一次性有利美国税收调整排除在外，那么净利润将同比增长9%。

在业务方面，宇航业务的收入同比增长4%至26.5亿元，净利润同比持平，为2.446亿元，原因是收购MRAS的相关费用被撤资收益部分抵消。电子业务的收入增长7%至21.4亿元，净利润增长10%至1.865亿元。尽管陆路系统业务收入同比增长了3%至12.8亿元，但由于今年并无上述前一年的一次性有利美国税收调整，道路建设业务在印度撤资所造成的影响，以及为巴西的

我们以总价值高达132亿元的订单额完美的为2018年画上句号，保障了集团未来几年的稳健收益。

道路建设业务和车辆MRO业务支付了全部的减损费用，其净利润同比下降39%至5290万元。在海业务，虽然因为其美国业务的收益确认性下降而造成收入同比下降10%至5.74亿元，但其净利润却因为新加坡业务的表现良好而增长了67%至4520万元。

我们在各业务范围、地理位置和客户类型方面，继续保持了收入来源的多元化。宇航业务收入组合占39%、电子业务占32%、陆路系统占19%、海业务占9%。在地理位置上，包括新加坡在内的亚洲业务部门对集团收益贡献了73%，而我们在美国和欧洲的业务部门分别占集团收益的18%和8%。商业和国防业务销售收入分成69%:31%。

我们以总价值高达132亿元的订单额完美的为2018年画上句号，保障了集团未来几年的稳健收益。2019年，我们预期将从订单中获得49亿元的收益。

2018年，我们花费了大约3.35亿元用于资本支出，比2017年的支出多出约23%。这笔支出的很大一部分用于扩大产能以支持增长机会，例如在宇航业务方面，我们在德国建立了新复合材料制造工厂和新飞机库，在电子业务方面，我们对位于新加坡西部的办公楼展开了一次主要的扩建工程。我们还为我们的飞机租赁业务购买了两架飞机。

用现金提早赎回了MTN之后，我们的现金及现金等价余额约为4.14亿元。我们始终致力于现金流的最大化、维持资本管理控制和提高价值与回报。

对于股东，董事会已建议派发每股10.0分的末期股息。连同2018年8月支付的每股5.0分的中期股息，全年的股息总额将为每股15.0分。根据2018年和2017年最后交易日的平均收盘价来计算，股息收益率为4.4%。

五年计划：明确的重点和战略

为了实现成为全球科技、国防与工程产业佼佼者的长远期望，我们在三月份分享了由我们持续从长远的观点评量营运及资本配置规划。

我们的五年计划(2018-2022)制定了明确的目标和策略。如同在第30页介绍的，我们计划在增长并强化核心业务的同时也积极寻求新商机，特别是在国际国防业务和智能城市这两个领域。我们将持续投入资源来培养人才、强化企业文化及全球营销与客户网络、研发尖端科技并鼓励技术创新、加强财务实力等关键资产与能力。

我们设定的四大目标包括将智能城市业务的营收在2022年前翻番至超过20亿元、核心及其他业务领域的年复合增长率能达到全球国内生产总值年增长率的二至三倍、三分之二的集团总营收增长来自海外市场及净利能与营收齐步增长。

我们非常专注于执行这项计划，并在此通过这份报告书让股东对于计划的发展蓝图有更清楚的了解。有关我们2018年在四个核心业务取得的进展及成绩，请参阅第36至59页的“运营评鉴与展望”以获取更多详情。

要强化核心业务，我们必须打造具有全球竞争力、高辨识度并有潜力扩大商业规模的业务线。

在这方面，我们纯熟的宇航业务已享有稳固的市场定位。我们在2018年再度获得Aviation 100全球飞机维修大奖的年度整体维修服务商奖，奠定了我们机身维修业务世界第一的名次。我们在机身、引擎和组件维修服务方面的核心业务持续表现优异，这促使我们进一步在中国及美国扩充产能。我们继续保持客货机改装业务的领导地位，如今已达成A330和A320/A321改装计划的严格要求及里程碑。我们的客货机改装项目在营销、原型开发及交付给客户方面的目标均已顺利达成。

造船及船舶维修依然是本集团的核心业务。我们是全球少数能为船东提供全面解决方案的船厂，包括船舶设计、建造、系统安装或合成、改装、升级和维修等服务。这独特优势使本集团在商业与国防业务领域取得突出的成就。强化海事业务的运营及盈利能力和追加订单量是我们2018年的重点工作。海事业务的表现的确已获得改善，不论是财务绩效或订单量都已见好转，显现出我们海事业务的实力、能力及抗逆力。

我们致力于拓展我们的战略业务线，并寻找对本集团营收获利及竞争力有益的收购标的。收购MRAS这项即高价值又富有知识产权的互补业务令我们

感到非常振奋。MRAS的加入将使我们的宇航业务能够切入高价值组件的原始设备制造领域，在价值链中更上一层楼。这是我们迄今为止最大的一笔收购案，可望在成交后的第一年就为本集团及宇航业务的营收带来增值效应。

国防业务：扩大国际业务为日后发展奠定基础。我们将持续提高本集团在国防业务领域的竞争力。我们目前着重于加强我们特有的国防全面方案和研发创新产品组合，例如步兵作战车、新一代装甲战车、巡逻艇、40mm弹药和武装系统。我们对于设计、建造及整合海、陆、空平台，同样具备丰富的经验与深厚的工程能力。我们也将采取各种备选方案扩大国际出口，如寻求本地化生产或产能投资、缔结更多合资协议、授权与技术转移等。

在参与竞标美国海军陆战队ACV 1.1及美国陆军Mobile Protected Firepower这两项项目的过程中，我们吸取了许多宝贵经验可供我们作为日后竞标的参考。我们成功地与美国海军签订了两份合同，也赢得为一个海外政府设计及建造两艘物流供应船的合同。这让我们更积极加入全球各大国防市场的竞争，并更有信心赢得胜利。除了美国以外，其他潜在市场包括中东、拉丁美洲及英国。

智能城市：为市级政府提供迫切需要的解决方案。为使股东们更容易了解本集

团在智能城市业务领域的发展重点、辨识策略与市场优势，我们特别将智能城市的发展重点分为智能移动、智能安全及智能环境三大垂直行业。网络安全、数据分析、数据连接、物联网、卫星通讯、机器及自主系统方面的技术将遍布各个垂直行业的业务和平台。至今，我们已在全球70个城市部署了超过500项智能城市方案。

我们为智能城市业务定下了明确的目标，计划将其营收从2017年的10亿元在2022年前翻番至20亿元。为达成这个目标，我们将在特定地区与市场建立战略合作伙伴关系，作为强化通路的重要手段。为此，我们缔结联盟并签订了几个合作备忘录，包括与Surbana Jurong和Changi Airport Planners and Engineers合作参与外国机场发展项目，与Keppel Urban Solutions一同设计、规划与执行亚洲多个城市的智能城市总蓝图，以及与JTC合作设计、开发及部署榜鹅数码园区的开放智能平台。

我们还加紧推动在美国、东南亚及中东与政府当局合作的智能城市拓展计划，并积极寻求机会参与以基础设施建设升级为目的的智能城市项目。我们提供的服务将从特定智能城市应用到全方位的端对端解决方案。此外，为因应都市化的大趋势，我们还为集团旗下的整合式智能城市解决

要强化核心业务，我们必须打造具有全球竞争力、高辨识度并有潜力扩大商业规模的业务线。

致股东的信

方案配套推出全新品牌CitySense。目标客群锁定需要可靠、安全并能与都市计划和开发项目无缝衔接的定制解决方案的城市规划人员。

我们继续往智能城市营收目标的道路上前进。我们至今承接的订单包括了规模较大的智能城市相关项目。目前，电子业务仍占智能城市营收的最大比例，但尔后陆路系统业务也将凭借其在机器技术和自主系统领域的实力及新增产品带来营收贡献。

我们如今的商业竞争对手大有改变。除了大型的老牌企业，也有商业手法巧妙及拥有突破性商业模式的新创公司。若要达成五年计划中三分之二营收增长来自海外市场的目标，我们更须凭借集团独有的跨业务工程科技、技术和资源提高我们在国际市场的辨识度和竞争力，扩展知名度。

舍弃多品牌策略，以ST Engineering作为集团主要品牌，是运用集团优势提高影响力的重要一步。集团旗下大部分的品牌都已在六月份完成整合，美国业务的变革订于2019年完成。以单一品牌进军市场，不仅能利用交叉销售提高整合式解决方案的业绩，还能深化利害关系人的参与，这在我们进入新市场或业务领域时尤其重要。更为强大的公司品牌也有助我们吸引及留住人才。

为了在全球市场中创造长久的荣景，我们需要保持敏捷并持有不断创新的能力。我们的战略是与Siemens、Cisco、IBM、Keppel等业界头公司建立合作伙伴关系，以抓住世界各地的新增长机会，或共创能缔造更高价值的新解决方案。为此，我们与新加坡经济发展局签署了合作备忘录，双方将密切

舍弃多品牌策略，以ST Engineering作为集团主要品牌，是运用集团优势提高影响力的重要一步。

合作，物色一些行业例如机器技术、智能移动和保健科技等，制定增长策略以及进行发展。

致力于培养和训练人才仍是集团非常重视的一项要务。您可以在第74页了解我们在2018年打造全球化高绩效未来人才的道路上取得的重要进展。

在之前的致股东报告中，我们已讨论技术与创新对集团的重要性，并大略讲述了我们要如何加速向工业4.0转型。在2018年，集团同样为了迎接挑战而努力更新调整。我们成立了两个战略科技中心，以强化我们在数据分析与网络安全方面的能力。这两个中心将作为整个集团的后盾，协助我们进一步加强产品与解决方案的辨识度。除此之外，本集团的100名主管参加数据分析与网络安全研讨会，希望从上而下带动员工思维的转变。我们还为工程师安排课程，以进一步强化他们在网络安全、机器技术及数字化等快速发展领域的专业能力。

我们体认到不能单凭内部强化能力，我们还需要与外部的技术合作伙伴与高等教育机构协同合作，以达到彼此取长补短的互利成效。我们通过创业基金投资于四间前景可期的科技新创公司。这四间公司分别具有数据分析、铁路运输网络安全、无人驾驶车及运输科技方面的技术或能力。我们的开放创新实验室也持续为工程师提供一个共同创造及发想创意的交流平台。

随着我们的增长策略转向战略进攻模式，我们将持续强化我们的竞争实力并优先实施对增长有利的计划。必要时，我们将做出精简或梳理业务线的艰难决定。因为只有如此，我们才能强化业务重点、并且使资金回流到能创造更高价值与回报率战略增长领域。我们在印度的特种车辆业务以及在美国的飞行训练业务，都是因为不符合未来的增长计划而需要撤资的范例。

通过新职位强化管理团队

我们在2018年设立了新的管理职位。我们招聘了一位新业务与创业总裁来拓展如医疗保健科技的业务领域。我们还设置了一位首席数码业务总监，负责带领集团进行数字化转型，并为我们积极打造的‘数字及数据思维’文化。

掌管美国总部达17年的退役将军John Coburn已在十二月将职权交给Tom Vecchiolla，但仍续任美国咨询委员会的非执行董事长一职。Tom拥有丰富的国防工业从业经验，曾在私人公司任职17年，并在公共和军事部门工作24年，他将与管理委员会一同携手达成我们在美国的增长目标。

企业管治为我们业务发展的关键

良好的企业管治架构仍然是集团永续发展的关键，同时也是董事会、管理

团队及所有员工必须共同遵守的约定。与往年一样,我们的可持续发展报告从第76页起列明了本集团今年度的环境、社会和治理表现。

为确保企业管治架构更加健全完善,我们即将在2019年下半年设置一个风险审计新部门,专门负责监督公司治理、风险管理与法令遵循情况。

董事会更新与振兴

为了持续更新董事会的成员,我们做了一些人事更动。林爱莲女士已在四月份卸下独立非执行董事一职。林清耀中将在五月份卸下国防部三军总长的职务后也连同其代任董事吴钦华少将卸下非独立非执行董事一职。梁建鸿先生在卸下国防部常任秘书(国防发展)的职务后,同时在八月份卸下非独立非执行董事一职。黎智昌博士在十二月底卸下独立非执行董事一职。

王赐吉中将在六月份被任命为非独立非执行董事,并由许友丰上校担任其代任董事。林振富与宋素绵分别在七月及九月成为独立分执行董事。

我们在此向各位董事会的前任董事们致上最深的谢意,感谢他们的宝贵贡献,并在此期许我们的新任董事能够为董事会带来新的气象。

致谢

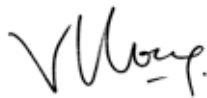
我们也借此机会向我们的员工致谢,感谢他们为集团的发展所做的贡献。在迈向可持续增长及价值创造的道路上,我们希望客户、业务合作伙伴与股东们能继续给予我们坚定的支持。

我们坚信ST Engineering更辉煌的时代即将到来。我们将凭藉我们人才、战略与科技创新实力,创造集团的可持续增长。感谢各位对我们的信任与这一路以来的陪伴。

此致,



柯宗盛
主席



钟思峰
总裁兼首席执行官

BOARD OF DIRECTORS

The names of the directors holding office at the date of this report are set out here together with details of their academic and professional qualifications, age, date of first appointment as Director, date of last re-election as Director, as well as other directorships and principal commitments.



KWA CHONG SENG

CHAIRMAN
NON-EXECUTIVE INDEPENDENT DIRECTOR

Date of first appointment as a Director:
1 September 2012

Date of appointment as Chairman:
25 April 2013

Date of last re-election as a Director:
20 April 2018

Kwa Chong Seng, 72, is Chairman of ST Engineering. He has more than 40 years' experience in the petroleum industry having served as Chairman and Managing Director of ExxonMobil Asia Pacific Pte. Ltd. before retiring in 2011. Chong Seng is currently the Chairman of Singapore Exchange Limited* and Deputy Chairman of the Public Service Commission, Singapore. He also serves on the board of SeaTown Holdings Pte. Ltd. and is a member of the Defence Science & Technology Agency (DSTA). Chong Seng is also the Chairman of the Advisory Committee of Dymon Asia Capital Ltd. He graduated from the former University of Singapore with a Mechanical Engineering degree. Chong Seng was awarded the Distinguished Engineering Alumni Award by the National University of Singapore (NUS) in 1994 and is a Fellow of the Academy of Engineering Singapore. In 1999, he was conferred the Honorary Ningbo Citizenship. Chong Seng was awarded the Singapore Public Service Star in 2005 and the Singapore Public Service Star (Bar) in 2016.



VINCENT CHONG SY FENG

PRESIDENT & CEO
EXECUTIVE DIRECTOR

Date of first appointment as a Director:
1 October 2016

Due for re-election at the 2019
AGM under article 100 of the
Company's Constitution

Vincent Chong, 49, is the President & Chief Executive Officer (CEO) of ST Engineering. He joined ST Engineering Group in April 2014, first as President of Strategic Plans & Business Development at the Aerospace sector and later as the Group's Deputy CEO (Corporate Development) before his appointment as President & CEO of ST Engineering. Vincent had a 20-year global career in the petroleum industry holding a variety of technical, operations and senior management positions from refining & supply, product marketing, to strategic planning. He is a board member of JTC Corporation and also a member of the Ministry of Trade and Industry's International Advisory Panel for Advanced Manufacturing & Engineering. Vincent graduated with First Class Honours in Mechanical Engineering from NUS. He has also attended executive leadership programmes at the Thunderbird School of Global Management and the Columbia Business School.

* Listed on the SGX-ST



QUEK SEE TIAT

NON-EXECUTIVE
INDEPENDENT DIRECTOR

Date of first appointment as a Director:
1 July 2013

Date of last re-election as a Director:
21 April 2017

Quek See Tiat, 64, is President of the Council for Estate Agencies. Prior to this, he was Chairman of the Building and Construction Authority, Singapore until 31 March 2016. He retired as Deputy Chairman of PricewaterhouseCoopers Singapore in 2012, after a career in the firm that spanned 31 years. See Tiat is a board member of Singapore Press Holdings Ltd*, Temasek Foundation Connects CLG Limited and the Monetary Authority of Singapore. He was conferred the Public Service Medal in 2009 and the Public Service Star in 2014. See Tiat holds a Bachelor of Science (Economics) (Honours) from the London School of Economics and Political Science, and is a Fellow of the Institute of Chartered Accountants in England and Wales.

* Listed on the SGX-ST



LIEUTENANT-GENERAL ONG SU KIAT MELVYN

NON-EXECUTIVE DIRECTOR

Date of first appointment as a Director:
8 June 2018

Due for re-election at the 2019
AGM under article 106 of the
Company's Constitution

LG Ong Su Kiat Melvyn, 43, is the Chief of Defence Force in Singapore's Ministry of Defence (MINDEF). LG Ong joined the Singapore Armed Forces (SAF) in 1994 and has held a broad range of staff command appointments in the course of his military career. He also served as the Deputy CE of the Early Childhood Development Agency from 2013 to 2014. LG Ong is currently a board member of JTC Corporation. He holds a Bachelor of Science (Economics) (Honours) and a Master of Science (Development Studies) from the London School of Economics and Political Science.



QUEK GIM PEW

NON-EXECUTIVE DIRECTOR

Date of first appointment as a Director:
15 August 2016

Date of last re-election as a Director:
21 April 2017

Quek Gim Pew, 61, is the Chief Defence Scientist of MINDEF. Prior to this, he was CEO of DSO National Laboratories (DSO). Gim Pew is the Chairman of ATREC Pte Ltd, Governing Board for the Centre for Quantum Technologies and Temasek Defence Systems Institute Management Board (NUS). He is also a member of DSO, the Agency for Science, Technology & Research Board, SMRT Trains Ltd and DSTA. Gim Pew holds a Bachelor of Engineering (First Class Honours) (Electrical Engineering) from NUS and a Master of Science (Distinction) in Electrical Engineering from the Naval Postgraduate School, USA. He is a Fellow of The Academy of Engineering Singapore.

BOARD OF DIRECTORS



KHOO BOON HUI

NON-EXECUTIVE INDEPENDENT DIRECTOR

Date of first appointment as a Director:
1 September 2010

Date of last re-election as a Director:
21 April 2017

Khoo Boon Hui, 64, is a Senior Fellow of the Home Team Academy and the Civil Service College. Prior to this, he was Senior Fellow of the Ministry of Home Affairs (MHA) and Senior Advisor, MHA until 30 November 2016 and 20 January 2016 respectively. Boon Hui was appointed Commissioner of the Singapore Police Force (SPF) in July 1997, and relinquished this post in January 2010 after serving 32 years in the SPF to become Senior Deputy Secretary, MHA till January 2015. He was also the President of INTERPOL from 2008 to 2012. Boon Hui is currently Chairman of Singapore Island Country Club and a board member of Singapore Health Services Pte Ltd, Ministry of Health Holdings, the Casino Regulatory Authority, Certis CISCO, Ensign Infosecurity Pte Ltd and Temasek Foundation International CLG Limited. He is a Senior Advisory board member of Cognifyx Pte Ltd, a member of the Palo Alto Networks Public Sector Advisory Council and the Board Financial Crime Risk Committee of Standard Chartered Bank. Boon Hui is also a Commissioner of the Global Commission on the Stability of Cyberspace. He holds a Bachelor of Arts (Engineering Science & Economics) degree from Oxford University and a Master in Public Administration from the Harvard Kennedy School of Government. Boon Hui also attended the Advanced Management Program at the Wharton School.



DR BEH SWAN GIN

NON-EXECUTIVE INDEPENDENT DIRECTOR

Date of first appointment as a Director:
1 September 2014

Date of last re-election as a Director:
20 April 2018

Dr Beh Swan Gin, 51, is Chairman of the Singapore Economic Development Board (EDB). Prior to this, he was Permanent Secretary of the Ministry of Law from 1 July 2012 to 30 November 2014. Dr Beh serves as Chairman of EDBI Pte Ltd and EDB Investments Pte Ltd, and is also a Director of Ascendas-Singbridge Pte. Ltd., Enterprise Singapore, Human Capital Leadership Institute Pte Ltd and Temasek Foundation Connects CLG Limited. He is a medical doctor by training and graduated from NUS. In addition, Swan Gin is a Sloan Fellow with a Master of Science in Management from Stanford University's Graduate School of Business, and completed the Advanced Management Program at the Harvard Business School in 2012.

**LIM SIM SENG**

NON-EXECUTIVE INDEPENDENT DIRECTOR

Date of first appointment as a Director:
15 May 2015Due for re-election at the 2019
AGM under article 100 of the
Company's Constitution**LIM AH DOO**

NON-EXECUTIVE INDEPENDENT DIRECTOR

Date of first appointment as a Director:
10 November 2015Due for re-election at the 2019
AGM under article 100 of the
Company's Constitution**LIM CHIN HU**

NON-EXECUTIVE INDEPENDENT DIRECTOR

Date of first appointment as a Director:
16 July 2018Due for re-election at the 2019
AGM under article 106 of the
Company's Constitution

Lim Sim Seng, 60, is currently the Group Head of Consumer Banking Group & Wealth Management of DBS and Chairman of DBS Vickers Securities Holdings Pte Ltd. Sim Seng was a senior banker for 26 years with Citibank before joining DBS in 2010 as Country Head, DBS Singapore. With Citigroup/Citibank, he served Citigroup in various senior appointments in Kuala Lumpur, Tokyo, New York, Saudi Arabia, Singapore and Hong Kong. He is the Chairman of Singapore Land Authority. Sim Seng is a Director of DBS Securities (Japan) Company Limited and Nikko Asset Management Co., Ltd. He serves as the Singapore's High Commissioner (Non Resident) to the Federal Republic of Nigeria. He was a Japanese Government Monbusho scholar and graduated with a Bachelor in Business Administration from Yokohama National University, Japan.

Lim Ah Doo, 69, was formerly the President and subsequently the non-executive Vice Chairman of RGE Pte Ltd. Ah Doo's past working experience includes an 18-year banking career in Morgan Grenfell from 1977 to 1995, during which he held several key positions including that of Chairman of Morgan Grenfell (Asia) Limited. He is the Chairman of Olam International Limited* and also an independent Director of GP Industries Ltd*, U Mobile Sdn Bhd, GDS Holdings Limited# and STT GDC Pte. Ltd. Ah Doo graduated with an honours degree in Engineering from the Queen Mary College, University of London and a Master in Business Administration from the Cranfield School of Management.

Lim Chin Hu, 60, has over 30 years of experience in the info-communications industry. He was formerly CEO of Frontline Technologies & British Telecoms South East Asia. Chin Hu held management positions in Hewlett-Packard Singapore and Managing Director of Sun Microsystems Pte Ltd (now Oracle). He is a Director of Kulicke & Soffa Inc#, Singapore Exchange Limited*, Citibank Singapore Limited, Heliconia Capital Management Pte Ltd and Singapore Health Services Pte Ltd. Chin Hu holds a Bachelor of Science from La Trobe University, Melbourne, Australia and is a Fellow of the Singapore Institute of Directors.

* Listed on the SGX-ST

Listed on the Nasdaq Stock Market

BOARD OF DIRECTORS



SONG SU-MIN

NON-EXECUTIVE INDEPENDENT DIRECTOR

Date of first appointment as a Director:
16 September 2018

Due for re-election at the 2019
AGM under article 106 of the
Company's Constitution

Song Su-Min, 45, is a Partner of Allen and Gledhill LLP. Su-Min was admitted to the Singapore Bar in 1997 and the Bar of England and Wales, Middle Temple in 1996. She specialises in single and multi-jurisdictional mergers and acquisitions, domestic and international joint ventures and corporate restructuring, and advises generally on corporate and commercial law. Su-Min has substantial experience in advising private equity firms on their take-private transactions, and companies in their venture capital fund raisings. She is recognised as a noted practitioner in Corporate/M&A by Chambers Asia-Pacific and noted for her work in other publications such as The Legal 500 Asia Pacific and IFLR1000. Su-Min obtained her law degree from the University of Kent at Canterbury.



COLONEL XU YOUFENG

ALTERNATE DIRECTOR TO LIEUTENANT-GENERAL
ONG SU KIAT MELVYN

Date of appointment as an Alternate Director:
8 June 2018

COL Xu Youfeng, 36, is Commander, 7th Singapore Infantry Brigade of SAF. Youfeng has held various command and staff positions in MINDEF since 2001. He was awarded the President's cum SAF Overseas Scholarship. Youfeng holds a Master of Science with Distinction in Optics and Photonics, (Science) from the Imperial College of Science, Technology & Medicine, University of London, UK.

PAST DIRECTORSHIPS IN THE LAST THREE YEARS

KWA CHONG SENG

- APL (Bermuda) Ltd.
- APL Co. Pte Ltd
- APL Limited
- Automar (Bermuda) Ltd.
- Delta Topco Limited
- Neptune Orient Lines Limited
- NOL Liner (Pte.) Ltd
- Olam International Limited*

VINCENT CHONG SY FENG

- Singapore Technologies Dynamics Pte Ltd
- ST Aerospace Resources Pte. Ltd.
- ST Engineering Aerospace Ltd.
- ST Engineering Electronics Ltd.
- ST Engineering Land Systems Ltd.
- ST Engineering Management Services Pte. Ltd.
- ST Engineering Marine Ltd.

QUEK SEE TIAT

- Building and Construction Authority
- Energy Market Authority
- Neptune Orient Lines Limited

LIEUTENANT-GENERAL ONG SU KIAT MELVYN

- ST Engineering Land Systems Ltd.

QUEK GIM PEW

- ST Electronics (Satellite Systems) Pte. Ltd.
- Temasek Laboratories@ NUS Management Board
- Temasek Laboratories@ NTU Management Board
- Temasek Laboratories@ SUTD Management Board

KHOO BOON HUI

- Quann World Pte Ltd
- International Centre for Sport Security
- TechTrace Advisory Board (Switzerland)
- The International Advisory Board of Policing: A Journal of Policy and Practice (UK)

DR BEH SWAN GIN

- Esplanade Co. Ltd
- Human Capital Leadership Institute (now known as Agilead Limited)
- ST Engineering Electronics Ltd.

LIM SIM SENG

- ASEAN Finance Corporation Limited
- ST Engineering Aerospace Ltd.

LIM AH DOO

- Bracell Limited
- SembCorp Marine Limited*
- SM Investments Corporation
- ST Engineering Marine Ltd.

LIM CHIN HU

- Changi General Hospital Pte Ltd
- Keppel DC REIT
- Personal Data Protection Commission
- Telstra Corporation Limited®

* Listed on the SGX-ST

® Listed on the Australian Securities Exchange

ADDITIONAL INFORMATION ON DIRECTORS SEEKING RE-ELECTION

	VINCENT CHONG SY FENG	LIM SIM SENG
Date of Appointment	1 October 2016	15 May 2015
Date of last Re-appointment (if applicable)	21 April 2017	21 April 2016
Age	49	60
Country of principal residence	Singapore	Singapore
The Board's comments on this appointment (including rationale, selection criteria, and the search and nomination process)	Vincent has 20 years of global business and management experience. His leadership will continue to benefit ST Engineering and set the direction of growth for the ST Engineering Group.	Sim Seng has vast experience in banking and management. His experience will continue to enhance board deliberations.
Whether appointment is executive, and if so, the area of responsibility	The position is executive in nature. Mr Chong oversees the business of the ST Engineering Group.	Non-executive
Job Title (e.g. Lead ID, AC Chairman, AC Member etc.)	President & CEO and Executive Director	Independent Director
Professional Qualifications	First Class Honours in Mechanical Engineering from the National University of Singapore Executive leadership programmes at the Thunderbird School of Global Management and the Columbia Business School	Japanese Government Monbusho scholar and graduated with a Bachelor in Business Administration from Yokohama National University, Japan
Working experience and occupation(s) during the past 10 years	President & CEO, ST Engineering (2016 - current) President & CEO (Designate), ST Engineering (2015 - 2016) Dy CEO (Corporate Development), ST Engineering (2014 - 2015) President, Strategic Plans & Business Development, ST Aerospace (2014) Director, Asia Pacific Lubricants Sales, ExxonMobil Asia Pacific Pte Ltd (2013 - 2014) Downstream Senior Advisor, Corporate Strategic Planning, Exxon Mobil Corporation (2012 - 2013) Global Director, Marine Fuels, ExxonMobil Marine Limited (2009 - 2012)	Group Head, Consumer Banking Group & Wealth Management, DBS (2019 - current) Group Executive, Country Head, DBS Singapore (2010 - 2018) and Chairman/Board Director, DBS Vickers Securities Holdings Pte Ltd (2010 - current) President, CEO & Board Director, Nikko Citi Holdings, Inc (2008 - 2009) Country Officer, Citibank Hong Kong and Chairman, Citibank Hong Kong Limited (2007 - 2008)

LIM AH DOO	LG ONG SU KIAT MELVYN	LIM CHIN HU	SONG SU-MIN
10 November 2015	8 June 2018	16 July 2018	16 September 2018
21 April 2016	NA	NA	NA
69	43	60	45
Singapore	Singapore	Singapore	Singapore
Ah Doo has vast experience in finance, investment and management. His experience will continue to enhance board deliberations.	Melvyn's defence background will continue to benefit ST Engineering in addressing the changing and challenging needs of the defence business.	Chin Hu has vast experience in business and management and in nurturing technology startups. His experience and knowledge will continue to help management steer towards the Company's growth vision.	Su-Min's legal background will continue to provide a specialised legal perspective to board deliberations.
Non-executive	Non-executive	Non-executive	Non-executive
Independent Director and Member of Audit Committee	Non-independent Director	Independent Director	Independent Director and Member of Audit Committee
Honours degree in Engineering from the Queen Mary College, University of London Master in Business Administration from the Cranfield School of Management	Master of Science, (Science) from the London School of Economics & Political Science, University of London, UK	Bachelor of Science from La Trobe University, Melbourne, Australia Diploma in Electrical & Electronics Engineering from Ngee Ann Polytechnic	LLB (Honours) from the University of Kent at Canterbury
Acting President, AAA Oils and Fats Pte Ltd (2007 - 2007) President, RGE Pte Ltd (2003 - 2007)	SAF Officer (1994 - current)	CEO, British Telecoms South East Asia (2008 - 2011) CEO, Frontline Technologies Corp. Ltd (2000 - 2008)	Partner, Allen & Gledhill LLP (2006 - current)

ADDITIONAL INFORMATION ON DIRECTORS SEEKING RE-ELECTION

	VINCENT CHONG SY FENG	LIM SIM SENG
Shareholding in ST Engineering and its subsidiaries	ST Engineering - 1,568,084 shares - up to 1,287,580 Performance Shares* - 77,867 unvested Restricted Shares** - 180,800 Restricted Shares**	35,600 shares in ST Engineering
	* granted under the ST Engineering Performance Share Plan 2010 ** granted under the ST Engineering Restricted Share Plan 2010	
Any relationship (including immediate family relationships) with any existing director, existing executive officer, ST Engineering and/or substantial shareholder of ST Engineering or of any of its principal subsidiaries	No	No
Conflict of interest (including any competing business)	No	No
Undertaking (in the format set out in Appendix 7.7) under Rule 720(1) has been submitted to ST Engineering	Yes	Yes
Other Principal Commitments Including Directorships – Past (for the last 5 years)	Directorships Singapore Technologies Dynamics Pte Ltd ST Aerospace Resources Pte. Ltd. ST Engineering Aerospace Ltd. ST Engineering Electronics Ltd. ST Engineering Land Systems Ltd. ST Engineering Management Services Pte. Ltd. ST Engineering Marine Ltd.	Directorships ASEAN Finance Corporation Limited ST Engineering Aerospace Ltd. Asfinco Singapore Limited
	Other Principal Commitments Please see “Working Experience and occupation(s) during the past 10 years” above	Other Principal Commitments Please see “Working Experience and occupation(s) during the past 10 years” above

LIM AH DOO	LG ONG SU KIAT MELVYN	LIM CHIN HU	SONG SU-MIN
60,000 shares in ST Engineering	Nil	20,000 ordinary shares in ST Engineering held in trust by Citibank Nominees	Nil
No	No	No	No
No	No	No	No
Yes	Yes	Yes	Yes
Directorships Bracell Limited SembCorp Marine Limited SM Investments Corporation ST Engineering Marine Ltd.	Directorships ST Engineering Land Systems Ltd.	Directorships Telstra Limited Keppel DC REIT Changi General Hospital Pte Ltd	Directorships Jurong International Holdings Pte Ltd
Other Principal Commitments Please see "Working Experience and occupation(s) during the past 10 years" above	Other Principal Commitments Please see "Working Experience and occupation(s) during the past 10 years" above	Other Principal Commitments Please see "Working Experience and occupation(s) during the past 10 years" above	Other Principal Commitments Please see "Working Experience and occupation(s) during the past 10 years" above

ADDITIONAL INFORMATION ON DIRECTORS SEEKING RE-ELECTION

VINCENT CHONG SY FENG

LIM SIM SENG

Other Principal Commitments Including Directorships - Present

Directorships

Experia Events Pte. Ltd.
 SP Telecommunications Pte Ltd
 ST Engineering Treasury Pte. Ltd.
 Vision Technologies Systems Inc

Other Principal Commitments

JTC Corporation -
 Board Member/Member of
 Development Committee
 Please also see
 "Working Experience
 and occupation(s) during
 the past 10 years" above

Directorships

DBS Securities (Japan)
 Company Limited
 DBS Vickers Securities Holdings
 Pte Ltd
 Nikko Asset Management
 Co., Ltd
 Singapore Land Authority

Other Principal Commitments

Federal Republic of Nigeria -
 High Commissioner
 Please also see
 "Working Experience
 and occupation(s) during
 the past 10 years" above

LIM AH DOO**Directorships**

GDS Holdings Limited
 GP Industries Ltd
 Olam International Limited
 STT GDC Pte. Ltd.
 U Mobile Sdn Bhd
 Virtus HoldCo Limited

Other Principal Commitments

Nil

LG ONG SU KIAT MELVYN**Directorships**

Nil

Other Principal Commitments

JTC Corporation -
 Board Member
 Please also see
 "Working Experience
 and occupation(s) during
 the past 10 years" above

LIM CHIN HU**Directorships**

Citibank Singapore Limited
 Heliconia Capital Management
 Pte Ltd
 Kulicke & Soffa Inc
 Singapore Exchange Limited
 Singapore Health Services
 Pte Ltd

Other Principal Commitments

Please also see
 "Working Experience
 and occupation(s) during
 the past 10 years" above

SONG SU-MIN**Directorships**

Nil

Other Principal Commitments

Please see
 "Working Experience
 and occupation(s) during
 the past 10 years" above

ADDITIONAL INFORMATION ON DIRECTORS SEEKING RE-ELECTION

VINCENT CHONG
SY FENG
YES / NO

(a) Whether at any time during the last 10 years, an application or a petition under any bankruptcy law of any jurisdiction was filed against him or against a partnership of which he was a partner at the time when he was a partner or at any time within 2 years from the date he ceased to be a partner?	No
(b) Whether at any time during the last 10 years, an application or a petition under any law of any jurisdiction was filed against an entity (not being a partnership) of which he was a director or an equivalent person or a key executive, at the time when he was a director or an equivalent person or a key executive of that entity or at any time within 2 years from the date he ceased to be a director or an equivalent person or a key executive of that entity, for the winding up of that entity or where that entity is the trustee of a business trust, that business trust, on the ground of insolvency?	No
(c) Whether there is any unsatisfied judgment against him?	No
(d) Whether he has ever been convicted of any offence, in Singapore or elsewhere, involving fraud or dishonesty which is punishable with imprisonment, or has been the subject of any criminal proceedings (including any pending criminal proceedings of which he is aware) for such purpose?	No
(e) Whether he has ever been convicted of any offence, in Singapore or elsewhere, involving a breach of any law or regulatory requirement that relates to the securities or futures industry in Singapore or elsewhere, or been the subject of any criminal proceedings (including any pending criminal proceedings of which he is aware) for such breach?	No
(f) Whether at any time during the last 10 years, judgment has been entered against him in any civil proceedings in Singapore or elsewhere involving a breach of any law or regulatory requirement that relates to the securities or futures industry in Singapore or elsewhere, or a finding of fraud, misrepresentation or dishonesty on his part, or he has been the subject of any civil proceedings (including any pending civil proceedings which he is aware of) involving an allegation of fraud, misrepresentation or dishonesty on his part?	No
(g) Whether he has ever been convicted in Singapore or elsewhere of any offence in connection with the formation or management of any entity or business trust?	No
(h) Whether he has ever been disqualified from acting as a director or an equivalent person of any entity (including the trustee of a business trust), or from taking part directly or indirectly in the management of any entity or business trust?	No
(i) Whether he has ever been the subject of any order, judgment or ruling of any court, tribunal or governmental body, permanently or temporarily enjoining him from engaging in any type of business practice or activity?	No
(j) Whether he has ever, to his knowledge, been concerned with the management or conduct, in Singapore or elsewhere, of the affairs of:	
(i) any corporation which has been investigated for a breach of any law or regulatory requirement governing corporations in Singapore or elsewhere; or	No
(ii) any entity (not being a corporation) which has been investigated for a breach of any law or regulatory requirement governing such entities in Singapore or elsewhere; or	No
(iii) any business trust which has been investigated for a breach of any law or regulatory requirement governing business trusts in Singapore or elsewhere; or	No
(iv) any entity or business trust which has been investigated for a breach of any law or regulatory requirement that relates to the securities or futures industry in Singapore or elsewhere, in connection with any matter occurring or arising during that period when he was so concerned with the entity or business trust?	No
(k) Whether he has been the subject of any current or past investigation or disciplinary proceedings, or has been reprimanded or issued any warning, by the Monetary Authority of Singapore or any other regulatory authority, exchange, professional body or government agency, whether in Singapore or elsewhere?	No

LIM SIM SENG YES / NO	LIM AH DOO YES / NO	LG ONG SU KIAT MELVYN YES / NO	LIM CHIN HU YES / NO	SONG SU-MIN YES / NO
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	Yes ¹	No	No	No
No	Yes ¹	No	No	No
No	Yes ¹	No	No	No
No	Yes ¹	No	No	No
No	No	No	No	No

¹ **PT Indosat:** Mr Lim was non-executive independent Commissioner of PT Indosat Tbk (“PT Indosat”) from December 2002 to August 2008, and Chairman of Audit Committee from June 2004 to June 2008. In November 2007, PT Indosat along with 6 other Indonesian telecommunications companies were investigated by Indonesia’s anti-competition, KKPU, on allegations of price-fixing of charges for short text messages and breach of Antimonopoly Law of Indonesia. PT Indosat and 8 other companies were also investigated by KKPU of concern of breaches of Article 27(a) of the Antimonopoly law of Indonesia. There was no finding of breach of law by PT Indosat at the time Mr Lim left PT Indosat.

Asian Agri: Mr Lim was president of RGM International Pte Ltd (“RGM”) from October 2003 to June 2007 and non-executive vice chairman of RGM from June 2007 to November 2008. Mr Lim was also acting president of AAA Oils and Fats Pte Ltd (“AAA”) from June 2007 to November 2007 and non-executive deputy chairman of AAA from November 2007 to November 2008. RGM provides strategy services and support to a global group of independent companies (the “RGM Group”) operating in the resources development sector. Each business group within the RGM group operates independently with its own holding company and directors responsible for the operation of that business group. Asian Agri is a member of the RGM group and AAA is a member of Asian Agri. Certain Indonesian companies of Asian Agri operating in Indonesia were investigated by the tax authorities of Indonesia in November 2006 for alleged non-payment of certain tax. The tax authorities of Indonesia had not confirmed any findings of breach of law at the time when Mr Lim left the RGM Group in November 2008. Mr Lim was not a member of the board nor was he concerned with the management of the companies under investigation.

SENIOR MANAGEMENT



VINCENT CHONG SY FENG

Vincent Chong Sy Feng, is President & CEO of ST Engineering and a Director of the ST Engineering Board. (Vincent's profile is on page 14)

holds a Second Class Upper Honours degree in Mechanical Engineering from the National University of Singapore (NUS). He obtained his Master of Science in Aerospace Engineering from the University of Michigan and attended the Program for Management Development at Harvard Business School.



DR LEE SHIANG LONG

Dr Lee Shiang Long, 53, was appointed President of the Land Systems sector in April 2017. Previously, he was President, Defence Business of Land Systems and Deputy Chief Technology Officer, ST Engineering. Prior to joining ST Engineering, Dr Lee was Executive Director of the Institute for Infocomm Research (I²R), where he was tasked to coordinate efforts throughout A*STAR for Services and Digital Economy for Singapore RIE 2020 (Research, Innovation and Enterprise). He led I²R to re-focus on A*STAR mission for a greater social and economic impact, aligned to Singapore's Smart Nation initiative launched in early 2014. Prior to I²R, Dr Lee served in the SAF for 23 years. His last appointment was Head of Joint Communications and Information Systems Department, and Chief Information Officer. Dr Lee holds a Master in Business Administration from Cambridge University and PhD in Mechanical Engineering from the Nanyang Technological University, Singapore (NTU), as well as a Master Degree in Science (IT) from NUS.



RAVINDER SINGH

Ravinder Singh, 54, was appointed President of the Electronics sector in January 2017 and is concurrently the President, Defence Business of ST Engineering since July 2017. Prior to this, Ravinder was President of the Land Systems sector from March 2015 to April 2017. He joined the Electronics sector in August 2014 as Deputy President, Corporate and Market Development. In his earlier career, Ravinder served as the Chief of Army, Singapore Armed Forces (SAF) and the Deputy Secretary (Technology), Ministry of Defence, Singapore. He graduated with a Bachelor of Arts in Engineering Science (First Class Honours) and a Master of Arts in Engineering Science, both from the University of Oxford, UK. Ravinder also attained a Master of Science in Management from Massachusetts Institute of Technology, USA, and attended the Wharton Advanced Management Program.



LIM SERH GHEE

Lim Serh Ghee, 59, was appointed President of the Aerospace sector in December 2014. Prior to this, he was Chief Operating Officer from 2010 and President, Defence Business. Serh Ghee also served as Executive Vice President of Aircraft Maintenance & Modification (AMM), a business segment of Aerospace. He began his career with the Aerospace sector as a mechanical engineer in 1984 and has held many senior management appointments within the sector. Serh Ghee



NG SING CHAN

Ng Sing Chan, 58, was appointed President of the Marine sector in May 2010. Prior to this, Sing Chan was Deputy President and President, Defence Business of the Marine sector. He joined the Marine sector in 1987 as an engineer. Sing Chan left in 1991 and later became the Deputy General Manager of Pan-United Shipyard Pte Ltd. He subsequently took on the positions of President of Changshu Xinghua Changjiang Dev Co and Executive Director of Pan-United Marine Ltd (now known as DDW-PaxOcean Shipyard Pte. Ltd.). Sing Chan re-joined the Group in March 2008 as Executive Vice President, Special Projects, ST Engineering and moved to Marine as Deputy President in April 2009. Sing Chan holds a Master of Business Administration (Finance & Banking) from NTU, and a Masters in Engineering from the University of Hamburg, Germany.



**GENERAL (RET.)
JOHN G COBURN**

General (Ret.) John G Coburn, 77, was appointed Executive Chairman of ST Engineering's

U.S. subsidiary, VT Systems, in December 2001. Following his relinquishment as CEO of VT Systems, he remained as Director of VT Systems and became non-executive Chairman of VT Systems Advisory Board with effect from 1 December 2018. He joined the Group after an illustrious 39-year career with the U.S. Department of Defense, where he commanded at all levels, including as Commanding General of the U.S. Army Materiel Command with an annual budget of \$39.2 billion. Gen (Ret.) Coburn is the recipient of many medals, and is a notable author and speaker. He is a graduate of the U.S. Army Command and Staff College, and the Industrial College of the Armed Forces. He holds a Juris Doctor degree from the University of Missouri, a PhD from Eastern Michigan University, as well as many other degrees. He is licensed to practice law before the Supreme Courts of Michigan and Kentucky, the United States Army Court of Criminal Appeals, the District of Columbia Court of Appeals, and the Supreme Court of the United States.



CEDRIC FOO CHEE KENG

Cedric Foo Chee Keng, 58, was appointed Chief Financial Officer of ST Engineering in July 2017. Prior to this, Cedric was Advisor (Corporate Development) of the Group since October 2016. He had previously served as Chief Financial Officer and in senior management roles in large-

cap companies, and was also Chairman of JTC Corporation and SPRING Singapore. He holds a Bachelor of Science in Engineering (Naval Architecture and Marine Engineering) from the University of Michigan, Ann Arbor, USA and received his Master of Science (Ocean Systems Management) from the Massachusetts Institute of Technology, Cambridge, USA. Cedric also attended Executive Programmes at Harvard and Kellogg Business Schools.



ELEANA TAN AI CHING

Eleana Tan Ai Ching, 56, was appointed Chief Corporate Officer of ST Engineering in July 2017 when she relinquished her role as the Chief Financial Officer, a position she had held since March 2008. She was previously Managing Director, Finance, Temasek Holdings (Private) Limited (Temasek). Prior to that, Eleana was Director of Finance at Singapore Technologies Pte Ltd (STPL) from August 2003 until December 2004, when STPL was restructured, and its assets transferred to Temasek. Prior to 2003, she had held various key finance positions in the ST Engineering Group over a period of 13 years and last held the position of Group Financial Controller of ST Engineering. Eleana holds a Bachelor of Accountancy (Honours) from NUS and attended the Harvard Business School's Advanced Management Program in 2013. She is a member of the Institute of Singapore Chartered Accountants.

WE ASPIRE TO BE A GLOBAL TECHNOLOGY, DEFENCE & ENGINEERING POWERHOUSE

In 2018, we shared our five-year plan which comprises a set of goals developed collectively by our team of business leaders across the Group. We will strengthen our core businesses through continuous investments in key assets and capabilities and pursue opportunities in international defence business and smart city.

Core and other businesses CAGR

2X - 3X

global GDP growth rate over the next 5 years

Smart City revenue of

\$1b

to more than double by 2022

2022 TARGETS

Net profits to grow in tandem with revenues

Two-thirds of revenue growth to be from global markets

INTERNATIONAL DEFENCE

AEROSPACE



SMART CITY



ELECTRONICS



MARINE



Building on our position of strength for the next stage of growth

Strong fundamentals to support value creation

AAA
balance sheet



Well-positioned to enhance portfolio value

Solid track record in smart city solutions

Implemented more than

500
smart city projects



across
70
cities worldwide

Proven export successes in defence capabilities



Armoured vehicles



Weapons & munitions



Total naval solutions

A future-ready and high-performing workforce



16,000 of
22,000 employees
are in engineering & technical roles



We develop build-to-design technologies, drive digitalisation purposefully with our Mobility, Security and Environment solutions for the Smart Cities of tomorrow.

We also introduce digital "soldiers" to meet tomorrow's battlefield by creating operational and warfare advantages for global armed forces with our portfolio of competitive platforms, smart munitions and soldier systems.

BUILDING SMART AND SECURE CITIES GLOBALLY

INTEGRATED BATTLEFIELD MANAGEMENT SYSTEM



MANNED-UNMANNED TEAMING



Next-Generation Armoured Fighting Vehicle



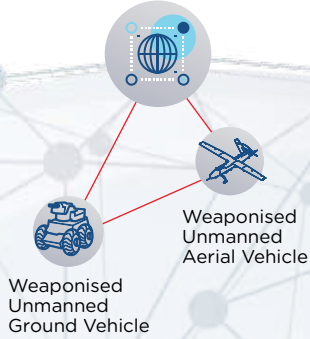
+ ANALYTICS & ARTIFICIAL INTELLIGENCE

SMART ENVIRONMENT

- + Smart Street Lights
- + Smart Utilities
- + Waste and Water Management

INTEGRATED DEFENCE

COLLABORATIVE SENSING AND COMBAT ENGAGEMENT



MOUNTED & DISMOUNTED OPERATIONS



MOTHERSHIP CONCEPT



+ DIGITAL CONNECTIVITY

+ ROBOTICS

SMART SECURITY

- + Aviation & Maritime Security
- + Key Installation Security
- + Cybersecurity Solutions
- + Drone Network Solutions

SMART MOBILITY

- + Smart Metro Control Centre
- + Command, Control & Communications System
- + Platform Screen Door
- + Automatic Fare Collection System
- + Autonomous Vehicles
- + Passenger Information System
- + Integrated Land Transport Operation Centre
- + Integrated Traffic Management and Security Systems

INNOVATION: CREATING A SMART FUTURE

Technology and innovation is in our DNA, which underpins what we do as a global technology, defence and engineering group.

From creating sustainable innovations that push the boundaries of R&D, to disruptive technologies that redefine ways of thinking and doing, we are constantly reinventing and innovating.

Our innovation approach, integrated with deep, multidisciplinary engineering expertise and capabilities, enables us to continuously create game-changing solutions in domains such as smart cities, robotics, data analytics, cybersecurity and autonomous solutions. Through strategic collaborations, we leverage collective genius from the global technology ecosystem, deepening and broadening our capabilities and strengths to enable new possibilities that shape a better future.

People remain our strength in this innovation journey. Our global workforce, two-thirds of which comprises engineering and technical talents, is what differentiates us and is our key to a smarter future.



Autonomous Mini-Bus



STROBO
Security
Robot



Barrier-Free Automatic
Fare Collection System

LEVERAGING STRENGTHS AND FORMING PARTNERSHIPS WITHIN THE TECHNOLOGY ECOSYSTEM



Strategic Technology Centres (STCs)

Our STCs deepen our capabilities in data analytics and cybersecurity, delivering more powerful products and solutions that add value to our business.



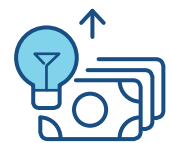
Digital Office

The Digital Office synergises and accelerates the Group's digitalisation efforts, enabling us to deliver enhanced customer value and capture new opportunities in the digital economy.



Corporate and Research Labs

Our collaborations with academic and research institutions help to accelerate the research, development and commercialisation of new technologies and solutions, conferring our customers a competitive edge.



Corporate Venture Capital

We invest in promising technology start-ups with strong capabilities in data analytics, cybersecurity and transportation technology.

INNOVATION HIGHLIGHTS 2018



1	4	5	7
2	3	6	9



Open Innovation Lab

Apart from being an innovation exchange for our engineers, our Open Innovation Lab supports entrepreneurs and start-ups with resources and expertise to fast track their innovations to market.

1. The autonomous mobility-on-demand trial in Sentosa leverages technology to improve urban mobility in Singapore.
2. The STROBO Security Robot uses artificial intelligence and machine perception to pick up anomalies in the environment and effectively detect intruders.
3. Our barrier-free hands-free Automatic Fare Collection System for rail systems, delivering optimised operational efficiency and seamless commuting.
4. DroNet harnesses an integrated network of drones to enhance the way we live and work in an urban setting.
5. Folo Fleet is a semi-autonomous smart mobility device convoy system which allows a single operator to manage multiple transporters at the same time, maximising productivity and enabling effortless operations.
6. Airbitat Oasis Smart Bus Stop is capable of using water to cool air to as low as 24°C and removing harmful airborne particles such as PM2.5.
7. The WISX Smart Street Lighting equipped with on-demand, intelligent light control and predictive analytic capabilities helps municipalities realise up to 40% energy and maintenance cost savings.
8. The STROBO family of autonomous material handling equipment for warehouse, airport, seaport and manufacturing industries.
9. NERVA Ship Management and Sensemaking System (SMS²) is a class-certified integrated alarm, monitoring and control system for ship operators. SMS² allows intelligent Hull, Mechanical and Electrical (HM&E) management and control of the ship systems and uses AI for predictive diagnostics and condition-based monitoring.

OPERATING REVIEW & OUTLOOK



AEROSPACE

Despite intensifying competition, we maintained our strong industry leadership position. We continued to strengthen our core business in MRO services, invest in new growth areas and build up our capabilities in areas such as data analytics to enhance our service offerings.



2018 REVIEW

Our Aerospace sector performed well in 2018, with the tempo remaining upbeat throughout the year. Our hangars and repair shops saw a steady stream of maintenance work for aircraft airframe, engines and components.

Although competition continued to intensify with new and potential entrants eyeing a share of the Maintenance, Repair and Overhaul (MRO) pie, we set ourselves apart with our wide

global network by delivering to the satisfaction of our customers, time and again. During the year, we expanded our capacity in the U.S. with a new airframe facility. Our excellence was once again recognised when we were named Overall MRO of the Year for the second year running at the 2018 Aviation 100 MRO Global Awards.

While MRO remains core to our aerospace business, we continued to invest in adjacencies and new growth areas that could add value to our MRO work and give us a competitive edge through the ownership of intellectual property.

Industry recognition

Awards included Overall MRO of the Year, won for the second year running.



Secured new contracts worth a total of \$2.06b

A number of these contracts were multi-year agreements signed with repeat customers.



AIRCRAFT MAINTENANCE & MODIFICATION (AMM)

Against the backdrop of a buoyant aviation industry, our AMM business continued to secure a number of contracts for both light and heavy maintenance during the year, which included a five-year exclusive MD-11 heavy maintenance support contract from Lufthansa Cargo and a contract to support a major North American airline's A321s for the first time. The same North American airline also awarded a contract for an in-seat power supply, overhead bin and galley modification programme for their entire fleet of 48 A320s.

With international and domestic air travel on the rise, we also continued to expand our capacity in anticipation of strong demand for airframe maintenance in our key markets. In June, we officially opened a new airframe MRO facility in Pensacola, Florida, U.S.. We gathered more momentum in capacity building when we signed a Memorandum of Understanding (MOU) with the City of Pensacola in October to pursue the development of a 655,000 sq ft airframe MRO complex next to our newly opened hangar. Upon completion, we will have an annual capacity of 2.1 million labour hours in Pensacola.

Our VIP completions business, AERIA Luxury Interiors (AERIA), continued to grow in strength. AERIA secured a Boeing Business Jet project, its third since the business started in 2012. AERIA also reached a new milestone when it secured a

OPERATING REVIEW & OUTLOOK

maintenance support contract for its first Airbus Corporate Jet (ACJ) customer. The project allows AERIA to showcase its capability and technical knowledge in Airbus platforms to potential ACJ customers.

Apart from VIP completions, other aircraft interior modification contracts secured during the year included one from Air Canada to perform interior reconfiguration on part of the airline's A330-300 fleet.

COMPONENT/ENGINE REPAIR & OVERHAUL (CERO)

In 2018, our component repair and overhaul facilities delivered 42,908 components and 163 landing gears, while our engine repair and overhaul businesses completed 167 engines and 9,883 EcoPower® engine washes.

The robust economy and a burgeoning middle class in Asia have created an ideal environment for the growth of the aviation industry. Riding on this, we signed an MOU with Vietnam Airlines in April to set up a joint venture (JV) to provide component MRO solutions. The JV, to be headquartered at Noi Bai International Airport in Hanoi, will cater to Vietnam Airlines'



The new airframe MRO facility in Pensacola, Florida, U.S..

requirements and the region's increasing demand for aircraft MRO services.

In addition to the MOU, we also entered into a 14-year component Maintenance-By-the-Hour (MBH™) contract with Vietnam Airlines to support the airline's entire fleet of A321ceos and A321neos, including other A321s that will enter its fleet, starting from mid-2018.

We further grew our support for operators in Asia when we secured our first multi-year component MBH™ contract from Japan Airlines and an MBH™ contract with expanded

scope from Japan's Solaseed Air to service their fleets of Boeing 737-800s.

With a steady growth in narrowbody engine shop visits, our engine work maintained strong momentum in 2018. Our facilities in Singapore and Xiamen, China enjoyed high levels of utilisation through the year due to an upward trend for CFM56-5B and -7B shop visits.

In anticipation of the continuous high demand, we have ramped up our manpower to increase our capacity by 50%.

While Time and Material service packages remain popular, operators are increasingly exploring Power-by-the-hour programmes and entering into long-term contracts to lock in capacity for their projected maintenance needs of CFM56-7B and -5B engines.

ENGINEERING & MATERIALS SERVICES (EMS)

Even as we strengthen our core business in MRO services,

Expanded our MRO network with a new facility in the U.S.

The new facility increases our capacity to serve the North American market and our global clientele.



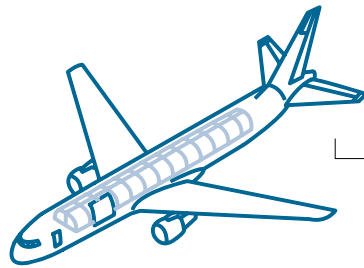
we are also investing in new growth areas that synergise with our engineering and MRO capabilities to sharpen our competitive edge. At the same time, we continue to build on our engineering expertise and aircraft assets to provide innovative solutions such as freighter conversions and unmanned aerial systems.

Passenger-to-Freighter Conversions (P2F)

With air cargo forecasted to grow at 4% CAGR over the next 20 years, freighter conversion is one growth area we will continue to focus on. By 2022, we expect to book an annual revenue of more than \$400m from this business.

During the year, we secured a launch contract for our new A321P2F programme when Vallair ordered 10 P2F conversions from us. The first aircraft was inducted in November, and is scheduled for redelivery by the end of 2019.

In August, we redelivered our first converted A330-200 freighter to EgyptAir Cargo. This redelivery marks the successful inauguration of our entire A330P2F family which comprises the -200P2F and the larger -300P2F variant



Secured a launch contract for A321P2F

Vallair placed 10 firm orders, while an LOI for a potential order of 10 units A320 P2F was signed with Guangdong Aerocity.

(we redelivered our first A330-300P2F at the end of 2017).

Cabin Interiors and Manufacturing

Our ergonomically-designed aircraft seats, SPACelite, received international recognition when it won the 2018 Japan Good Design Award. While this business is still nascent, we have set up management and quality control systems, and built capacity to deliver 5,000 seats annually.

In Europe, we expanded our capacity in composite panel manufacturing with the opening of a second plant in Kodersdorf, Saxony, Germany. With the global commercial and cargo aircraft fleet expected to grow strongly over the next 10 years, the increased capacity will help meet the rising demand for aircraft floor panels and cargo compartment linings.

Aircraft Leasing

We expanded our fleet to a total of six aircraft in 2018, all of

which are on lease to operators. We will continue to grow our portfolio of mid-life aircraft assets that best align with our technical capabilities and service offerings so as to complement our core MRO and P2F aircraft conversion businesses.

Unmanned Solutions

We rolled out the first DroNet system application, which utilises an integrated network of autonomous drones to complete a range of tasks including infrastructure inspection, assets management and public security in an urban environment, for customers to do on-site trials at the end of 2018.

We are also lending our industry experience to the Civil Aviation Authority of Singapore (CAAS) to help shape regulatory frameworks for Beyond Visual Line of Sight (BVLOS) Unmanned Aircraft System (UAS) operations in Singapore's urban environment. In addition, we will collaborate with CAAS to develop new concepts,

MOU signing with Vietnam Airlines for the setting up of a component MRO joint venture at the Vietnam-Singapore Business Forum 2018.

Celebrating the order for 10 A321 converted freighters with launch customer, Vallair.



OPERATING REVIEW & OUTLOOK

procedures and technologies that enable BVLOS UAS operations in Singapore.

New Growth Area in Nacelle Manufacturing

During the year, we proposed to acquire MRA Systems (MRAS), an engine nacelle original equipment manufacturer (OEM) based in Baltimore, Maryland, U.S.. MRAS' proprietary designs and expertise in manufacturing nacelle systems will allow us to move into the OEM business of high-value nacelle components and replacement parts, thereby scaling up our aerospace capabilities.

MRAS' design, engineering and manufacturing know-how in advanced composite structures can also create synergies with the Group's composite manufacturing capabilities. The transaction is expected to close by end of the first quarter in 2019.

INDUSTRY OUTLOOK

The industry is expected to continue its growth trajectory in

2019, led by growing commercial aircraft production and strong defence spending.

According to Deloitte, the commercial aircraft order backlog is at its peak of more than 14,000, with about 38,000 aircraft expected to be produced globally over the next 20 years.

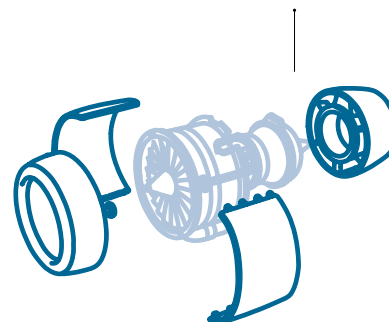
With the global aerospace industry projected to continue its robust growth, we are confident of the long-term prospects of the industry and we will continue to invest in core and adjacent businesses to capture growth opportunities. At the same time, we are mindful of the increasingly competitive landscape and we continue to sharpen our competitive edge by enhancing our capabilities and our suite of solutions.

Strengthening our Core with Technology

To repeatedly deliver high standards and value-added services to our customers, we continuously strengthen our core capabilities.

Scaling up our aerospace capabilities

The proposed MRAS acquisition allows us to scale up our aerospace capabilities by moving into the OEM business of making high-value nacelle systems.



One of the ways we do this is by investing in technologies to create better value propositions. These include digitisation and data analytics which assist in optimal maintenance planning for customers; automation to ensure quick turnaround times and consistent quality repair/overhaul for customers; and additive manufacturing to create virtual warehouses for customers.

During the year, we fully digitised our engine MRO facility in Singapore. Looking ahead, we will continue to deploy the paperless system and aim to achieve digitalisation across our global network of facilities. We continue to introduce robotics into our operations to increase productivity and will soon introduce an unmanned solution for aircraft inspection using drones.

On the additive manufacturing front, we have been conducting trials for interested airline customers to create a virtual warehouse for cabin parts. To date, we have been granted

Acquiring a nacelle manufacturing company will enable us to scale up our capabilities and move into the OEM business.



certification by the European Aviation Safety Agency for certain parts and we are working towards similar certification with other authorities to expand our inventory list.

Investing in Growth Areas

As we strengthen our core MRO business, we continue to invest in adjacent businesses and new growth areas that can add value to our MRO work and sharpen our competitive edge. Aircraft leasing and freighter conversions are two growth areas that we continue to focus on. As we ramp up our conversion activities to fulfil contracts secured in 2018, we will increase capacity in accordance with the scheduling needs of our clients.

Looking ahead, we are exploring value-added solutions to add to our freighter conversion offerings. With increasing global demand for air freight and a growing shortage of air crew, we believe unmanned freighters can be a viable solution and will provide tangible benefits such as lower operational costs. We are currently studying this concept diligently with our partner.

Moving Upstream into OEM Space

Being an MRO service provider with strong engineering capabilities accords us the advantage of moving into growth areas that require design and engineering expertise, for instance freighter conversions.

Apart from organic expansions, we have been looking to acquire new businesses in the OEM space that can capture synergies with our MRO business and engineering capabilities.

As the global aviation industry continues on its growth trajectory, moving upstream into the business of nacelle design and manufacturing will allow us to benefit directly as an OEM.

Once the acquisition of MRAS is completed, we will focus on integrating the new subsidiary and enhancing our solution offerings with our new nacelle capability. At the same time, we will continue to look out for opportunities in the OEM space that can further add value to our aerospace business.

Forming Strategic Partnerships

While OEMs and airlines have been getting more involved in the MRO aftermarket, they are still, to a large extent our partners and customers rather than our competitors. We will continue to pursue strategic partnerships that lead to win-win situations. One example is when we divested a 5% stake in ST Aerospace (Guangzhou) Aviation Services Company, a JV with the Guangdong Airport Authority, to Japan Airlines in early 2018 to further strengthen our partnership.

Given Japan Airlines' strong reputation in quality and standards for its services and the demands placed on MRO service providers, the strengthened partnership will facilitate cross-learning and enable the JV to enhance its standing in safety and quality, and be better positioned for growth.

As for our planned component MRO JV with Vietnam Airlines, we expect to set it up in the first half of 2019. In the meantime, we have set up a component inventory base in Vietnam to service the MBH™ contract for Vietnam Airlines.

KEY FOCUS IN 2019



1. Strengthen core capabilities and continue to enhance services through Industry 4.0 SMART MRO initiatives.



2. Focus on integrating MRAS into the Group upon the completion of acquisition.



3. Continue to invest in growth areas such as freighter conversions and aircraft leasing.

OPERATING REVIEW & OUTLOOK



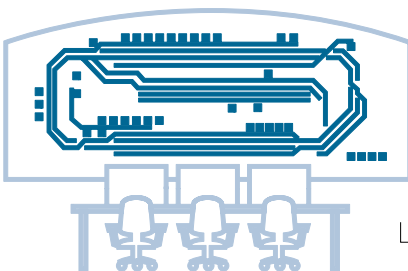
ELECTRONICS

Driven by our passion and pursuit of engineering excellence to create value for our customers, we introduced innovative, cutting-edge products and capabilities such as our barrier-free, hands-free Automatic Fare Collection system.

2018 REVIEW

Against a backdrop of constant technological transformation that is impacting businesses and cities worldwide, we continued to capitalise on our core competencies in technology and engineering to enable our customers to maintain a competitive edge in a complex market.

With a focus on spurring the next wave of international business growth, we actively pursued the growing market needs of Smart Cities for Connectivity, Mobility and Security.



Smart Connectivity

Weathering the past year's global market, we extended our satellite communications global reach into Africa and Latin America, enabling cost efficiencies for satellite operators, as well as reliable and affordable connectivity for consumers.

Delivering the latest developments in high throughput satellite capacity to the market, we were chosen as the ground infrastructure provider for Inmarsat's fifth Global Xpress high-speed, broadband communications satellite.

On the new technology front, we were part of a global SaT5G Consortium-led live test of the seamless integration of satellite technology with 5G networks, a significant milestone expected to transform the global communications industry, making truly global connectivity closer to reality.

As part of the long-term growth strategy of our satellite communications business, we established a new joint venture named Jet-Talk in the UK. Through this joint venture, we are developing a state-of-the-art satellite antenna system

that delivers enhanced in flight connectivity for commercial aviation, an emerging high-growth market.

Our proven solutions in smart sensors and Internet of Things (IoT) networks for urban city management through the application of advanced analytics continued to gain traction. Contracts secured included proof-of-concept trials to deploy smart lamp posts in Kowloon East, Hong Kong's Smart City Pilot Area and in Singapore, as well as enabling near real-time management of urban water resources and smart street lighting in cities in Canada, Israel, New Zealand, the UK and the U.S..

We launched Singapore's first pay-per-use IoT-as-a-Service platform in collaboration with SP Telecom and SP Group, providing opportunities for enterprises and IoT partners to move into the IoT space faster and more cost efficiently. Enterprise users and IoT partners are now able to leverage a secure network, thousands of SP Telecom hubs across the country, and a multi-edge computing IoT platform to bring services faster and closer to their customers.

Reinforcing our commitment to deliver value to customers through incorporating data analytics capabilities into our product and solutions, we invested in Azendian, a Singapore-based data analytics company. The investment enhanced our smart data analytics capabilities and enabled the development of suites of AI tools with machine learning capabilities.

Innovation for our customers

Rail Enterprise Asset Management System and iDirect Velocity were launched to help smoothen our customers' business transformations.

OPERATING REVIEW & OUTLOOK

Smart Mobility

Capitalising on our experience of delivering over 100 rail electronics solutions to 45 cities worldwide, we continued to expand our global reach and increase our market share with contracts secured for Mass Rapid Transit (MRT) lines in Bangkok, Guangzhou, Jakarta, New Taipei City, Taoyuan and Wuhan.

In Singapore, we are the trusted partner of choice for local transport customers, supplying our comprehensive smart rail electronics solutions for the Thomson-East Coast Line, the North-South Corridor, the North-South and East-West MRT lines, as well as a Rail Enterprise Asset Management System for the Downtown Line which could potentially extend to the entire MRT network.

Our barrier-free hands-free Automatic Fare Collection (AFC) system was launched as the newest addition to our comprehensive rail electronics solutions. Adopting long-range radio-frequency identification, facial recognition and stereoscopic people-counting camera technologies, the new AFC system takes less than a second for speedy commuter verification at the fare gates.

A version of our hands-free AFC was adopted as part of a public trial at Bedok,

Kembangan, Redhill and Tiong Bahru MRT stations in Singapore from June to November, enabling passengers with disabilities, the elderly and parents with children in strollers to easily enter and exit MRT stations without tapping their fare cards.

To better support the growing demand for metro rail, intelligent transportation and intelligent building management projects in Chongqing and other parts of China, we established a subsidiary in the Liangjiang New Area, Chongqing, that will enhance our expansion efforts in the region.

Smart Security

We won new public safety and security contracts from global customers, furthering our credentials in protecting more than 100 critical national infrastructure and high-value assets from intrusions and attacks. These included a radar surveillance system for Brazil's Itapu Hydroelectric Dam, the world's second largest hydropower plant. The U.S.-based National Safe Skies Alliance has completed testing and evaluating our award-winning AgilFence Perimeter Intrusion Detection System.

In 2018, we supplied our customers with an Integrated Counter Drone System that detects, classifies and tracks



Our smart lamp post leverages sophisticated technologies such as artificial intelligence-based video analytics systems to "smarten up" global cities.

commercial drones; a Crisis and Incident Response Trainer to enable command and planning that hones decision-making skills in different scenarios and in the strategic deployment of forces; as well as an Automated Biometric and Behavioural Surveillance System equipped with video analytics capabilities.

To ensure navigation safety in Singapore's port waters and the Singapore Strait, we formed a consortium with Kongsberg Norcontrol to develop a Next Generation Vessel Traffic Management System. The system will have new decision-support tools such as analysis of vessels routes, traffic hotspots prediction and detection of potential collision situations that will provide accurate and comprehensive maritime situational awareness.

To help our customers protect and secure their systems against sophisticated cyberattacks, we have invested in breakthrough cyber technologies that complement and strengthen our existing cybersecurity capabilities. Our investment in



Invested in data analytics and cybersecurity

Enabling our customers to enjoy expanded access to breakthrough technologies that support their digital transformation.

Radiflow, a leading provider of industrial cybersecurity solutions for critical infrastructure based in Israel, has provided us with access to Radiflow's detection and prevention tools which were used to develop the region's first end-to-end cybersecurity solution aimed at the rail transport industry.

We also strengthened our existing suite of cybersecurity products and solutions to help our customers in the Critical Information Infrastructure (CII) sectors shore up their defences. These included our new Advanced Cybersecurity Command and Control Centre, designed to help CII sectors defend against multi-tiered cyberattacks through its cutting-edge capabilities in artificial intelligence and Industrial Control Systems anomaly detection.

We unveiled DiGISAPE DiskCrypt M10, the world's thinnest two-factor authentication (2FA) encrypted data storage equipped with sophisticated cyberdefence features such as real-time hardware encryption and 2FA with smart card protection. The DiskCrypt M10 was awarded the CES 2019 Innovation Awards Honoree in recognition of its outstanding design and engineering.

Recognising that technology alone is insufficient to combat today's cyberattackers, we have partnered with the Singapore University of Technology and Design (SUTD) to co-develop new cybersecurity courses. These courses help to develop hands-on skilled expertise in securing operational technology networks of critical

infrastructures that deliver essential services such as energy, aviation, maritime and land transport.

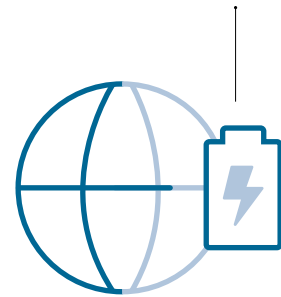
Since 2011, our in-house specialised cybersecurity professionals have been helping our customers fend off cyberthreats at the frontline, successfully keeping their networks safe and secure. For our achievements in cybersecurity, we secured an (ISC)² Asia-Pacific Information Security Leadership Achievements (ISLA[®]) Managerial Professional award, the only Singaporean honoree out of 17 other international cybersecurity experts to receive this prestigious accolade by the industry.

Armed with real-time knowledge of the cyberthreat landscape, we have sought to deliver innovative products and technology, threat intelligence and leading expertise to help our customers prepare for, respond to and prevent cyberbreaches. Significant orders we had delivered in the past year included an advanced Cybersecurity Operations Centre to enhance the security capabilities of the maritime and port operations sector as well as a Security Operations Centre for Sri Lanka's Bank of Ceylon.

In the area of naval defence, we have developed two 360-degree Littoral Mission Vessel (LMV) simulators that enable ship crew training in bridge watch-keeping, engineering and naval warfare for the Republic of Singapore Navy's new LMV Simulation Centre. It is the first ship simulator that adopts Virtual Reality technology, offering increased depth perception for challenging

Powering ahead with global growth momentum

Established a subsidiary in Chongqing, China, and captured new global markets such as Abu Dhabi, Brazil, Colombia, Dubai, Hong Kong, Jakarta and Kuwait for our leading-edge products.



scenarios such as dealing with small vessels. The simulator has resulted in enhanced training effectiveness and shortened training by more than 50%.

For land defence, our Vehicle Integrated Communications System 2-United States secured certification of compliance to the U.S. Army's Vehicular Integration for C4ISR/EW Interoperability (VICTORY) standard. The VICTORY standard enables C4ISR components installed in military vehicles to interoperate across a common message format, enhancing mission effectiveness and soldier survivability.

INDUSTRY REVIEW AND OUTLOOK

2019 will continue to be a year of rapid technological changes. Disruptive technologies such as artificial intelligence, cloud-based computing and new developments in IoT are rapidly maturing from game-changing ideas to foundational tools for business. In the coming year, we can expect to see these technologies drive the way businesses are conducted at forward-thinking organisations.

OPERATING REVIEW & OUTLOOK

Boosted by our core technological expertise and our culture of innovation, we are poised to capture new opportunities and markets by leveraging these new technology breakthroughs. Given this, we will be on solid ground to take on the challenges in the next decade.

Smart Connectivity: Satellite

The change in bandwidth economics driving industry consolidations, the fast-growing market of aviation connectivity, the increase in smaller satellites, the use of low-earth orbit satellite constellations as well as new use cases for 5G and IoT are some key industry developments that are presenting opportunities for our satellite business.

Many of these industry trends are enabling the delivery of a lot more data at relatively lower cost. This has resulted in a significant increase in the utilisation of satellite products and services as new markets and opportunities open up.

This bodes well for us as a leader in the satellite-based internet protocol communications

market, as we expect to continue delivering innovative, cost-effective satellite solutions and products that create value for our customers in more than 100 countries worldwide.

Smart Connectivity: IoT

As IoT technology and service providers and adopters continue to grapple with nascent technologies, the lack of standards and complex integration requirements, there is evidence that IoT providers are leveraging new technologies and updating their go-to-market business models to equip adopters with the tools to implement and derive the benefits of IoT solutions.

We have leveraged our expertise in info-communications, software technologies and cybersecurity as well as our strong network of partners to deliver an IoT platform that simplifies the complexities, manages the connectivity and streamlines the development and deployment processes. We will continue to deliver value

to our customers, helping them embrace predictive analytics and automate decision-making.

Smart Security: Public Safety & Security

Globalisation and technology have transformed the landscape of crime, effectively lowering the barriers for criminal syndicates, terrorist groups and radicalised individuals to identify targets of value and carry out attacks. Governments, security agencies and critical facility owners face an urgent need to modernise their public safety and security infrastructure to effectively protect citizens, organisations and critical infrastructure from harm.

In the face of these looming threats, we introduced innovative solutions such as anti-piracy capabilities, counter-drones and intrusion detection products, as well as security solutions for the protection of key installations, especially in the aviation as well as the maritime sectors. Implemented in over 15 cities around the world, our comprehensive Public Safety & Security solutions provide a holistic approach in deterrence, detection and response, and we will continue to deliver enhanced solutions that counter security threats effectively.

Smart Security: Cybersecurity

As cyberattacks become more frequent and severe, and expand beyond IT networks, we can expect governments and enterprises to ramp up their focus on protecting their IT infrastructure and data from such attacks. There is also an increasing focus on Operational Technology (OT) cybersecurity to support industrial control systems of critical infrastructures at the core of essential services such as transport networks



Our award-winning perimeter intrusion detection system, AgilFence PIDS, protects high-value assets against intrusions and attacks.



Equipped with machine learning capabilities and IoT cloud-based technology, our Next Generation Vessel Operations Control Centre enables real-time monitoring of ships and sea conditions.

and power plants. Global cities will continue to focus on the build up of indigenous cybersecurity capabilities and a sovereign talent pool in order to counter the evolving nature and sophistication of cyberthreats.

These present major opportunities for us, as we develop even more robust cybersecurity solutions, incorporating the latest frontier technologies, and train more than 2,000 cyber professionals over the next three years to plug the cybersecurity manpower gap faced by local critical sectors.

Smart Mobility: Rail

The rail electronics industry is faced with the need to leverage innovative technologies through digitalisation to drive efficiency, support complex rail operations and enhance commuting experience. At the same time, rail operators are increasingly challenged by ageing infrastructure and systems that affect the overall availability and reliability of rail services. This has led to a growing demand for data-centric asset management platforms that enhance rail maintenance and

renewal planning capabilities through advanced data analytics and business intelligence.

Our experience in enterprise asset management systems and continuous development of innovative solutions and platforms through digitalisation, bolstered by our deep domain knowledge in integrating complex rail systems, put us in a strong position to help rail regulators and operators surmount their current challenges.

Smart Mobility: Road

Urbanisation continues to create demand for new transportation management solutions to alleviate congestion in cities. Intelligent solutions in areas such as urban traffic, public transport and car park management are designed to help improve the flow of people, goods and services in cities around the world. We have built up extensive experience and networks in this space and are well positioned to play a significant role in the implementation of innovative transportation management systems in the Smart Cities of the future.

KEY FOCUS IN 2019



1. Penetrate into new and growing Smart City markets



2. Strengthen core competencies and end-to-end capabilities



3. Continue to embed data analytics, artificial intelligence and cybersecurity into our products and solutions.

OPERATING REVIEW & OUTLOOK



LAND SYSTEMS

The Land Systems sector is focused on strengthening its core capabilities, leveraging technology to add value and deliver innovative solutions to its customers.



The NGAFV platform which was submitted for the MPF programme performed well and successfully completed the rigorous tests by the U.S. Army.

2018 REVIEW

During the year, the Land Systems sector achieved many successes in its defence, commercial and robotics businesses.

Defence Business

Our participation in two large U.S. defence programmes – the U.S. Marine Corps (USMC) Amphibious Combat Vehicle Phase 1, Increment 1 (ACV1.1) and the U.S. Army's Mobile Protected Firepower - was a significant achievement. Having our Terrex 2 and Next Generation Armoured Fighting Vehicle (NGAFV) successfully complete rigorous testing by the USMC and the U.S. Army respectively is a validation of the maturity of our defence engineering capabilities and the experience gained was invaluable.

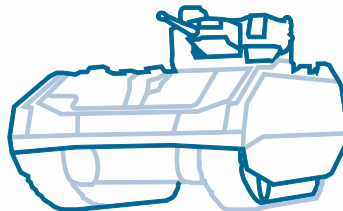
Our participation in these closely-watched programmes has thrown a global spotlight on our Terrex and NGAFV, and has given us confidence as we pursue other global opportunities.

The sector also worked with global partners to strengthen its value proposition for international defence. We signed a cooperation agreement with Hirtenberger Defence Systems (HDS) in the UK to offer a comprehensive 120mm mortar solution combining our 120mm Super Rapid Advanced Mortar System (SRAMS) weapon system with HDS' mortar fire control system and 120mm mortar ammunition. The result is a superior weapon system with outstanding performance and reliability.

We announced a marketing partnership with Paramount to bring the Belrex Protected Vehicle to the global market. The vehicle, designed to be

highly flexible, can be configured to carry combat loads for a variety of combat support and logistical functions. It is also designed for peacekeeping roles in conflict areas and other paramilitary roles. Leveraging our strong and proven expertise in the design and development of armoured mobility platforms, we will manufacture 10 variants of the Belrex Protected Vehicle in Singapore.

In addition, we showcased our comprehensive suite of systems and solutions at major defence and technology exhibitions as part of our global marketing outreach, including Singapore Airshow 2018, Eurosatory in Paris, the 2018 Annual



NGAFV

During the year, work began to establish a production line for the NGAFV.

OPERATING REVIEW & OUTLOOK

Meeting and Exposition of the Association of the U.S. Army (AUSA) in Washington, DC, and Defence Vehicle Dynamics 2018 in the UK.

Strengthening local defence capabilities continues to be key to the Group, with a greater focus on using technology to develop innovative solutions while achieving greater efficiencies for our customers, such as the use of robotics and incorporating augmented/virtual reality into our training solutions. During the year, we began work to establish a production line for the NGAFV. Delivery of the vehicles will begin in 2019.

As a leading provider of 40mm solutions, we continue to expand our product range with innovations like the 40mm Counter Unmanned Aerial System and the 40mm Door Breaching rounds.

Robotics and Autonomous Vehicles

Underlining our growing focus on robotics and autonomous systems, we set up the Robotics and Autonomous Systems Business (RASB) to drive innovation and growth, optimise resource allocation and grow our presence in the target segments of transportation, hospitality, healthcare and logistics.

We launched STROBO, a new suite of logistics automation systems for complete turnkey solutions that can be customised to the needs of warehousing, manufacturing, sea and airport operations. The STROBO range includes a family of fully Autonomous Material Handling Equipment and



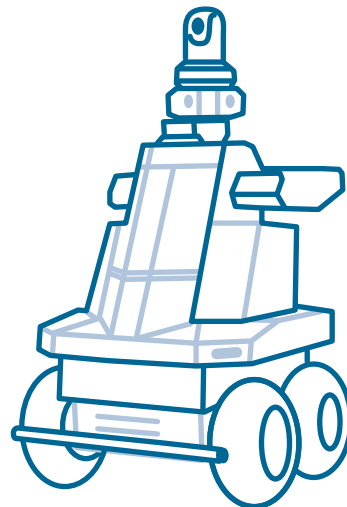
The Belrex Protected Vehicle family of 10 variants that were designed and developed in Singapore.

Unmanned Guided Vehicles that are safe, efficient and ideal for routine and repetitive material handling tasks. In addition to the pallet truck, pallet stacker, tow tractor and forklift, customers can look forward to adding the Very Narrow Aisle lifter to their new fleet. The successful development of the STROBO suite of products is an indication of our engineering capabilities.

Leveraging the sector's artificial intelligence and robotics autonomous capabilities, the STROBO Security Robot made its debut during the 33rd ASEAN summit at Suntec Singapore Convention Centre in November. With its 360-degree surveillance and

facial recognition capabilities, the security robot patrolled both indoor and outdoor areas of Suntec City Mall, and complemented the summit's tight security measures.

We continued to make headway in the healthcare and hospitality segments. One of our customers, Reading Healthcare, was awarded the 2018 Spotlight Award by the Association for Healthcare Foodservice for their innovative deployment of TUG[®] robots to improve costs, efficiency and patients' satisfaction. The TUG[®] robots helped to deliver meals to a new building located at the far end of a 46-acre main campus, and expanded the delivery routes to twice the number of beds.



STROBO Security Robot

The STROBO Security Robot leverages our AI and robotic autonomous capabilities to detect anomalies in the environment.

We also made strides in Singapore where we secured several proof-of-concept projects for local hospitals. Other ongoing projects included the implementation of the autonomous transportation of linen and automated tracking of linen inventory by the TUG® robots for three hotel pilot users - Capri By Frasers Changi City, Four Points by Sheraton and Grand Copthorne Waterfront.

In anticipation of customers' needs, we developed and launched the T4, a cost-effective smaller and faster TUG® Autonomous Mobile Robot (AMR). The open platform of the T4 allows flexibility to mount payloads below 120kg. The T4 is targeted for delivery in the first half of 2019.

The year also marked a milestone in the development of autonomous vehicles (AVs) for us as we began on-road testing of our autonomous shuttles on Sentosa, a resort island in Singapore. The trial began on a 1km stretch of service road at Tanjong Beach,



The latest TUG®, T4, can mount up to 120kg payloads.

and was progressively extended to a 2km route linking the Palawan and Siloso beaches. The trial involved the testing of operational systems and safety protocols in preparation for the public trial in 2019.

In building a robust AV platform, we invested in and partnered SafeRide, a specialist in automotive cybersecurity, to provide a comprehensive cybersecurity suite to safeguard the integrity and security of the AV systems. SafeRide's vSentry will complement our in-house cybersecurity capabilities to offer anomaly detection and cyberthreat prevention for connected and autonomous vehicles.

We also formed a partnership with San Francisco-based transportation platform provider RideOS to develop a collaborative framework for an on-demand mobility system to manage a city's transportation system end-to-end. RideOS' software includes real-time AV routing, estimated time of arrival calculations, dispatch services, supply positioning, multi-rider trip planning and fleet management dashboards.

Combined with our in-house AV platform capabilities, these collaborations will bring us closer to operationalising autonomous platforms safely in Singapore's urban, mixed traffic environment.

We also took a step forward in preparing for road trials of the 40-seater autonomous buses for Singapore's Land Transport Authority (LTA). An SBS Transit training bus, fitted with sensors and cameras, was deployed on various routes for over



The autonomous mini-bus is undergoing on-road tests to prepare for the public trial in Sentosa.

six months to collect information on bus operations under various traffic and weather conditions. The data collected will be used to calibrate the perception algorithm for the actual autonomous buses. In 2019, the autonomous buses, which are 12m long with maximum speeds of 60km/h, will be deployed on feeder bus routes over 42 months in three phases.

Commercial Business and Specialty Vehicles

With our strong track record in delivering quality vehicles, we were awarded a contract by LTA to deliver 111 two-door double-deck MAN buses. The buses meet the latest Euro 6 diesel standards and are part of LTA's efforts to replace Singapore's ageing bus fleet with cleaner and more efficient buses. The buses will be delivered progressively from 2019, with the final bus to be delivered in 2020. MAN buses form about one quarter of the entire public city bus fleet currently in Singapore, with us as the sole distributor. We also delivered various improvements to the buses, such as the Advanced Driver Assistance System to alert bus drivers of persons or objects in their blind spots.

OPERATING REVIEW & OUTLOOK

In addition, we responded to LTA's efforts to electrify Singapore's bus fleet and was one of three contenders to be awarded the first-ever contract to supply electric buses for trial in the second quarter of 2020. Besides buses, we registered the delivery of our 1,000th MAN truck during the year.

Acknowledging our expertise in MRO, advanced testing and diagnostics expertise in specialty vehicle platforms, Bombardier Transportation appointed us as its Singapore Service Centre. This is a first for us, and an important milestone in building reliable in-country support for Singapore's rail transport operators. Our complementary capabilities in robotics, condition monitoring and predictive maintenance also offer possibilities for innovative engineering applications to improve the efficiency and reliability of rail operations. One notable product launched in 2018 was the world's first unmanned rail tunnel inspection vehicle, a modular and transportable platform which can detect and locate tunnel cracks more than 0.3mm in length.

Our U.S. operations turned in positive performances in 2018, notwithstanding the challenging environment in the U.S. resulting from various tariffs.

As part of our ongoing review and portfolio rationalisation of ongoing businesses so as to focus resources on strategic growth areas, we divested our specialty vehicles business in India in 2018.

INDUSTRY OUTLOOK

Defence

The evolving geopolitical environment, shifts in economic conditions and increasing operational demands are driving changes in priorities for defence spending in many countries. While terrorists and insurgents remain a threat, the focus on rebuilding conventional warfighting capabilities has re-emerged, with increasing reinvestment in fighting platforms as well as command and control, communications, computers, intelligence, surveillance and reconnaissance.

Increasingly, many armed forces around the world are looking at how they can systematically harness innovation to meet operational challenges and rationalise force sizing, shaping and resourcing.

The U.S. and Europe remain important export markets. For its fiscal year 2019, the U.S. has announced a budget of more than US\$700b to invest in and accelerate the modernisation of key capabilities to develop the U.S. military into a more capable, lethal and ready Joint Force.

In May, the European Union (EU) announced that it has allocated €500m in 2019 and 2020 to the European Defence Industrial Development Programme to foster the pan-EU development of defence systems, technologies and equipment needed to address common defence and security challenges.

As a result, consolidation in the defence industry is expected to continue as large defence



Extend market reach with the launch of STROBO and TUG®

With STROBO and TUG®, we now have a suite of automation solutions for the warehousing, logistics, healthcare and hospitality industries.

players rebalance portfolios and merge in order to increase their capabilities and enhance their competitive positions. This move is driven by an increased demand for cross-border development of common defence platforms to share development costs and enhance interoperability.

Furthermore, non traditional players outside the defence industry, particularly IT companies, are challenging defence companies in the technology and cybersecurity domains. These include services and products related to manufacturing engineering, service lifecycle management and sourcing. Increased competition could also be the impetus for defence and technology players like us to leverage digital technologies for Industry 4.0 for their solutions and products.

We remain driven to meet our customers' needs and continue to offer our strong portfolio of armoured platforms, weapons and ammunition for defence programmes and counter terrorism as well as humanitarian assistance and disaster relief efforts. Our new solutions already incorporate advanced technologies that are necessary for tomorrow's digital battlefield such as robotics, manned-unmanned teaming, to enable and empower the individual warfighter. We are also incorporating robotics and digital technologies such as 3D printing and data analytics, into the design and manufacturing processes.

Commercial

Public trials for the autonomous shuttle service on Sentosa Island in Singapore will begin in mid-2019. Besides demonstrating its on-demand capabilities, the three-month trial will provide valuable data and feedback from the on-the-ground implementation to refine solutions for future deployment. In a separate trial, we expect the 40-seater autonomous buses to acquire AV road-worthiness qualification and commence demonstrations on Jurong Island, Singapore.

Our Robotics business will continue our customer-centric approach in the design and development of our solutions, addressing both the existing pain points and the future needs of its target customer segments. We will work towards building up our STROBO track record in target industry segments - warehousing, manufacturing, seaports and airports, through participation in key urban logistics projects. In the increasingly competitive AMR space, we will continue to develop high-value variants of the leading TUG® family of AMRs.

Orders for city buses secured in 2018 will be delivered in 2019 till 2020. In addition to electric bus operational

trials, we expect to support the testing of conversions of mid-life diesel buses to all-electric systems.

In rail engineering, we expect to continue developing key capabilities for comprehensive rail systems and component maintenance to support rail transport operations.

Internationally, trade tensions between U.S., Asia and Europe may lead to higher tariffs and more trade uncertainties. On the other hand, strong economic growth and necessary investments in a broad segment of U.S. infrastructure will drive market growth for the medium term for our U.S. specialty vehicle companies. In the longer term, infrastructure demands of Smart Cities will add new opportunities for growth in the road construction business segment.

KEY FOCUS IN 2019



1. Pursue and deliver a proven suite of platforms and weapon systems to local and overseas defence acquisition programmes.



2. Incorporate robotics and digital technologies into the design of our portfolio to meet customers' future needs.



3. Grow and expand Robotics and Autonomous Systems business, and build track record in target segments.

OPERATING REVIEW & OUTLOOK

MARINE

Despite strong headwinds, the Marine arm is well-positioned to pursue growth as a niche player with strong and deep engineering capabilities in large scale projects.





We have commenced development of the CoSCRUB,

which is a combined scrubber for SO_x and NO_x that complies with IMO emission standards.

2018 REVIEW

The year 2018 has been a combination of challenges and opportunities for our Marine business. Capacity overhang continues to weigh down the shipbuilding market; and the downside risks to global growth have heightened as a result of trade tensions. Our focus on niche markets and products paid dividends when we clinched several shipbuilding contracts in 2H2018.

We maintained our investments in R&D to pursue innovation and technologies as our key differentiator. During the year, the American Bureau of Shipping (ABS) awarded the Certificate of Design Assessment to our in-house NERVA Ship Management System (NERVA SMS). We incorporated sensemaking systems into our SMS (NERVA SMS²) to make our systems on board vessels smarter. We also expanded the application of NERVA SMS² to water and wastewater treatment plants, where operators can leverage condition-based monitoring data analytics and machine-learning techniques for predictive diagnostics and

decision support. We have commenced development of the CoSCRUB which is a combined NO_x and SO_x abatement solution which complies with International Maritime Organisation's (IMO's) new emission requirements.

Over the years, we have progressively invested in efforts to digitise our yard for optimal operational efficiency and productivity. We added a robotic gantry welding, machine for block welding, thereby reducing manhours per tonne for our steel work. We adopted a product lifecycle management software as a single, digital depository of information and processes throughout the shipbuilding lifecycle, enabling seamless information sharing essential for informed decision-making. We will continue on this journey towards building a smart digital yard to be best placed to take advantage of the upswing in the market when the industry turns.

We are focused on project execution and delivering on our promises. We achieved significant milestones in ongoing shipbuilding programmes. We continued to diversify our ship repair business, adding more superyacht repairs to our portfolio. Our rig repair business, though young, gained good traction in terms of customer enquiries and we completed several rig decommissioning projects and rig repair, upgrades and maintenance works during the year. We also made good progress in existing

environmental engineering projects.

Our Roll-on/Roll-off passenger-freight vessel took up a new assignment in September. The vessel now serves the Gdańsk-Nynäshamn line under the name of *M/F Nova Star* and cruises along the Baltic and North Sea.

We participated actively in prominent trade exhibitions including the Singapore Airshow, SMM in Hamburg, Germany, and Offshore South East Asia (OSEA) in Singapore. We demonstrated industry thought leadership with speaking engagements at international conferences including Warships and OPV Latin America and the Dynamic Positioning Asia Conference. These platforms gave our business leaders the opportunity to engage with customers, business partners and trade visitors to understand their needs in depth, and exchange ideas on market trends and developments.

SHIPBUILDING

We celebrated several project successes with customers including the Republic of Singapore Navy (RSN), the Singapore Civil Defence Force (SCDF), Crowley Maritime Corporation (Crowley), the Virginia Department of Transportation (VDOT), Bouchard Transportation (Bouchard) and Quality Liquefied Natural Gas Transport (Q-LNG).

We laid the keel of the eighth Littoral Mission Vessel (LMV), and launched the sixth and seventh LMVs, named *Fortitude* and *Dauntless* respectively, for RSN during the year. Together with the RSN and the Defence Science & Technology Agency,



OPERATING REVIEW & OUTLOOK

we designed and constructed eight 80m Independence-class LMVs that are versatile and capable of multi-missions to meet the increasing demands of seaward defence. We are on track for programme completion in 2020.

Our Singapore yard and its consortium partner, Penguin International, designed and commenced construction of three vessels – the Heavy Fire Vessel, the Heavy Rescue Vessel and the Marine Rescue Vessel for the SCDF in 2017. When completed, the Heavy Fire Vessel will be the first firefighting vessel designed and built in Singapore and the world's first firefighting vessel (by vessel size) classified to Fi-Fi IIII by ABS for its outstanding firefighting capacity and capability.

In the U.S., our shipyard successfully delivered *El Coqui* and *Taino*, which are among the world's first Combination Container Roll-on/Roll-off (ConRo) ships powered by liquefied natural gas (LNG), to Crowley in July and December respectively. These two U.S.-flagged, Commitment-class ConRos are expected to transport up to 300 refrigerated containers and a mix of about 400 cars and larger vehicles in the enclosed and weather-tight Ro/Ro decks between



Singapore's Minister for Defence Ng Eng Hen (centre) visited Marine's showcase at Singapore Airshow 2018.

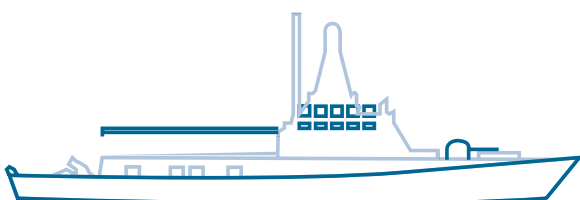
Jacksonville, Florida and San Juan, Puerto Rico. The ConRos have been lauded as shining examples of the technological innovation that will drive the future of the maritime industry.

Our shipyard in the U.S. also launched *Powhatan*, a 499-passenger/70-vehicle ferry from its Pascagoula facility in Mississippi in the second half of 2018. *Powhatan* is an addition to the Jamestown-Scotland Ferry fleet managed by the VDOT, which is the only 24-hour, state-run ferry in Virginia. The U.S. team also laid the keel for America's first LNG Articulated Tug and Barge (ATB) unit in

May. We are on track to deliver this LNG ATB to Q-LNG in 2020 before it is deployed to support Shell Trading (U.S.) Company's LNG fuel transport to various ports in Florida and the Caribbean. Construction of *Evening Breeze*, an ABS-class tug for Bouchard, plus another ATB Tug, are underway and remain on schedule for delivery in 2019 and 2020 respectively.

We ended the year on a high note, with a series of defence and commercial newbuild orders.

In Singapore, we were awarded a contract for the design, construction and maintenance



We launched the sixth and seventh LMV,

Fortitude and Dauntless respectively, for RSN in 2018.



The LMV Dauntless at the launch event in August.

of Fast Patrol Boats for the Singapore Police Coast Guard. Construction of the Boats is expected to commence in mid-2019.

The U.S. Department of the Navy awarded VT Halter Marine several contracts, including one to design and construct two Auxilliary Personnel Lighter Small (APL(S)) APL-67 Class Berthing Barges, with the option of another four, and another for the engineering and procurement service to support the new T-AGS 67 Oceanographic Survey Ship for Naval Sea Systems Command. We were also awarded a contract to design and construct two Logistics Support Vessels for a foreign government.

On the commercial front, we were awarded a contract for engineering design, procurement and construction of a 145MW floating power barge by Seaboard Corporation subsidiary Transcontinental Capital Corporation (Bermuda) Ltd., an Independent Power Producer with operations in the Dominican Republic. In addition, we announced order wins from Bouchard and Q-LNG. These contract wins amidst a challenging market speak volumes of the trust and confidence that our customers have in our capabilities.

SHIP, RIG AND RELATED REPAIRS

Competition for repair, conversion and upgrade works intensified as price competition remained stiff. That said, we specialised in dredgers, livestock carriers and tankers repair works and continued to receive healthy levels of enquiries for these vessel types. We completed a wide range of repair and upgrade works for bunker tankers,

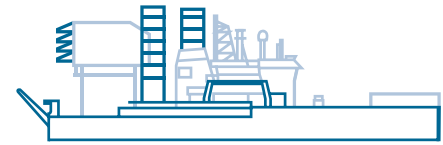
research vessels, support vessels, dredgers, tankers and livestock carriers in Singapore and the U.S..

Our expansion into superyacht repairs has also yielded encouraging results. We completed five superyachts with a few more in the pipeline.

One year post-acquisition, our rig repair business in the U.S. reported good progress in terms of project execution and business opportunities. We increased marketing efforts to publicise our key competencies. These active engagements allowed us to build upon our relationships with prominent drillers and operators such as Rowan Companies, Helix Energy Solutions, Enterprise Offshore Drilling and Diamond Offshore Company, which opened doors to opportunities including first rights for tender bids.

Notably, we concluded a turnkey engineering, fabrication and installation project for the POSH Xanadu accommodation semi-submersible, upgraded its walk-to-work gangway pedestal and tower staircase, and installed a new safety system and refuelling modules on the helideck.

We also performed maintenance services for the Helix Energy



We won a contract for the engineering design, procurement and construction

of a 145MW floating power barge that will be used as a power generating facility.

Solutions Group's Q5000 well intervention semi-submersible, which includes an underwater inspection in lieu of dry-docking (UWILD) regulatory survey and maintenance support for the rig's equipment.

ENVIRONMENTAL ENGINEERING

The Group has identified Smart City as a growth lever and the Marine sector participates through our expertise in delivering large scale sustainable solutions. We want to be a prominent contributor to the water, wastewater and solid waste management industries and we have been working to build our record of accomplishments in these disciplines across Asia.

We were awarded a contract in 2012 to design, build and operate a Pneumatic Waste Collection System (PWCS) in the Tianjin Eco-City on a design, build, operate, own and transfer model. In 2018, we reached a new milestone as we entered



We designed and constructed *Powhatan*, a 499-passenger/70-vehicle ferry operated by the VDOT.

OPERATING REVIEW & OUTLOOK

the operations and maintenance phase of the project.

Construction of the Jurong Island Desalination Plant (JIDP) in Singapore kicked off in August. The Marine sector formed an Engineering, Procurement and Construction consortium with Tuas Power and the consortium set up a 40:60 joint venture to undertake the subsequent operations and maintenance aspects of the plant for a concession period of 25 years from 2020. In November, the sector was awarded a contract to provide mechanical and electrical systems for the JIDP.

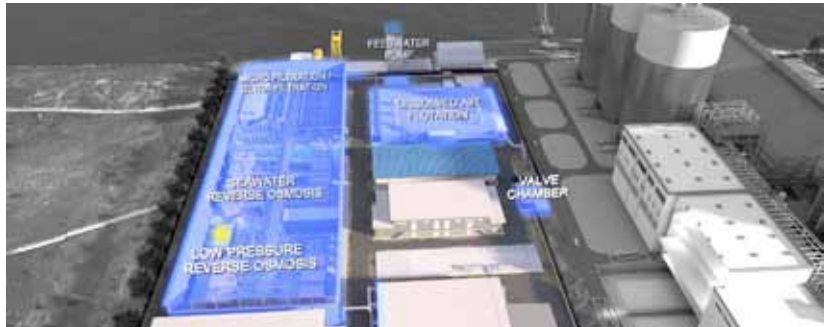
INDUSTRY OUTLOOK 2019

Overall, the marine industry is cautiously optimistic that 2019 could bring about improved market conditions. In the U.S. Gulf of Mexico, oil production is expected to rise which hopefully will translate into more rigs and offshore support vessels being utilised.

The year will also see disruptions that will arise from new environmental regulations affecting the maritime industry such as the 2020 IMO fuel sulphur regulation.



POSH Xanadu is an accommodation rig deployed in the Gulf of Mexico to support Chevron's Big Foot project.



Construction work on the JIDP, Singapore's fifth desalination plant, commenced in August 2018. The facility is expected to be operational from 2020.

Shipbuilding

Gearing up for a better outlook, we will look to delivering existing shipbuilding contracts and winning new ones in the commercial and defence areas globally to drive growth in 2019. However, vessel overcapacity coupled with a continued lack of financing for ship owners could jeopardise this effort.

After the successful delivery of the second ConRo, *Taino* in December 2018, to be followed by the SCDF's Heavy Fire Vessel in 2019, we will continue to focus on marketing customised and niche vessels such as wind farm support vessels, fishery vessels, dredgers, clean fuel vessels and superyachts.

The demand for LNG/LPG-powered vessels will continue to increase with the impending IMO 2020 fuel sulphur regulation. We will continue to capitalise on our experience and expertise acquired from the design and construction of the two dual-fuelled ConRos as well as the 4,000 cbm LNG ATB Bunkering Barge programme in the U.S. to market and secure more orders in this segment. In Singapore, we are designing and building a 145MW Power Barge that utilises clean LNG to produce power for consumption in the Dominican Republic.

Building upon our experience and historical success in High Speed Aluminium Vessels, we are expanding our focus to target both defence and commercial opportunities of such vessels. With the increasing global demand for Crew Transfer Vessels, High Speed Passenger and RoPax Ferries, and the continuing demand for fast military and paramilitary craft, we are expanding our product portfolio to offer customisable market leading solutions.

For the defence segment, we are seeing an increase in demand for in-shore and off-shore patrol vessels and will continue to focus on the patrol vessel market in 2019. This is largely driven by the need for heightened maritime security to maintain sea lines of communication.

Recognising the potential and the growing interest in autonomous vessels, we have built up capabilities to provide unmanned maritime solutions for commercial and naval applications. From design and build to conversion of existing manned vessels into autonomous vessels, we are able to provide a full suite of solutions to fulfil the different needs of our customers.

Ship Repair and Design

As for defence shipbuilding, we will remain steadfast in delivering cutting-edge high-tech naval platforms that offer great versatility for navies and coast guards. These include unmanned vessels, fast patrol boats, patrol vessels, landing platform docks for humanitarian assistance as well as multi-role combat vessels. We pledge to provide continuous quality refit services and long-term lifecycle support services to the navies.

For ship repair in Singapore, we are seeing more enquiries from tanker operators in addition to the dredging and offshore sectors. There is also an increase in tender for marine structure work, structural modules for jack-ups and living quarters for offshore. For conversion, we are focused on small/medium LNG carriers, powerships and exploration vessels to feed growing market demand.

The repairing of tank barges and extension programme on navy vessels will be a focal area in the U.S.. In rig repair, we will continue to be influenced by fluctuating oil prices but the current focus will be on upgrading rig drillers with passive heave compensators to support drilling activities in Gulf of Mexico. We are in a good position to benefit from the recovery should the trend translate into asset reactivations, conversions and upgrades.

We will continue to leverage our unique position and key competitive advantage as one of the few shipyards in the world with a complete through-life cycle support programme, from ship design and building, to ship repair, upgrade, maintenance and integration. We have a product and solution division that delivers ship management solutions and sensemaking system, using technologies in data analytics and artificial intelligence. In addition, we also have a specialised team and facilities equipped with comprehensive engine overhaul and testing services

to provide one-stop engine repair and maintenance services.

Environmental Engineering

As Singapore transforms itself into a smart nation, our focus will continue to be on water and wastewater treatment, and waste-to-energy projects. In the near future, we want to be known as a prominent Design-Build-Own-Operate (DBOO), Engineering, Procurement & Construction (EPC) and Operations & Maintenance (O&M) player in sea water desalination, NEWater and solid waste treatment. Having taken a first step with the DBOO of the JIDP, we will continue building on our track record in these disciplines towards projects of even grander scale in and outside Singapore.

Spearheading the Future of the Maritime Industry

In 2019 and beyond, we expect demand for LNG-powered vessels to be higher as the maritime industry adopts new technologies to ensure compliance with regulations to promote a more sustainable marine environment. Backed by our engineering expertise and knowledge in constructing niche vessels, we see opportunities abound. With a solid track record having just delivered the two ConRos, *El Coqui* and *Taino*, as well as the Ropax *Nova Star*, we are confident this new trend bodes well for us.

We will continue to explore other opportunities downstream of the gas value chain and stay highly focused on taking our capabilities in developing smart autonomous vessels to the next level. Autonomous operations will gain momentum as one of the key technologies and major technological advancements influencing and shaping the future of maritime operations. We strive towards improving operational efficiency, performance, and navigation safety to drive down operation costs for our customers. This will affirm our position as a global leader in providing innovative and sustainable total solutions.

KEY FOCUS IN 2019



1. Leverage our unique position as one of the few shipyards in the world with a complete through-life cycle support programme, and integrate technology in our solutions to value-add to our customers.



2. Continue to focus on growing our expertise in constructing highly-customised vessels.



3. Continue to hone our expertise in specialised conversions of energy and wind farm support vessels, repair and maintenance of super and mega yachts, upgrading of heavy construction vessels and lengthening of livestock carriers.

FINANCIAL REVIEW

RESILIENT FINANCIAL RESULTS

The Group delivered a resilient set of results and maintained the momentum for new contracts. Excluding one-off charges mainly incurred to rationalise our portfolio, the underlying operating performance of our business sectors remained strong.

The Group recorded a 3% year-on-year (y-o-y) increase in revenue to \$6.70b for FY2018. Profit before tax (PBT) grew 1% to \$620.7m compared to the prior year, and Profit attributable to shareholders (Net Profit) dropped 2% y-o-y to \$494.2m. Excluding one-off charges¹ of \$37m before tax, PBT would have been 7% higher y-o-y at \$657.3m, and Net Profit would have been 9% up y-o-y at \$526.8m if prior year's one-off favourable U.S. tax adjustment of \$20m was excluded as well.

Economic Value Added (EVA) for the Group grew by 1% to \$306.0m for FY2018.

The most significant investment transaction for the Group during the year was the proposed acquisition of MRAS. The acquisition will allow us to scale up our aerospace capabilities by moving into the OEM business of high-value engine nacelle systems. The acquisition was subject to regulatory approvals as at end of 2018.

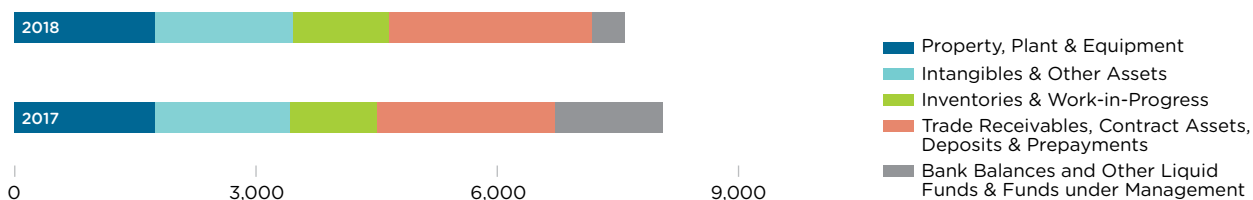
The Group ended the year with a strong order book of \$13.2b.

The Board proposes to pay shareholders a final dividend of 10.0 cents per share. Together with the interim dividend of 5.0 cents per share paid in August 2018, total dividend for FY2018 is 15.0 cents per share.

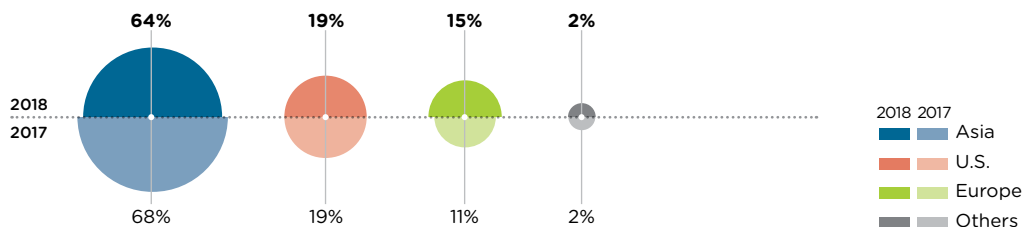
FINANCIAL POSITION

As at 31 December 2018, the Group's total assets decreased \$451m or 6% to \$7,573m. The decrease in total assets was due mainly to the MTN redemption, partially offset by the increase in trade receivables and contract assets for the Group's on-going operations and projects.

TOTAL ASSETS DEPLOYMENT (\$m)



TOTAL ASSETS BY GEOGRAPHY

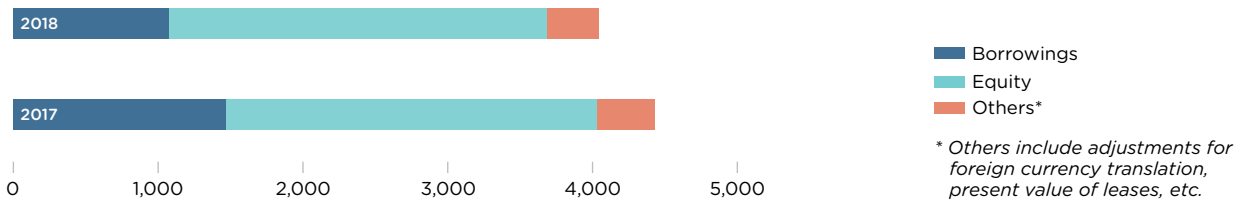


¹ One-off charges related to portfolio rationalisation, transaction cost of the proposed MRA Systems acquisition and the redemption of US\$500m 4.80% Notes. In respect of portfolio rationalisation, the Group incurred divestment losses in our pilot training school in the U.S. and road construction business in India, full impairment charges for the road construction business and automotive MRO business in Brazil, partially offset by divestment gains of a 5% stake in a joint venture with Guangdong Airport Authority in China and a joint venture with Airbus Helicopters in Singapore.

Comparative figures were restated on the adoption of Singapore Financial Reporting Standards (International) (SFRS(1)) with effect from 1 January 2018.

The average capital employed in FY2018 was \$4,051m, a decrease of \$386m from \$4,437m in FY2017. The reduction came from lower borrowings after the MTN redemption during the year.

CAPITAL EMPLOYED (\$m)

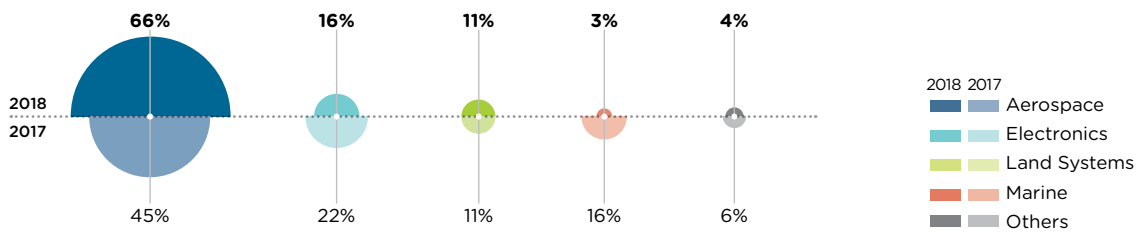


CAPITAL EXPENDITURE

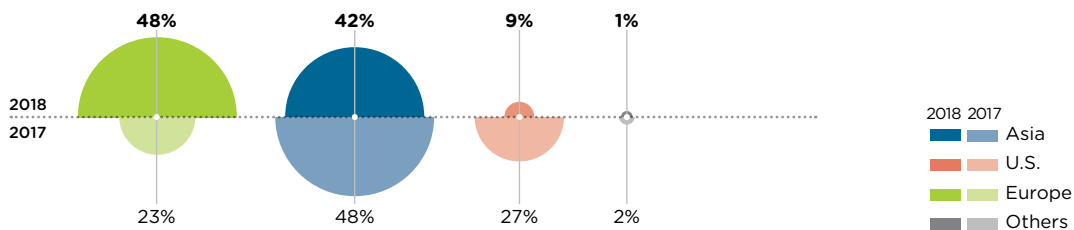
In FY2018, the Group invested \$335m (2017: \$273m) in capital expenditure, of which about 93% or \$311m was deployed for capacity expansion to support growth opportunities, such as our new composite

manufacturing plant and new aircraft hangar in Germany for the Aerospace sector, and a building expansion in west of Singapore for our Electronics sector. We also funded the purchase of two aircraft for our aircraft leasing business.

CAPITAL EXPENDITURE BY SECTOR



CAPITAL EXPENDITURE BY GEOGRAPHY



FINANCIAL REVIEW

TREASURY MANAGEMENT

ST Engineering operates internationally and is exposed to financial risks, comprising foreign exchange, liquidity, interest rate and credit risks. The Group recognises that prudent management of financial risks is important and has established treasury policies and guidelines to mitigate them. The treasury policies and guidelines are revised to reflect changes in the operating environment.

Treasury activities are actively managed through the Group's wholly owned treasury entity, ST Engineering Treasury Pte. Ltd. to ensure effective management of the Group's liquidity and financial risk exposures. During the year, the Group implemented an electronic trading platform and a treasury management system with straight through processing coupled with an in-house bank model.

On 16 July 2018, the Group completed its early redemption of US\$0.5b 4.80% Notes due 2019 guaranteed by ST Engineering and issued under its US\$1.2b Multicurrency Medium Term Note (MTN) Programme. The Group's capital employed was immediately reduced as a result of the early redemption of these Notes. To fund future growth as the

need arises, the Group continues to be able to tap into financing with competitive terms.

Banking Facilities

The Group has banking facilities of approximately \$16.0b (2017: \$15.4b) as at 31 December 2018 to support business operations in the areas of trade finance, hedging and credit.

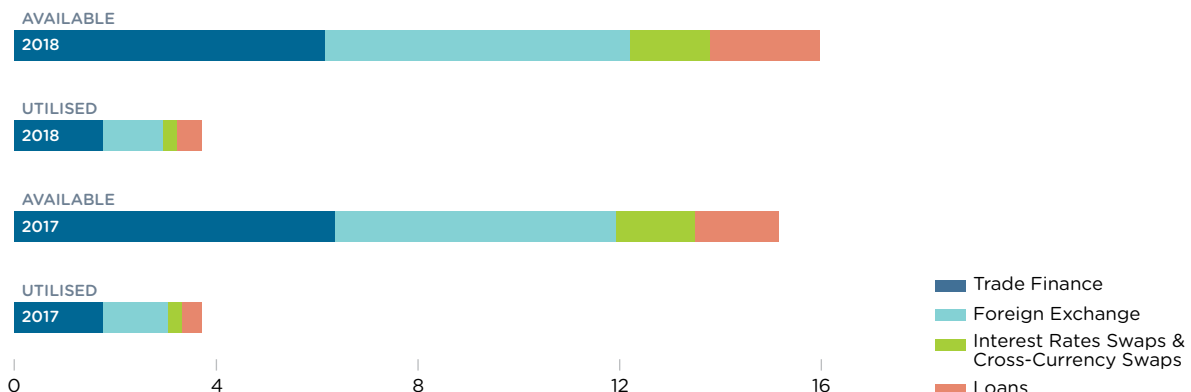
As at 31 December 2018, the Group has utilised \$3.8b or 24% of its total available facilities (2017: \$3.9b or 25%) with \$12.2b or 76% (2017: \$11.5b or 75%) remaining available.

Foreign Exchange

The Group has receivables and payables denominated in foreign currencies. Where possible, the Group offsets currency exposures across its business units before hedging remaining currency exposures in the market via foreign exchange forward contracts. The main currencies transacted in 2018 for the Group were USD and EUR.

During the year, the Group engaged in approximately \$2.5b (2017: \$1.5b) equivalent of foreign exchange transactions. As at 31 December 2018, \$1.1b (2017: \$0.9b) remained as outstanding foreign exchange transactions.

BANKING FACILITIES (\$b)



Liquidity

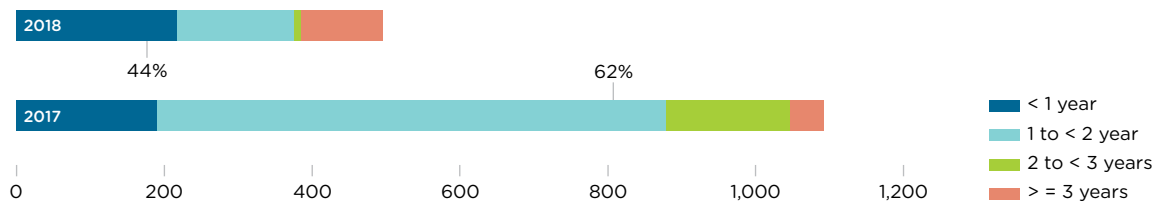
The Group's cash and cash equivalents, including funds under management, stood at \$0.4b as at 31 December 2018 (2017: \$1.3b). The decrease was mainly attributed to the early redemption of outstanding Notes issued under the Multicurrency MTN Programme.

Funds under management, which had been invested in SGD and USD fixed income instruments, were liquidated in 2018 to partially fund the above redemption.

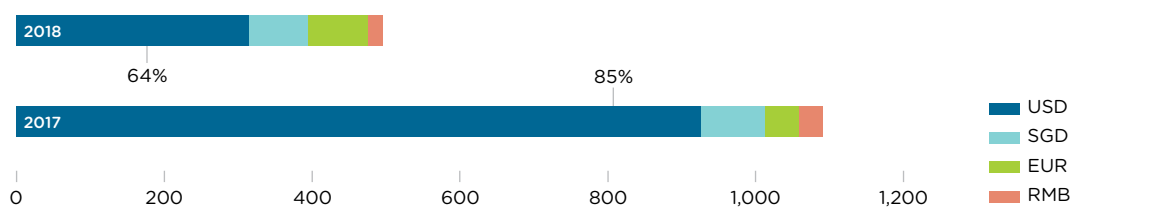
Borrowings

With the early redemption of the outstanding Notes, the Group's borrowings were reduced to \$0.5b as at 31 December 2018 (2017: \$1.1b), comprising short-term and long-term loans from banks, lease obligations and other loans. These debt obligations were taken out to support the Group's operations and included the following currencies and proportion of debt: 64% in USD, 16% in SGD, 16% in EUR and 4% in RMB.

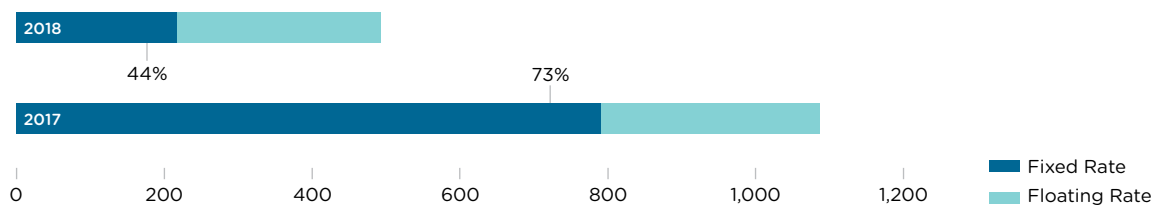
BORROWING PROFILE BY MATURITY (\$m)



BORROWING PROFILE BY CURRENCY (\$m)



BORROWING PROFILE BY FIXED AND FLOATING RATES (\$m)



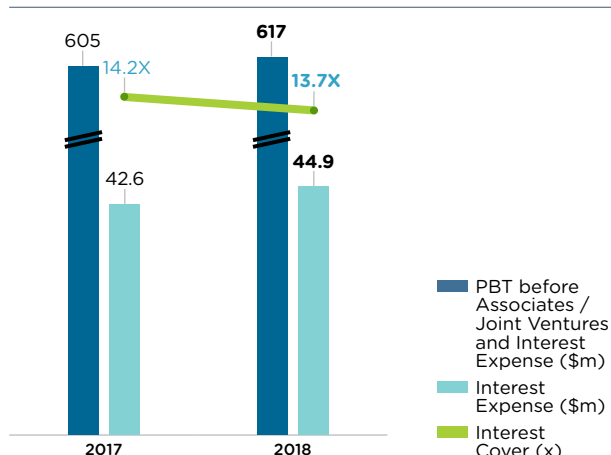
FINANCIAL REVIEW

DEBT RATIOS

Interest Cover Ratios

The Group's interest cover ratio decreased to 13.7 times in FY2018 (2017: 14.2 times). The lower interest cover was due to higher interest expense even though higher PBT were recorded in FY2018.

INTEREST COVER



Net Debt/Equity Rate

Net debt/equity ratio increased from 0.1 times to 0.2 times in 2018 from lower net cash from operating activities, higher investment in property, plant and equipment and additions to intangible assets.

	2018	2017	2016
Net Debt (\$m)	413	146	59
Equity (\$m)	2,535	2,496	2,428
Net Debt/Equity Ratio	0.2	0.1	0.0

CASH FLOWS

Operating Activities

The Group generated net cash of \$639m from its operating activities as compared to \$764m in FY2017. The decrease in net cash from operating activities was due to increase in trade receivables and contract assets for the Group's on going operations and projects, partially offset by higher operating profits generated in FY2018 and higher trade payables.

Investing Activities

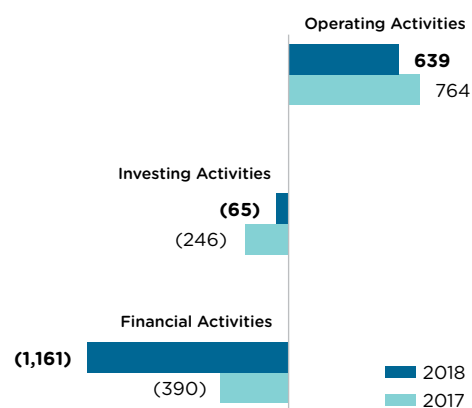
Net cash used in investing activities of \$65m in FY2018 arose mainly from the Group's investment in property, plant and equipment by Aerospace (\$221m), Electronics (\$54m), Land Systems (\$37m), Marine (\$10m) sectors and Others (\$14m), and additions to intangible assets (\$115m), partially offset by proceeds from sale of investments (\$375 million).

Financing Activities

Net cash used in financing activities of \$1.16b in FY2018 was mainly attributable to the MTN redemption (\$681m) and payment of FY2017 final dividend and FY2018 interim dividend (\$468m).

The Group ended the year with cash and cash equivalents (CCE) of \$414m, a decrease of \$583m from FY2017.

CASH FLOWS (\$m)



TAX

The Group's effective tax rate for 2018 is 17%. This is similar to the Group's effective tax rate for FY2017 of 17% after excluding the impact from the re-measurement of deferred tax balances due to the U.S. tax reform.

SIGNIFICANT ACCOUNTING POLICIES

The Group's financial statements are prepared in accordance with Singapore Financial Reporting Standards (International) (SFRS(I)). These are the Group's first financial statements prepared in accordance with SFRS(I) and SFRS(I) 1 *First-time Adoption of Singapore Financial Reporting Standards (International)* has been applied. In preparing the opening SFRS(I) balance sheet, the Group has adjusted amounts reported previously in the financial statements prepared in accordance with previous FRS.

An explanation of how the transition from previous FRS to SFRS(I) and the adoption of SFRS(I) 9 and SFRS(I) 15 have affected the Group's balance sheet, income statement and cash flows is set out under Notes to the Financial Statements, Note G2.

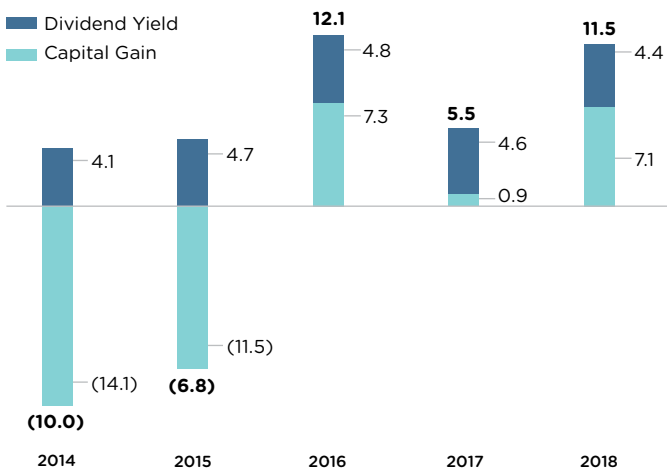
The Group has applied the same accounting policies and methods of computation in the preparation of the financial statements' opening SFRS(I) balance sheet as at 1 January 2017 for the purposes of transition to SFRS(I) for the current reporting period. The significant accounting policies are presented at the end of each Notes to the Financial Statements (pages 154 to 274).

TOTAL SHAREHOLDER RETURN

The Group ended the year with \$414m of cash and cash equivalents post-MTN redemption. ST Engineering paid an interim dividend of 5.0 cents per share to shareholders in August 2018 and will recommend a final dividend of 10.0 cents per share to shareholders at the forthcoming Annual General Meeting. The total dividend per share (DPS) for FY2018 is 15.0 cents. Based on the average share price of \$3.375, the DPS of 15.0 cents translates to a dividend yield of 4.4%.

ST Engineering's share price at the end of 2018 was \$3.49, a 7.1% increase as compared to the prior year. Over the same period, the corresponding benchmark Straits Times Index (STI) declined by 9.8%. With a dividend yield of 4.4%, shares of ST Engineering generated a total positive shareholder return of 11.5%.

TOTAL SHAREHOLDER RETURN (%)



FINANCIAL REVIEW

ECONOMIC VALUE ADDED (EVA)

The Group's FY2018 EVA attributable to shareholders of \$306.0m was 1% or \$2.2m higher than that achieved in FY2017. The increase in EVA was mainly attributable to lower capital charge, partially offset by lower net operating profit after tax (NOPAT).

EVA Statement	2018 \$m	2017 \$m
Net profit before tax	571.7	562.5
Adjust for:		
Share of results of associates and joint ventures, net of tax	49.1	49.3
Interest expense	54.5	53.2
Others	2.6	8.2
Adjusted profit before interest and tax	677.9	673.2
Cash operating taxes (Note 1)	(127.0)	(110.8)
Net operating profit after taxation - (a)	550.9	562.4
Average capital employed (Note 2)	4,051.0	4,436.5
WACC (Note 3) (%)	5.7	5.7
Capital charge	(230.9)	(252.9)
Adjustment to capital charge (Note 4)	(11.6)	(2.6)
Adjusted capital charge - (b)	(242.5)	(255.5)
EVA - [(a) - (b)]	308.4	306.9
Non-controlling interests' share of EVA	(2.4)	(3.1)
EVA attributable to shareholders	306.0	303.8

Note 1: The reported current tax is adjusted for the statutory tax impact of interest expense.

Note 2: Monthly average equity plus interest bearing liabilities, timing provision and present value of operating leases.

Major Capital Components:

	\$m
Borrowings	1,079.2
Equity	2,615.4
Others	356.4
	4,051.0

Note 3: The Weighted Average Cost of Capital is calculated in accordance to ST Engineering Group EVA Policy as follows:

- i) Cost of Equity using Capital Asset Pricing Model with market risk premium at 5.0%;
- ii) Risk-free rate of 2.02% (2017 @ 2.35%) based on yield-to-maturity of Singapore Government 10 years Bonds;
- iii) Ungeared beta at 0.71 (2017 @ 0.71) based on ST Engineering risk categorisation; and
- iv) Cost of debt at 3.66% (2017 @ 3.37%) using actual cost of debt of the borrowings in US, Europe, China and Singapore.

Note 4: Adjustment on deferred capital charge on some acquisitions.

VALUE ADDED

The Group's total value added for FY2018 of \$2,936m was 3% higher as compared to that of FY2017.

Value Added Statement	2018 \$m	%	2017 \$m	%	2016 \$m	%	2015 \$m	%	2014 \$m	%
Value added from:										
Revenue earned	6,697.9		6,521.1		6,683.7		6,335.0		6,539.4	
Bought in materials and services	(3,857.1)		(3,778.4)		(3,942.3)		(3,792.5)		(4,022.0)	
	2,840.8		2,742.7		2,741.4		2,542.5		2,517.4	
Other income	35.0		38.7		67.8		55.4		40.2	
Finance income	22.3		38.7		33.7		56.2		43.5	
Finance costs (exclude interest expense)	(11.0)		(15.0)		(3.3)		(10.1)		(7.3)	
Share of results of associates and joint ventures, net of tax	49.1		49.3		63.8		58.3		57.2	
Total value added	2,936.2		2,854.4		2,903.4		2,702.3		2,651.0	
Distribution of total value added										
To employees in wages, salaries and benefits	2,001.2	68	1,945.1	68	1,941.0	67	1,807.7	67	1,739.2	66
To government in taxes and levies	126.7	4	107.1	4	119.2	4	118.4	4	136.5	5
To providers of capital on:										
• Interest paid on borrowings	44.9	2	42.6	1	42.4	1	39.7	2	37.9	1
• Dividends to shareholders	468.0	16	467.6	16	465.9	16	497.6	18	498.8	19
	2,640.8		2,562.4		2,568.5		2,463.4		2,412.4	
Balance retained in business										
Depreciation and amortisation	244.0		217.0		247.3		187.3		170.5	
Retained profits	28.2		35.1		58.9		36.3		48.2	
Non-controlling interests	22.2		23.5		8.3		2.6		5.0	
	294.4	10	275.6	10	314.5	11	226.2	8	223.7	8
Non-production costs	1.0		16.4	1	20.4	1	12.7	1	14.9	1
Total distribution	2,936.2	100	2,854.4	100	2,903.4	100	2,702.3	100	2,651.0	100
Value added per employee (\$)	137,092		132,771		132,131		120,704		116,935	
Value added per \$ of employment costs (\$)	1.46		1.46		1.49		1.49		1.52	
Value added per \$ of gross property, plant and equipment (\$)	0.76		0.76		0.81		0.78		0.83	
Value added per \$ of revenue (\$)	0.44		0.44		0.43		0.43		0.41	

FINANCIAL REVIEW

5-Year Key Financial Data	2018	2017	2016	2015	2014
Income Statement (\$m)					
Revenue	6,698	6,521	6,684	6,335	6,539
Profit					
EBITDA	814.3	759.8	718.4	697.6	725.5
EBIT	570.3	542.8	471.1	510.3	555.0
PBT	620.7	611.8	590.6	630.3	650.7
Net Profit	494.2	502.6	484.5	529.0	532.0
Balance Sheet (\$m)					
Property, plant and equipment	1,743	1,719	1,670	1,709	1,578
Intangible and other assets	1,716	1,675	1,570	1,370	1,311
Inventories and work-in-progress	1,184	1,082	1,898	1,943	1,802
Trade receivables, contract assets, deposits and prepayment	2,516	2,199	1,824	1,694	1,916
Bank balances and other liquid funds and funds under management	414	1,349	1,403	1,453	1,712
Current liabilities	3,851	3,587	3,801	3,720	3,716
Non-current liabilities	1,187	1,941	2,120	2,188	2,339
Share capital	896	896	896	896	889
Treasury shares	(9)	(23)	(44)	(67)	(6)
Capital and other reserves	46	52	57	48	24
Retained earnings	1,313	1,290	1,274	1,255	1,225
Non-controlling interests	288	281	262	129	132
Financial Indicators					
Earnings per share (cents)	15.85	16.13	15.60	17.05	17.06
Net assets value per share (cents)	72.00	71.09	70.20	68.74	68.38
Return on sales (%)	7.7	8.1	7.4	8.4	8.2
Return on equity (%)	22.0	22.7	22.2	24.8	24.9
Return on total assets (%)	6.8	6.6	5.9	6.5	6.5
Return on capital employed (%)	13.6	12.7	12.0	14.6	14.0
Dividend					
Gross dividend per share (cents)	15.0	15.0	15.0	15.0	15.0
Dividend yield (%)	4.44	4.62	4.81	4.68	4.08
Dividend cover	1.06	1.07	1.04	1.13	1.14
Productivity Data					
Average staff strength (numbers)	21,418	21,499	21,974	22,388	22,671
Revenue per employee (\$)	312,724	303,319	304,166	282,965	288,449
Net profit per employee (\$)	23,076	23,379	22,049	23,630	23,464
Employment costs (\$m)	2,007.7	1,951.6	1,947.5	1,813.7	1,745.8
Employment costs per \$ of revenue (\$)	0.30	0.30	0.29	0.29	0.27
Economic Value Added (\$m)	306.0	303.8	252.4	355.1	344.5
Economic Value Added spread (%)	7.6	6.9	5.5	8.7	8.4
Economic Value Added per employee (\$)	14,285	14,130	11,488	15,861	15,197

Figures from FY2014 to FY2016 were prepared in accordance with the previous FRS and were not restated on adoption of SFRS(I).

REVENUE

(\$b)

GROUP

\$6.70b

2018	6.70
2017	6.52
2016	6.68
2015	6.34
2014	6.54

PROFIT BEFORE TAX

(\$m)

\$620.7m

2018	620.7
2017	611.8
2016	590.6
2015	630.3
2014	650.7

NET PROFIT

(\$m)

\$494.2m

2018	494.2
2017	502.6
2016	484.5
2015	529.0
2014	532.0

AEROSPACE

\$2.65b

2018	2.65
2017	2.54
2016	2.48
2015	2.09
2014	2.06

\$320.0m

2018	320.0
2017	318.5
2016	300.3
2015	290.6
2014	283.0

\$244.6m

2018	244.6
2017	244.8
2016	234.4
2015	226.7
2014	220.1

ELECTRONICS

\$2.14b

2018	2.14
2017	2.01
2016	1.89
2015	1.71
2014	1.58

\$224.7m

2018	224.7
2017	200.2
2016	207.8
2015	191.0
2014	184.0

\$186.5m

2018	186.5
2017	168.8
2016	174.5
2015	163.0
2014	152.1

LAND SYSTEMS

\$1.28b

2018	1.28
2017	1.24
2016	1.39
2015	1.47
2014	1.46

\$62.3m

2018	62.3
2017	85.0
2016	38.8
2015	73.3
2014	57.8

\$52.9m

2018	52.9
2017	87.4
2016	25.5
2015	62.6
2014	51.5

MARINE

\$0.57b

2018	0.57
2017	0.64
2016	0.84
2015	0.96
2014	1.34

\$50.3m

2018	50.3
2017	22.4
2016	75.1
2015	88.3
2014	122.8

\$45.2m

2018	45.2
2017	27.0
2016	67.8
2015	85.7
2014	108.1

INVESTOR RELATIONS

We are committed to regular, clear and open communications with the investing community.

As we pursue our aspiration to become a global engineering, defence and technology powerhouse, it is vital for the investing community to understand our longer term plans for informed decision-making.

TRANSPARENCY AND TIMELY DISCLOSURES

Our website is a repository for corporate information, SGX announcements, news releases, quarterly results reports, annual reports, investor events, stock and dividend information. Investors can subscribe to email alerts to receive latest updates on the Group or reach out to the Investor Relations (IR) team through the 'Contact Us' page or email ir@stengg.com.

REGULAR ACCESS TO MANAGEMENT

During 2018, the management and IR team participated in investor conferences and roadshows in Europe, Hong Kong, Japan, Singapore and the U.S.. We hosted sell-side analysts and institutional investors at our facilities and trade shows in Singapore, held post-results lunches, one-on-one and group meetings with them to discuss the Group's business strategies, opportunities and challenges.

At every quarter when we announce our financial results, sell-side analysts and media are invited to our results briefings. Institutional investors and the public can also participate via



More than 50 institutional investors and sell-side analysts visited us at Singapore Airshow 2018.

live webcasts including taking part in the Q&A sessions online. An archive of the quarterly results webcast, together with the presentation material, are made available on our dedicated IR website on the same day of our results release.

In March, we held an Investor Day conference to share our growth targets and five-year plan (2018-2022). Our management and business leaders interacted with over 60 analysts and institutional investors through business presentations, solutions showcase and a Q&A session at this event. To ensure that retail investors are also apprised of the Group's growth plan, our President & CEO delivered a similar presentation at our 21st Annual General Meeting held in April.

We are committed to maintaining a multi-channel IR programme to promote two-way communications with the investing community, and will always explore more ways to enhance our communications to build stronger trust and confidence in us.



Management shares the Group's five-year plan to strengthen our core businesses while growing International Defence and Smart City businesses on our Investor Day.

2018 INVESTOR RELATIONS CALENDAR

Q1

- Singapore Airshow 2018
- Annual management lunch with sell-side analysts
- FY2017 results briefing with live webcast
- Post-results investor lunch
- ST Engineering Investor Day

Q2

- 21st Annual General Meeting
- 1Q2018 results briefing with live webcast
- DBAccess Asia Conference 2018 (Singapore)
- Investors visit at the Aerospace facility
- SGX-DBS Singapore Corporate Day (New York)
- Non-deal roadshow in Canada and the U.S.
- Investors visit at the Electronics facility
- Citi ASEAN Conference 2018 (Singapore)

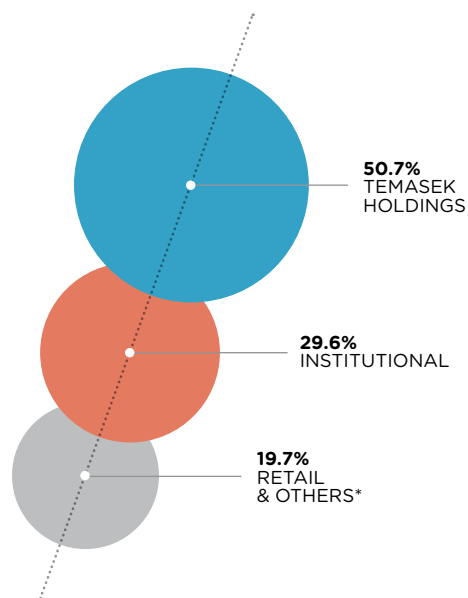
Q3

- Non-deal roadshow in London
- 2Q2018 results briefing with live webcast
- Non-deal roadshow in Hong Kong
- Post-results investor lunch
- Macquarie ASEAN Conference 2018 (Singapore)
- Non-deal roadshow in Japan

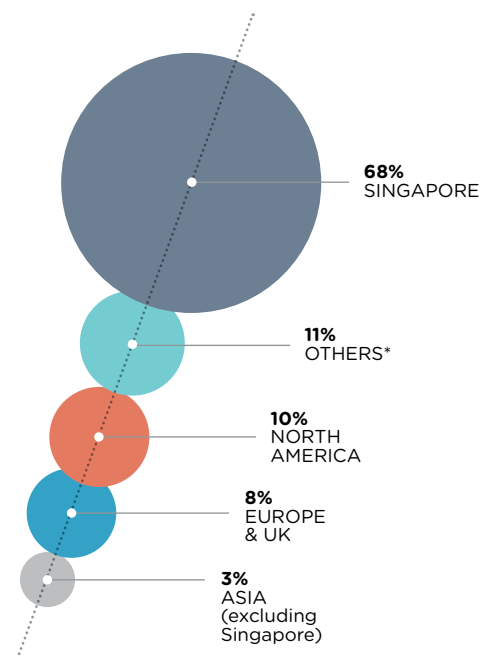
Q4

- 3Q2018 results briefing with live webcast
- Post-results investor lunch
- Morgan Stanley Asia Pacific Summit 2018 (Singapore)

SHAREHOLDING BY TYPE



SHAREHOLDING BY GEOGRAPHY



* Others include unidentified holdings and holdings below analysis threshold

AWARDS



(Left)
Eleana Tan, Chief Corporate Officer, receiving the Most Transparent Company Award on behalf of ST Engineering at SIAS 19th Investors' Choice Awards.

(Right)
Aerospace President Lim Serh Ghee receiving Industry Leader of the Year 2018 award at the Aviation 100 MRO Global Awards.

BUSINESS EXCELLENCE

Most Transparent Company Award
(Winner for Multi-Industries category) at the 19th Investors' Choice Awards
By Securities Investors Association (Singapore)

Industry Leader of the Year 2018 at the Aviation 100 MRO Global Awards
By Airline Economics

Overall MRO of the Year 2018 at the Aviation 100 MRO Global Awards
By Airline Economics

MRO Management of the Year 2018 at the Aviation 100 MRO Global Awards
By Airline Economics

IES Prestigious Engineering Achievements Awards 2018
By Institution of Engineers Singapore
IoT-enabled on-demand lighting for the Smart Nation

INVESTOR RELATIONS

Best in Sector (Industrials category) at the IR Magazine South East Asia Awards 2018
By IR Magazine

PEOPLE

NS Advocate Award (Large Companies)
By MINDEF

(ISC)² Asia-Pacific Information Security Leadership Achievements (ISLA[®]) Managerial Professional Award
By The International Information System Security Certification Consortium



The team for VENUS Unmanned Surface Vessel, an innovation that performs mine-countermeasure and maritime security measures with reduced manpower and cost, receiving the Defence Technology Prize 2018 (Research & Development) award.

PRODUCT QUALITY

**ASEAN Energy Award
(Special Submission
Category)**
By ASEAN Centre for Energy

**Best Selling N95 Mask at
Watsons Singapore Health,
Wellbeing and Beauty
Awards 2018**
By Watsons Singapore
AIR+ Smart Mask

Good Design Award 2018
By Japan Institute of
Design Promotion
Aircraft seats

**BCA Green Mark
Platinum Award
(Non-Building Category)**
By Building and
Construction Authority

**Install Awards for Education
Project of the Year**
By Installation

**CES 2019 Innovation
Awards Honoree**
By Consumer
Technology Association
DigiSAFE DiskCrypt M10

CORPORATE CITIZENSHIP

**Community Chest
SHARE Award 2018**
By Community Chest
19 of the Group's business units
received Community Chest
Awards in the Platinum,
Gold, Silver, Bronze and
Achiever categories.

Star of Commendation Award
By Singapore Industrial and
Services Employees' Union

DEFENCE

NS Mark Award (Gold)
By MINDEF

Total Defence Award
By MINDEF

**Defence Technology Prize
(R&D) Award**
By MINDEF
VENUS Unmanned
Surface Vessel

WORKPLACE SAFETY & HEALTH

**Safety & Security Watch
Group Outstanding
Cluster Award 2018**
By Singapore Police Force

**Safety & Security
Watch Group Outstanding
Cluster Award 2018**
By Singapore Civil
Defence Force

**WSH Awards
Performance 2018**
By WSH Council,
Ministry of Manpower

**20th Annual Safety
Award Convention**
By Land Transport
Authority

**National WSH
Supervisor Award**
By WSH Council

**ASMI WSH
Innovation Award**
By Association of
Singapore Marine
Industries

WORLD-CLASS WORKFORCE

In 2018, we launched new initiatives in three focal areas to further shape our workforce and support a world-class and high-performance organisation.



1 Enhancing capability and capacity for growth



Launched our refreshed **Leadership Dimensions** and suite of **Leadership Development Programmes**, anchored in our leadership dimensions, strategic priorities and core values



Reviewed and implemented our refreshed **Talent Management Framework** including Structured Rotation and Succession Planning



Initiated a **Technical Career Pathway** to deepen our technological and engineering expertise, provide a structured framework for skills upgrade and facilitate career growth opportunities



2 Being at the forefront of people practices



Launched a new **Performance Scorecard** to foster enterprise collaboration and realign business focus on growth efforts and operational excellence



Redesigned our **Total Rewards Framework** to align with our new business aspirations and strengthen global competitiveness



Initiated **Strategic Workforce Planning** for Cybersecurity and Robotics businesses to identify, attract and retain talents needed to deliver our five-year plan



3 Strengthening a passionate and engaged workforce



Refreshed and launched our new **Employee Performance Management Programme**



Launched a series of initiatives to address issues identified in the 2017 **Employee Engagement Survey**, with specific focus on empowerment and collaboration

2019 TARGETS



Implement a **Global Leaders Development Programme** to support our globalisation thrust



Review and enhance our suite of learning programmes, including e-learning and microlearning modules to promote self-development and a lifelong learning culture

RISK & SUSTAINABILITY HIGHLIGHTS

REPORT AT A GLANCE

- A summary of our sustainability efforts for the year 2018, including an overview of our initiatives and performance is reported in this section and should be read in conjunction with the information published in the Sustainability section of our website at www.stengg.com;
- Unless otherwise stated, data and activities relate to our Singapore operations only. Information on sustainability efforts relating to our operations in the U.S. is reported on pages 90 to 91;
- Our management approach covering corporate governance, enterprise risk management system and materiality is captured in 'Our Management Approach to Sustainability' listed on the Sustainability section of our website;
- Our 2018 Sustainability Report is prepared in accordance to the Global Reporting Initiative (GRI) Standards: Core Option. It is guided by the SGX Reporting Guide as well as the LBG framework;
- The GRI Content Index is also available on our website.

BOARD STATEMENT

Our sustainability strategy involves multiple stakeholder considerations that balance today's needs with longer term developments. The Board provides oversight through the Risk and Sustainability Committee (RSC), where material Environmental, Social and Governance (ESG) topics are reviewed. The RSC meets quarterly with the management to review and discuss the Group's risk and sustainability performance. The responsibility for implementing all sustainability efforts rests with the President & CEO of ST Engineering and the Management Committee.

We have built a successful track record in technology, defence and engineering upon 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. This year, we enhanced our Whistle-Blowing channel, standardising it for local and overseas stakeholders.

Safer Workplace

Maintaining a safe working environment is paramount and remains a focus area in our sustainability efforts. Regrettably, we reported a workplace fatality this year. In spite of this, a zero workplace fatality remains our aim, and ever more so. The eight safety cardinal rules we rolled out this year as part of our safety campaign reinforce our collective commitment towards that aim.

Cleaner Future

As a global technology, defence and engineering group, we are well-positioned to bring technology and innovation together to create solutions that help to further our environmental conservation efforts. This year, we remain on target in our journey towards reducing water, energy use and Greenhouse Gas (GHG) emission.

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.

ENTERPRISE RISK MANAGEMENT (ERM) FRAMEWORK

The Group adopts an ERM framework to identify key business risks that act as barriers to achieving its business goals in the short, medium and long term. This includes risks arising from changes and trends on the ESG front.

The ERM 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 Group is committed to managing these risks well as part of its long-term sustainability. 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 the responsibilities of the Board, Audit Committee and RSC, can be found in the Corporate Governance Report from page 94 to 124.

A detailed description of our risks is available on our website.

ANTI-BRIBERY AND CORRUPTION (ABC)

The Group has zero tolerance for fraud and corrupt practices. During the year, we reviewed and updated our policies and procedures to ensure that key compliance principles from our Code of Business Conduct and Ethics (Code) are embedded into our processes. Reflective of our global workforce, the Code is translated into six languages and readily available on our intranet.

We also carried out a "refresh and remind" exercise on our Code. A handbook was disseminated to all employees, and senior management reiterated key principles of the Code through video messages that are available on our intranet. This sets the tone and underscores our commitment to honest and ethical business conduct.

As part of our compliance and ethics training programme, all employees are required to undergo mandatory training on the Code annually. Relevant employees are also required to complete the ABC training course once every two years.

To strengthen our Whistle-Blowing System, we have added reporting hotlines managed by an external independent party to our existing reporting channels. These hotlines, published on our website, cater to both our local and overseas stakeholders. This implementation is part of our ongoing efforts to encourage and facilitate disclosures of possible improprieties or noncompliance in confidence.

More information on our Whistle-Blowing channels are available on our website.

KEY BUSINESS 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

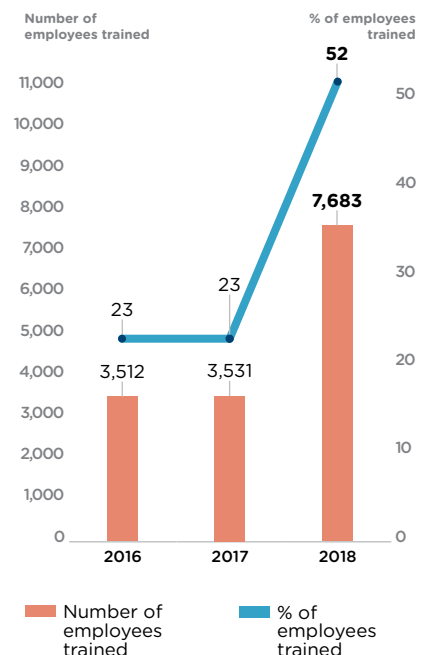
Human Capital

- Talent management and succession planning
- Occupational health and safety

Financial

- Credit
- Foreign exchange

ANTI-BRIBERY AND CORRUPTION TRAINING IN SINGAPORE



RISK & SUSTAINABILITY HIGHLIGHTS

OUR SUSTAINABILITY PERFORMANCE

WHAT WE DID IN 2018

World-Class Workforce



Strengthened our goal setting process and enhanced our performance management framework.



Launched action plans in response to 2017 Employee Engagement Survey.

Safe & Conducive Workplace



Updated procedures to enhance our overall level of preparedness in the event of a terrorist attack.



Critical workplace safety and health areas like fall prevention, traffic management, industrial machines and hand tools were included in cross audits.

Protecting Our Environment



Raised the GHG emission intensity reduction target to 36% on a business-as-usual basis by 2030, with 2010 as the base year.



Improved water consumption intensity by 1.5% year-on-year.

WHAT WE WILL DO IN 2019



Implement a Global Leaders Development Programme to support our globalisation thrust.



Review and enhance our suite of learning programmes to promote a self-development and lifelong learning culture.



Continue to improve our safety performance.



Identify initiatives to improve mental well-being of our employees as part of total workplace safety and health.



Explore opportunities to improve waste management.



Expand solar panel installations to other facilities.

OUR SUSTAINABILITY PERFORMANCE

WHAT WE DID IN 2018

Responsible Sourcing



Developed a Strategic Vendor Relationship Management programme to evaluate and prioritise our vendors.



Established the Vendor Code of Conduct.

Responsible Corporate Citizenship



Partnered TOUCH Community for its Meals-on-Wheels food delivery programme during the ST Engineering Volunteer Week.



Increased the Group's participation rate and contribution to SHARE Community Chest's programme in Singapore.

Global Operations: The U.S.



Enhanced the ethics and training programme.



Continued with initiatives to reduce our GHG footprint.

WHAT WE WILL DO IN 2019



Formalise the Strategic Vendor Relationship Management process.



Roll out the Vendor Code of Conduct.



Review community outreach focus themes.



Formalise framework to promote staff volunteerism.



Extend health and safety reporting regime to U.S. operations.



Continue with initiatives to raise awareness of the Group's sustainability agenda.

RISK & SUSTAINABILITY HIGHLIGHTS

PRODUCTIVITY

The pursuit of higher efficiencies and effectiveness is inherent in our day-to-day operations. In 2018, we made strides to enhance our operational performance.

The Shared Service Centre for seven functions comprising Finance, Human Resource, Information Technology, Procurement, Estate and Facilities Management, Corporate Communications and Legal progressed into its second year of implementation. Improvements included a faster turnaround travel and expense claims management system and a more user friendly email system. We also embarked on a project to simplify our legal structure and governance framework with the aim of further streamlining our organisational resources.

At the operating level, the sectors used continuous improvements tools such as Kaizen and Value Stream Mapping to improve their work processes. We revisited our productivity framework and enhanced our approach to manage and monitor productivity projects.

To encourage our employees to be more collaborative and innovative in their day-to-day work, productivity projects that saw great teamwork and yielded significant savings were recognised at our annual Team Excellence Convention.

Productivity is an important cornerstone of our work as we strive towards sustainable growth by continuously improving our systems and processes.

HIGHLIGHTS



Embracing Industry 4.0 to Enhance Productivity

One of our Lean initiatives in 2018 was to transform a manufacturing workshop in the Land Systems sector by incorporating Industry 4.0 concepts.

Technicians at the manufacturing workshop would initiate requests for WIP jobs on their handheld devices and robots would be deployed to deliver requested components to requestors.

Production managers would also be able to view operation status on such handheld devices, and informed decisions could be made on-the-go.

Through the use of logistics robots and smart systems, manual touchpoints can be reduced and real-time information necessary for informed decision-making are readily available.

The initiative targets to achieve at least a 20% reduction in manpower and manufacturing lead time.



WHAT WE WILL DO IN 2019

- Implement an electronic Compliance Statutory Monitoring System to track renewal of permits and licences.
- Roll out e-learning modules for continuous improvement tools.

SAFE & RELIABLE PRODUCTS

In 2018, all operations certified to ISO 9001 Quality Management System successfully converted to the latest ISO 9001:2015 standard. At the same time, we adopted a common Quality Policy Statement as part of an overall quality framework review.

We continued to be recognised on the international stage at the 36th International System Safety Conference in Arizona, U.S. where we shared a paper on “Challenges and Benefits of Implementing Hazard Traceability in an Application Lifecycle Management Tool”. We were also invited to speak at several external system safety seminars and remained a key supporter of the Singapore Chapter of the International System Safety Society.

We introduced the System Safety Community of Practitioners in 2018 for like-minded practitioners to share their experiences and lessons learnt.

QUALITY POLICY

ST Engineering is committed to the timely delivery and responsive support of products that remain safe and reliable for their intended use, and the provision of services that meet regulatory standards and satisfy our customers' requirements.

We shall build a quality culture embraced by our employees and business partners, where we are accountable for the quality of our work.

We shall continually sustain and enhance our quality management system to improve the quality of our products and services, maintain appropriate controls and conduct periodic reviews of set goals.

HIGHLIGHTS



Annual System Safety Seminar

Debuted in 2012, our annual System Safety Seminar is a platform for our business sectors to share and learn about practices, trends and developments in the science of system safety.

The 7th edition of the Seminar held on 23 November 2018 examined industry-specific topics such as the implementation of hazard traceability in lifecycle management, operations risk assessment for unmanned aircraft systems and planning of safety assurance efforts for autonomous land systems.

The annual Seminar is an important meeting point for the exchange of ideas, and to challenge the way we think and practise system safety to produce safer and more reliable products for our customers.



WHAT WE WILL DO IN 2019

- Streamline and digitise key quality process workflow for greater efficiency.
- Introduce Quality Community of Practitioners for cross-sharing of experience amongst our quality practitioners.

RISK & SUSTAINABILITY HIGHLIGHTS

WORLD-CLASS WORKFORCE

The 2017 Employee Engagement Survey called our attention to two focus areas — empowerment and collaboration. The results were shared with our employees and specific action plans were developed through various brownbag sessions and workshops.

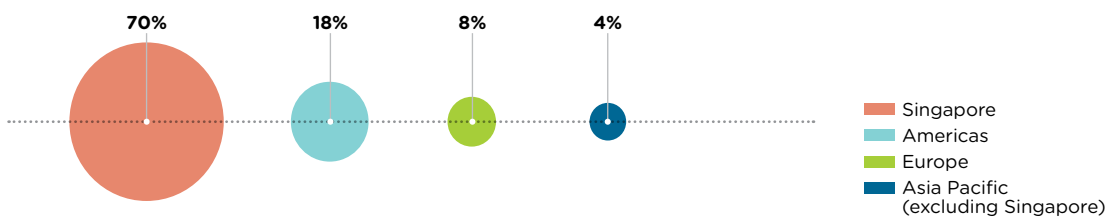
To better align our culture and mindset towards the Group's

overall goals, we reviewed and improved our talent management framework, compensation plans and Performance Scorecards. We continued to pursue initiatives to promote learning aimed at deepening our employees' competencies and broadening their skillsets.

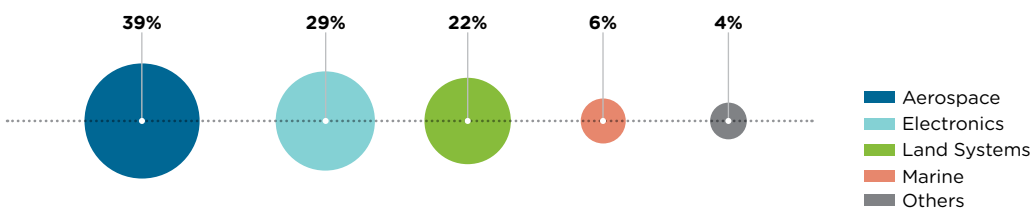
As we forge ahead in our quest to strengthen our core businesses and pursue growth opportunities, people and

culture remain a top priority in our strategy. During the year, we also initiated a Technical Career Pathway review and Strategic Workforce Planning for our employees. Our commercial viability and ability to remain competitive goes beyond attracting and retaining talent. We strive to build a strong sense of purpose and belonging across our global operations while at the same time strengthen our people's capacities and capabilities for overall growth.

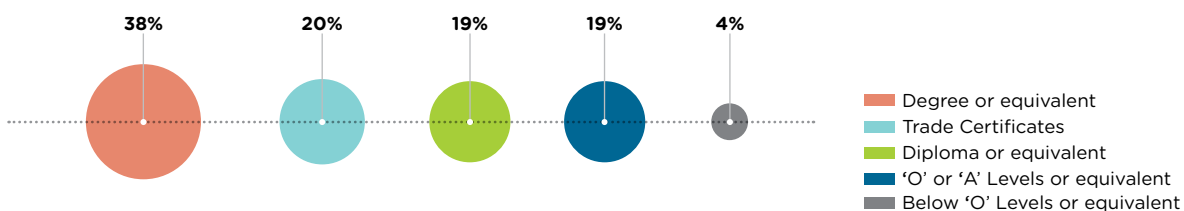
EMPLOYEES BY GEOGRAPHY



EMPLOYEES BY SECTORS



EMPLOYEES BY QUALIFICATIONS



Note: These statistics are calculated based on the Group's headcount of 21,418.

WORKFORCE PROFILE FOR SINGAPORE OPERATIONS



Employees

79%
Male

21%
Female

Supervised Workers*

95%
Male

5%
Female

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

AVERAGE TRAINING HOURS PER EMPLOYEE



30.2HRS

33.0HRS
Male

20.1HRS
Female

TURNOVER RATE



9.6%

9.1%
Male

11.3%
Female

HIGHLIGHTS



Levelling up Digital Proficiencies

In 2018, we partnered with NUS School of Continuing & Lifelong Education (SCALE) to promote continuing education and training within ST Engineering. 160 mid-level managers and engineers tapped on the NUS "All-You-Can-Learn" (AYCL) programme to bolster their digital skills in data analytics. Besides modules such as "Data Analytics Begins With Me" and "Data Analytics & Visualisation", the AYCL programme offers Cybersecurity, Internet of Things, Artificial Intelligence, Science, Engineering, Computing and Business courses. In this partnership, the Group is also exploring the feasibility of developing a Corporate Training Academy to offer joint programmes in and outside of Singapore.

Separately, more than 360 engineers and technicians had the opportunity to level up their digital proficiencies through the Digital Transformation and Robotics Course facilitated by LEGO Mindstorms Education kits.



WHAT WE WILL DO IN 2019

- Implement a Global Leaders Development Programme to support our globalisation thrust.
- Review and enhance our suite of learning programmes to promote self-development and a lifelong learning culture.

RISK & SUSTAINABILITY HIGHLIGHTS

SAFE & CONDUCTIVE WORKPLACE

Workplace safety and health (WSH) is a core aspect of our sustainability journey and is a deep-rooted characteristic within the modus operandi of our business.

We believe that safety starts from the top. The visible and active participation of senior management at safety walkabouts sets the tone for our commitment towards fostering a positive WSH culture.

The Environment, Health and Safety (EHS) Committee governs our WSH management strategy. Members meet at least quarterly to monitor our EHS Management System performance and to review and update our EHS strategies.

This year, as part of the national SG Secure initiative, we reviewed and updated existing security and business continuity procedures to incorporate both preventive and mitigating measures to enhance our overall level of preparedness in the event of a terrorist attack.

We rolled out eight safety cardinal rules on WSH to raise awareness amongst our office and shopfloor colleagues, as we stepped up our WSH efforts in a campaign to improve our safety indicators.

We also launched an electronic workplace incident reporting system. The new system enables us to track and monitor all injuries, so that corrective and preventive measures can be taken promptly.

OUR 2018 PERFORMANCE

While 2018 saw an improvement in our Accident Frequency Rate (AFR) from 0.8 in 2017 to 0.4, we regret to report that there was one work-related fatality at our Tuas facility. The fatality happened onboard an oil tanker during a valve dismantling operation. As a result of the fatality case, our Accident Severity Rate increased from 19.3 to 151.1 in 2018.

HIGHLIGHTS

Promoting Safety Innovations

Across our operations, we continue to develop innovative solutions to enhance WSH. At the 2018 ST Engineering EHS Convention Award, we recognised and commended participating teams that demonstrated the spirit of continuous improvement and commitment to WSH.

Our engineers improved the way doubler plates were replaced on dredger vessels in our shipyards by doing away with the need for confined space entries and reducing crane lifting, falling objects and height hazards. The improved process also increased efficiency and productivity, by substantially reducing the manhours needed in such projects. The team's effort was awarded Gold at the Convention.

Another Gold Award project is the "SMART" Robotic Grinding System, a system that improved the safety and health of our engineers at the fan containment case repair workshop. This project reduces the risk of musculoskeletal injuries through the replacement of labour-intensive work with a robotic arm. As an added safety feature, dust particles are absorbed at the point of contact with the grinding head, reducing the amount being released into the air.

Our engineers were also commended for their innovation in improving the ease of transporting and handling heavy equipment using a specially designed trolley with a three-dimensional axis jig in our aircraft conversion programmes. This improvement removes the need for man-lifting, mitigating potential physical injuries to staff and also reduces the number of men required for the work.

EIGHT SAFETY CARDINAL RULES



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



Use fall prevention and protection devices when working at heights.



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



Dispose and discard waste materials in accordance with requirements.



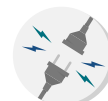
Operate vehicles only if trained and authorised. Comply with safety operation requirements.



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



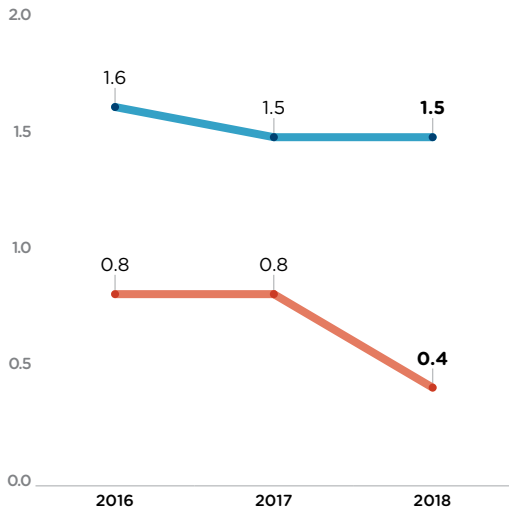
Carry out lifting operations only if trained and authorised. Comply with safe lifting plan.



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

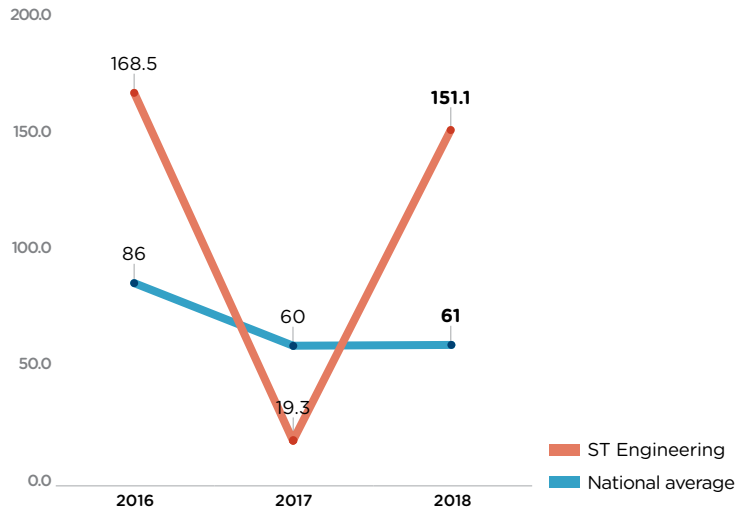
ACCIDENT FREQUENCY RATE

Number of accidents per million manhours worked



ACCIDENT SEVERITY RATE

Number of man-days lost per million manhours worked



OCCUPATIONAL HEALTH PERFORMANCE INDICATORS



108

Number of occupational health activities organised.



100%

Percentage of at-risk staff who attended the Audiometric Examination.



100%

Percentage of at-risk staff who attended the Respiratory Protection Training.



0

Number of Occupational Disease cases (excluding Noise Induced Deafness cases).



0*

Number of Advanced Noise Induced Deafness cases.

* Errata: The number of Advanced Noise Induced Deafness cases the Group witnessed in FY2018 is zero, not "one" as indicated in the printed FY2018 Annual Report.



WHAT WE WILL DO IN 2019

- Continue to improve our safety performance.
- Identify initiatives to improve mental well-being of our employees as part of total workplace safety and health.

RISK & SUSTAINABILITY HIGHLIGHTS

PROTECTING OUR ENVIRONMENT

Critical to the sustainability of our business is the ability to successfully forge a symbiotic relationship with the environment. To do so, we have been actively working on a set of robust targets to reduce our environmental footprint, whilst making certain that these targets are stepped up where possible.

In 2018, we revised our GHG emission intensity reduction target to 36% on a business-as-usual basis by 2030 with 2010 as the base year. Our new target is aligned with Singapore's Intended Nationally Determined Contribution (INDC) commitment.

As part of our long-term commitment towards renewable energy solutions, we continue to seek opportunities in solar energy, replacing lights and ageing air compressors with energy efficient alternatives.

We also initiated a study to evaluate energy saving potential in our data centres. This is achieved by measuring temperature patterns and deriving optimum operational indicators. Additionally, we identified ways to improve overall energy consumption involved in the use of air-cooling carts.

In the area of water consumption, we achieved our goal of water intensity improvement of 1.5% from 2017 by replacing existing taps with water efficient alternatives, and constant monitoring of water consumption patterns for early detection of leakages.

We ensure that our GHG inventory is audited by an external accredited agency in accordance with the standards specified in ISO 14064-1:2006.

HIGHLIGHTS



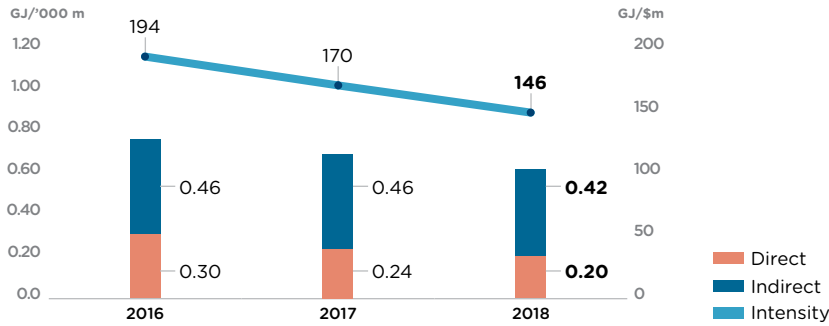
Going Green with Solar: One Rooftop at a Time

The sun delivers more energy to Earth in an hour than we consume in the course of a year. Sufficient sunlight hits the Earth to power an economy and businesses indefinitely. This free source of energy is available to us and at ST Engineering, we have taken prudent steps to pave our way towards clean energy.

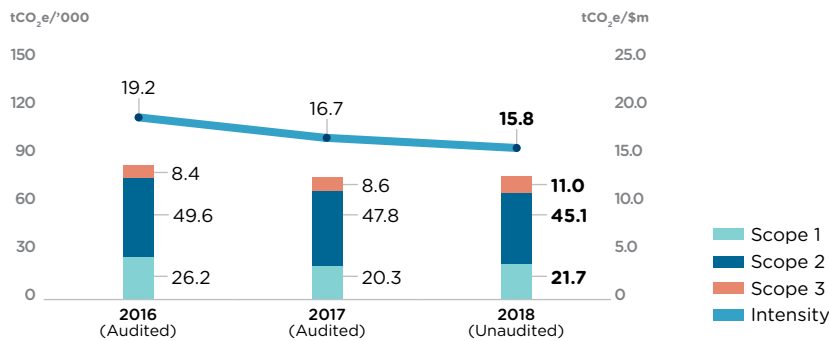
Since 2014, we have harnessed solar energy to reduce our dependence on fuels and help us reduce our carbon footprint.

We now have solar energy systems installed on 17 roofs across our facilities at Jalan Boon Lay, Changi and Seletar in Singapore. These systems, when fully operational, are forecasted to account for 9.2% of our annual electricity consumption and consequently reducing our GHG emissions by 4,400 tonnes of Carbon Dioxide Equivalent (tCO₂e).

ENERGY CONSUMPTION AND INTENSITY



GHG EMISSION AND INTENSITY*

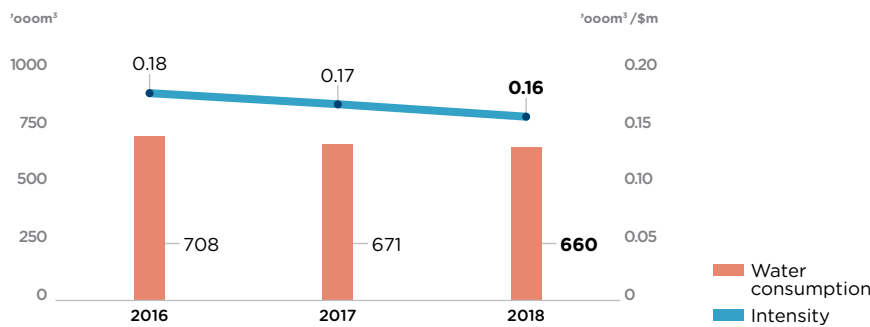


* GHG intensity figures are computed based on Scope 1 & 2 emissions normalised using revenue from Asia, where Singapore is a significant contributor.

Notes:
Energy consumption and GHG emissions figures for 2017 were adjusted as a result of audits and restated accordingly.

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

WATER CONSUMPTION AND INTENSITY



WHAT WE WILL DO IN 2019

- Explore opportunities to improve waste management.
- Expand solar panel installations to other facilities.

RISK & SUSTAINABILITY HIGHLIGHTS

RESPONSIBLE SOURCING

Every year, we continuously improve the way we design, deliver and produce. We are increasingly compelled to source responsibly and create mutual benefits with credible vendors. As a result, we strengthened our commitment to responsible sourcing by formalising our responsible sourcing programme.

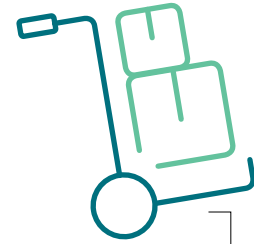
Principles and Standards

In 2018, we took a major step forward and set the tone and standards for our procurement practices. We formulated and rolled out our Global Procurement Policy. We also developed the Vendor Code of Conduct,

setting out the basic behaviours and practices that we require from our vendors. Having these standards in place helps us chart a better path forward in our ongoing development of a responsible supply chain.

Strategic Vendor Relationship Management

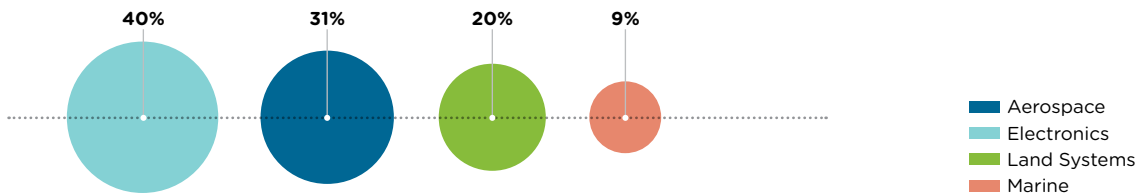
Enhancing our Strategic Vendor Relationship Programme helped us manage strategic vendors better. By segmenting our vendors, we were able to better determine their sustainability profiles and identify strategic vendors. This not only allows us to have a balanced consideration of ESG factors in our procurement process but also boosts the resilience of our supply chain.



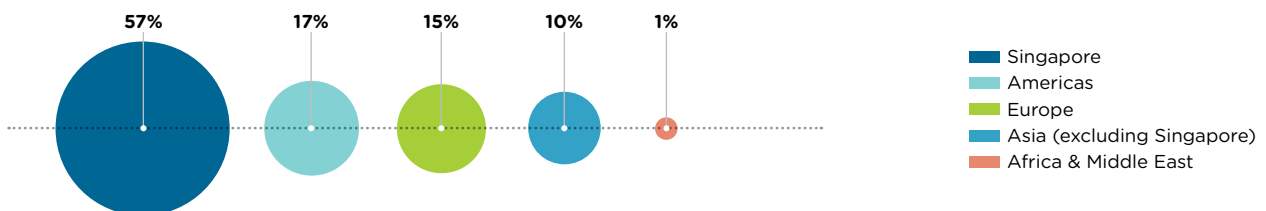
Total Purchase Value

\$3.23b

DISTRIBUTION OF PURCHASES BY BUSINESS SECTORS



DISTRIBUTION OF PURCHASES BY GEOGRAPHICAL LOCATIONS



WHAT WE WILL DO IN 2019

- Formalise the Strategic Vendor Relationship Management process.
- Roll out the Vendor Code of Conduct.

RESPONSIBLE CORPORATE CITIZENSHIP

A strong believer in giving back to the communities that we operate in, we focus on making our communities more resilient and inclusive by engaging and investing our time and resources in them. For the 19th consecutive year, we supported the President’s Challenge, contributing a total of \$258,000 in 2018. In total, we have contributed more than \$7.5m to this cause.



Community Contributions

\$2.67m

To increase our participation rate and contributions to SHARE, Community Chest’s monthly giving programme, we introduced an online sign-up process and extended our outreach to our employees through roadshows and emails to encourage sustained giving. We received a total of 19 awards at the Community Chest Awards this year, in recognition of our high participation rate and significant contribution to the SHARE programme.

Community Grants

The NTUC Education and Training Fund uplifts working Singaporeans through training and education by providing subsidies for skills upgrading and re-skilling. With a commitment of \$1m over four years beginning in 2018, we support programmes and initiatives that are aligned to our focus area of enriching lives through education.

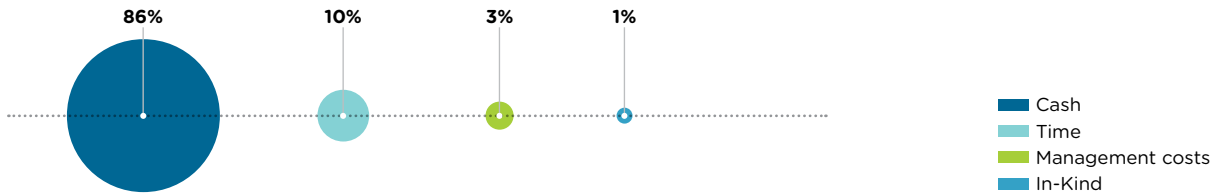
We have also committed to donating \$1m over five years beginning in 2018 towards the

cause of Project Silver Screen, a nation-wide initiative by Singapore’s Ministry of Health and Temasek Foundation Cares, to bring functional screening to seniors aged 60 and above. The functional screening includes checks on seniors’ vision, hearing and oral health, and subsidies for functional aids such as hearing aids, spectacles and dentures. With this commitment, we champion for better affordability and accessibility of healthcare, and help the elderly to take good care of their health for an improved quality of life.

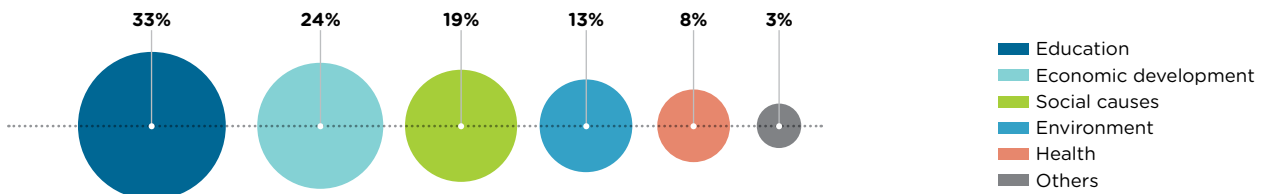
Community Engagement

We reaffirmed our commitment to engage and support our community this year through TOUCH Community Services’ Meals-on-Wheels programme, where 330 of our colleagues dedicated over 1,200 manhours to deliver 1,500 food packages in Ang Mo Kio, Bukit Batok, Jurong and Toa Payoh areas across Singapore during the ST Engineering Volunteer Week.

OUR CONTRIBUTION*



ISSUES ADDRESSED*



* LBG framework was applied to measure community contributions and issues addressed.



WHAT WE WILL DO IN 2019

- Review community outreach focus themes.
- Formalise framework to promote staff volunteerism.

RISK & SUSTAINABILITY HIGHLIGHTS

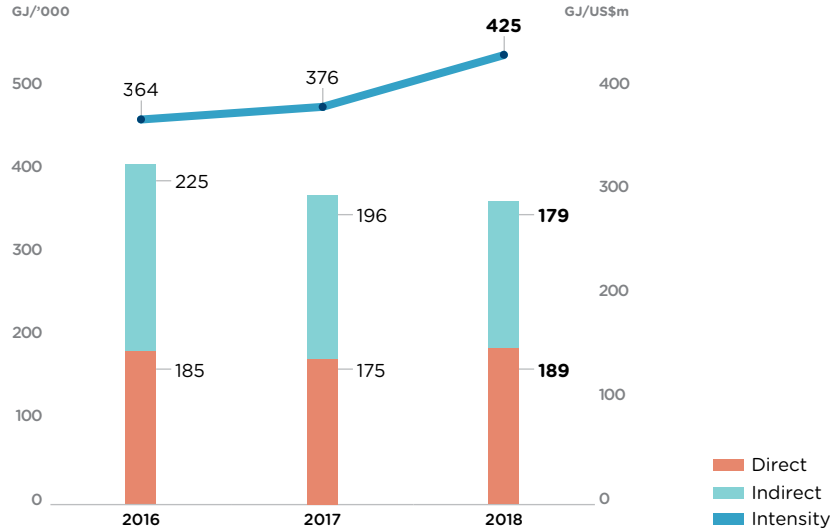
GLOBAL OPERATIONS: THE U.S.

In 2018, we continued working towards achieving our environmental target of 15% reduction in GHG intensity. We implemented LED lightings to reduce energy consumption and invested in electric vehicles for daily travel between facilities to reduce GHG emissions and energy consumption.

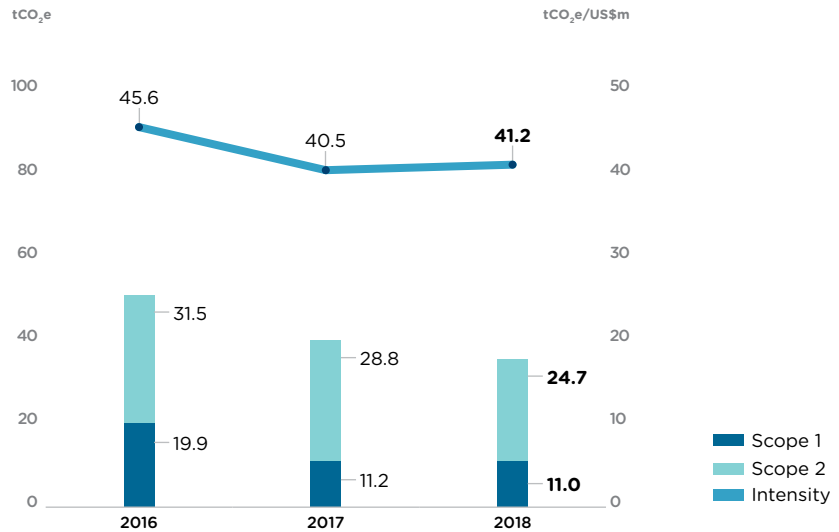
We enhanced the compliance training programme. All employees underwent the mandatory training on the Group's Global Code of Conduct and Ethics. In addition, key personnel completed training on Anti-Bribery and Corruption.

Our people and companies have contributed significantly to their communities through both personal time commitment and cash donations. Examples include: VT MAE assisting in a week-long series of events, contributing more than \$85,000 to benefit St. Jude's Children's Hospital; VT Miltope participated in a Breast Cancer Walk to raise money for Breast Cancer Research, contributions to local high schools, Big Brothers Big Sisters, and animal shelters.

ENERGY CONSUMPTION AND INTENSITY



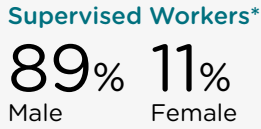
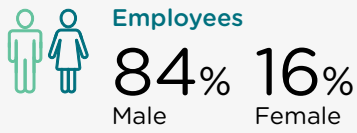
GHG EMISSION AND INTENSITY*



Note:
* GHG intensity figures are computed based on Scope 1 & 2 emissions normalised using revenue from U.S. operations.

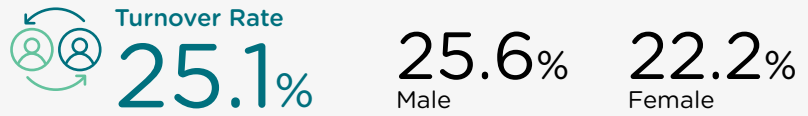
- Scope 1: Direct GHG emissions from sources owned or controlled by U.S. entities.
- Scope 2: Indirect GHG emissions from generation of purchased electricity consumed by U.S. entities.
- Scope 3: Indirect GHG emissions from business travels by air carried out by U.S. entities. However, this has been excluded due to its insignificant contribution to overall emission.

WORKFORCE PROFILE



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

TURNOVER RATE FOR EMPLOYEES



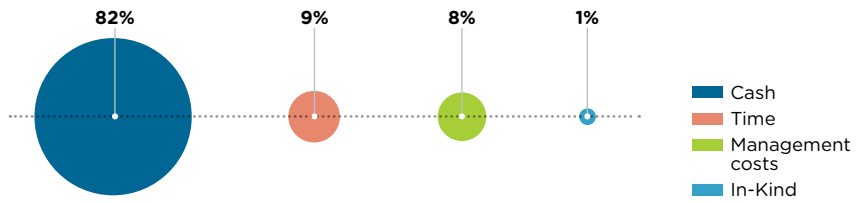
AVERAGE TRAINING HOURS PER EMPLOYEE



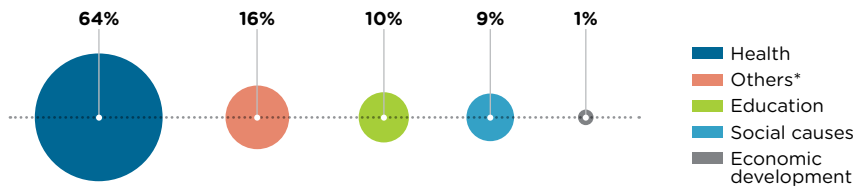
OUR CONTRIBUTIONS



Community Contributions
 US\$0.2m



ISSUES ADDRESSED



* Others include arts & culture, environment and emergency relief.



WHAT WE WILL DO IN 2019

- Extend health and safety reporting regime to U.S. operations.
- Continue with initiatives to raise awareness of the Group's sustainability agenda.

COMMUNITY OUTREACH

ST Engineering takes pride in being a responsible corporate citizen dedicated to supporting and engaging the communities we operate in. We actively promote a sustainable giving culture within the Group by taking on corporate giving initiatives, and empowering our employees from the ground up in volunteerism. We are committed to contributing in a holistic way to focus on enriching lives through education and touching lives through engineering.

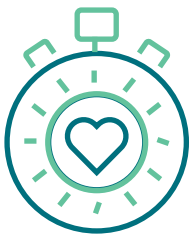
2018 HIGHLIGHTS



Benefited over

140

social service organisations and charities in the areas of children & family services, eldercare, disabilities through the Group's corporate giving initiatives and employee-led volunteering activities.



Over

6,300

manhours contributed by more than

3,100

colleagues who dedicated their time, resources and expertise to give back to the community



1,300

hours volunteered by our colleagues for the annual ST Engineering Volunteer Week

- Partnered key organisations like National Council of Social Services, Community Chest and supported large-scale movements including President's Challenge on a long-term basis.
- Championed community outreach activities for the less fortunate in various ways, from packing and delivering "Fu Dai" (festive packs); preparing heartwarming meals with Willing Hearts' Soup Kitchen; and organising regular Blood Donation Drives to donating warm clothings and blankets, toys and gifts to the needy.
- Empowered youths from Metta School, Assumption Pathway School in Singapore; BC Rain High School in Alabama, U.S., in line with our focus on enriching lives through education.
- Brought smiles and laughter to the beneficiaries at Thye Hua Kwan, Jia Ying Community Services, Christalite Methodist Home, Orange Valley Nursing Home, and SWAMI Home through food deliveries and interactive activities.
- Donated generously to support worthy social causes such as Assumption Pathway School's development programmes and Project Silver Screen, a functional screening programme for the elderly.



PARTNERED KEY ORGANISATIONS



CHAMPIONED COMMUNITY OUTREACH ACTIVITIES

BROUGHT SMILE AND LAUGHTER



EMPOWERED YOUTHS

1	2
3	4
5	6
9	8

1. All ready to deliver heartwarming and nutritious food packages to home-bound elderly across Singapore in support of the TOUCH Community Services' Meals-on-Wheels programme.
2. Packing "Fu Dai" filled with grocery items for distribution to the needy for a fulfilling Chinese New Year.
3. U.S. colleagues bringing warmth to The Friendship House, a local homeless shelter, through a donation of blankets, hats, scarves, coats, gloves and warm clothing.
4. Environmental patrol and clean-up along the waterways of Kallang to Marina Bay area in Singapore.
5. Packing food packages for timely delivery to the doorsteps of home-bound elderly.
6. Making use of our technical expertise to repair and maintain tables and benches in the Christalist Methodist Home.
7. Serving meals to the residents at Thye Hua Kwan Moral Welfare Home .
8. U.S. colleagues working on various cleaning needs at the Embury Rucker Homeless Shelter and Herndon Neighbourhood Resource Centre.
9. Students from Assumption Pathway School putting their skills to good use during their Industrial Attachment Programme.
10. Coaching students from Metta School on job interview skills.

CORPORATE GOVERNANCE

Good corporate governance is the foundation for long-term value creation of the Group. This Report sets out ST Engineering's corporate governance processes, practices and activities in 2018 with specific reference to the guidelines of the Singapore Code of Corporate Governance 2012 (the Code).

The Board is pleased to report that the Company has complied in all material aspects with the principles, guidelines and recommendations set out in the Code. Our Summary of Disclosures is enclosed on pages 115 to 124 of this Annual Report.

BOARD MATTERS

Board's Conduct of its Affairs (Principle 1)

The Board is accountable to shareholders for overseeing the effective management of the Company. To this end, the Board relies on the integrity, commitment, skills and due diligence of its management, its external advisors and auditors. In addition to its statutory responsibilities, the Board reserves the following key matters for its decision:

- setting the Group's strategic objectives and ensuring that decisions made are consistent with these objectives;
- approval of annual budgets, major funding proposals, investment and divestment proposals in accordance with

the approved delegation of authority framework;

- appointment of the President & Chief Executive Officer (CEO), Board succession and appointments on Board committees;
- appointment of key management personnel and succession planning as an ongoing process;
- review of the risk management framework and sustainability performance through its Risk and Sustainability Committee (RSC). Our Risk and Sustainability Highlights are set out in page 76; and
- approval of the unaudited quarterly, half-yearly and full-year audited results prior to their release.

In the discharge of its functions, the Board is supported by six Board committees to which it delegates specific areas of responsibilities for review and decision making.

The President & CEO, Vincent Chong, is accountable to the Board. He is supported by the Management Committee, which consists of the Chief Financial Officer (CFO), the Chief Corporate Officer (CCO) and the Presidents of the four business sectors.

On onboarding a Board member, a formal letter is sent to a director upon his

appointment setting out his statutory obligations and duties and responsibilities as a director. He is also given the terms of reference for the respective Board committees. An induction programme is organised for a new director on the strategic direction and performance of the Group as well as his duties and obligations under the statutory compliance and corporate governance framework.

Facility visits are also arranged for new directors to enable them to develop a good understanding of the Group's business, operations and the respective key managements. The Board is routinely updated on the relevant laws, SGX continuing listing obligations and accounting standards requiring compliance, and their implications for the Group, so as to enable each director to properly discharge his duties as a Board member and Board committee member.

Depending on their skillsets and background, directors are sponsored for relevant courses, conferences and seminars to better equip them to fulfil their governance role and to comply with directors' obligations. Where there are statutory and regulatory changes that affect the obligations of directors, the Company will update the Board and, where the changes are substantive, organise briefings by external legal counsel.

Board members receive monthly consolidated management reports on the financial performance of each business sector, capital commitments and significant operational highlights to keep the Board apprised of business investments and performance updates.

The Board convenes scheduled meetings on a quarterly basis to coincide with the

announcement of the Group's quarterly results. Special Board meetings may be convened as and when necessary to consider corporate actions requiring the Board's guidance or approval.

To facilitate the Board's decision-making process, the Company's Constitution provides for directors to participate in Board meetings

by teleconference or video conference. Decisions of the Board and Board committees may also be obtained via circulation. At the end of every Board meeting, the Chairman allocates time for its non-executive directors to meet without the presence of management. Directors' attendance at Board and Board committee meetings is tabulated below.

Current Board of Directors	Board		Audit Committee (AC)		Executive Resource and Compensation Committee (ERCC)		Nominating Committee (NC)	
	Held*	Attended	Held* ¹¹	Attended ¹¹	Held*	Attended	Held*	Attended
Name of Director								
Kwa Chong Seng	5	5			4	4	1	1
Vincent Chong Sy Feng	5	5						
Quek See Tiat	5	5	5	5				
LG Ong Su Kiat Melvyn ¹	3	2						
Quek Gim Pew	5	4						
Khoo Boon Hui	5	5	5	5				
Dr Beh Swan Gin	5	4						
Lim Sim Seng	5	5			4	4	1	1
Lim Ah Doo	5	5	5	3				
Lim Chin Hu ²	2	2						
Song Su-Min ³	1	1						
COL Xu Youfeng ⁴	3	2						
Retired Directors								
Name of Director								
LG Lim Cheng Yeow Perry ⁵	1	1						
Neo Kian Hong ⁶	3	2						
Dr Stanley Lai Tze Chang ⁷	5	2	5	2	4	2	1	0
Olivia Lum Ooi Lin ⁸	1	0						
RADM Alan Goh Kim Hua ⁹	1	1						

CORPORATE GOVERNANCE

Current Board of Directors	Strategy & Finance Committee (SFC)		Research, Development and Technology Committee (RD&T)		Risk and Sustainability Committee (RSC)	
	Held*	Attended	Held*	Attended	Held* ¹¹	Attended ¹¹
Name of Director						
Kwa Chong Seng	4	4				
Vincent Chong Sy Feng	4	4	4	4	5	5
Quek See Tiat						
LG Ong Su Kiat Melvyn ¹					2	1
Quek Gim Pew			4	4		
Khoo Boon Hui					5	5
Dr Beh Swan Gin	2	2				
Lim Sim Seng	2	2				
Lim Ah Doo	3	3				
Lim Chin Hu ²			1	1		
Song Su-Min ³						
COL Xu Youfeng ⁴						
Non Board Members						
Quek Poh Huat ¹⁰	2	2				
Bill Chua Teck Huat					5	5
Christopher Lau Loke Sam					5	5
Retired Directors						
Name of Director						
LG Lim Cheng Yeow Perry ⁵					2	0
Neo Kian Hong ⁶	1	0				
Dr Stanley Lai Tze Chang ⁷			4	1	3	0
Olivia Lum Ooi Lin ⁸					2	0
RADM Alan Goh Kim Hua ⁹						

* Reflects the number of meetings held during the time the director held office

¹ Appointed Director and member of RSC on 8 June 2018

² Appointed Director and member of RD&T on 16 July 2018 and member of ERCC and NC on 1 December 2018

³ Appointed Director on 16 September 2018 and member of AC and RSC on 31 December 2018

⁴ Appointed as Alternate Director to LG Melvyn Ong on 8 June 2018

⁵ Resigned as Director on 1 May 2018

⁶ Resigned as Director on 1 August 2018

⁷ Appointed member of RSC on 20 April 2018 and resigned as Director on 31 December 2018

⁸ Retired as Director at AGM on 20 April 2018

⁹ Ceased as Alternate Director to LG Perry Lim on 1 May 2018

¹⁰ Ceased as Co-opted SFC member on 15 August 2018

¹¹ Includes the joint AC and RSC meeting held on 21 February 2018

Board Composition and Guidance (Principle 2)

The Board comprises 11 Directors and an Alternate Director. COL Xu Youfeng is Alternate Director to LG Melvyn Ong. LG Ong, in his position as Chief of Defence Force, may be called away on duty at times and may not be able to attend all Board meetings. COL Xu is fully apprised of all Board matters, receives notices to attend Board meetings and Board papers as well as Board resolutions by circulation. As Alternate Director, he is in a position to act on behalf of LG Ong in the latter's absence.

The Board, through the Nominating Committee (NC), reviews the size and composition of the Board taking into consideration the skillsets, background and independence of directors. The Board also recognises that diversity is not limited merely to gender or any personal attributes and believes that having experienced directors with an independent mindset is important for the Board to be effective. The current board is sized to take into account the global scale of the Group's businesses and ST Engineering's key role in supporting Singapore's defence technology ecosystem. The Board will continue to review its composition and size to facilitate effective decision-making.

During the year, the Board welcomed the following new Directors:

- LG Ong Su Kiat Melvyn was appointed as a non-independent non-executive Director and member of the RSC on 8 June 2018. He is the Chief of Defence Force in the Ministry of Defence, Singapore.
- Lim Chin Hu was appointed as an independent non-executive Director and member of the Research, Development and Technology Committee (RDTC) on 16 July 2018. He was also appointed as a member of the NC and the Executive Resource and Compensation Committee (ERCC) on 1 December 2018.
- Song Su-Min was appointed as an independent non-executive Director on 16 September 2018 and became a member of the Audit Committee (AC) and RSC on 31 December 2018. She is a Partner at Allen & Gledhill LLP.

During the year, Olivia Lum retired at the 21st AGM on 20 April 2018. The Board bade farewell to LG Perry Lim and Neo Kian Hong who stepped down on 1 May 2018 and 1 August 2018 respectively. The Board also bade farewell to Dr Stanley Lai who stepped down on 31 December 2018 after having served 9 years as independent Director on the Board.

The Board consists of members with established track record in defence, business, finance, banking, technology, legal and management. Each non-executive director brings to

the Board an independent perspective based on his/her training and professional expertise to enable the Board to make balanced and well considered decisions.

The Board has eight independent Directors who represent more than 70% of the Board. The Code requires the independent directors to comprise at least half of the Board. The independence of each director is determined upon appointment and reviewed annually by the NC.

The NC has affirmed that the independent Directors are Kwa Chong Seng, Khoo Boon Hui, Quek See Tiat, Dr Beh Swan Gin, Lim Sim Seng, Lim Ah Doo, Lim Chin Hu and Song Su-Min. Although Dr Stanley Lai had stepped down on 31 December 2018, for the full FY2018 reporting period, he was considered independent by the NC. The Board agrees with the NC's assessment.

In keeping with the momentum of our board succession plan, Mr Khoo Boon Hui, who was appointed as independent non-executive director on 1 September 2010, has indicated that he will step down from the Board on 17 April 2019.

The Board has, at all times, exercised independent judgment to make decisions, using its collective wisdom and experience to act in the best interests of the Company. Any director who has an interest that may conflict with a subject under discussion by the Board,

CORPORATE GOVERNANCE

declares his/her interest and either recuses himself/herself from the information and discussion of the subject matter or abstains from decision-making.

The Board held a total of five meetings during the year to consider, among other things, the approval and release of the FY2017, 1Q2018, 2Q2018 and 3Q2018 results.

The Board and the Strategy & Finance Committee (SFC) reviewed the Group's growth and strategy plans to ensure that the work of the Group is aligned with its charter and corporate objectives taking into account the opportunities and challenges in the environment in which we operate.

Chairman and Chief Executive Officer (Principle 3)

The Chairman's and President & CEO's roles and responsibilities are kept separate in order to maintain effective oversight. The recommendation in the Code for a lead independent director is not applicable as the Chairman and the President & CEO are separate individuals and are not related. No individual or small group of individuals dominates the Board's decision making process. The President & CEO and senior management regularly consult with individual Board members and seek the advice of members of the Board committees through meetings, telephone calls as well as by email.

Kwa Chong Seng joined the Board on 1 September 2012. He was appointed Chairman on 25 April 2013. Mr Kwa is the retired Chairman and Managing Director of ExxonMobil Asia Pacific Pte Ltd. Other than serving as a non-executive Director on the Board of SeaTown Holdings Pte Ltd, a wholly-owned subsidiary of Temasek Holdings (Private) Limited, he does not hold any other position in Temasek Holdings. The NC has determined that he is an independent Director.

The Chairman is responsible for leading the Board and ensuring the effective functioning of the Board to act in the best interests of the Company and its shareholders. The Chairman facilitates the relationship between the Board, President & CEO and management, engaging them in open dialogue over various matters, including strategic issues, sustainability, risks and business planning processes. He ensures that discussions at the Board level are conducted objectively and professionally where all views are heard and key issues are debated in a fair and open manner. The Chairman also ensures that adequate time is provided for discussion of strategic issues and key concerns at Board meetings. He represents the views of the Board to the shareholders.

Vincent Chong who is an executive Director, and the President & CEO, is accountable to the Board for the conduct and performance of the Group.

He has been delegated authority to make decisions within certain financial limits authorised by the Board. He is supported in his work by the Management Committee.

Board Membership & Evaluation of Performance (Principles 4 and 5)

Supporting the Board are the following Board committees:

- Audit Committee
- Executive Resource and Compensation Committee
- Nominating Committee
- Strategy & Finance Committee
- Research, Development and Technology Committee
- Risk and Sustainability Committee

NOMINATING COMMITTEE

The NC is responsible for reviewing the composition of the Board and identifying suitable candidates to the Board, in particular, candidates with the appropriate qualifications, skillsets and experience who are able to discharge their responsibilities as directors. Shortlisted candidates are recommended to the Board for approval. The NC is also responsible for reviewing and determining the independence of non-executive directors annually, conducting board performance evaluation, succession planning for President & CEO and director training and development.

The NC comprises three non-executive independent Directors. Kwa Chong Seng is the Chairman of the NC. He abstains from voting when it comes to a determination of his independence. The other members are Dr Stanley Lai (until 31 December 2018), Lim Sim Seng and Lim Chin Hu.

The NC held one meeting in 2018 while other decisions were obtained by circulation. The NC is continually engaged in the board renewal process of ST Engineering, having regard to the skills, experience and industry expertise needed for a balanced board composition to, among other things, oversee governance and risks within the Group's business. When the need for a new director is identified, potential candidates are identified from various sources. The NC will assess a shortlist according to the type of expertise needed. The NC will also assess a candidate's character, independence and experience to ensure that he/she has the requisite standard of competence to carry out his/her duties as a director of a listed company.

During the year, the NC reviewed and affirmed the independence of the Company's independent Directors.

The NC conducted a collective assessment of the Board to gauge the effectiveness of the Board's performance, the adequacy of the blend of skillsets and experience of the Board, and the quality and timeliness of board and

committee meeting agendas and papers submitted by the management. The review was internally undertaken with each director being asked to complete a questionnaire. Their feedback was collated and shared with the Board. The review indicated that the Board continues to function effectively. The NC also took on board the feedback of the Board members on areas for improvement.

The NC also noted the list of other directorships held by our Directors taking into consideration their principal commitments. The NC is satisfied that each of the Directors is able to devote time to carry out his/her duties as director in the Company.

The Board has considered and agreed not to set guidelines for a maximum directorship that a director can hold. Annually, an incumbent director is asked to affirm that he/she has adequate time to devote to his/her Board responsibilities. ST Engineering Board members are selected on the basis of their ability to contribute to the Board through their relevant skillsets, experience, calibre and willingness to devote time. In addition, each director is required to provide an annual affirmation of commitment to his/her Board responsibilities. With these considerations, the Board is of the view that setting a maximum number of board representations for our Directors is not needed.

The NC is also responsible for renewal and succession plans

to ensure Board continuity. At each Annual General Meeting (AGM), one-third of the directors with those longest in office since his/her last re-election have to retire. Effectively, this results in all directors having to retire at least once every three years or even earlier, in compliance with SGX Listing Rule 720(5). A retiring director may submit himself/herself for re-election. Under this provision, Vincent Chong, Lim Sim Seng and Lim Ah Doo will retire at the 2019 AGM. LG Melvyn Ong, Lim Chin Hu and Song Su-Min, who are newly appointed, will hold office until the forthcoming AGM of the Company. The retiring Directors, being eligible, have offered themselves for re-election. In accordance with SGX Listing Rule 720(6), the information relating to the retiring Directors seeking re-election is found at pages 20 to 27.

With the exception of Vincent Chong, each of the retiring non-executive Directors has confirmed that he/she does not have any relationship with his/her fellow Directors nor with the Company and its substantial shareholders.

The Board, acting on the recommendation of the NC, proposes that each of the retiring Directors, be re-elected at the Company's forthcoming AGM.

Save as disclosed for Vincent Chong, the remaining 10 Directors are non-executive Directors.

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The composition of the Board and Board committees as at 31 December 2018 is tabulated below:

	Audit Committee (AC) (established on 15/1/1998)	Strategy & Finance Committee (SFC) (revamped from Budget and Finance Committee on 11/5/2017)	Executive Resource and Compensation Committee (ERCC) (established on 6/12/1997)	Nominating Committee (NC) (established on 4/12/2002)	Research, Development and Technology Committee (RD&T) (established on 1/8/2003)	Risk and Sustainability Committee (RSC) (established on 7/12/1998)
BOARD MEMBERS						
Kwa Chong Seng		C	C	C		
Vincent Chong Sy Feng		M			M	M
Quek See Tiat	C					
LG Ong Su Kiat Melvyn ¹						M
Quek Gim Pew					C	
Khoo Boon Hui	M					C
Dr Beh Swan Gin		M				
Lim Sim Seng		M	M	M		
Lim Ah Doo	M	M				
Lim Chin Hu ²			M	M	M	
Song Su-Min ³	M					M
COL Xu Youfeng ⁴						
NON BOARD MEMBERS						
Bill Chua Teck Huat						CM
Christopher Lau Loke Sam						CM

Denotes:

C - Chairman

M - Member

CM - Co-opted Member

¹ Appointed Director and member of RSC on 8 June 2018

² Appointed Director and member of RD&T on 16 July 2018 and member of ERCC and NC on 1 December 2018

³ Appointed Director on 16 September 2018 and member of AC and RSC on 31 December 2018

⁴ Appointed as Alternate Director to LG Melvyn Ong on 8 June 2018

Access to Information (Principle 6)

The management furnishes Board members with monthly management reports, providing updates on key operational activities and financial analysis. The Board also has unrestricted access to the President & CEO, the CFO, CCO, management and the Company Secretary as well as the internal and external auditors and the risk management team. The Board may also seek independent professional advice, if necessary, at the Company's expense.

Board papers are sent to directors at least three days prior to meetings in order for directors to be adequately prepared for the meetings.

The Company Secretary attends all Board, AC and NC meetings and ensures that board procedures are followed. The Company Secretary facilitates communication between the Board, its committees and management and advises the Board on governance matters including their timely disclosure obligations. She also assists with the induction of new directors as well as the co-ordination of continuing training for board members to keep the Board up-to-date on corporate governance matters. The appointment and removal

of the Company Secretary is a matter for the Board as a whole to decide.

REMUNERATION MATTERS

Procedures for Developing Remuneration policies (Principle 7)
Level and Mix of Remuneration (Principle 8)
Disclosure on Remuneration (Principle 9)

ROLE OF EXECUTIVE RESOURCE AND COMPENSATION COMMITTEE

The ERCC performs the role of the remuneration committee. The ERCC comprises Kwa Chong Seng as Chairman, Dr Stanley Lai (until 31 December 2018), Lim Sim Seng and Lim Chin Hu. The members of the ERCC have held senior positions in large organisations and are experienced in the area of executive remuneration policies and trends. All ERCC members are non-executive independent directors.

The ERCC met four times during the year. All decisions at any meeting of the ERCC are decided by a majority of votes of the ERCC members present and voting (the decision of the ERCC shall at all times exclude the vote, approval or recommendation of any member who has a conflict of interest in the subject matter under consideration).

The ERCC performs the following duties and responsibilities:

Executive Remuneration General Framework

- Reviews and recommends to the Board the Group's general framework for determining executive remuneration including the remuneration of the President & CEO, top five key management executives of the Group and other senior management executives (collectively referred to as "Senior Management Executives").

Executive Director and Senior Management Executives

- Reviews and recommends to the Board the entire specific remuneration package and service contract terms for the President & CEO, who is also the executive Director.
- Considers, reviews, approves and/or varies (if necessary) the entire specific remuneration packages and service contract terms for the Senior Management Executives of the Group. For FY2018, the Board reviewed and approved the specific remuneration packages and service contract terms for the key management executives.

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Non-executive Director Remuneration

- Reviews and recommends to the Board the remuneration framework (including directors' fees) for non-executive directors.

Equity-based Plans

- Approves the design of equity-based plans and reviews and administers such plans.

Executive and Leadership Development

- Oversees the development of management with the aim of a continual build up of talent and renewal of strong and sound leadership to ensure the continued success of the Group and its businesses.
- Approves appointments to Senior Management Executive positions within the Group and reviews succession plans for key positions within the Group.

For financial year 2018, Aon Hewitt Singapore Pte Ltd (Aon) was engaged as remuneration consultant (Remuneration Consultant) to provide professional advice on board and executive remuneration matters. Aon and its principal consultant are independent and are not related to the Group or any of its directors.

EXECUTIVE REMUNERATION STRUCTURE

Remuneration for the Senior Management Executives comprises a fixed compensation, variable cash-based incentives, share-based incentives and market-related benefits.

A. Fixed Compensation:

The fixed compensation comprises the base salary and compulsory employer's Central Provident Fund (CPF) contributions.

B. Variable Cash-based Incentives:

The variable cash-based incentives include the Performance Target Bonus (PTB) and EVA-based Incentive Scheme.

Performance Target Bonus

The PTB is a cash-based incentive for Senior Management Executives which is linked to the achievement of annual performance targets that will vary depending on their job requirements.

Individual performance objectives are set at the beginning of each financial year. The objectives are aligned to the overall strategic, financial and operational goals of the Group and Company. These objectives are cascaded down to a select group of key executives creating alignment between the performance of the Group, Company and the individual.

The individual PTB payouts for the President & CEO and key management executives are determined by the ERCC based on the Group's, Company's and individual performance at the end of the financial year.

EVA-based Incentive Scheme

The EVA-based Incentive Scheme (EBIS) was established with the objective of motivating and rewarding employees to create sustainable shareholder value achieved by growing profits, deploying capital efficiently and managing the risk profile and risk horizon of the business. A portion of the variable cash-based incentives of the Senior Management Executives is tied to the EVA achieved by the Group in the financial year.

Under the plan, a portion of EBIS bonus declared for the financial year will be paid out annually while the remaining portions will be deferred in an EVA bank. Amounts in the EVA bank are at risk because negative EVA will result in a clawback of EVA accumulated. This mechanism encourages the Senior Management Executives to work for sustained EVA generation and to adopt strategies that are aligned with the long-term interests of the Group.

In addition, the Group has a clawback facility with respect to the EVA bank in the event of a restatement of the financial results of the Group subsequent to an earlier misstatement, and provisions for the forfeiture of the remaining EVA bank

balance on termination due to misconduct or fraud resulting in any financial loss to the Group.

Based on the ERCC's assessment, the Group has partially met the predetermined targets in financial year 2018. The resulting annual EVA declared under EBIS was adjusted accordingly.

C. Share-based Incentives:

Shares which were granted in financial year 2018 were based on the Singapore Technologies Engineering Performance Share Plan 2010 (PSP2010) and the Singapore Technologies Engineering Restricted Share Plan 2010 (RSP2010) approved and adopted by shareholders of the Company at the Extraordinary General Meeting held on 21 April 2010. Yearly share grants under the PSP2010 and RSP2010 do not exceed the internal annual limit of 1% of the total number of issued shares of the Company, set by the ERCC.

Details of the share plans and grants are given in the Share Plans section of the Directors' Statement from pages 126 to 134.

PSP2010

The PSP2010 was established with the objective of motivating Senior Management Executives to strive for sustained growth and performance of the Group.

Pursuant to the PSP2010, the ERCC has decided to

grant shares on an annual basis, conditional on meeting targets set for a three-year performance period. With effect from financial year 2018, the performance measures used in PSP grants under PSP2010 are:

- Absolute Total Shareholder Return (TSR) against Cost of Equity hurdles (i.e. measure of absolute Wealth Added); and
- Earnings Per Share (EPS) Growth against pre-determined EPS Growth targets over the performance period.

A minimum threshold performance is required for any performance shares to be released to the recipients at the end of the performance period. The actual number of performance shares released will depend on the achievement of predetermined targets over the performance period, capped at 170% of the shares granted.

The release of the final PSP shares is conditional on satisfactory individual performance of the recipient at the end of the performance period.

The Group has clawback policies for the unvested shares under PSP2010 in the event of exceptional circumstances of restatement of the financial results of the Group subsequent to an earlier misstatement, or of misconduct or fraud resulting in any financial loss to the Group.

The Group has exceeded the predetermined target performance level for PSP awards granted based on the performance period from financial years 2016 to 2018.

RSP2010

The RSP2010 was established with the objective of retaining and motivating managers and above to strive for sustained long term growth of the Group. It also aims to foster a share ownership culture among employees within the Group and to better align employees' incentives with shareholders' interests.

Pursuant to the RSP2010, the ERCC has decided to grant shares on an annual basis subjected to individual performance. With effect from 2018, the RSP share grants under RSP2010 will be time-based and released equally over four consecutive years.

The Group has clawback policies for the unvested shares under RSP2010 in the event of exceptional circumstances of restatement of the financial results of the Group subsequent to an earlier misstatement, or of misconduct or fraud resulting in any financial loss to the Group.

D. Market-related Benefits:

The benefits provided are comparable with local market practices.

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The Code requires a company to disclose the names and remuneration of the CEO and at least the top five key management personnel (who are not also directors or the CEO). Details of the remuneration package for the President & CEO are provided in the Summary Remuneration Table for directors on pages 106 to 107. Details of the remuneration packages for the Key Management Executives are provided in the Summary Remuneration Table for Key Management Executives on page 108.

In performing the duties as required under its Terms of Reference, the ERCC ensures that remuneration paid to the Senior Management Executives are strongly linked to the achievement of business and individual performance targets. The performance targets as determined by the ERCC are set at realistic yet stretched levels each year to motivate a high degree of business performance with emphasis on both short and long-term quantifiable objectives. Pay-for-Performance Alignment study was conducted periodically by the Remuneration Consultant and reviewed by the ERCC for sufficient evidence indicating Pay-for-Performance alignment for the Group in terms of both absolute and relative performance.

Under the Code, the compensation system shall take into account the risk policies of the Group, be symmetric with risk outcomes and be sensitive to the time horizon of risks. The ERCC will undertake periodic reviews of the compensation-related risks.

During financial year 2018, there were no termination, retirement

and post-employment benefits granted to directors, President & CEO and Key Management Executives other than in accordance with the standard contractual agreement.

There were no employees who were immediate family members of a director or the President & CEO and whose remuneration exceeded S\$50,000 during the financial year 2018, except for Quek Gim Chuah (VP Quality, Aerospace sector), who is the brother of Quek Gim Pew, Director of the Company.

NON-EXECUTIVE DIRECTOR REMUNERATION

Non-executive directors (NEDs) have remuneration packages consisting of directors' fees and attendance fees, which are approved in arrears by shareholders for services rendered in the previous year. The Directors' Remuneration Framework comprises a basic retainer, attendance and additional fees for serving on Board committees.

The ERCC, in consultation with Aon, conducted a review of the Directors' Remuneration Framework in 2018. The review took into account a variety of factors, including prevailing market practices and referencing directors' fees against comparable benchmarks, as well as the roles and responsibilities of the Board and Board committees. Following the review, a revised directors' remuneration structure was developed in order to ensure a competitive level of director's remuneration as the Group

strives for sustainable growth and value creation.

The recommended changes include an increase in private sector Directors' Board Basic Retainer fee from \$72,000 to \$75,000 and an increase in Board/Committee meeting fees from \$2,000/\$1,000 to \$5,000/\$2,500. The Board also recommends that the all-in Active Chairman fee be increased from \$600,000 to \$750,000 per annum.

For services rendered in financial year 2018, eligible NEDs will receive 70% of the total directors' fees in cash and 30% of the total directors' fees in the form of restricted shares which are governed by the terms of RSP2010, subject to shareholders' approval at its AGM in April 2019.

As the restricted shares are granted in lieu of directors' remuneration in cash, the shares will be granted outright as fully paid shares with no performance conditions attached and no vesting periods imposed. To encourage the alignment of interests of the NEDs with the interests of shareholders, the share grant has a moratorium on selling. Each eligible NED is required to hold shares in the Group worth the lower of: (a) the total number of shares in the Group granted to such NED as payment of the shares' component of the NEDs' fees for financial year 2011 and onwards; or (b) the number of shares of equivalent value to the prevailing annual basic retainer fee for a director of the Group. An NED can sell all his/her shares in the Group a year after the end of his/her Board tenure.

The computation of NEDs' remuneration is based on the following rates.

	From Private Sector (\$) 2018
Chairman Fee (all-in)	750,000
Board Basic Retainer Fee	
Director	75,000
Additional/Committee Fees	
Audit Committee:	
- Chairman	52,000
- Member	29,000
ERCC, SFC, RDTC and RSC:	
- Chairman	35,000
- Member	18,000
Other Committees (including NC):	
- Chairman	29,000
- Member	14,000
Attendance Fees	
Per Board Meeting	5,000
Per Board Committee Meeting	2,500

The Chairman fee is a fixed fee covering Board basic retainer, Board Committee and meeting attendance fees. The fee is paid in a combination of cash (70%) and shares (30%). The shares granted, as part of the fee, are fully-paid with no performance conditions attached and no vesting period imposed. However, the shares will have to be held for at least two years from the date of grant, and the two-year moratorium will apply even in the event of retirement.

The NEDs' remuneration payable in respect of financial year 2018 is proposed to be \$1,772,607 (FY2017: \$1,547,391). Details of the directors' remuneration are provided in the Summary Remuneration Table for Directors on pages 106 to 107.

Fees for directors who hold public sector appointments follow the Directorship & Consultancy Appointments Council (DCAC)'s guidelines as set out below.

	Public Sector NED fees (\$) 2018
Chairman	45,000
Deputy Chairman/Chairman Executive Committee/ Chairman Audit Committee	33,750
Member Executive Committee/Member Audit Committee/Chairman of Other Board Committee(s)	22,500
Director/Other Committee Member	11,250

NEDs who hold public sector appointments will not be eligible for the shares component of the NEDs' remuneration. 100% of their remuneration in cash is payable to DCAC, where applicable.

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SUMMARY REMUNERATION TABLE FOR DIRECTORS FOR THE YEAR ENDED 31 DECEMBER 2018 (GROUP):

Payable by the Company

Executive Director	Directors' Total Fees*5						
	Salary*1	Variable Cash-based Incentives*2	Benefits*3	Share-based Incentives*4	Cash-based	Share-based	Total
	\$	\$	\$	\$	\$	\$	\$
Vincent Chong Sy Feng	973,239	1,671,313	127,750	1,830,585	–	–	4,602,887
Non-Executive Directors	Directors' Total Fees*5						
	Salary*1	Variable Cash-based Incentives*2	Benefits*3	Share-based Incentives*4	Cash-based	Share-based	Total
	\$	\$	\$	\$	\$	\$	\$
Kwa Chong Seng	–	–	–	–	525,000	225,000	750,000
Quek See Tiat	–	–	–	–	115,150	49,350	164,500
LG Lim Cheng Yeow Perry	–	–	–	–	3,699 (a)(d)	–	3,699
LG Ong Su Kiat Melvyn	–	–	–	–	6,380 (b)(d)	–	6,380
Neo Kian Hong	–	–	–	–	6,534 (c)(d)	–	6,534
Quek Gim Pew	–	–	–	–	22,500 (d)	–	22,500
Dr Stanley Lai Tze Chang	–	–	–	–	176,080 (e)	–	176,080
Khoo Boon Hui	–	–	–	–	189,000	–	189,000
Olivia Lum Ooi Lin	–	–	–	–	27,772 (f)	–	27,772
Dr Beh Swan Gin	–	–	–	–	11,250 (d)	–	11,250
Lim Sim Seng	–	–	–	–	117,250	50,250	167,500
Lim Ah Doo	–	–	–	–	113,400	48,600	162,000
Lim Chin Hu	–	–	–	–	40,795 (g)	17,483	58,278
Song Su-Min	–	–	–	–	18,980 (h)	8,133	27,114
COL Xu Youfeng (Alternate to LG Ong Su Kiat Melvyn)	–	–	–	–	–	–	–
Total	–	–	–	–	1,373,790	398,816	1,772,607

Payable by Subsidiaries

Executive Director	Salary* ¹ \$	Variable Cash-based Incentives* ² \$	Benefits* ³ \$	Share-based Incentives* ⁴ \$	Directors' Total Fees* ⁵		Total \$
					Cash-based \$	Share-based \$	
Vincent Chong Sy Feng	–	–	–	–	30,000 ⁽ⁱ⁾	–	30,000

Non-Executive Directors	Salary* ¹ \$	Variable Cash-based Incentives* ² \$	Benefits* ³ \$	Share-based Incentives* ⁴ \$	Directors' Total Fees* ⁵		Total \$
					Cash-based \$	Share-based \$	
LG Ong Su Kiat Melvyn	–	–	–	–	4,844 ^(d)	–	4,844
Quek Gim Pew	–	–	–	–	12,500 ^(d)	–	12,500
Dr Stanley Lai Tze Chang	–	–	–	–	45,000	–	45,000
Dr Beh Swan Gin	–	–	–	–	27,944 ^(d)	–	27,944
Lim Sim Seng	–	–	–	–	46,573	–	46,573
Lim Ah Doo	–	–	–	–	47,178	–	47,178
Lim Chin Hu	–	–	–	–	23,362	–	23,362
Total	–	–	–	–	207,401	–	207,401

*1 Salary includes base salary and employer CPF for the financial year ended 31 December 2018.

*2 Variable Cash-based Incentives include Performance Target Bonus & EVA-based incentive declared for the financial year ended 31 December 2018.

*3 Benefits provided for employees are comparable with local market practices. These include medical, dental, insurances, transport, etc.

*4 Share-based incentives consist of PSP and RSP shares granted for financial year ended 31 December 2018.

*5 The directors' cash fees and share grants will only be paid/granted upon approval by the shareholders at the forthcoming AGM of the Group.

(a) Pro-rated. LG Perry Lim resigned as Director on 1 May 2018

(b) Pro-rated. LG Melvyn Ong was appointed Director on 8 June 2018

(c) Pro-rated. Neo Kian Hong resigned as Director on 1 August 2018

(d) Fees for public sector directors are payable to a government agency, the DCAC

(e) Resigned as Director on 31 December 2018

(f) Pro-rated. Retired at AGM on 20 April 2018

(g) Pro-rated. Lim Chin Hu was appointed Director on 16 July 2018

(h) Pro-rated. Song Su-Min was appointed Director on 16 September 2018

(i) Fees are payable to Singapore Technologies Engineering Ltd

The following information relates to remuneration of directors of ST Engineering:

	Number of Directors in Remuneration Bands	
	2018	2017
\$500,000 and above	2	2
\$250,000 to \$499,999	0	0
Below \$250,000	13	13
Total	15	15

CORPORATE GOVERNANCE

SUMMARY REMUNERATION TABLE FOR KEY MANAGEMENT EXECUTIVES FOR THE YEAR ENDED 31 DECEMBER 2018 (GROUP):

Remuneration	Salary* ¹	Variable Cash-based Incentives* ²	Benefits* ³	Share-based Incentives* ⁴	Total
	%	%	%	%	%
Between \$2,250,000 and \$2,500,000					
Lim Serh Ghee	27	40	3	30	100
Ravinder Singh s/o Harchand Singh	28	39	3	30	100
Between \$1,750,000 and \$2,000,000					
Foo Chee Keng Cedric	36	32	5	27	100
Between \$1,250,000 and \$1,500,000					
Ng Sing Chan	45	27	6	22	100
Dr Lee Shiang Long	35	31	4	30	100
Total for Key Management Executives					\$9,245,782

*¹ Salary includes base salary and employer CPF for the financial year ended 31 December 2018.

*² Variable Cash-based Incentives include Performance Target Bonus & EVA-based incentive declared for the financial year ended 31 December 2018.

*³ Benefits provided for employees are comparable with local market practices. These include medical, dental, insurances, transport, etc.

*⁴ Share-based incentives consist of PSP and RSP shares granted for financial year ended 31 December 2018.

ACCOUNTABILITY AND AUDIT

Accountability (Principle 10)

The Board is responsible for providing a balanced assessment of the Group's performance, position and prospects. In presenting the annual financial statements and quarterly results announcements to shareholders promptly, it is the aim of the Board to provide the shareholders with a detailed analysis, explanation and assessment of the Group's performance, position, risk review and prospects. The Board also takes adequate steps to ensure compliance with legislative and regulatory requirements, including compliance with the continuing listing obligations under the SGX Listing Manual. As and when new rules and

regulations or accounting standards are introduced, external professionals will be invited to brief our Directors.

The appointment of auditors is subject to approval at each AGM. In making its recommendations to shareholders on the appointment and re-appointment of auditors, the Board relies on the review and recommendations of the AC. The AC's assessment of the external auditor is based on factors such as the performance and independence of the auditor. KPMG LLP in Singapore audits Singapore incorporated subsidiaries that are not exempt from audit under the Singapore Companies Act. Subsidiaries incorporated in countries outside Singapore that require an audit in their local jurisdictions are largely audited by other independent member

firms of the KPMG network affiliated with KPMG International Cooperative, a Swiss entity. Some of our overseas associates and joint ventures engage other auditing firms, but the number of such entities is not significant.

In compliance with SGX requirements, an audit engagement partner may only be in charge of an audit for up to five consecutive years. KPMG LLP, which was first appointed in 2010 has been meeting this requirement. The current audit engagement partner took over ST Engineering's audit in February 2017. The Company has complied with Rules 712 and 715 of the SGX Listing Manual in relation to the engagement of its auditors.

Directors and key senior executives of the Group are

prohibited from dealing in ST Engineering shares two weeks before the announcement of ST Engineering's first quarter, second quarter, third quarter, and full year results up to the date of the announcement of the results. Directors are discouraged from trading on short term considerations. Additionally, all directors of the Group and employees are reminded not to trade in situations where the insider trading laws and rules would prohibit trading.

The directors' interests in shares of ST Engineering and its related companies during the year are found on pages 127 to 133 of this Annual Report.

Audit Committee (Principle 12)

The AC is supported in its work by the Risk and Audit Committees (RACs) of the four business sectors. The respective chairmen of the RACs are invited to attend the AC meetings of ST Engineering so as to have a clear understanding of policies made at the holding company level and to share any feedback or raise any issue that the Sectors' RACs may have. During the year, an exercise to streamline the four business sectors' and subsidiaries' Boards was carried out. In August 2018, the RACs were restructured to form the Risk and Audit Advisory Committees which will continue the work of the RACs but without oversight on financial performance.

The AC has full authority to commission and review findings

of internal investigations into matters where it is alerted of any suspected fraud or irregularity or failure of internal controls or infringement of any law likely to have a material impact on the Group's operating results. It can investigate any matter within its terms of reference and with the full cooperation of management.

The AC's key terms of reference include the following:

- undertaking the statutory and regulatory functions of an AC as are prescribed by law from time to time;
- reviewing the reports of the external and internal auditors to provide a further layer of assurance of the integrity, confidentiality and availability of critical information;
- reviewing interested person transactions;
- evaluating the work of the external auditors to determine their independence and recommending to the Board their reappointment and compensation on an annual basis; and
- reviewing the level of non-audit services.

The Company has in place a Whistle-Blowing framework, where staff may, in confidence and without fear of retaliation, raise concerns of incidents of possible wrongdoing or breach of applicable laws, regulations or policies to the Whistle-Blowing Committee

chaired by the AC Chairman. In accordance with this framework, a Whistle-Blowing dashboard reporting is presented to the AC at its quarterly meetings. As ST Engineering has become a global company with presence in many countries, it is aware of the need to apply international corporate governance standards wherever it operates. It takes a serious view of all reports of violations received and may commission investigations as appropriate.

The AC comprises Quek See Tiat as Chairman, Dr Stanley Lai (until 31 December 2018), Khoo Boon Hui, Lim Ah Doo and Song Su-Min. All the members of the AC are independent Directors and majority, including the AC Chairman, have the relevant accounting or financial management expertise or experience. None of the AC members were previous partners or Directors of the Company's existing external audit firm within the previous 12 months prior to their appointment to the AC, and none of the AC members have any financial interest in the Company's existing audit firm.

The AC held five meetings during the year including a joint meeting with the RSC to review the significant risks and related key controls. The AC met once with the external and internal auditors, without management, during the year to gather feedback on management's level of cooperation and other matters that warrant the AC's attention.

CORPORATE GOVERNANCE

During the year, the AC reviewed the financial statements of the Group before the announcement of the Group's quarterly, half-yearly and full-year results. Amongst the matters discussed, the following significant matters impact the financial statements, and were reviewed by the AC in relation to their materiality and appropriateness in approach, methodology and assessment. These matters were also discussed with management and the external auditors:

Significant matters	How the AC reviewed these matters
Impairment of non-financial assets, including goodwill and other intangible assets	The AC reviewed the reasonableness of cash flow forecasts, the long-term growth rate and discount rate used in the valuation model in goodwill impairment assessment. It also reviewed the stress testing of the valuation and its sensitivity to changes in key assumptions used in the valuation model.
Revenue recognition	The AC reviewed the various controls that were designed and applied by the Group in the recognition of revenue and profit from long-term contracts to ensure that the estimates used in determining the amount of revenue and costs recognised were appropriate.
Impairment of property, plant and equipment – Roll-on/Roll-off Passenger ferry (“ROPAX”)	The AC assessed the sale and charter scenarios, cash flow forecasts, long-term growth rate and discount rate that were used in the valuation model for the valuation of property, plant and equipment relating to ROPAX.

The AC concluded that management's accounting treatment and estimates were appropriate for the above significant matters. All the key audit matters (KAMs) that were raised by the external auditors for the financial year ended 31 December 2018 have been addressed by the AC and discussed in the above commentary. The KAMs in the audit report for the financial year ended 31 December 2018 can be found on pages 135 to 138 of this Annual Report.

During the year, the AC considered and approved the 2018 Audit Plan and the 2018 Internal Audit (IA) Plan. In addition, the AC reviewed the adequacy of internal control procedures including IT security issues, Interested Person

transactions and the issues raised in IA reports. It also considered the reappointment of the external auditors as well as their remuneration.

The AC also reviewed the level of non-audit services performed by its external auditors. For the full year 2018, \$7.9m was paid to the external auditors for audit and non-audit services of the Group, of which \$2.4m or 31% were for non-audit services. The AC was satisfied that the non-audit services performed by the auditors did not compromise their independence.

The AC is routinely updated on the proposed and impending changes in accounting standards and their implications for the Group.

Risk Management and Internal Control (Principle 11) Internal Audit (Principle 13)

The AC oversees and appraises the quality of the IA function. The Board, through the AC and RSC, is responsible for oversight of the risk management responsibilities, sustainability, internal controls and governance processes delegated to management.

IA supports the AC in reviewing the adequacy of the Group's internal control systems.

ST Engineering IA is staffed with individuals with the relevant qualifications and experience and comprises a

team of 25 staff members, including the Head, Internal Auditor, who reports to the AC functionally and to the President & CEO administratively.

ST Engineering IA is a member of the Singapore Chapter of the Institute of Internal Auditors (IIA) and adopts the International Standards for the Professional Practice of Internal Auditing (the IIA Standards) laid down in the International Professional Practices Framework issued by the IIA. ST Engineering IA continues to meet or exceed the IIA standards in all key aspects.

IA plans its internal audit schedules in consultation with, but independently of, management. The IA Plan is submitted to the AC for approval at the beginning of each year.

The AC is satisfied that the IA is independent, effective and adequately resourced.

All IA reports are submitted to the AC for deliberation with copies of these reports extended to the relevant senior management, for prompt corrective actions, as recommended. Furthermore, IA's summary of findings, recommendations and updates on management actions taken are discussed at the quarterly AC meetings.

During the year, a joint RSC and AC meeting was held

in accordance with the respective terms of reference of the committees to facilitate constructive sharing of the common issues that may need to be addressed by both these committees. During the joint committee meeting, members were updated on the key risks and the risk management process.

IA continues to work with management to align companies to the Group's internal control environment and compliance standards in order to strengthen the self-regulating checks and balances. Control issues, if any, are discussed at AC meetings. IA made periodic visits to overseas subsidiaries to review their operations to ensure compliance with the internal controls framework. IA is assisted in its work by an external accounting firm which is not the external auditors of the Company to ensure independence of the internal audit role. In accordance with its plan, surprise audits were conducted in the course of the year on selected areas including treasury activities.

IA continued with its system of rating a company at the end of an internal audit for the purpose of differentiating the high risk issues which require immediate attention.

Risk and Sustainability Committee

The RSC, chaired by Khoo Boon Hui, comprises

LG Melvyn Ong, Dr Stanley Lai (until 31 December 2018), Song Su-Min and Vincent Chong. Christopher Lau and Bill Chua are co-opted members of the RSC given their experience as RAC Chairmen.

a) Risk Governance

The RSC assists the Board in its risk governance responsibility. RSC's role is one of oversight of the responsibilities delegated to management to ensure that there is a system of controls in place for identifying and managing risks in order to safeguard stakeholders' interests and the Company's assets. The RSC also oversees the Group's sustainability issues and reporting.

The RSC is supported by the Risk and Sustainability Team (RST), headed by Head, Risk and Sustainability, working with the Sector Chief Risk Officers from each of the following Sectors:

- 1) Aerospace
- 2) Electronics
- 3) Land Systems
- 4) Marine

The Head of RST reports to the Chairman of the RSC and ST Engineering's President & CEO. The RST provides leadership in the implementation of a Group-wide Enterprise Risk Management (ERM) framework that allows risks to be identified, assessed,

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monitored and managed by the business managers.

The annual risk work plan is approved by the RSC.

In the respective Terms of Reference of the RSC and AC, the members of the RSC and the AC will meet at least once a year to discuss significant risks and audit issues of the Group. The RSC held a total of five meetings during the year including a joint meeting with AC.

There is at least a member on the RSC who is also a member of the AC to facilitate communication and access of information between the two committees.

b) Risk Aware Culture and Training

Embedding the right culture throughout the organisation is important for effective risk management. The RSC recognises good culture fosters openness that will enable management and staff to escalate concerns in a timely manner without fear, as well as promote better judgment, which provides greater comfort to the Board and management.

As part of the risk awareness and communication programme, annual risk management training plans covering various risk topics are developed and implemented by the respective sectors, and the status of the

training is updated to the RSC at periodic intervals.

c) Risk Review Process

Under the ERM framework, a risk dashboard of the top 15 business risks (comprising the key inherent risks that may impact the business objectives) is developed and maintained by each of the significant business units, rolling up into a summary dashboard for each of the four business sectors – Aerospace, Electronics, Land Systems and Marine. Once the top business risks are identified, measures will then be taken to develop and implement risk preventive and mitigation actions (collectively known as “controls”) and risk monitoring processes. The business managers are required to periodically review the effectiveness of the controls implemented, and initiate necessary changes as the risk profile changes.

Quarterly, the Presidents and the Sector Chief Risk Officers review, with the RSC, their respective dashboard of material business risks. At the meetings, the Presidents and Sector Chief Risk Officers would discuss the risk management action plans and measures to address these risks. At the same time, the Presidents and Sector Chief Risk Officers would also highlight the following for discussion:

- 1) emerging trends and issues in each business sector
- 2) new risk or changes to existing risk profile

- 3) new risk incidents
- 4) major risk exposures
- 5) risk management actions taken on previously identified risks

The RSC continues to monitor the implementation of risk management policies and procedures and receives updates to the risk registers maintained by the respective sectors. Major reviews include compliance with major laws and regulations, as well as business disruption risks and their continuity plans.

In addition, during the year the RSC reviewed with management the incident notification framework and cyber risk management framework.

d) Risk Management Self Assurance Process

The Risk Management Self Assurance is a process whereby the business risk owners, together with the respective control owners, evaluate and assess the operational effectiveness of the controls established to manage the key risks that are reported in the Sector Risk Dashboards.

On the basis of this self assessment, annually, the RSC will receive from the respective Sector Presidents and Sector Group Financial Controllers, written assurances on the adequacy and effectiveness of the system of risk management and controls to manage the significant risks.

For more information on the Company's risk management framework, please refer to the ST Engineering website www.stengg.com for details.

System of Internal Control and Risk Management

The Board receives, at regular intervals, updates from the Board Committees on the key business risks, the material controls to manage these risks, and the internal audit reports on the operational effectiveness of the material controls.

The Board has received assurance from the Group's President & CEO and CFO on the effectiveness of the Company's risk management and internal control systems, that the financial records have been properly maintained and that the financial statements give a true and fair view of the Company's operations and finances.

The Board is satisfied with the risk management process in place, and, in its opinion, that the effectiveness and adequacy of the material controls to manage the key risks have been appropriately reviewed through the management self assurance process, as well as reasonable independent assurance provided by the Company's IA Function.

Based on the internal controls and risk management process established and maintained by the Group, work performed by the internal and external auditors, and reviews performed

by management and various Board Committees, the Board is satisfied that the Group's framework of internal controls (including financial, operational, compliance and information technology controls) as well as the risk management systems are adequate and effective as at 31 December 2018. The AC concurs with the Board on the adequacy and effectiveness of the internal controls and risk management systems established and maintained by the Group as at 31 December 2018.

The Board is satisfied that problems are identified on a timely basis and follow up actions are taken promptly to minimise lapses. The Board, through the Board Committees, is supported in these areas by the Internal Audit and Risk Management teams of the Company. In this regard, the Board also notes that no system can provide absolute assurance against the occurrence of material errors, poor judgment in decision making, human error, fraud or other irregularities.

Strategy & Finance Committee

The SFC comprises Kwa Chong Seng as Chairman, Dr Beh Swan Gin, Lim Sim Seng, Lim Ah Doo and Vincent Chong. The SFC's role includes guiding management in the development and execution of the Group's strategies as well as to consider and approve tender proposals which are above established contract value limit.

During the year, the SFC held four meetings of which one meeting was to discuss the Group's long-term strategy and initiatives, as well as the drivers, constraints, opportunities and challenges for each of the business areas. The SFC also reviewed the 2019 Budget and five-year plan prior to submission to the Board for approval as well as approve tender proposals which are above established contract value limit.

SHAREHOLDER RIGHTS AND RESPONSIBILITIES

Shareholder Rights (Principle 14) Communication with Shareholders (Principle 15) Conduct of Shareholder Meetings (Principle 16)

At all times, ST Engineering is committed to disclosing material information in a timely, transparent and accurate manner in accordance with the Code.

All disclosures submitted to the Singapore Exchange Securities Trading Limited ("SGX-ST") through SGXNET are made available on the Group's corporate website at www.stengg.com.

The Investor Relations team and designated senior spokespersons establish and maintain regular dialogue with shareholders, media, analysts and the investment

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community through analyst and media briefings, facility visits, as well as investor roadshows and conferences. These platforms provide opportunities to present our business and investment case, as well as enable us to solicit and understand views of our stakeholders.

While we provide reasonable access to shareholders, media, analysts and the investment community to help them develop informed opinions of the Group, we do not respond or comment on rumours, market speculation, or forward projections of financial figures. In situations where the rumours or speculative news reports are materially incorrect or misleading, the Group may issue a clarification or confirmation statement through SGXNET.

The Group observes a “blackout period” of two weeks prior to the announcement of quarterly results. During this period, we do not comment on industry outlook, the Group’s business performance and financial results, neither do we participate in any investor meetings or conferences or proactively engage the financial media.

On dividend, the Company aims to provide shareholders

with a sustainable dividend return and has historically, been declaring interim and final dividends.

At general meetings of shareholders, we facilitate the opportunity for shareholders to participate effectively. Board members are present at these meetings where shareholders can seek clarification or question the Board on issues pertaining to the resolutions proposed before they are voted on. The external auditors are also present to assist the directors in answering questions on audit related matters. A copy of the AGM minutes is made available on the Group’s corporate website at www.stengg.com.

At the AGM in April 2018, the President & CEO, delivered a presentation at the start of the meeting, to update shareholders on the Group’s business performance and provide an overview of the focus areas for the next growth phase.

To ensure authenticity of shareholder identity and due to other related security issues, the Company currently does not allow voting in absentia by mail, email or fax.

For transparency in the voting process, ST Engineering has, since 2010, adopted the use of electronic poll voting for all the resolutions put to vote at its AGMs and Extraordinary General Meetings (EGMs). This is a fair and transparent way of voting based on the principle of one share one vote. The electronic process on how to vote is explained at the AGMs and EGMs. The Company also appoints an independent external party as scrutineer for the electronic poll voting. Prior to the AGMs and EGMs, the scrutineer will review the proxies and the electronic poll voting system, and be present at the proxy verification process, to ensure that the proxy and poll voting information is compiled correctly. The scrutineer attends the AGM to ensure that the polling process is properly carried out. Votes cast, for or against and the respective percentages, on each resolution are tallied and displayed ‘live’ on-screen to shareholders immediately after the voting. Each proposal is put to the vote as a separate resolution at general meetings. We do not “bundle” resolutions, unless the resolutions are interdependent and linked so as to form one significant proposal.

CODE OF CORPORATE GOVERNANCE 2012

SUMMARY OF DISCLOSURES

Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 1.1	Board's Role	Page 94
Guideline 1.2	All directors must objectively discharge their duties and responsibilities at all times as fiduciaries in the interests of the company	Page 94
Guideline 1.3	Delegation of authority, by the Board to any board committee, to make decisions on certain board matters	Page 94
Guideline 1.4	The number of meetings of the Board and board committees held in the year, as well as the attendance of every board member at these meetings	Pages 95 - 96
Guideline 1.5	The type of material transactions that require board approval under guidelines	Page 94
Guideline 1.6	The induction, orientation and training provided to new and existing directors	Page 94
Guideline 2.1	There should be a strong and independent element on the Board, with independent directors making up at least one-third of the Board.	Page 97
Guideline 2.2	Independent directors should make up at least half of the Board where the Chairman of the Board and the CEO is the same person or are immediate family members, or the Chairman is part of the management team or the Chairman is not an independent director.	Pages 97 - 98

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Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 2.3	The Board should identify in the company's Annual Report each director it considers to be independent. Where the Board considers a director to be independent in spite of the existence of a relationship as stated in the Code that would otherwise deem a director not to be independent, the nature of the director's relationship and the reasons for considering him as independent should be disclosed	Page 97
Guideline 2.4	Where the Board considers an independent director, who has served on the Board for more than nine years from the date of his first appointment, to be independent, the reasons for considering him as independent should be disclosed	NA
Guideline 2.5	The Board should examine its size and, with a view to determining the impact of the number upon effectiveness, decide on what it considers an appropriate size for the Board, which facilitates effective decision making.	Page 97
Guideline 2.6	The Board and its board committees should comprise directors who as a group provide an appropriate balance and diversity of skills, experience, gender and knowledge of the company.	Page 97
Guideline 2.7	Role of non-executive directors	Page 94
Guideline 2.8	To facilitate a more effective check on Management, non-executive directors are encouraged to meet regularly without the presence of Management.	Page 95
Guideline 3.1	Relationship between the Chairman and the CEO where they are immediate family members	Page 98
Guideline 3.2	Role of Chairman of the Board	Page 98
Guideline 3.3	Appointment of a lead independent director	Page 98

Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 3.4	Periodic meeting of independent directors without the presence of other directors and lead independent director to provide feedback to the Chairman after such meetings.	NA
Guideline 4.1	Names of the members of the NC and the key terms of reference of the NC, explaining its role and the authority delegated to it by the Board	Pages 98 - 99
Guideline 4.2	NC should make recommendations to the Board on relevant matters relating to the process for the selection, appointment and re-appointment of directors include composition and progressive renewal of the Board and each director's competencies, commitment, contribution and performance. All directors should be required to submit themselves for re-nomination and re-appointment at regular intervals and at least once every three years.	Pages 98 - 99
Guideline 4.3	The NC is charged with the responsibility of determining annually, and as and when circumstances require, if a director is independent, bearing in mind the circumstances set forth in Guidelines 2.3 and 2.4 and any other salient factors.	Pages 98 - 99
Guideline 4.4	The maximum number of listed company board representations which directors may hold should be disclosed	Page 99
Guideline 4.5	Appointment of alternate directors.	Page 97
Guideline 4.6	Process for the selection, appointment and re-appointment of new directors to the Board, including the search and nomination process	Pages 98 - 99
Guideline 4.7	Key information regarding directors, including which directors are executive, non-executive or considered by the NC to be independent	Page 97 See also pages 14 - 18

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Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 5.1	The Board should state in the company's Annual Report how assessment of the Board, its board committees and each director has been conducted. If an external facilitator has been used, the Board should disclose in the company's Annual Report whether the external facilitator has any other connection with the company or any of its directors. This assessment process should be disclosed in the company's Annual Report	Page 99
Guidelines 5.2 and 5.3	Evaluation of the Board and individual directors	Page 99
Guidelines 6.1 to 6.3	Board should have separate and independent access to Management and company secretary. Directors are entitled to request from Management and should be provided with such additional information as needed to make informed decisions.	Page 101
Guideline 6.4	The appointment and the removal of the company secretary should be a matter for the Board as a whole.	Page 101
Guideline 6.5	Procedure for directors, either individually or as a group, in the furtherance of their duties, to take independent professional advice, if necessary, and at the company's expense.	Page 101
Guideline 7.1	Names of the members of the RC and the key terms of reference of the RC, explaining its role and the authority delegated to it by the Board	Pages 101 - 102
Guideline 7.2	RC should review and recommend to the Board a general framework of remuneration for the Board and key management personnel.	Pages 101 - 105
Guideline 7.3	Names and firms of the remuneration consultants (if any) should be disclosed in the annual remuneration report, including a statement on whether the remuneration consultants have any relationships with the company	Page 102

Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 7.4	RC should review the company's obligations arising in the event of termination of the executive directors' and key management personnel's contracts of service, to ensure that such contracts of service contain fair and reasonable termination clauses which are not overly generous	Page 104
Principle 8 Guidelines 8.1 to 8.4	The level and structure of remuneration should be aligned with the long-term interest and risk policies of the company, and should be appropriate to attract, retain and motivate the directors and key management personnel	Pages 102 - 105
Principle 9	Clear disclosure of remuneration policies, level and mix of remuneration, and procedure for setting remuneration	Pages 102 - 105
Guideline 9.1	Remuneration of directors, the CEO and at least the top five key management personnel (who are not also directors or the CEO) of the company. The annual remuneration report should include the aggregate amount of any termination, retirement and post-employment benefits that may be granted to directors, the CEO and the top five key management personnel (who are not directors or the CEO)	Pages 106 - 108
Guideline 9.2	Fully disclose the remuneration of each individual director and the CEO on a named basis. There will be a breakdown (in percentage or dollar terms) of each director's and the CEO's remuneration earned through base/fixed salary, variable or performance-related income/bonuses, benefits in kind, stock options granted, share-based incentives and awards, and their long-term incentives	Pages 106 - 107
Guideline 9.3	Name and disclose the remuneration of at least the top five key management personnel (who are not directors or the CEO) in bands of S\$250,000. There will be a breakdown (in percentage or dollar terms) of each key management personnel's remuneration earned through base/fixed salary, variable or performance-related income/bonuses, benefits in kind, stock options granted, share-based incentives and awards, and other long-term incentives. In addition, the company should disclose in aggregate the total remuneration paid to the top five key management personnel (who are not directors or the CEO). As best practice, companies are also encouraged to fully disclose the remuneration of the said top five key management personnel	Page 108

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Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 9.4	Details of the remuneration of employees who are immediate family members of a director or the CEO, and whose remuneration exceeds S\$50,000 during the year. This will be done on a named basis with clear indication of the employee's relationship with the relevant director or the CEO. Disclosure of remuneration should be in incremental bands of S\$50,000	Page 104
Guideline 9.5	Details and important terms of employee share schemes	Pages 102 - 104
Guideline 9.6	For greater transparency, companies should disclose more information on the link between remuneration paid to the executive directors and key management personnel, and performance. The annual remuneration report should set out a description of performance conditions to which entitlement to short-term and long-term incentive schemes are subject, an explanation on why such performance conditions were chosen, and a statement of whether such performance conditions are met.	Pages 102 - 104
Principle 10 Guidelines 10.1 to 10.3	The Board should present a balanced and understandable assessment of the company's performance, position and prospects	Page 108
Guideline 11.1	The Board should determine the company's levels of risk tolerance and risk policies, and oversee Management in the design, implementation and monitoring of the risk management and internal control systems.	Pages 111 - 113
Guideline 11.2	The Board should, at least annually, review the adequacy and effectiveness of the company's risk management and internal control systems, including financial, operational, compliance and information technology controls. Such review can be carried out internally or with the assistance of any competent third parties.	Page 113

Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 11.3	<p>The Board should comment on the adequacy and effectiveness of the internal controls, including financial, operational, compliance and information technology controls, and risk management systems.</p> <p>The commentary should include information needed by stakeholders to make an informed assessment of the company's internal control and risk management systems.</p> <p>The Board should also comment on whether it has received assurance from the CEO and the CFO: (a) that the financial records have been properly maintained and the financial statements give true and fair view of the company's operations and finances; and (b) regarding the effectiveness of the company's risk management and internal control systems.</p>	Page 113
Guideline 11.4	<p>The Board may establish a separate board risk committee or otherwise assess appropriate means to assist it in carrying out its responsibility of overseeing the company's risk management framework and policies.</p>	Pages 111 - 113
Guideline 12.1	<p>Names of the members of the AC and the key terms of reference of the AC, explaining its role and the authority delegated to it by the Board</p>	Pages 109 - 110
Guideline 12.2	<p>Members of the AC should be appropriately qualified to discharge their responsibilities. At least two members, including the AC Chairman, should have recent and relevant accounting or related financial management expertise or experience, as the Board interprets such qualification in its business judgement.</p>	Page 109
Guideline 12.3	<p>The AC should have explicit authority to investigate any matter within its terms of reference, full access to and co-operation by Management and full discretion to invite any director or executive officer to attend its meetings, and reasonable resources to enable it to discharge its functions properly.</p>	Page 109
Guideline 12.4	Duties of AC	Page 109

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Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 12.5	The AC should meet (a) with the external auditors, and (b) with the internal auditors, in each case without the presence of Management, at least annually.	Page 109
Guideline 12.6	Aggregate amount of fees paid to the external auditors for that financial year, and breakdown of fees paid in total for audit and non-audit services respectively, or an appropriate negative statement	Page 110
Guideline 12.7	The existence of a whistle-blowing policy should be disclosed in the company's Annual Report	Page 109
Guideline 12.8	Summary of the AC's activities and measures taken to keep abreast of changes to accounting standards and issues which have a direct impact on financial statements	Pages 109 - 111
Guideline 12.9	A former partner or director of the company's existing auditing firm or auditing corporation should not act as a member of the company's AC: (a) within a period of 12 months commencing on the date of his ceasing to be a partner of the auditing firm or director of the auditing corporation; and in any case (b) for as long as he has any financial interest in the auditing firm or auditing corporation.	Page 109
Guideline 13.1	Internal Auditor's (IA) primary line of reporting should be to the AC Chairman although the IA would also report administratively to the CEO. The AC approves the hiring, removal, evaluation and compensation of the head of the IA function, or the accounting/auditing firm or corporation to which the IA function is outsourced. The IA should have unfettered access to all the company's documents, records, properties and personnel, including access to the AC.	Page 111
Guideline 13.2	The AC should ensure that the IA function is adequately resourced and has appropriate standing within the company	Pages 110 - 111
Guideline 13.3	The IA function should be staffed with persons with the relevant qualifications and experience	Pages 110 - 111

Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 13.4	The IA should carry out its function according to the standards set by nationally or internationally recognised professional bodies including the Standards for the Professional Practice of Internal Auditing set by The Institute of Internal Auditors	Page 111
Guideline 13.5	The AC should, at least annually, review the adequacy and effectiveness of the IA function	Page 111
Guideline 14.1	Companies should facilitate the exercise of ownership rights by all shareholders	Page 114
Guideline 14.2	Companies should ensure that shareholders have the opportunity to participate effectively in and vote at general meetings of shareholders. Shareholders should be informed of the rules, including voting procedures, that govern general meetings of shareholders	Pages 113 - 114
Guideline 15.1	Companies should devise an effective investor relations policy to regularly convey pertinent information to shareholders	Pages 113 - 114
Guideline 15.2	Companies should disclose information on a timely basis through SGXNET and other information channels, including a well-maintained and updated corporate website. Where there is inadvertent disclosure made to a select group, companies should make the same disclosure publicly to all others as promptly as possible.	Page 113
Guideline 15.3	The Board should establish and maintain regular dialogue with shareholders, to gather views or inputs, and address shareholders' concern.	Pages 113 - 114
Guideline 15.4	The steps the Board has taken to solicit and understand the views of the shareholders e.g. through analyst briefings, investor roadshows or Investors' Day briefings	Pages 113 - 114
Guideline 15.5	Where dividends are not paid, companies should disclose their reasons.	NA

CORPORATE GOVERNANCE

Principle and Guidelines	Description	Page Reference in ST Engineering Annual Report 2018
Guideline 16.1	Shareholders should have the opportunity to participate effectively in and to vote at general meetings of shareholders. Companies should make the appropriate provisions in their Articles of Association (or other constitutive documents) to allow for absentia voting at general meetings of shareholders.	Page 114
Guideline 16.2	There should be separate resolutions at general meetings on each substantially separate issue.	Page 114
Guideline 16.3	All directors should attend general meetings of shareholders. In particular, the Chairman of the Board and the respective Chairman of the AC, NC and RC should be present and available to address shareholders' queries at these meetings. The external auditors should also be present to address shareholders' queries about the conduct of audit and the preparation and content of the auditors' report.	Page 114
Guideline 16.5	Companies should put all resolutions to vote by poll and make an announcement of the detailed results showing the number of votes cast for and against each resolution and the respective percentages. Companies are encouraged to employ electronic polling.	Page 114

FINANCIAL REPORT

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DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

We are pleased to submit this annual report to the members of the Company together with the audited financial statements of the Group and of the Company for the financial year ended 31 December 2018.

In our opinion:

- (a) the financial statements set out on pages 142 to 274 are drawn up so as to give a true and fair view of the financial position of the Group and of the Company as at 31 December 2018, and changes in equity, financial performance and cash flows of the Group for the year ended on that date in accordance with the provisions of the Singapore Companies Act, Chapter 50 and Singapore Financial Reporting Standards (International); and
- (b) at the date of this statement, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they fall due.

The Board of Directors has, on the date of this statement, authorised these financial statements for issue.

DIRECTORS

The directors of the Company in office at the date of this statement are as follows:

Kwa Chong Seng	(Chairman)
Vincent Chong Sy Feng	
Quek See Tiat	
LG Ong Su Kiat Melvyn	(Appointed on 8 June 2018)
Quek Gim Pew	
Khoo Boon Hui	
Dr Beh Swan Gin	
Lim Sim Seng	
Lim Ah Doo	
Lim Chin Hu	(Appointed on 16 July 2018)
Song Su-Min	(Appointed on 16 September 2018)
COL Xu Youfeng	(Appointed alternate Director to LG Ong Su Kiat Melvyn on 8 June 2018)

ARRANGEMENTS TO ENABLE DIRECTORS TO ACQUIRE SHARES OR DEBENTURES

Except for the Singapore Technologies Engineering Performance Share Plan 2010 (PSP2010) and Singapore Technologies Engineering Restricted Share Plan 2010 (RSP2010) (collectively the ST Engineering Share Plans), neither at the end of nor at any time during the financial year was the Company a party to any arrangement whose objects are, or one of whose objects is, to enable the directors of the Company to acquire benefits by means of the acquisition of shares in or debentures of the Company or any other body corporate.

DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

DIRECTORS' INTERESTS

Except as disclosed in this statement, no director who held office at the end of the financial year had interests in shares, debentures, warrants, share options or awards of the Company or of related corporations either at the beginning of the financial year or date of appointment if later, or at the end of the financial year.

According to the register kept by the Company for the purposes of Section 164 of the Singapore Companies Act, Chapter 50, particulars of interests of directors who held office at the end of the financial year in shares, debentures, warrants, share options and awards in the Company and its related corporations were as follows:

	Holdings in the name of the director, spouse or infant children	
	1 January 2018 or date of appointment if later	31 December 2018
The Company		
Ordinary Shares		
Kwa Chong Seng	975,600 ^{*1}	1,027,300 ^{*1}
Vincent Chong Sy Feng	1,467,089	1,568,084
Quek See Tiat	34,200	45,400
Khoo Boon Hui	21,700	34,800
Lim Sim Seng	18,100 ^{*2}	35,600 ^{*2}
Lim Ah Doo	42,600	60,000
Lim Chin Hu	20,000 ^{*2}	20,000 ^{*2}
Conditional Award of Shares under PSP2010 for performance period 2015 to 2017		
Vincent Chong Sy Feng (126,000 shares)	0 to 214,200 ^{#1}	— ^{#2}
Conditional Award of Shares under PSP2010 for performance period 2016 to 2018		
Vincent Chong Sy Feng (70,000 shares)	0 to 119,000 ^{#1}	0 to 119,000 ^{#1}
Conditional Award of Shares under PSP2010 for performance period 2017 to 2019		
Vincent Chong Sy Feng (258,800 shares)	0 to 439,960 ^{#1}	0 to 439,960 ^{#1}
Conditional Award of Shares under PSP2010 for performance period 2018 to 2020		
Vincent Chong Sy Feng (428,600 shares)	—	0 to 728,620 ^{#1}

DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

DIRECTORS' INTERESTS (continued)

		Holdings in the name of the director, spouse or infant children	
		1 January 2018 or date of appointment if later	31 December 2018
The Company			
<i>Unvested shares under RSP2010 arising from release of Conditional Award for performance period 1 January 2015 to 31 December 2015</i>			
Vincent Chong Sy Feng	(64,676 shares)	32,338 ^{#3}	16,169 ^{#3}
<i>Conditional Award of Shares under RSP2010 for performance period 1 January 2017 to 31 December 2017</i>			
Vincent Chong Sy Feng	(72,800 shares)	0 to 109,200 ^{#4}	— ^{#5}
<i>Unvested shares under RSP2010 arising from release of Conditional Award for performance period 1 January 2017 to 31 December 2017</i>			
Vincent Chong Sy Feng	(82,264 shares)	—	61,698 ^{#3}
<i>Conditional Award of Shares under RSP2010 for performance period 1 January 2018 to 31 December 2018</i>			
Vincent Chong Sy Feng	(180,800 shares)	—	180,800 ^{#4}
Related Corporations			
Ascendas Funds Management (S) Limited <i>Unit holdings in Ascendas Real Estate Investment Trust</i>			
Quek See Tiat		34,000	34,000
Ascendas Hospitality Fund Management Pte. Ltd. <i>Unit holdings in Ascendas Hospitality Trust</i>			
Lim Chin Hu		198,000 ^{*2}	198,000 ^{*2}

DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

DIRECTORS' INTERESTS (continued)

	Holdings in the name of the director, spouse or infant children	
	1 January 2018 or date of appointment if later	31 December 2018
Related Corporations		
Astrea IV Pte. Ltd.		
<i>Class A-1 4.35% Secured Fixed Rate Bonds</i>		
Khoo Boon Hui	–	\$73,000
Mapletree Industrial Trust Management Ltd.		
<i>Unit holdings in Mapletree Industrial Trust</i>		
Lim Chin Hu	121	121
Mapletree Logistics Trust Management Ltd.		
<i>Unit holdings in Mapletree Logistics Trust</i>		
Lim Ah Doo	185,000	185,000
Mapletree North Asia Commercial Trust Management Ltd.		
(formerly known as Mapletree Greater China Commercial Trust Management Ltd.)		
<i>Unit holdings in Mapletree North Asia Commercial Trust</i>		
Khoo Boon Hui	300,000	300,000
Olam International Limited		
<i>Ordinary Shares</i>		
Kwa Chong Seng	609,279 * ³	609,279 * ³
<i>Combined S\$350m 5.5% Perpetual Capital Securities</i>		
Lim Chin Hu	\$250,000 * ²	\$250,000 * ²
Singapore Telecommunications Limited		
<i>Ordinary Shares</i>		
Kwa Chong Seng	26,466	26,466
Quek See Tiat	680	680
Quek Gim Pew	3,120	3,120
Khoo Boon Hui	3,087	3,087
Song Su-Min	190	190

DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

DIRECTORS' INTERESTS (continued)

	Holdings in the name of the director, spouse or infant children	
	1 January 2018 or date of appointment if later	31 December 2018
Related Corporations		
StarHub Ltd		
Ordinary Shares		
Quek See Tiat	5,000	5,000
Song Su-Min	140,600	140,600
Temasek Financial (I) Limited		
T2028 USD 10-year Temasek Bond 3.625% coupon due August 2028		
Lim Chin Hu	–	US\$250,000
Temasek Financial (IV) Private Limited		
T2023 SGD Temasek Bond S\$500m 2.70% coupon due October 2023		
Quek See Tiat	–	\$7,000
Quek Gim Pew	–	\$14,000

*1 Includes interest in 300,000 shares in Singapore Technologies Engineering Ltd, held in trust by a trustee company on behalf of the director.

*2 Held in trust by a trustee company on behalf of the director.

*3 Includes interest in 189,279 shares in Olam International Limited, held in trust by a trustee company on behalf of the director.

#1 A minimum threshold performance over a 3-year period is required for any performance shares to be released and the actual number of performance shares to be released is capped at 170% of the conditional award.

#2 For this period, Mr Vincent Chong Sy Feng was awarded 64,260 shares upon partial achievement of targets set. The balance of the conditional award covering the period from 2015 to 2017 has thus lapsed.

#3 Balance of unvested restricted shares to be released according to the stipulated vesting periods.

#4 A minimum threshold performance over a 1-year period is required for any restricted shares to be released. A specified number of restricted shares to be released will depend on the extent of achievement of all performance conditions and will be delivered in phases according to the stipulated vesting periods.

#5 For this period, Mr Vincent Chong Sy Feng was awarded 82,264 shares upon partial achievement of targets set. The balance of the conditional award covering the period from 1 January 2017 to 31 December 2017 has thus lapsed.

There was no change in any of above-mentioned directors' interest in the Company between the end of the financial year and 21 January 2019.

DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

SHARE PLANS

The Executive Resource and Compensation Committee (ERCC) is responsible for administering the ST Engineering Share Plans.

The ERCC members are Mr Kwa Chong Seng (Chairman), Dr Stanley Lai (until 31 December 2018), Mr Lim Sim Seng and Mr Lim Chin Hu.

As at 31 December 2018, no participants have been granted options and/or have received shares under the ST Engineering Share Plans which, in aggregate, represent 5% or more of the total number of new shares available under the ST Engineering Share Plans.

The aggregate number of new shares issued pursuant to the RSP2010 and PSP2010 did not exceed 8% of the issued share capital of the Company.

Except as disclosed below, there were no shares awarded by the Company to any person to take up unissued shares of the Company.

(a) **PSP2010 (PSP)**

The PSP is established with the objective of motivating Senior Management Executives to strive for sustained long-term growth and performance in ST Engineering and its subsidiaries (ST Engineering Group). Awards of performance shares are granted conditional on performance targets set based on the ST Engineering Group corporate objectives.

Pursuant to the PSP, the ERCC has decided to grant awards on an annual basis, conditional on targets set for a performance period, currently prescribed to be a 3-year performance period. The performance shares will only be released to the recipient at the end of the performance qualifying period. A specified number of performance shares shall be released by the ERCC to the recipient and the actual number of performance shares will depend on the achievement of set targets over the respective performance period. A minimum threshold performance is required for any performance share to be released and the actual number of performance shares to be released is capped at 170% of the conditional award.

The performance measures used in PSP grants are Absolute Total Shareholder Return (TSR) against Cost of Equity hurdles (i.e. measure of absolute Wealth Added); and Earnings Per Share (EPS) Growth against pre-determined targets. In addition to the PSP performance targets being met, final award for PSP is conditional upon satisfactory performance of the recipient.

DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

SHARE PLANS (continued)

(a) PSP2010 (PSP) (continued)

The awards granted under the PSP2010 are as follows:

Participant	Conditional awards granted during the financial year under review	Awards released during the financial year under review	Aggregate conditional awards granted since commencement to end of financial year under review	Aggregate awards released since commencement to end of financial year under review	Aggregate conditional awards not released as at end of financial year under review
PSP2010					
Director of the Company					
Vincent Chong Sy Feng	0 to 728,620	64,260	0 to 1,501,780	64,260	0 to 1,287,580
Group Executives (including Vincent Chong Sy Feng)					
	0 to 2,931,718	842,788	0 to 21,777,323	3,917,831	0 to 8,190,657

(b) RSP2010 (RSP)

The RSP is established with the objective of motivating managers and above to strive for sustained long-term growth of ST Engineering Group. It also aims to foster a share ownership culture among employees within the ST Engineering Group and to better align employees' incentive with shareholders' interest.

Pursuant to the RSP, the ERCC has decided to grant time-based shares on an annual basis, and released equally to the recipient over four consecutive years.

Since 2011, the awards granted under the ST Engineering RSP2010 to the Non-Executive Directors (other than those from the public sector) are outright shares with no performance and vesting conditions but with a Moratorium on selling. These shares will form up to 30% of their total compensation with the remaining 70% payable in cash.

DIRECTORS' STATEMENT

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

SHARE PLANS (continued)**(b) RSP2010 (RSP)** (continued)

The awards granted under the RSP2010 are as follows:

Participant	Conditional awards/ awards granted during the financial year under review	Awards released during the financial year under review	Aggregate conditional awards/awards granted since commencement to end of financial year under review	Aggregate awards released since commencement to end of financial year under review	Aggregate awards not released as at end of financial year	Aggregate conditional awards not released as at end of financial year under review
RSP2010						
Directors of the Company						
Kwa Chong Seng	51,700	51,700	227,300	227,300	–	–
Vincent Chong Sy Feng	180,800	36,735	0 to 1,805,751	1,473,824	77,867	180,800
Quek See Tiat	11,200	11,200	45,400	45,400	–	–
Khoo Boon Hui	13,100	13,100	34,800	34,800	–	–
Lim Sim Seng	17,500	17,500	35,600	35,600	–	–
Lim Ah Doo	17,400	17,400	30,000	30,000	–	–
Non-Executive Directors of the Company and its subsidiaries (including current and former directors)	160,700	160,700	1,203,100	1,203,100	–	–
Group Executives (including Vincent Chong Sy Feng)	6,546,545	4,389,487	0 to 64,683,701	25,077,339	6,402,463	6,098,824

DIRECTORS' STATEMENT

31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

AUDIT COMMITTEE

The Audit Committee comprises four independent non-executive directors, one of whom is also the Chairman of the Committee. The members of the Audit Committee at the date of this report are as follows:

Quek See Tiat (Chairman)
Khoo Boon Hui
Lim Ah Doo
Song Su-Min

The Audit Committee carried out its functions in accordance with Section 201B of the Singapore Companies Act, Chapter 50, the SGX Listing Manual and the Code of Corporate Governance.

The Audit Committee met during the year to review the scope of the internal audit functions and the scope of work of the statutory auditors, and the results arising therefrom, including their evaluation of the system of internal controls. The Audit Committee also reviewed the assistance given by the Company's officers to the auditors. The consolidated financial statements of the Group and the financial statements of the Company were reviewed by the Audit Committee prior to their submission to the directors of the Company for adoption.

In addition, the Audit Committee has reviewed the requirements for approval and disclosure of interested person transactions, reviewed the procedures set up by the Group and the Company to identify and report and where necessary, seek approval for interested person transactions and, with the assistance of the internal auditors, reviewed interested person transactions.

The Audit Committee has full access to management and is given the resources required for it to discharge its functions. It has full authority and the discretion to invite any director or executive officer to attend its meetings. The Audit Committee also recommends the appointment of the external auditors and reviews the level of audit and non-audit fees.

The Audit Committee has recommended to the Board of Directors that the auditors, KPMG LLP, be nominated for re-appointment as auditors at the forthcoming Annual General Meeting of the Company.

The Company has complied with Rules 712 and 715 of the SGX Listing Manual in relation to the engagement of its auditors.

AUDITORS

The Auditors, KPMG LLP, have indicated their willingness to accept re-appointment.

On behalf of the Board of Directors

Kwa Chong Seng
Director

Vincent Chong Sy Feng
Director

Singapore
20 February 2019

INDEPENDENT AUDITORS' REPORT

MEMBERS OF THE COMPANY
SINGAPORE TECHNOLOGIES ENGINEERING LTD

REPORT ON THE FINANCIAL STATEMENTS

Opinion

We have audited the accompanying financial statements of Singapore Technologies Engineering Ltd (the Company) and its subsidiaries (the Group), which comprise the balance sheets of the Group and the Company as at 31 December 2018, the consolidated statement of changes in equity, the consolidated income statement, the consolidated statement of comprehensive income and the consolidated statement of cash flows of the Group for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 142 to 274.

In our opinion, the accompanying consolidated financial statements of the Group and the balance sheet of the Company are properly drawn up in accordance with the provisions of the Singapore Companies Act, Chapter 50 (the Act) and Singapore Financial Reporting Standards (International) (SFRS(I)s) so as to give a true and fair view of the financial position of the Group and Company as at 31 December 2018, and changes in equity, financial performance and cash flows of the Group for the year ended on that date.

Basis for opinion

We conducted our audit in accordance with Singapore Standards on Auditing (SSAs). Our responsibilities under those standards are further described in the *'Auditor's responsibilities for the audit of the financial statements'* section of our report. We are independent of the Group in accordance with the Accounting and Corporate Regulatory Authority (ACRA) *Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities* (ACRA Code) together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

INDEPENDENT AUDITORS' REPORT

MEMBERS OF THE COMPANY
SINGAPORE TECHNOLOGIES ENGINEERING LTD

THE KEY AUDIT MATTER	HOW WAS THE MATTER ADDRESSED IN OUR AUDIT
<p><i>Impairment of non-financial assets, including goodwill and other intangible assets</i></p> <p>Goodwill, intangible assets form 15% of the Group's total assets.</p> <p>The Group uses the discounted cash flow (DCF) technique to determine the recoverable amounts of each cash-generating unit (CGU).</p> <p>There is a risk of impairment of certain CGUs in the United States which are operating in challenging business environment. This increases the level of judgement and estimation uncertainties within management's cash flow forecast.</p>	<p>Our procedures included, among others:</p> <ul style="list-style-type: none"> • We evaluated the identification of CGUs within the Group against the requirements of the accounting standards. • We reviewed the basis and methodology adopted to arrive at the recoverable amounts of the CGUs. • We assessed the key assumptions used in the cash flow projections, namely sales growth rates, earnings before interest, depreciation and amortisation (EBIDA) growth rates, discount rates, terminal growth rates by comparing the Group's assumptions to externally derived data where available. • We reviewed the historical accuracy of the Group's estimates in the previous periods, identified and analysed changes in the assumptions from prior periods, focusing particularly on those CGUs operating in challenging business environment. • We have also assessed the adequacy of related disclosures in Note C2 to the financial statements. <p>Findings:</p> <p>We found that the assumptions and resulting estimates used in the DCF projections for all the CGUs were within acceptable range.</p> <p>There were two CGUs in the United States with growth estimates that exceeded historical performance as it includes potential growth opportunities the CGUs are pursuing. In these instances, we have re-computed the recoverable amount using reduced growth estimates and we agree with management that no impairment charge is required for these CGUs.</p> <p>Overall, the results of our evaluation of the Group's impairment charge are consistent with management's assessment.</p> <p>We found the Group's disclosure provides sufficient details on the sensitivity of the impairment assessment to variations in key assumptions.</p>

INDEPENDENT AUDITORS' REPORT

MEMBERS OF THE COMPANY
SINGAPORE TECHNOLOGIES ENGINEERING LTD

THE KEY AUDIT MATTER	HOW WAS THE MATTER ADDRESSED IN OUR AUDIT
<p><i>Impairment of property, plant and equipment – Roll-on/Roll-off Passenger ferry (ROPAX)</i></p> <p>The carrying amount of a ROPAX vessel, which is chartered out on a short term operating lease, representing a significant balance within the boats and barges class of property, plant and equipment may exceed its recoverable amount.</p> <p>ST Engineering Marine (STEML) was awarded a contract to design and build the ROPAX vessel in 2007. The contract was subsequently terminated in 2011, resulting in STEML taking title of the vessel. Since the repossession of the vessel, management has tried to realise the value of the vessel through sale and charter. Limited market demand for such a vessel led to difficulties in selling or chartering the vessel out on a long-term basis, resulting in write downs of the carrying value of the ROPAX between 2011 and 2013, to reflect its net realisable value. Since then, the ROPAX has been put to use through short term chartering arrangements. The vessel is currently under a two-year charter, with an option for the lessee to purchase the vessel in the first year of lease.</p> <p>The Group evaluated the recoverable amount of the ROPAX using the DCF technique across three scenarios where the ROPAX is chartered or disposed, weighted based on likelihood of outcomes to derive at a recoverable amount for the ROPAX.</p> <p>There are inherent uncertainties involved in estimating the recoverable amount of the ROPAX as it is dependent on the current economic conditions and whether the carrying amount can be realised through future sale or other chartering arrangements.</p>	<p>Our procedures included, amongst others:</p> <ul style="list-style-type: none"> • We assessed the factors relevant to the likelihood of the outcome of each scenario. • We considered another possible leasing scenario that could happen and computed the recoverable amount after incorporating the additional scenario and compared it to the carrying amount of the ROPAX. • We evaluated the key assumptions used in the review, particularly charter rates by comparing to the rates used in existing lease arrangement and externally derived data where available. • We compared the discount rate used by management to our calculations based on market data. <p>Findings:</p> <p>The results of our evaluation of the valuation of the ROPAX are consistent with management's assessment that no further impairment charge is required. Nonetheless, uncertainties remain over the probability of securing longer term chartering arrangements or selling the vessel that may change the estimated recoverable amount.</p>

INDEPENDENT AUDITORS' REPORT

MEMBERS OF THE COMPANY
SINGAPORE TECHNOLOGIES ENGINEERING LTD

THE KEY AUDIT MATTER	HOW WAS THE MATTER ADDRESSED IN OUR AUDIT
<p><i>Revenue recognition</i></p> <p>In accordance with SFRS(I) 15 <i>Revenue from Contracts with Customers</i>, the analysis of whether the contracts comprise one or more performance obligations, determination of whether variable consideration are allocated to one or more performance obligations, and whether the performance obligations are satisfied over time or at a point in time are areas requiring critical judgement and estimates by the Group.</p> <p>The Group's three largest revenue streams are derived from the sale of goods, rendering of services and long-term contract revenues.</p> <p>Some of these revenue streams have contracts that are accounted for based on the stage of completion of performance obligations of each individual contract. The amount of revenue and profit recognised is dependent on management's assessment on the stage of completion of each performance obligation and the forecast cost profile of each long-term contract. As long-term contracts can extend over multiple years, changes in conditions and circumstances over time can result in changes in the nature or extent of project cost incurred.</p> <p>Judgement is applied in determining each performance obligation within a contract and in forecasting the costs to be incurred, the overall margins of these performance obligations and assessment of the stage of completion of each performance obligation. Such estimates are inherently judgemental.</p>	<p>Our procedures included, amongst others:</p> <ul style="list-style-type: none"> • We reviewed the contractual terms and work status of the customer contracts and verified that revenue is recognised according to the stage of completion of each performance obligation. • We tested the controls designed and applied by the Group to ensure that the estimates used in assessing revenue and costs are appropriate. The controls tested include, amongst others, controls over the preparation and authorisation of project evaluation, approval of revenue calculated and project budgets, and accuracy and completeness over manpower and labour rates computed. • We selected a sample of contracts for testing based on a number of qualitative and quantitative factors, such as contracts with significant deterioration in margin, those contracts with variations, claims and other factors which indicated that a greater level of judgement is required in the estimates developed for current and forecast contract performance. • For each selected contract, we assessed the appropriateness of estimates used in the forecasts and whether the estimates showed any evidence of management bias. • We evaluated the revenue recognition policies of the Group for the different revenue streams to ensure revenue is recognised appropriately. <p>Findings:</p> <p>We found the basis over identification of performance obligations and the revenue recognised based on the stage of completion of each performance obligation to be fair.</p>

INDEPENDENT AUDITORS' REPORT

MEMBERS OF THE COMPANY
SINGAPORE TECHNOLOGIES ENGINEERING LTD

Other information

Management is responsible for the other information contained in the annual report. Other information is defined as all information in the annual report other than the financial statements and our auditors' report thereon.

We have obtained all other information prior to the date of this auditors' report except for Shareholding Statistics which is expected to be made available to us after that date.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditors' report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

When we read Shareholding Statistics, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate actions in accordance with SSAs.

Responsibilities of management and directors for the financial statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with the provisions of the Act and SFRS(I)s, and for devising and maintaining a system of internal accounting controls sufficient to provide a reasonable assurance that assets are safeguarded against loss from unauthorised use or disposition; and transactions are properly authorised and that they are recorded as necessary to permit the preparation of true and fair financial statements and to maintain accountability of assets.

In preparing the financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The directors' responsibilities include overseeing the Group's financial reporting process.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

INDEPENDENT AUDITORS' REPORT

MEMBERS OF THE COMPANY
SINGAPORE TECHNOLOGIES ENGINEERING LTD

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal controls relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the directors, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless the law or regulations preclude public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

INDEPENDENT AUDITORS' REPORT

MEMBERS OF THE COMPANY
SINGAPORE TECHNOLOGIES ENGINEERING LTD

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

In our opinion, the accounting and other records required by the Act to be kept by the Company and by those subsidiary corporations incorporated in Singapore of which we are the auditors have been properly kept in accordance with the provisions of the Act.

The engagement partner on the audit resulting in this independent auditors' report is Quek Shu Ping.

KPMG LLP

*Public Accountants and
Chartered Accountants*

Singapore

20 February 2019

FINANCIAL STATEMENTS

INTRODUCTION

This is the financial statements of Singapore Technologies Engineering Ltd (the Company) and its subsidiaries (collectively referred to as the Group) for the year ended 31 December 2018.

Over the past year, we have reviewed the content and structure of the financial report for opportunities to make them less complex and more relevant to users. This included:

- a thorough review of content to eliminate immaterial disclosures that may undermine the usefulness of the financial report by obscuring important information; and
- reorganisation of the notes to the financial statements into sections to assist users in understanding the Group's performance.

The purpose of these changes is to provide users with a clearer understanding of what drives financial performance and financial position of the Group and linkage to the Group's strategy, whilst still complying with the provisions of the Singapore Companies Act and Singapore Financial Reporting Standards (International).

WHAT'S NEW IN THIS REPORT

Change in structure

Note to the financial statements are split into 7 distinct sections to enable a better understanding of how the Group has performed.

We have included an introduction at the start of each section to explain its purpose and content. Accounting policies, estimates and critical accounting judgements applied to the preparation of the financial statements have been moved to where the related accounting balance or financial statement matter is discussed and we have refined wording of the policies to allow them to be easily understood by users of this report.






Information is only being included in the financial report to the extent it is considered material and relevant to the understanding of the financial statements. A disclosure is considered material and relevant if:

- dollar amount is significant in value
- dollar amount is significant by nature
- financial results cannot be understood without specific disclosure
- critical to allow user to understand significant changes in group businesses

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CONSOLIDATED INCOME STATEMENT

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Group	Note	2018 \$'000	2017 \$'000
Revenue	B2	6,697,928	6,521,063
Cost of sales		(5,292,389)	(5,208,278)
Gross profit		1,405,539	1,312,785
Distribution and selling expenses		(200,180)	(169,488)
Administrative expenses		(509,874)	(474,045)
Other operating expenses		(125,227)	(126,404)
Profit from operations	B3	570,258	542,848
Other income		55,391	39,944
Other expenses		(20,405)	(1,278)
Other income, net	B4	34,986	38,666
Finance income		22,357	38,650
Finance costs		(55,909)	(57,682)
Finance costs, net	E2	(33,552)	(19,032)
Share of results of associates and joint ventures, net of tax		49,056	49,332
Profit before taxation		620,748	611,814
Taxation	B6	(104,326)	(85,721)
Profit for the year		516,422	526,093
Attributable to:			
Shareholders of the Company		494,241	502,632
Non-controlling interests	F3	22,181	23,461
		516,422	526,093
Earnings per share (cents)	B5		
Basic		15.85	16.13
Diluted		15.76	16.05

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Group	Note	2018 \$'000	2017 \$'000
Profit for the year		516,422	526,093
Other comprehensive income			
<i>Items that will not be reclassified subsequently to profit or loss:</i>			
Defined benefit plan remeasurements		201	(6,109)
Equity investments at fair value through other comprehensive income (FVOCI) – net change in fair value		80	–
		281	(6,109)
<i>Items that are or may be reclassified subsequently to profit or loss:</i>			
Net fair value changes on available-for-sale financial assets		–	8,670
Debt investments at FVOCI – reclassified to income statement		(2,343)	–
Net fair value changes of cash flow hedges reclassified to income statement		2	1,598
Effective portion of changes in fair value of cash flow hedges		(35,110)	54,514
Share of net fair value changes on cash flow hedges of joint ventures		505	(127)
Foreign currency translation differences		302	(47,326)
Share of foreign currency translation differences of associates and joint ventures		(213)	(11,102)
Reserves released on disposal of subsidiaries		13,714	2,161
		(23,143)	8,388
Other comprehensive (loss)/income for the year, net of tax		(22,862)	2,279
Total comprehensive income for the year, net of tax		493,560	528,372
Total comprehensive income attributable to:			
Shareholders of the Company		482,888	492,980
Non-controlling interests	F3	10,672	35,392
		493,560	528,372

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED BALANCE SHEET

AS AT 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Group	Note	2018 \$'000	2017 \$'000	1 January 2017 \$'000
ASSETS				
Non-current assets				
Property, plant and equipment	C1	1,742,742	1,719,396	1,670,132
Associates and joint ventures	F4	455,703	448,387	405,530
Investments	E3	16,392	360,346	322,051
Intangible assets	C2	1,151,238	1,087,412	1,019,585
Long-term trade receivables		1,172	–	1,894
Deferred tax assets	B6	72,136	74,028	92,528
Amounts due from related parties	C3	4,806	4,806	4,806
Advances and other receivables	C6	20,074	20,406	2,534
Derivative financial instruments	C15	11,483	33,082	32,967
Employee benefits	D3	–	243	151
		3,475,746	3,748,106	3,552,178
Current assets				
Contract assets	C12	1,070,396	939,073	968,608
Inventories	C4	1,183,510	1,082,356	1,067,365
Trade receivables	C5	1,137,816	940,725	1,063,514
Amounts due from related parties	C3	35,392	28,271	24,618
Advances and other receivables	C6	253,961	286,524	336,306
Short-term investments	E3	422	357	188,890
Bank balances and other liquid funds	C7	415,780	999,003	904,890
		4,097,277	4,276,309	4,554,191
Total assets		7,573,023	8,024,415	8,106,369
EQUITY AND LIABILITIES				
Current liabilities				
Contract liabilities	C12	1,324,093	1,258,247	1,369,532
Deposits from customers		4,219	5,809	10,990
Trade payables and accruals	C8	1,829,758	1,599,739	1,734,763
Amounts due to related parties	C9	85,445	104,042	28,390
Provisions	C10	212,935	260,146	280,766
Provision for taxation		163,232	134,686	131,317
Borrowings	E4	225,416	221,642	87,427
Deferred income	C11	3,761	630	–
Employee benefits	D3	2,401	2,491	1,916
		3,851,260	3,587,432	3,645,101
Net current assets		246,017	688,877	909,090

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED BALANCE SHEET

AS AT 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Group	Note	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Non-current liabilities				
Contract liabilities	C12	495,453	521,787	505,492
Trade payables and accruals	C8	80,345	131,843	137,763
Amounts due to related parties	C9	–	17	17
Deferred tax liabilities	B6	170,726	205,200	216,592
Borrowings	E4	270,363	894,422	992,848
Deferred income	C11	42,405	69,156	75,445
Employee benefits	D3	108,016	102,669	85,200
Derivative financial instruments	C15	19,842	15,553	19,435
		1,187,150	1,940,647	2,032,792
Total liabilities		5,038,410	5,528,079	5,677,893
Net assets		2,534,613	2,496,336	2,428,476
Share capital and reserves				
Share capital	E6	895,926	895,926	895,926
Treasury shares	E7	(9,030)	(22,870)	(44,081)
Capital reserves	E8	118,174	119,782	113,184
Other reserves	E9	(72,054)	(67,480)	(56,666)
Retained earnings		1,313,361	1,289,653	1,258,179
Equity attributable to owners of the Company		2,246,377	2,215,011	2,166,542
Non-controlling interests	F3	288,236	281,325	261,934
		2,534,613	2,496,336	2,428,476
Total equity and liabilities		7,573,023	8,024,415	8,106,369

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Group	Note	Share capital \$'000	Treasury shares \$'000
At 1 January 2017	G2	895,926	(44,081)
Total comprehensive income for the year			
Profit for the year		-	-
Other comprehensive income			
Net fair value changes on available-for-sale financial assets		-	-
Net fair value changes on cash flow hedges reclassified to income statement		-	-
Effective portion of changes in fair value of cash flow hedges		-	-
Share of net fair value changes on cash flow hedges of joint ventures		-	-
Foreign currency translation differences		-	-
Share of foreign currency translation differences of associates and joint ventures		-	-
Reserves released on disposal of subsidiaries		-	-
Defined benefit plan remeasurements		-	-
Other comprehensive income for the year, net of tax		-	-
Total comprehensive income for the year, net of tax		-	-
Transactions with owners of the Company, recognised directly in equity			
Contributions by and distributions to owners of the Company			
Capital contribution by non-controlling interests		-	-
Return of capital to non-controlling interests		-	-
Cost of share-based payment		-	-
Purchase of treasury shares	E7	-	(15,748)
Treasury shares reissued pursuant to share plans		-	36,959
Dividends paid	E10	-	-
Dividends paid to non-controlling interests		-	-
Total contributions by and distributions to owners of the Company		-	21,211
Changes in ownership interests in subsidiaries			
Acquisition of non-controlling interests in a subsidiary without a change in control		-	-
Total transactions with owners of the Company		-	21,211
Transfer from retained earnings to statutory reserve		-	-
At 31 December 2017	G2	895,926	(22,870)

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Capital reserves \$'000	Other reserves \$'000	Retained earnings \$'000	Total \$'000	Non-controlling interests \$'000	Total equity \$'000
113,184	(56,666)	1,258,179	2,166,542	261,934	2,428,476
-	-	502,632	502,632	23,461	526,093
-	8,670	-	8,670	-	8,670
-	1,598	-	1,598	-	1,598
-	40,521	-	40,521	13,993	54,514
-	(127)	-	(127)	-	(127)
-	(47,929)	-	(47,929)	603	(47,326)
-	(11,102)	-	(11,102)	-	(11,102)
-	2,144	-	2,144	17	2,161
-	-	(3,427)	(3,427)	(2,682)	(6,109)
-	(6,225)	(3,427)	(9,652)	11,931	2,279
-	(6,225)	499,205	492,980	35,392	528,372
-	-	-	-	397	397
-	-	-	-	(43)	(43)
-	14,509	-	14,509	52	14,561
-	-	-	(15,748)	-	(15,748)
6,598	(18,599)	-	24,958	(42)	24,916
-	-	(467,641)	(467,641)	-	(467,641)
-	-	-	-	(16,615)	(16,615)
6,598	(4,090)	(467,641)	(443,922)	(16,251)	(460,173)
-	(589)	-	(589)	250	(339)
6,598	(4,679)	(467,641)	(444,511)	(16,001)	(460,512)
-	90	(90)	-	-	-
119,782	(67,480)	1,289,653	2,215,011	281,325	2,496,336

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Group	Note	Share capital \$'000	Treasury shares \$'000
At 1 January 2018		895,926	(22,870)
Adjustment on initial application of SFRS(I) 9, net of tax	G2	–	–
Adjusted balance at 1 January 2018		895,926	(22,870)
Total comprehensive income for the year			
Profit for the year		–	–
Other comprehensive income			
Equity investments at FVOCI – net change in fair value		–	–
Reclassified to income statement			
– Debt investments at FVOCI		–	–
– Net fair value changes on cash flow hedges		–	–
Effective portion of changes in fair value of cash flow hedges		–	–
Share of net fair value changes on cash flow hedges of joint ventures		–	–
Foreign currency translation differences		–	–
Share of foreign currency translation differences of associates and joint ventures		–	–
Reserves released on disposal of subsidiaries		–	–
Defined benefit plan remeasurements		–	–
Other comprehensive loss for the year, net of tax		–	–
Total comprehensive income for the year, net of tax		–	–
Hedging gains and losses and costs of hedging transferred to the cost of inventory		–	–
Transactions with owners of the Company, recognised directly in equity			
Contributions by and distributions to owners of the Company			
Capital contribution by non-controlling interests		–	–
Cost of share-based payment		–	–
Purchase of treasury shares	E7	–	(4,354)
Treasury shares reissued pursuant to share plans		–	18,194
Dividends paid	E10	–	–
Dividends paid to non-controlling interests		–	–
Total contributions by and distributions to owners of the Company		–	13,840
Transfer from retained earnings to statutory reserve		–	–
Balance at 31 December 2018		895,926	(9,030)

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Capital reserves \$'000	Other reserves \$'000	Retained earnings \$'000	Total \$'000	Non-controlling interests \$'000	Total equity \$'000
119,782	(67,480)	1,289,653	2,215,011	281,325	2,496,336
-	-	(3,597)	(3,597)	(609)	(4,206)
119,782	(67,480)	1,286,056	2,211,414	280,716	2,492,130
-	-	494,241	494,241	22,181	516,422
-	52	28	80	-	80
-	(2,343)	-	(2,343)	-	(2,343)
-	2	-	2	-	2
-	(25,294)	-	(25,294)	(9,816)	(35,110)
-	505	-	505	-	505
-	2,030	-	2,030	(1,728)	302
-	(213)	-	(213)	-	(213)
-	13,714	-	13,714	-	13,714
-	-	166	166	35	201
-	(11,547)	194	(11,353)	(11,509)	(22,862)
-	(11,547)	494,435	482,888	10,672	493,560
-	3,955	-	3,955	-	3,955
-	-	-	-	432	432
-	20,415	-	20,415	75	20,490
-	-	-	(4,354)	-	(4,354)
(1,608)	(16,523)	-	63	(64)	(1)
-	-	(468,004)	(468,004)	-	(468,004)
-	-	-	-	(3,595)	(3,595)
(1,608)	3,892	(468,004)	(451,880)	(3,152)	(455,032)
-	(874)	874	-	-	-
118,174	(72,054)	1,313,361	2,246,377	288,236	2,534,613

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Cash and cash equivalents comprise cash balances and fixed deposits. Cash equivalents are short-term and highly liquid investments that are readily convertible to known amounts of cash and that are subject to insignificant risk of changes in value.

Group	2018 \$'000	2017 \$'000
Cash flows from operating activities		
Profit before taxation	620,748	611,814
Adjustments:		
Share of results of associates and joint ventures, net of tax	(49,056)	(49,332)
Share-based payment expense	20,490	14,561
Depreciation charge	194,714	183,616
Property, plant and equipment written off	982	431
Amortisation of other intangible assets	49,331	33,343
Gain on disposal of property, plant and equipment	(2,000)	(241)
Gain on disposal of intangible assets	(41)	–
Loss/(gain) on disposal of investments, net	5,173	(540)
(Gain)/loss on disposal of associates	(12,426)	1
Loss on disposal of subsidiaries	20,081	1,277
Changes in fair value of financial instruments and hedged items	5,280	13,166
Interest expense	44,900	42,609
Interest income	(17,906)	(24,618)
Impairment of property, plant and equipment	81	63
Impairment of goodwill and other intangible assets	1,861	11
Impairment of investments	–	447
Dividends from investments	–	(7)
Amortisation of deferred income	(144)	(61)
Operating profit before working capital changes	882,068	826,540
Changes in:		
Inventories	(60,784)	(28,157)
Contract assets	(134,319)	10,877
Trade receivables	(200,106)	113,169
Advance payments to suppliers	20,616	42,042
Other receivables, deposits and prepayments	(11,903)	(140)
Amounts due from holding company and related corporations balances	9,474	(9,286)
Amounts due to holding company and related corporations balances	1,677	230
Amounts due from associates	(431)	9,077
Amounts due from joint ventures	(3,777)	55,122
Contract liabilities	36,026	(82,006)
Trade payables	163,941	(117,424)
Deposits from customers	(1,590)	(5,967)
Other payables, accruals and provisions	28,604	21,074
Loans to staff and third parties	542	–
Deferred income	(11,459)	(7,942)
Foreign currency translation of foreign operations	(2,435)	1,171
Cash generated from operations	716,144	828,380
Interest received	22,510	26,948
Income tax paid	(99,161)	(91,666)
Net cash from operating activities	639,493	763,662

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

Group	Note	2018 \$'000	2017 \$'000
Cash flows from investing activities			
Proceeds from sale of property, plant and equipment		4,097	1,994
Proceeds from disposal of associates and return of capital from a joint venture		27,682	–
Proceeds from sale and maturity of investments		375,098	315,838
Proceeds from unwinding of cross currency interest rate swaps		13,210	–
Proceeds from sale of intangible assets		64	–
Dividends from associates and joint ventures		61,081	81,029
Dividends from investments		–	7
Purchase of property, plant and equipment		(336,102)	(272,561)
Purchase of investments		(40,920)	(171,433)
Investments in associates and joint ventures		(34,305)	(85,784)
Loan to a joint venture		(19,806)	–
Additions to other intangible assets		(115,408)	(73,271)
Acquisition of controlling interests in subsidiaries, net of cash acquired		–	(50,005)
Disposal of subsidiaries, net of cash disposed		138	8,324
Net cash used in investing activities		(65,171)	(245,862)
Cash flows from financing activities			
Proceeds from bank loans		307,901	171,412
Proceeds from loan from non-controlling interests of a subsidiary		–	5,152
Proceeds of a loan from a joint venture		17,925	36,463
Repayment of bank loans		(247,134)	(65,702)
Repayment of other loans		(148)	(137)
Repayment of lease obligations		(2,513)	(784)
Repayment of loan to a joint venture		(30,805)	(19,607)
Redemption of medium term notes		(681,100)	–
Proceeds from share options exercised with issuance of treasury shares		–	24,916
Purchase of treasury shares		(4,354)	(15,748)
Capital contribution from non-controlling interests of subsidiaries		432	397
Return of capital to non-controlling interests of a subsidiary		–	(43)
Acquisition of non-controlling interests in a subsidiary		–	(223)
Dividends paid to shareholders of the Company		(468,004)	(467,641)
Dividends paid to non-controlling interests		(4,200)	(16,010)
Interest paid		(49,416)	(41,824)
Deposits discharged/(pledged)		9	(131)
Net cash used in financing activities		(1,161,407)	(389,510)
Net (decrease)/increase in cash and cash equivalents		(587,085)	128,290
Cash and cash equivalents at beginning of the year		997,614	903,632
Exchange difference on cash and cash equivalents at beginning of the year		3,871	(34,308)
Cash and cash equivalents at end of the year	C7	414,400	997,614

The accompanying notes are an integral part of the financial statements.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)



A | ABOUT THIS REPORT

General

The Company is a public limited company domiciled and incorporated in Singapore. The address of the Company's registered office and principal place of business is 1 Ang Mo Kio Electronics Park Road #07-01 ST Engineering Hub, Singapore 567710.

The Company's immediate and ultimate holding company is Temasek Holdings (Private) Limited, a company incorporated in Singapore.

The consolidated financial statements of Singapore Technologies Engineering Ltd and its subsidiaries (collectively referred to as the Group) as at 31 December 2018 and for the year then ended were authorised and approved by the Board of Directors for issuance on 20 February 2019.

Basis of preparation

The financial statements are prepared in accordance with Singapore Financial Reporting Standards (International) (SFRS(I)). These are the Group's first financial statements prepared in accordance with SFRS(I) and SFRS(I) 1 *First-time Adoption of Singapore Financial Reporting Standards (International)* has been applied.

In the previous financial years, the financial statements were prepared in accordance with Financial Reporting Standards in Singapore (FRS). An explanation of how the transition to SFRS(I) and application of SFRS(I) 9 and SFRS(I) 15 have affected the reported financial position, financial performance and cash flows is provided in note G2.

The financial statements have been prepared on the historical cost convention, except as otherwise described in the accounting policies below.

The financial statements are presented in Singapore dollars (SGD) which is the Company's functional currency. All values are rounded to the nearest thousand (\$'000) unless otherwise indicated.

Significant accounting policies

The accounting policies have been applied consistently by Group entities to all periods presented in these financial statements and in preparing the opening SFRS(I) balance sheet as at 1 January 2017 for the purposes of the transition to SFRS(I), unless otherwise indicated.

NOTES TO THE FINANCIAL STATEMENTS

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Foreign currency

The major functional currencies of the Group entities are the Singapore dollar (SGD), the United States dollar (USD) and the Euro.

Transactions, assets and liabilities denominated in foreign currencies are translated into SGD at reporting date using the following applicable exchange rates:

Foreign currency amount	Applicable exchange rate
Transactions	Date of transaction
Monetary assets and liabilities	Reporting date
Non-monetary assets and liabilities carried at fair value	Date fair value is determined
Non-monetary assets and liabilities carried at cost	Date of transaction

Foreign exchange gains and losses resulting from translation of monetary assets and liabilities are recognised in the income statement, except for qualifying cash flow hedges, which are recognised in other comprehensive income (OCI).

On consolidation the assets, liabilities, income and expenses of foreign operations are translated into SGD using the following applicable exchange rates:

Foreign currency amount	Applicable exchange rate
Income and expenses	Average exchange rate
Assets and liabilities	Reporting date
Equity	Historical date

Foreign exchange differences resulting from translation of foreign operations are initially recognised in the foreign currency translation reserve and subsequently transferred to profit or loss on disposal of the foreign operation.

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B | BUSINESS PERFORMANCE

The highlights of the Group's financial performance during the financial year are:

- Revenue of \$6.7 billion, up 3%
- Other income, net of \$35.0 million, down 10%
- Profit before tax of \$620.7 million, up 1%
- Profit attributable to shareholders of \$494.2 million, down 2%
- Earnings per share of 15.85 cents per share, down 2%

B1 Segment information

B2 Revenue

B3 Profit from operations

B4 Other income, net

B5 Earnings per share

B6 Taxation

B1 Segment information

The principal activities of the Company are those of an investment holding company and the provision of engineering and related services.

The Group is organised on a worldwide basis into four major operating segments. Management reviews the segments' operating results regularly in order to allocate resources to the segments and to assess the segments' performance.

The principal activities of these operating segments are outlined below:

Segments	Principal activities
Aerospace	Provides a wide spectrum of aircraft maintenance, engineering and training services for both military and commercial aircraft operators. These services include airframe, component and engine maintenance, repair and overhaul, aircraft design engineering and parts manufacturing, aviation materials, asset management and pilot training.
Electronics	Specialises in the design, development and delivery of information communications technologies (ICT) products, solutions and services for Smart Cities connectivity, mobility and security.
Land Systems	Delivers customised land systems, security solutions and their related through-life support for defence, homeland security and commercial applications.
Marine	Provides turnkey and sustainable defence and commercial solutions to the marine, offshore and environmental engineering industries.
Others*	Research and development, provision of engineering products and solutions, treasury, investment holding and provision of management, consultancy and other support services.
	* None of these segments meets any of the quantitative thresholds for determining reportable segments in financial years 2018 and 2017.

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B1 Segment information (continued)

Segment performance is evaluated based on operating profit or loss which in certain respects, as explained in the table below, is measured differently from operating profit or loss in the consolidated financial statements.

Inter-segment pricing is based on terms negotiated between the parties which are intended to reflect competitive terms.

	Aerospace \$'000	Electronics \$'000	Land Systems \$'000	Marine \$'000	Others \$'000	Elimination \$'000	Group \$'000
2018							
Revenue							
External sales	2,646,992	2,143,415	1,282,022	574,084	51,415	–	6,697,928
Inter-segment sales	7,127	23,118	20,787	270	4,244	(55,546)	–
	<u>2,654,119</u>	<u>2,166,533</u>	<u>1,302,809</u>	<u>574,354</u>	<u>55,659</u>	<u>(55,546)</u>	<u>6,697,928</u>
Reportable segment profit from operations	268,148	220,774	59,076	44,375	(22,115)	–	570,258
Other income	30,380	15,718	12,775	6,809	1,800	(12,091)	55,391
Other expenses	(13,281)	(53)	(12,071)	(276)	(81)	5,357	(20,405)
Finance income	8,773	2,533	1,375	3,072	6,604	–	22,357
Finance costs	(14,773)	(9,375)	(6,290)	(4,275)	(21,196)	–	(55,909)
Share of results of associates and joint ventures, net of tax	40,748	(4,905)	7,396	555	5,262	–	49,056
Profit before taxation	319,995	224,692	62,261	50,260	(29,726)	(6,734)	620,748
Taxation	(54,644)	(37,419)	(8,726)	(5,059)	1,522	–	(104,326)
Non-controlling interests	(20,724)	(782)	(675)	–	–	–	(22,181)
Profit attributable to shareholders	<u>244,627</u>	<u>186,491</u>	<u>52,860</u>	<u>45,201</u>	<u>(28,204)</u>	<u>(6,734)</u>	<u>494,241</u>
Other assets	3,104,811	2,174,291	1,626,420	800,078	4,191,077	(4,779,357)	7,117,320
Associates and joint ventures	248,906	62,749	92,206	4,099	47,743	–	455,703
Segment assets	<u>3,353,717</u>	<u>2,237,040</u>	<u>1,718,626</u>	<u>804,177</u>	<u>4,238,820</u>	<u>(4,779,357)</u>	<u>7,573,023</u>
Segment liabilities	<u>2,394,681</u>	<u>1,909,405</u>	<u>1,339,760</u>	<u>761,596</u>	<u>1,954,163</u>	<u>(3,321,195)</u>	<u>5,038,410</u>
Capital expenditure	299,766	88,857	37,879	10,309	13,367	–	450,178
Depreciation and amortisation	113,015	56,519	37,993	29,985	6,575	(42)	244,045
(Write-back of)/ impairment losses	(11)	–	1,953	–	–	–	1,942
Other non-cash expenses	847	38	43	–	54	–	982

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B1 Segment information (continued)

	Aerospace \$'000	Electronics \$'000	Land Systems \$'000	Marine \$'000	Others \$'000	Elimination \$'000	Group \$'000
2017							
Revenue							
External sales	2,534,923	2,010,985	1,243,511	637,444	94,200	-	6,521,063
Inter-segment sales	11,990	30,469	19,148	87	6,021	(67,715)	-
	<u>2,546,913</u>	<u>2,041,454</u>	<u>1,262,659</u>	<u>637,531</u>	<u>100,221</u>	<u>(67,715)</u>	<u>6,521,063</u>
Reportable segment profit from operations	272,267	194,846	70,231	14,795	(9,291)	-	542,848
Other income	13,793	14,911	11,230	7,122	5,241	(12,353)	39,944
Other expenses	(5,261)	(66)	(1,766)	(109)	(1)	5,925	(1,278)
Finance income	8,489	1,778	935	2,690	24,758	-	38,650
Finance costs	(11,994)	(8,989)	(6,820)	(3,196)	(26,683)	-	(57,682)
Share of results of associates and joint ventures, net of tax	41,171	(2,282)	11,229	1,106	(1,892)	-	49,332
Profit before taxation	318,465	200,198	85,039	22,408	(7,868)	(6,428)	611,814
Taxation	(51,453)	(31,433)	3,677	4,641	(11,153)	-	(85,721)
Non-controlling interests	(22,172)	7	(1,296)	-	-	-	(23,461)
Profit attributable to shareholders	<u>244,840</u>	<u>168,772</u>	<u>87,420</u>	<u>27,049</u>	<u>(19,021)</u>	<u>(6,428)</u>	<u>502,632</u>
Other assets	2,832,624	1,901,177	1,531,139	892,304	4,941,237	(4,522,453)	7,576,028
Associates and joint ventures	248,168	54,523	108,233	10,493	26,970	-	448,387
Segment assets	<u>3,080,792</u>	<u>1,955,700</u>	<u>1,639,372</u>	<u>902,797</u>	<u>4,968,207</u>	<u>(4,522,453)</u>	<u>8,024,415</u>
Segment liabilities	<u>2,121,057</u>	<u>1,666,909</u>	<u>1,315,362</u>	<u>783,949</u>	<u>2,753,370</u>	<u>(3,112,568)</u>	<u>5,528,079</u>
Capital expenditure	170,519	83,678	33,137	44,176	14,435	-	345,945
Depreciation and amortisation	103,537	47,810	32,503	28,875	4,276	(42)	216,959
Impairment losses	11	-	314	-	196	-	521
Other non-cash expenses	188	141	102	-	-	-	431

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B1 Segment information (continued)

Analysis by country of incorporation

Revenue is based on the country of incorporation regardless of where the goods are produced or services rendered. Non-current assets, excluding derivative financial instruments, employee benefits and deferred tax assets, are based on the location of those assets.

	Revenue		Non-current assets	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Asia	4,884,431	4,692,400	1,622,510	2,079,542
USA	1,198,872	1,219,072	921,086	907,205
Europe	540,575	552,621	752,059	559,755
Others	74,050	56,970	96,472	94,251
	6,697,928	6,521,063	3,392,127	3,640,753

For the year ended 31 December 2018:

- Within Europe, revenue of approximately \$453,695,000 (2017: \$462,268,000) were from subsidiaries located in Germany.
- Within Asia, most of the revenue were from subsidiaries located in Singapore.
- The remaining revenue from customers in Asia, Europe and Others were individually insignificant.

As at 31 December 2018:

- Within Europe, non-current assets of approximately \$585,913,000 (2017: \$500,634,000) were located in Germany.
- Within Asia, most of the non-current assets were from subsidiaries located in Singapore.
- The remaining non-current assets located in Asia, Europe and Others were individually insignificant.

NOTES TO THE FINANCIAL STATEMENTS

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B2 Revenue

Disaggregation of revenue

In the following table, revenue is disaggregated by primary geographical market, major products/service lines and timing of revenue recognition. The table also includes a reconciliation of the disaggregated revenue with the Group's reportable segments.

	Aerospace \$'000		Electronics \$'000		Land Systems \$'000	
	2018	2017	2018	2017	2018	2017
Primary geographical markets						
Asia	1,234,221	1,193,473	1,706,868	1,649,721	857,638	777,321
USA	631,501	564,067	178,870	176,901	360,016	378,352
Europe	558,029	566,046	131,707	92,173	8,378	7,078
Others	230,368	223,327	149,088	122,659	76,777	99,908
	2,654,119	2,546,913	2,166,533	2,041,454	1,302,809	1,262,659
Major products/service lines						
Sale of goods	501,138	452,298	464,852	408,911	879,513	857,058
Service income	202,646	237,532	606,574	584,862	384,124	365,233
Contract revenue	1,950,335	1,857,083	1,095,107	1,047,681	39,172	40,368
	2,654,119	2,546,913	2,166,533	2,041,454	1,302,809	1,262,659
Timing of revenue recognition						
Transferred at a point in time	841,649	973,288	849,672	803,287	1,008,858	1,038,777
Transferred over time	1,812,470	1,573,625	1,316,861	1,238,167	293,951	223,882
	2,654,119	2,546,913	2,166,533	2,041,454	1,302,809	1,262,659

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

Marine \$'000		Others \$'000		Elimination \$'000		Group \$'000	
2018	2017	2018	2017	2018	2017	2018	2017
403,557	435,197	10,055	15,590	(54,628)	(66,639)	4,157,711	4,004,663
111,125	158,979	43,914	82,499	(918)	(1,076)	1,324,508	1,359,722
47,115	22,733	1,624	1,233	–	–	746,853	689,263
12,557	20,622	66	899	–	–	468,856	467,415
574,354	637,531	55,659	100,221	(55,546)	(67,715)	6,697,928	6,521,063
5,897	5,957	50,988	98,794	(3,305)	(8,541)	1,899,083	1,814,477
275,399	299,615	4,190	1,145	(33,774)	(31,702)	1,439,159	1,456,685
293,058	331,959	481	282	(18,467)	(27,472)	3,359,686	3,249,901
574,354	637,531	55,659	100,221	(55,546)	(67,715)	6,697,928	6,521,063
5,897	5,957	50,809	87,961	(15,749)	(17,302)	2,741,136	2,891,968
568,457	631,574	4,850	12,260	(39,797)	(50,413)	3,956,792	3,629,095
574,354	637,531	55,659	100,221	(55,546)	(67,715)	6,697,928	6,521,063

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

B2 Revenue (continued)

Revenue from contracts with customers

Revenue is measured based on the consideration specified in a contract with a customer. The Group recognises revenue when it transfers control over a good or service to a customer.

The following provides information about the nature and timing of the satisfaction of performance obligations in contracts with customers, including significant payment terms, and the related revenue recognition policies.

(a) Revenue from sale of goods

Revenue is recognised when goods are delivered to the customer and the criteria for acceptance have been satisfied. Where applicable, a portion of the contract consideration is received in advance from our customers and the remaining consideration is received after delivery. Where payment terms are for reasons of financing, a financing component is recognised on the sale of goods.

(b) Revenue from services rendered

Revenue from services rendered are recognised as performance obligations are satisfied. Payments are due from customers based on the agreed billing milestone stipulated in the contracts or based on the amounts certified by the customers.

Where performance obligations are satisfied over time as work progresses, revenue is recognised progressively based on the percentage of completion method. The stage of completion is assessed by reference to assessment of work performed (output method) or the cost incurred relative to total estimated costs (input method) depending on which method commensurates with the pattern of transfer of control to the customer. The related costs are recognised in profit or loss when they are incurred, unless they relate to future performance obligations.

If the value of services rendered for the contract exceeds payments received from the customer, a contract asset is recognised and presented separately on the balance sheet. The contract assets are transferred to receivables when the entitlement to payment becomes unconditional. If the amounts invoiced to the customer exceeds the value of services rendered, a contract liability is recognised and separately presented on the balance sheet.

(c) Revenue from long-term contracts

The Group builds specialised assets customised to customers' order for which the Group does not have an alternative use. These contracts can span several years.

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

B2 Revenue (continued)

Revenue from contracts with customers (continued)

(c) Revenue from long-term contracts (continued)

(i) Contracts with enforceable right to payment

The Group has determined that for contracts where the Group has an enforceable right to payment, the customer controls all of the work-in-progress. This is because under those contracts, the assets are at the customer's specification and the Group is entitled to reimbursement of costs incurred to date, including a reasonable margin when the contract is terminated by the customer. Progress billings to the customer are based on a payment schedule in the contract that is dependent on the achievement of specified milestones.

Revenue is recognised over time. The stage of completion is typically assessed by reference to either surveys of work performed (output method) or the cost incurred relative to total estimated costs (input method) depending on which method commensurates with the pattern of transfer of control to the customer.

(ii) Contracts without enforceable right to payment

For contracts where the Group does not have an enforceable right to payment, customers do not take control of the specialised asset until they are completed. At the inception of the contract, the customers usually make an advance payment that is not refundable if the contract is cancelled. The advance payment is presented as a contract liability. The rest of the consideration is only billed upon acceptance by the customer.

Revenue is recognised at a point in time when the assets are completed and have been accepted by customers.

When the period between the satisfaction of a performance obligation and payment by the customer exceeds a year, the Group adjusts the transaction price with its customer and recognises a financing component. In adjusting for financing component, the Group uses a discount rate that would be reflected separately as a financing income from contract inception.

For contracts with variable consideration (i.e. liquidated damages, bonus and penalty adjustments), revenue is recognised to the extent that it is highly probable that a reversal of previously recognised revenue will not occur. Therefore, the amount of revenue recognised is adjusted for possibility of delays to the projects and ability to meet key performance indicators stipulated in the contract. The Group reviews the progress of the projects at each reporting date and updates the transaction price accordingly.

The Group accounts for modifications to the scope or price of a contract as separate contracts if the modification adds distinct goods or services at their stand-alone selling prices. For contract modifications that add distinct goods or services but not at their stand-alone selling prices, the Group combines the remaining consideration in the original contract with the consideration promised in the modification to create a new transaction price that is then allocated to all remaining performance obligations to be satisfied. For contract modifications that do not add distinct goods or services, the Group accounts for the modification as a continuation of the original contract and recognises as a cumulative adjustment to revenue at the date of modification.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

B2 Revenue (continued)

Revenue from contracts with customers (continued)

Key estimate and judgement: Revenue recognition

Significant judgement is applied in determining:

- whether performance obligations are distinct.

Requires an assessment of whether the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer and if the promise is separately identifiable from other promises in the contract.

- the transaction price for contracts with variable consideration (e.g. bonus, liquidated damages, penalties, etc).

Requires an evaluation of potential risk and factors which may affect completion or delivery of the contract, in accordance with contract obligations.

- estimated cost to complete.

For revenue recognised over time, the percentage of completion is assessed by reference to the contract costs incurred till date in proportion to the total estimated costs for each contract. In making the estimates, management relies on the expertise of its project team and past experience of completed projects. The estimated total costs is reviewed regularly and adjusted where necessary, with the corresponding effect of the change being recognised prospectively from the date of change.

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B3 Profit from operations

Profit from operations is arrived after charging/(crediting) the following items (excluding those disclosed in the other notes to the financial statements):

Group	2018 \$'000	2017 \$'000
After charging/(crediting)		
Auditors' remuneration		
- auditors of the Company	3,791	2,913
- other auditors #	1,678	3,039
Non-audit fees		
- auditors of the Company	698	990
- other auditors #	1,736	1,012
Fees paid to auditors of the Company under business relationship arrangement	-	626
Fees paid to a firm of which a director is a member	711	606
Allowance for inventory obsolescence	56,432	35,012
Impairment loss on trade receivables and contract assets	7,405	15,515
(Write-back of)/provision for onerous contracts	(1,290)	16,887
Property, plant and equipment written off	982	431
Research, design and development expenses	106,069	117,470
Operating lease expenses	45,713	47,041

Refers to other member firms of KPMG International

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B4 Other income, net

Group	2018 \$'000	2017 \$'000
Other income		
Government grants	18,577	14,089
Rental income	4,682	6,525
Gain on disposal of property, plant and equipment	2,000	241
Gain on disposal of associates	12,750	-
Grant income from Wage Credit Scheme	8,549	6,955
Others	8,833	12,134
	55,391	39,944
Other expenses		
Loss on disposal of subsidiaries	(20,081)	(1,277)
Loss on disposal of an associate and a joint venture	(324)	(1)
	(20,405)	(1,278)
Other income, net, recognised in profit or loss	34,986	38,666

Recognition and measurement

- (i) Government grants are recognised when the conditions associated with the grants are complied with.
- Grants that compensate the Group for expenses incurred are recognised in profit or loss in the same periods in which the expenses are recognised.
- Grants relating to depreciable assets are recognised in profit or loss over the estimated useful lives of the relevant assets.
- (ii) Rental income from leasing facilities is accounted on a straight-line basis over the lease term.
- (iii) The gain or loss on disposal of an item of property, plant and equipment, subsidiary, associate or joint venture is determined by comparing the proceeds from disposal with the carrying amount of the disposed item.

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B5 Earnings per share

Basic earnings per share

The weighted average number of ordinary shares used in the calculation of earnings per share is arrived at as follows:

Group	2018 \$'000	2017 \$'000
Number of shares		
Issued ordinary shares at beginning of the year	3,115,722	3,108,606
Effect of share options exercised, performance shares and restricted shares released	3,826	7,976
Effect of treasury shares held	(691)	(1,303)
Weighted average number of ordinary shares issued during the year	<u>3,118,857</u>	<u>3,115,279</u>

Diluted earnings per share

When calculating diluted earnings per share, the weighted average number of ordinary shares is adjusted for the effect of all dilutive potential ordinary shares. The Group has two categories of dilutive potential ordinary shares from performance share plans and restricted share plans (2017: two categories of dilutive potential ordinary shares from performance share plans and restricted share plans).

The weighted average number of ordinary shares adjusted for the dilutive potential shares is as follows:

Group	2018 \$'000	2017 \$'000
Number of shares		
Weighted average number of ordinary shares (used in the calculation of basic earnings per share)	3,118,857	3,115,279
Adjustment for dilutive potential ordinary shares	17,319	16,928
Number of shares that would have been issued at fair value	–	(1,371)
Weighted average number of ordinary shares (diluted) during the year	<u>3,136,176</u>	<u>3,130,836</u>

In the prior year, the average market value of one ordinary share was \$3.55 per share for the purposes of calculating the dilutive effect of share options for the period during which the options were outstanding. There were no share options outstanding during the year.

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B6 Taxation

(i) Tax expenses

Group	2018 \$'000	2017 \$'000
Current income tax		
Current year	127,422	120,624
Overprovision in respect of prior years	(8,461)	(8,882)
	118,961	111,742
Deferred income tax		
Current year	(12,181)	5,096
Overprovision in respect of prior years	(2,406)	(10,804)
Effect of reduction in tax rate	(48)	(20,313)
	(14,635)	(26,021)
	104,326	85,721

A reconciliation between tax expense and the product of accounting profit multiplied by the applicable corporate tax rate for the year ended 31 December is as follows:

Group	2018 \$'000	2017 \$'000
Profit before taxation	620,748	611,814
Taxation at statutory tax rate of 17% (2017: 17%)	105,527	104,008
Adjustments:		
Income not subject to tax	(8,728)	(3,540)
Expenses not deductible for tax purposes	26,294	24,231
Different tax rates of other countries	2,411	3,167
Overprovision in prior years, net	(10,867)	(19,686)
Effect of change in tax rates	(48)	(20,313)
Effect of results of associates and joint ventures presented net of tax	(8,340)	(8,386)
Tax incentives	(1,324)	(2,778)
Deferred tax assets not recognised	10,520	15,643
Deferred tax assets previously not recognised now utilised	(8,769)	(6,580)
Others	(2,350)	(45)
	104,326	85,721

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

B6 Taxation (continued)**(ii) Deferred tax assets and liabilities****(a) Recognised deferred tax assets and liabilities**

Deferred tax assets and liabilities are attributable to the following:

Group	Assets		Liabilities	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Property, plant and equipment	(249)	(267)	111,267	110,251
Intangible assets	(4,293)	–	182,447	180,852
Allowance for doubtful debts	(1,721)	(990)	–	–
Allowance for inventory obsolescence	(20,396)	(13,865)	–	–
Provisions and accruals	(110,042)	(121,089)	–	–
Unabsorbed capital allowances and unutilised tax losses	(56,682)	(26,844)	–	–
Fair value of derivative financial instruments designated as cash flow hedges	(7,447)	(666)	530	5,401
Fair value of defined benefit plan	(13,798)	(13,124)	–	–
Other items	(9,215)	(8,675)	28,189	20,188
Deferred tax (assets)/liabilities	(223,843)	(185,520)	322,433	316,692
Set off of tax	151,707	111,492	(151,707)	(111,492)
Net deferred tax (assets)/ liabilities	(72,136)	(74,028)	170,726	205,200

(b) Unrecognised deferred tax assets

Deferred tax assets have not been recognised in respect of the following items:

Group	2018 \$'000	2017 \$'000
Tax losses	359,059	413,285
Deductible temporary differences	8,895	17,869
Unabsorbed wear and tear allowance and investment allowance	1,306	5,470
	369,260	436,624

(c) Unrecognised temporary differences relating to investments in subsidiaries

As at 31 December 2018, a deferred tax liability of \$121,015,000 (2017: \$121,028,000) for temporary difference of \$484,367,000 (2017: \$470,431,000) related to undistributed earnings of certain subsidiaries was not recognised as the Group has determined that the undistributed profits of its overseas subsidiaries will not be remitted to Singapore in the foreseeable future, but will be retained for organic growth and acquisitions.

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

B6 Taxation (continued)

(ii) Deferred tax assets and liabilities (continued)

(d) Movement in deferred tax balances during the year:

Group	As at 1 January 2017 \$'000	Recognised in profit or loss \$'000	Recognised in other comprehensive income \$'000	Acquired in business combinations \$'000	Utilisation of tax losses \$'000
Property, plant and equipment	113,551	(699)	–	–	–
Intangible assets	195,360	(17,402)	–	7,647	–
Allowance for doubtful debts	(1,655)	569	–	–	–
Allowance for inventory obsolescence	(25,581)	10,613	–	–	–
Provisions and accruals	(131,691)	8,407	–	–	–
Unabsorbed capital allowances and unutilised tax losses	(25,072)	(20,329)	–	–	17,090
Fair value of derivative financial instruments designated as cash flow hedges	(12,788)	259	17,514	–	84
Fair value of defined benefit plan	(10,087)	–	(2,555)	–	–
Other items	22,027	(7,439)	(17)	–	(2,705)
	124,064	(26,021)	14,942	7,647	14,469

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Exchange difference \$'000	As at 31 December 2017 \$'000	Recognised in profit or loss \$'000	Recognised in other comprehensive income \$'000	Deconsolidation of a subsidiary/ finalisation of purchase price allocation \$'000	Utilisation of tax losses \$'000	Exchange difference \$'000	As at 31 December 2018 \$'000
(2,868)	109,984	369	–	2	–	663	111,018
(4,753)	180,852	399	–	(4,290)	–	1,193	178,154
96	(990)	(709)	–	4	–	(26)	(1,721)
1,103	(13,865)	(6,261)	–	14	–	(284)	(20,396)
2,195	(121,089)	11,353	15	16	–	(337)	(110,042)
1,467	(26,844)	(27,258)	–	3	(1,924)	(659)	(56,682)
(334)	4,735	(36)	(11,535)	–	–	(81)	(6,917)
(482)	(13,124)	–	(950)	–	–	276	(13,798)
(353)	11,513	7,508	–	(38)	–	(9)	18,974
(3,929)	131,172	(14,635)	(12,470)	(4,289)	(1,924)	736	98,590

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

B6 Taxation (continued)

Recognition and measurement

Current tax

Current tax is measured at the amount expected to be recovered from or paid to the tax authorities, using tax rates and tax laws that are enacted or substantively enacted by the reporting date.

Deferred tax

Deferred tax is accounted for in respect of temporary differences arising from differences between the carrying amount of assets and liabilities and the corresponding tax base.

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised for all deductible temporary differences, carry-forward of unused tax assets and unused tax losses, to the extent that it is probable that sufficient future taxable profits will be available to utilise them.

However, deferred tax assets and liabilities are not recognised for:

- temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination which affects neither accounting nor taxable profit or loss; and
- taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists and they relate to taxes levied by the same tax authority on the same taxable entity.

Current tax and deferred tax is recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity or in other comprehensive income.

Key estimate and judgement: Income taxes

The Group is subject to income taxes in Singapore and jurisdictions where it has foreign operations. Judgement is required in determining the worldwide provision for income taxes and in assessing whether deferred tax balances are recognised on the balance sheet. Changes in circumstances will alter expectations, which may impact the amount of provision for income taxes and deferred tax balances recognised.

Key estimate and judgement: Recovery of deferred tax assets

Deferred tax assets are recognised for tax losses and deductible temporary differences to the extent that it is probable that sufficient future taxable profits will be available to utilise them. Judgement and estimates are required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and the level of future taxable profits.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)



C | OPERATING ASSETS AND LIABILITIES

This section provides information relating to the operating assets and liabilities of the Group.

The Group maintains a strong balance sheet to support the Group's strategy to maximise returns to the shareholders through efficient use of capital, taking into consideration the Group's expenditures, growth and investment requirements.

C1 Property, plant and equipment	C9 Amounts due to related parties
C2 Intangible assets	C10 Provisions
C3 Amounts due from related parties	C11 Deferred income
C4 Inventories	C12 Contract balances
C5 Trade receivables	C13 Financial risk management objectives and policies
C6 Advances and other receivables	C14 Classification and fair value of financial instruments
C7 Bank balances and other liquid funds	C15 Derivative financial instruments
C8 Trade payables and accruals	

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C1 Property, plant and equipment

Group	As at	Additions*
At Cost	1 January	\$'000
	\$'000	\$'000
2018		
Freehold land and buildings	85,100	2,463
Leasehold land and buildings	1,186,513	8,530
Improvements to premises	153,981	4,922
Wharves and slipways	47,050	–
Syncrolift and floating docks	89,749	–
Boats and barges	177,380	–
Plant and machinery	958,136	64,862
Production tools and equipment	381,109	22,692
Furniture, fittings, office equipment and computers	312,091	38,190
Transportation equipment and vehicles	16,946	2,543
Aircraft and aircraft engines	255,607	105,203
Satellite	13,698	–
Construction-in-progress	45,177	85,365
	<u>3,722,537</u>	<u>334,770</u>
2017		
Freehold land and buildings	75,460	12,255
Leasehold land and buildings	1,122,002	29,431
Improvements to premises	136,835	11,760
Wharves and slipways	47,361	9
Syncrolift and floating docks	91,023	249
Boats and barges	177,361	120
Plant and machinery	875,800	79,951
Production tools and equipment	359,816	31,119
Furniture, fittings, office equipment and computers	290,641	35,617
Transportation equipment and vehicles	16,318	2,104
Aircraft and aircraft engines	253,557	1,370
Satellite	13,698	–
Construction-in-progress	96,472	68,689
	<u>3,556,344</u>	<u>272,674</u>

* In the prior year, the Group's wholly-owned subsidiary, Vision Technologies Marine, Inc. acquired selected marine repair assets in Pascagoula, Mississippi in the US. This transaction has been accounted as an asset acquisition and was settled by cash consideration of \$34 million (US\$25 million).

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

Cost

Disposals/ write-off \$'000	Arising from acquisition of interest in subsidiaries/ deconsolidation/ disposal of subsidiaries \$'000	Reclassifications \$'000	Translation difference \$'000	As at 31 December \$'000
-	-	2,233	1,053	90,849
(9,451)	(84,552)	634	2,450	1,104,124
(625)	(502)	(490)	1,278	158,564
-	-	-	421	47,471
-	-	-	410	90,159
(75)	-	-	31	177,336
(10,792)	(15,715)	6,168	(365)	1,002,294
(10,226)	(771)	2,838	1,445	397,087
(9,562)	(5,319)	7,623	1,241	344,264
(1,486)	(595)	(1)	26	17,433
(2,956)	(4,088)	(44,699)	1,646	310,713
-	-	-	-	13,698
(12)	(668)	(37,274)	(511)	92,077
(45,185)	(112,210)	(62,968)	9,125	3,846,069
-	-	2,902	(5,517)	85,100
(670)	-	49,039	(13,289)	1,186,513
(1,590)	4	12,667	(5,695)	153,981
-	-	1,152	(1,472)	47,050
-	-	(14)	(1,509)	89,749
-	-	-	(101)	177,380
(16,542)	-	32,097	(13,170)	958,136
(2,227)	307	545	(8,451)	381,109
(11,916)	682	3,044	(5,977)	312,091
(1,197)	-	5	(284)	16,946
-	-	8,339	(7,659)	255,607
-	-	-	-	13,698
(193)	-	(119,781)	(10)	45,177
(34,335)	993	(10,005)	(63,134)	3,722,537

NOTES TO THE FINANCIAL STATEMENTS

31 DECEMBER 2018

(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C1 Property, plant and equipment (continued)

Group	As at 1 January \$'000	Depreciation charge/ impairment losses for the year \$'000
At Cost		
2018		
Freehold land and buildings	26,162	2,189
Leasehold land and buildings	574,596	43,044
Improvements to premises	67,903	10,675
Wharves and slipways	30,963	1,356
Syncrolift and floating docks	74,748	1,489
Boats and barges	65,997	5,701
Plant and machinery	534,897	65,573
Production tools and equipment	253,675	23,014
Furniture, fittings, office equipment and computers	260,950	24,551
Transportation equipment and vehicles	13,255	1,514
Aircraft and aircraft engines	95,885	12,949
Satellite	4,110	2,740
	2,003,141	194,795
2017		
Freehold land and buildings	26,664	1,504
Leasehold land and buildings	541,516	40,822
Improvements to premises	62,270	9,030
Wharves and slipways	30,071	1,363
Syncrolift and floating docks	73,611	1,502
Boats and barges	60,106	5,994
Plant and machinery	500,406	60,214
Production tools and equipment	243,167	20,935
Furniture, fittings, office equipment and computers	250,316	24,050
Transportation equipment and vehicles	13,119	1,547
Aircraft and aircraft engines	83,596	13,978
Satellite	1,370	2,740
	1,886,212	183,679

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

Accumulated depreciation

Disposals/ write-off \$'000	Deconsolidation/ disposal of subsidiaries \$'000	Reclassifications \$'000	Translation difference \$'000	As at 31 December \$'000
-	-	14	525	28,890
(9,149)	(24,568)	(8)	1,784	585,699
(606)	(305)	-	397	78,064
-	-	-	150	32,469
-	-	-	131	76,368
(33)	-	-	30	71,695
(9,845)	(11,637)	(8,407)	(515)	570,066
(8,985)	(363)	(6)	2,596	269,931
(9,214)	(4,725)	(12)	937	272,487
(1,385)	(556)	-	13	12,841
(2,956)	(799)	(7,567)	455	97,967
-	-	-	-	6,850
(42,173)	(42,953)	(15,986)	6,503	2,103,327
-	-	-	(2,006)	26,162
(568)	-	204	(7,378)	574,596
(1,589)	-	(29)	(1,779)	67,903
-	-	-	(471)	30,963
-	-	-	(365)	74,748
-	-	-	(103)	65,997
(14,808)	-	(233)	(10,682)	534,897
(2,155)	-	(3,583)	(4,689)	253,675
(11,841)	-	3,618	(5,193)	260,950
(1,190)	-	23	(244)	13,255
-	-	-	(1,689)	95,885
-	-	-	-	4,110
(32,151)	-	-	(34,599)	2,003,141

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C1 Property, plant and equipment (continued)

Group	Net book value		
	31 December 2018 \$'000	31 December 2017 \$'000	1 January 2017 \$'000
At Cost			
Freehold land and buildings	61,959	58,938	48,796
Leasehold land and buildings	518,425	611,917	580,486
Improvements to premises	80,500	86,078	74,565
Wharves and slipways	15,002	16,087	17,290
Syncrolift and floating docks	13,791	15,001	17,412
Boats and barges	105,641	111,383	117,255
Plant and machinery	432,228	423,239	375,394
Production tools and equipment	127,156	127,434	116,649
Furniture, fittings, office equipment and computers	71,777	51,141	40,325
Transportation equipment and vehicles	4,592	3,691	3,199
Aircraft and aircraft engines	212,746	159,722	169,961
Satellite	6,848	9,588	12,328
Construction-in-progress	92,077	45,177	96,472
	1,742,742	1,719,396	1,670,132

Reclassifications due to changes in the use of assets:

- Plant and machinery with net book value amounting to \$47,293,000 (2017: \$320,000; 1 January 2017: \$1,982,000) were reclassified to inventories;
- No plant and machinery (2017: net book value amounting to \$9,685,000; 1 January 2017: Nil) was reclassified as prepayment for land use right; and
- Inventories of \$311,000 (2017: Nil; 1 January 2017: \$3,049,000) were reclassified to property, plant and equipment.

There were no movements in the following amounts carried at valuation from 1 January 2017 to 31 December 2018.

Group	Valuation \$'000	Accumulated depreciation \$'000	Net book value \$'000
At Valuation			
Leasehold land and buildings	1,919	1,919	-
Wharves and slipways	1,317	1,317	-
Syncrolift and floating docks	4,613	4,613	-
Plant and machinery	1,683	1,683	-
Furniture, fittings, office equipment and computers	285	285	-

(a) Property, plant and equipment pledged as security

Property, plant and equipment of certain overseas subsidiaries of the Group with a carrying value of \$56,336,000 (2017: \$107,201,000; 1 January 2017: \$62,252,000) are pledged as security for bank loans.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C1 Property, plant and equipment (continued)

(b) Property, plant and equipment under lease obligations

Included in the above are property, plant and equipment acquired under finance lease obligations with a net book value of:

Group	2018	2017	1 January
	\$'000	\$'000	2017 \$'000
Leasehold land and buildings	12,589	15,064	16,953
Furniture, fittings, office equipment and computers	570	549	755
	13,159	15,613	17,708

(c) Major properties

Major leasehold land and buildings and improvements to premises are:

Location	Description	Tenure	Land area (sq. m.)	Net book value		
				2018 \$'000	2017 \$'000	1 January 2017 \$'000
Singapore						
1 Ang Mo Kio Electronics Park Road	Industrial and commercial buildings	30 years from 1.11.2011	20,000	51,378	55,473	59,892
3 Ang Mo Kio Electronics Park Road	Industrial and commercial buildings	30 years from 1.12.2015	30,000	43,625	46,271	-
249 Jalan Boon Lay	Industrial and commercial buildings	27 years from 1.10.2001 to 31.12.2028, renewable to 10.10.2065	206,031	97,465	103,096	109,876
People's Republic of China						
No 2, Huayu Road, Huli District, Xiamen 361006, Fujian	Leasehold land for factory building	50 years from 20.11.2008	38,618	42,681	45,218	46,957
Germany						
Grenzstr. 1, Dresden	Hangar and office building	31 years from 1.1.1994	110,145	40,333	43,818	24,479

For this purpose, freehold and leasehold land and buildings, and improvements to premises are considered major properties if the net book value of these assets represent 5% or more of the Group's aggregated net book value in these categories.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C1 Property, plant and equipment (continued)

Recognition and measurement

Property, plant and equipment are carried at cost less accumulated depreciation and accumulated impairment losses.

Cost comprises expenditure that is:

- directly attributable to the acquisition of the asset;
- subsequent costs incurred to replace parts that are eligible for capitalisation; and/or
- transfers from equity on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment.

Certain items of property, plant and equipment which were subject to a one-time valuation in 1972 are stated at valuation, net of depreciation and any impairment losses.

Finance lease (as lessee)

Finance leases are those leasing agreements, which effectively transfer to the Group substantially all the risks and benefits incidental to ownership of an asset.

Assets financed under such leases are capitalised at the lower of its fair value and the present value of the minimum lease payments at the inception of the lease. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged to profit or loss.

Disposals

Gains or losses on disposal of property, plant and equipment are included in profit or loss.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C1 Property, plant and equipment (continued)

Depreciation

Depreciation of property, plant and equipment is recognised in profit and loss on a straight line basis over their useful lives, except for freehold land which are not depreciated, and leasehold land which are depreciated over the remaining lease term. The estimated useful lives are as follows:

Item #	Useful life
Buildings	2 to 60 years*
Leasehold land	Over the period of the lease of between 2 and 50 years*
Improvements to premises	3 to 30 years*
Wharves and slipways	20 years
Syncrolift and floating docks	15 years
Boats and barges	10 to 23 years
Plant and machinery	5 to 25 years
Production tools and equipment	3 to 15 years
Furniture, fittings, office equipment and computers	2 to 10 years
Transportation equipment and vehicles	4 to 5 years
Aircraft and aircraft engines	15 to 30 years
Satellite	5 years

Property, plant and equipment purchased specifically for projects are depreciated over the useful life or the duration of the project, whichever is shorter.

* Refer to Note C1(c) Major Properties for details of the lease tenure used to approximate the useful lives of the leasehold land, buildings and improvements.

Impairment

The carrying amounts of property, plant and equipment are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indications exists, then the asset's recoverable amount is estimated. An impairment loss is recognised if the carrying amount of an asset or its related cash generating unit exceeds its estimated recoverable amount.

Key estimate and judgement: Depreciation charge

Management estimates the useful lives based on factors such as changes in the expected level of usage and technological developments. These are reassessed at each reporting date, and adjusted prospectively, where appropriate.

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C2 Intangible assets

Group	Goodwill \$'000	Dealer network \$'000	Development expenditure \$'000
Cost			
At 1 January 2017	563,858	172,800	240,711
Additions	–	–	70,548
Acquisition of subsidiaries	39,825	–	–
Translation difference	(37,198)	6,301	1,641
At 31 December 2017 and 1 January 2018	566,485	179,101	312,900
Additions	–	–	114,789
Finalisation of purchase price allocation	(4,293)	–	–
Deconsolidation/disposal of subsidiaries	(10,883)	–	–
Write-off	–	–	–
Translation difference	9,694	(3,211)	(3,163)
At 31 December 2018	561,003	175,890	424,526
Accumulated amortisation and impairment losses			
At 1 January 2017	56,715	21,884	41,364
Amortisation for the year *	–	7,620	14,260
Impairment losses +	–	–	–
Translation difference	(2,422)	(226)	(2,269)
At 31 December 2017 and 1 January 2018	54,293	29,278	53,355
Amortisation for the year *	–	7,621	29,531
Impairment losses/(write-back of impairment) +	307	–	–
Deconsolidation/disposal of subsidiaries	(10,883)	–	–
Write-off	–	–	–
Translation difference	(54)	(326)	894
At 31 December 2018	43,663	36,573	83,780
Net book value			
At 31 December 2018	517,340	139,317	340,746
At 31 December 2017	512,192	149,823	259,545
At 1 January 2017	507,143	150,916	199,347

* Amortisation charge of \$49,331,000 (2017: \$33,343,000) is recognised in the income statement as part of:

- Other operating expenses of \$11,755,000 (2017: \$15,072,000); and
- Cost of sales of \$37,576,000 (2017: \$18,271,000)

+ During the year, the Group assessed that certain licenses and commercial and intellectual property rights were impaired as these intangible assets were not expected to be generating future economic benefits. Impairment losses of \$1,565,000 (2017: \$11,000) were recognised in other operating expenses in the income statement.

During the year, an impairment loss on goodwill of \$307,000 (2017: Nil) was recognised in other operating expenses in the income statement as the recoverable amount of one CGU was determined to be lower than the carrying amount.

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Commercial and intellectual property rights \$'000	Brands \$'000	Licenses \$'000	Technology agreement \$'000	Authorised repair centre agreement \$'000	Others \$'000	Total \$'000
76,469	86,265	57,487	36,464	5,857	18,928	1,258,839
2,721	-	-	-	2	-	73,271
20,406	-	-	-	-	-	60,231
(5,092)	(6,115)	(21)	(2,721)	-	-	(43,205)
94,504	80,150	57,466	33,743	5,859	18,928	1,349,136
619	-	-	-	-	-	115,408
-	-	-	-	-	-	(4,293)
(1,366)	-	(996)	-	-	-	(13,245)
-	-	-	-	-	(120)	(120)
1,144	1,625	(151)	731	-	-	6,669
94,901	81,775	56,319	34,474	5,859	18,808	1,453,555
67,699	14,081	7,497	10,615	1,339	18,060	239,254
3,265	1,314	2,414	2,636	1,339	495	33,343
-	-	-	-	-	11	11
(4,213)	(876)	(13)	(865)	-	-	(10,884)
66,751	14,519	9,898	12,386	2,678	18,566	261,724
4,586	1,189	2,400	2,589	1,339	76	49,331
62	-	1,503	-	-	(11)	1,861
(1,366)	-	-	-	-	-	(12,249)
-	-	-	-	-	(97)	(97)
779	250	(95)	299	1	(1)	1,747
70,812	15,958	13,706	15,274	4,018	18,533	302,317
24,089	65,817	42,613	19,200	1,841	275	1,151,238
27,753	65,631	47,568	21,357	3,181	362	1,087,412
8,770	72,184	49,990	25,849	4,518	868	1,019,585

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C2 Intangible assets (continued)

Recognition and measurement

(i) Goodwill

Goodwill represents the excess of:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree,

over the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, a bargain purchase gain is recognised immediately in profit or loss.

Goodwill is initially measured at cost. Following initial recognition, goodwill is measured at cost less any accumulated impairment losses.

(ii) Other intangible assets

Class of intangible assets	Background	Valuation method	Useful lives
Dealer network	Includes customer relationships and networks acquired	Initial recognition: Separately acquired intangible assets are recognised at cost. Intangible assets arising from business combinations are recognised at fair value at the date of acquisition.	5 to 25 years
Commercial and intellectual property rights	Relates to intellectual property		2 to 16 years
Brands	Includes LeeBoy™ and Rosco brands of road construction equipment	Subsequent measurement: Intangible assets are carried at cost less any accumulated amortisation and accumulated impairment losses following initial recognition. Amortisation is calculated on a straight line basis over the estimated useful lives.	Aerospace: 5 years Electronics: 20 years Land: 70 years
Licenses	Relates to licenses to <ul style="list-style-type: none"> - conduct commercial aviation activities - purchase and lease Boeing parts - develop MRO capabilities for specific aircraft types 		7 to 30 years
Technology agreement	Relates to the intellectual property required to operate the EcoPower Engine Wash business		13 years
Authorised repair centre agreements	Relates to the sole appointed authorised service centre for repair and overhaul of landing gear		5 years

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C2 Intangible assets (continued)

Recognition and measurement (continued)

(ii) Other intangible assets (continued)

Class of intangible assets	Background	Valuation method	Useful lives
Development expenditure	<p>Development expenditure on an individual project is recognised as an intangible asset when the Group can demonstrate the technical and commercial feasibility of development. The capitalised costs are directly attributable to activities preparing the asset for its intended use, and capitalised borrowing costs. In any other circumstances, development costs are recognised in profit or loss as incurred.</p> <p>Included in development cost are costs related to development and assembly of aircraft seats*, B757 15-PTF, A330-200 PTF, A330-300 PTF and A320/A321 PTF*.</p> <p>* Amortisation have been deferred for the year ended 31 December 2018 as the assets are not yet ready for management's intended use.</p>	<p>(i) Initially recognised at cost</p> <p>(ii) Subsequently, carried at cost less any accumulated amortisation and impairment losses</p>	<p>B757 15-PTF: 4 years</p> <p>A330-200 PTF and A330-300 PTF: 41 years</p> <p>Others: 2 to 10 years</p>

(iii) Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated intangible assets, is recognised in profit or loss as incurred.

Impairment review

The Group tests intangible assets for impairment to ensure they are not carried at above their recoverable amounts annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired.

These tests are performed by assessing the recoverable amount of each individual asset or, if this is not possible, then the recoverable amount of the cash generating unit (CGU) to which the asset belongs. CGUs are the lowest levels at which assets are grouped and generate separately identifiable cash flows.

The recoverable amount is the higher of an asset or a CGU's fair value less costs to sell and value-in-use. The value-in-use calculations are based on discounted cash flows expected to arise from the asset.

Reversal of impairment

Intangible assets other than goodwill that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

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C2 Intangible assets (continued)

Key estimate and judgement: Recognition and measurement of intangible assets

Assessment of the recoverable amount, useful life of an intangible asset (reassessed at each reporting date) requires management's judgement.

Aggregate carrying amounts of goodwill allocated to each CGU within the business divisions and the key assumptions used in determining the recoverable amount of each CGU are as follows:

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Aerospace			
Aircraft Maintenance & Modification	13,666	13,400	14,392
Component/Engine Repair & Overhaul	13,381	13,097	14,153
Engineering & Material Services	26,168	26,683	25,569
Electronics			
Communication & Sensor Systems Group	246,747	241,427	261,234
Software Systems Group	27,866	27,536	28,764
Land Systems			
Automotive	154,260	155,544	125,744
Others	35,252	34,505	37,287
	517,340	512,192	507,143

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	Pre-tax discount rate			Terminal value growth rate		
	2018 %	2017 %	1 January 2017 %	2018 %	2017 %	1 January 2017 %
11.0 – 11.5	10.5 – 12.5	9.5 – 12.8	2.0 – 2.5	2.0 – 2.5	2.0 – 3.5	
15.2	14.1	10.4	2.4	2.5	3.0	
12.4	6.9 – 12.6	6.5 – 9.8	1.0	2.0	1.3 – 2.0	
10.0 – 10.6	10.5 – 13.5	10.4 – 12.7	4.0 – 5.0	4.0 – 5.0	4.0 – 5.0	
8.7 – 13.1	8.6 – 22.2	8.5 – 19.6	2.0 – 3.0	2.0 – 3.0	2.0 – 3.0	
12.3 – 15.3	12.9 – 16.0	7.8 – 18.6	3.0 – 3.5	4.0	4.2 – 5.0	
10.0	12.4	11.7	3.0	3.0	3.0	

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C2 Intangible assets (continued)

Recognition and measurement

The recoverable amounts of the CGUs are determined based on value-in-use calculations, using cash flow projections derived from the financial budgets approved by management for the next five years. The key assumptions used in the calculation of recoverable amounts are as follows:

- The discount rate used is estimated based on the industry weighted average cost of capital.
- The long-term terminal value growth rate has been determined based on either the nominal GDP rates for the country in which the CGU is based or the long-term growth rate estimated by management by reference to forecasts included in industry reports and expected market development.

Sensitivity to changes in assumptions:

- (a) Management has identified the following key assumption for which a change as set out below could cause the carrying amount to exceed the recoverable amount.

Business Divisions	Assumption	Change required for carrying amount to equal the recoverable amount		
		2018 %	2017 %	1 January 2017 %
Others	Sales growth rate (average of next 5 years)	0.7	0.4	0.4

- (b) No sensitivity analysis was disclosed for the remaining CGUs as the Group believes that any reasonable possible change in the key assumptions is unlikely to result in any material impairment to the CGUs.

Key estimate and judgement: Impairment of goodwill

Determination of potential impairment requires an estimation of the recoverable amount of the CGUs to which goodwill are allocated. Key assumptions made to the projected cash flows requiring judgement include growth rate estimates and discount rates.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C3 Amounts due from related parties

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Trade:			
Associates	2,509	2,955	7,650
Joint ventures	1,952	4,462	4,687
Related corporations	10,425	20,016	10,795
	14,886	27,433	23,132
Non-trade:			
Joint ventures *	25,130	5,579	6,292
Related corporations	182	65	–
	25,312	5,644	6,292
	40,198	33,077	29,424
Receivable:			
Within 1 year	35,392	28,271	24,618
After 1 year	4,806	4,806	4,806
	40,198	33,077	29,424

There were no significant amounts due from related parties denominated in currencies other than the functional currencies of the Group as at 31 December 2018, 31 December 2017 and 1 January 2017.

* Included in the amounts due from joint ventures (non-trade) are:

- a loan of \$4,806,000 bearing interest at 6.38% per annum, which is the effective interest rate. The loan is unsecured and repayable by 2029; and
- loans of \$19,806,000 as at 31 December 2018 bearing interest at 3.49% per annum, which is the effective interest rate. The loan is unsecured and repayable by 2019.

C4 Inventories

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Inventories of equipment and spares	1,183,510	1,082,356	1,067,365

In 2018, raw materials, consumables and changes in finished goods and work-in-progress recognised as cost of sales amounted to \$4,919,045,000 (2017: \$4,828,179,000). This includes inventories that were reclassified as contract assets and subsequently expensed in the course of fulfilling performance obligations in contracts with customers.

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C4 Inventories (continued)

Allowance for inventory obsolescence

As at 31 December 2018, the inventories are stated after allowance for inventory obsolescence of \$383,486,000 (2017: \$366,574,000; 1 January 2017: \$356,651,000).

Recognition and measurement

Inventories are measured at the lower of cost and net realisable value. Cost (comprising direct labour, material costs, direct expenses and an appropriate allocation of production overheads) is calculated on a first-in, first-out basis or weighted average cost basis depending on the nature and pattern of use of the inventories.

Cost may also include transfers from equity on qualifying cash flow hedges of foreign currency purchases of inventories. Allowance is made for deteriorated, damaged, obsolete and slow-moving inventories.

Net realisable value represents the estimated selling price in the ordinary course of business, less estimated costs to sell.

Key estimate and judgement: Allowance for inventory obsolescence

The allowance for inventory obsolescence is based on estimates from historical trends and expected utilisation of inventories. The actual amount of inventory write-offs could be higher or lower than the allowance made.

C5 Trade receivables

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Gross receivables	1,170,064	982,499	1,111,877
Allowance for doubtful debts	(32,248)	(41,774)	(48,363)
Trade receivables, net	1,137,816	940,725	1,063,514

Trade receivables denominated in currencies other than the functional currencies of the Group as at 31 December are as follows:

- \$231,057,000 (2017: \$189,620,000; 1 January 2017: \$236,755,000) denominated in USD
- \$22,092,000 (2017: \$35,920,000; 1 January 2017: \$36,458,000) denominated in Euro

Trade receivables amounting to \$4,319,000 (2017: \$2,571,000; 1 January 2017: \$7,461,000) are arranged to be repaid through letters of credit issued by reputable banks.

In the prior years, a subsidiary within the Group had not recognised trade receivable (2017: \$13,985,000; 1 January 2017: \$16,500,000) due from one of its customers in view of uncertainty over the collectability of the debts. During the year, the amount has been fully recognised in the financial statements under trade receivables.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C6 Advances and other receivables

Group	Note	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Deposits		14,719	18,669	20,495
Interest receivables		758	5,280	7,047
Other recoverables		48,963	38,508	30,302
Non-trade receivables		18,307	18,889	38,124
Advance payments to suppliers		113,665	135,606	178,303
Prepayments		67,913	66,474	57,268
Derivative financial instruments	C15	6,565	20,501	4,048
Housing and car loans and advances to staff		2,642	2,836	3,074
Loans to third parties		503	167	179
		274,035	306,930	338,840
Receivable:				
Within 1 year		253,961	286,524	336,306
After 1 year		20,074	20,406	2,534
		274,035	306,930	338,840

C7 Bank balances and other liquid funds

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Fixed deposits with financial institutions	65,532	371,724	530,811
Cash and bank balances	350,248	627,279	374,079
Bank balances and other liquid funds	415,780	999,003	904,890
Deposits pledged	(1,380)	(1,389)	(1,258)
Cash and cash equivalents in the statement of cash flows	414,400	997,614	903,632

Fixed deposits with financial institutions mature at varying periods within 12 months (2017: 12 months; 1 January 2017: 12 months) from the financial year-end. Interest rates range from 1.1% to 6.4% (2017: 0% to 3.75%; 1 January 2017: 0% to 6.5%) per annum, which are also the effective interest rates.

Cash and bank balances of \$1,380,000 (2017: \$1,389,000; 1 January 2017: \$1,258,000) have been placed with banks as security for letters of credit issued to third parties. Cash and cash equivalents denominated in currencies other than the functional currencies of the Company and its subsidiaries as at 31 December are as follows:

- \$60,256,000 (2017: \$222,044,000; 1 January 2017: \$432,363,000) denominated in USD
- \$89,470,000 (2017: \$94,480,000; 1 January 2017: \$29,707,000) denominated in Euro

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C8 Trade payables and accruals

Group	Note	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Trade payables		885,441	736,075	822,022
Non-trade payables		72,494	84,696	91,181
Purchase of property, plant and equipment		41	1,546	1,433
Accrued operating expenses *		922,772	882,594	890,136
Accrued interest payable		8,064	16,554	17,651
Derivative financial instruments	C15	21,291	10,117	50,103
		1,910,103	1,731,582	1,872,526
Payable:				
Within 1 year		1,829,758	1,599,739	1,734,763
After 1 year		80,345	131,843	137,763
		1,910,103	1,731,582	1,872,526

Trade payables denominated in currencies other than the functional currencies of the Company and its subsidiaries as at 31 December are as follows:

- \$112,102,000 (2017: \$57,144,000; 1 January 2017: \$89,674,000) denominated in USD
- \$48,313,000 (2017: \$28,030,000; 1 January 2017: \$32,054,000) denominated in Euro

* Included in the accrued operating expenses is an amount of \$323,849,000 (2017: \$349,079,000; 1 January 2017: \$375,170,000) for the Group's obligations under its employee compensation schemes.

C9 Amounts due to related parties

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Trade:			
Associates	7,289	8,166	3,784
Joint ventures	252	244	22,450
Related corporations	3,869	2,372	2,166
	11,410	10,782	28,400
Non-trade:			
Joint ventures *	73,824	93,246	–
Related corporations	211	31	7
	74,035	93,277	7
	85,445	104,059	28,407
Payable:			
Within 1 year	85,445	104,042	28,390
After 1 year	–	17	17
	85,445	104,059	28,407

There were no significant amounts due to related parties denominated in currencies other than the functional currencies of the Company and its subsidiaries as at 31 December 2018, 31 December 2017 and 1 January 2017.

* Included in the amounts due to joint ventures (non-trade) is an amount of \$69,786,000 (2017: \$76,363,000; 1 January 2017: Nil) placed by joint ventures to a subsidiary of the Group under a cash pooling arrangement, where an effective interest of 1.36% per annum is charged on the outstanding balance.

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C10 Provisions

Movements in provisions are as follows:

Group	Warranties \$'000	Onerous contracts \$'000	Closure costs \$'000	Total \$'000
2018				
At 1 January 2018	197,350	62,363	433	260,146
Charged/(written-back) to profit or loss	995	(1,290)	2,191	1,896
Provision utilised	(26,850)	(21,494)	–	(48,344)
Deconsolidation/disposal of subsidiaries	(663)	–	–	(663)
Translation difference	483	(509)	(74)	(100)
At 31 December 2018	171,315	39,070	2,550	212,935
2017				
At 1 January 2017	198,847	70,313	11,606	280,766
Charged to profit or loss	33,056	16,887	–	49,943
Provision utilised	(32,382)	(24,820)	(11,173)	(68,375)
Translation difference	(2,171)	(17)	–	(2,188)
At 31 December 2017	197,350	62,363	433	260,146

Recognition and measurement

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made.

(i) Warranties

The warranty provision represents the best estimate of the Group's contractual obligations at the reporting date.

Under the terms of the revenue contracts with key customers, the Group is obligated to make good, by repair or replacement, engineering or manufacturing defects that become apparent within the warranty period from the date of sale. The warranty obligation varies from 60 days to 15 years. The Group's experience of the proportion of its products sold that requires repair or replacement differs from year to year as every contract is customised to the specification of the customers.

The estimation of the provision for warranty expenses is based on the Group's past claim experience over the duration of the warranty period and the industry average in relation to warranty exposures and represents the best estimates of the costs expected to incur per dollar of sales.

The warranty provision made as at 31 December 2018 is expected to be incurred over the applicable warranty periods.

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C10 Provisions (continued)

Recognition and measurement (continued)

(ii) Onerous contracts

Provision for onerous contracts on uncompleted contracts is recognised immediately in profit or loss when it is determinable.

(iii) Closure costs

Provision for closure costs is made in respect of the expected costs that the Group will undertake between the cessation of certain operations of the Group to the completion of their liquidation.

Key estimate and judgement: Provision for warranty

The provision for warranty is based on estimates from known and expected warranty work to be performed after completion. The warranty expense incurred could be higher or lower than the provision made.

Key estimate and judgement: Provision for onerous contracts

The Group conducts a critical review of all its long-term contracts regularly. Allowance is made where necessary to account for onerous contracts and significant judgement is used to estimate the total cost to complete.

C11 Deferred income

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Government compensation	–	25,434	31,154
Government grants	37,466	37,230	41,997
Deferred rents	8,700	7,122	2,294
	46,166	69,786	75,445
Recognise:			
Within 1 year	3,761	630	–
After 1 year	42,405	69,156	75,445
	46,166	69,786	75,445

Government compensation and grants relate mainly to grants received to subsidise the cost of capital assets.

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C12 Contract balances

The following table provides information about contract assets and contract liabilities from contracts with customers.

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Contract assets	1,070,396	939,073	968,608
Contract liabilities	(1,819,546)	(1,780,034)	(1,875,024)

The timing of revenue recognition, billings and cash collections results in billed accounts receivable (included in trade receivables), unbilled receivables (contract assets), and customer advances (contract liabilities) on the balance sheet.

The contract assets primarily relate to the Group's rights to consideration for work completed but not billed at the reporting date. If the value of services rendered exceeds payments received from the customer, a contract asset is recognised and presented separately. The contract asset is transferred to receivables when the entitlement to payment becomes unconditional.

The contract liabilities primarily relate to advance consideration received from customers for contract revenue. If the amounts invoiced to the customer exceeds the value of services rendered, a contract liability is recognised and presented separately.

These assets and liabilities are reported on the balance sheet on a contract by contract basis at the end of each reporting period.

Significant changes in the contract assets and the contract liabilities balances during the year are as follows:

Group	Contract assets		Contract liabilities	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Revenue recognised that was included in the contract liability balance at the beginning of the year	–	–	530,126	514,185
Increase due to cash received, excluding amounts recognised as revenue during the year	–	–	(591,971)	(537,792)
Contract assets recognised	774,994	251,414	–	–
Contract asset reclassified to trade receivables	(610,114)	(232,075)	–	–
Changes in measurement of progress	4,804	(6,403)	–	–

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C12 Contract balances (continued)

Transaction price allocated to the remaining performance obligations

The aggregate amount of transaction price allocated to the remaining performance obligations as at 31 December 2018 is \$13,183,505,000 and the Group expects to recognise \$4,944,523,000 as revenue relating to the unsatisfied (or partially unsatisfied) performance obligations in 2019 with the remaining \$8,238,982,000 in 2020 and beyond.

Variable consideration that is constrained and therefore not included in the transaction price is excluded in the amount presented above.

As permitted under the transitional provisions in SFRS(I) 15, the transaction price allocated to partially or fully unsatisfied performance obligations as of 31 December 2017 is not disclosed.

Key estimate and judgement: Contract balances

Significant judgements are used to estimate these total contract costs to complete. In making these estimates, management has relied on past experience of completed projects. The estimated total contract costs are reviewed every reporting period and adjusted where necessary, with the corresponding effect of change being recognised prospectively from the date of change.

C13 Financial risk management objectives and policies

The Group has exposure to the following financial risks arising from its operations and the use of financial instruments:

- Interest rate
- Foreign exchange
- Market
- Liquidity
- Credit

The Group's principal financial instruments, other than foreign exchange contracts and derivatives, comprise bank guarantees, performance bonds, bank loans and overdrafts, finance leases and hire purchase contracts, investments, cash and short-term deposits.

All financial transactions with the banks are governed by banking facilities duly accepted with Board of Directors' resolutions, with banking mandates, which define the permitted financial instruments and facilities limits. All financial transactions require dual signatories. The Group has various other financial assets and liabilities such as trade receivables and trade payables, which arise directly from its operations.

It is the Group's policy not to engage in foreign exchange and/or derivatives speculation. The purpose of engaging in treasury transactions is solely for hedging. The Group's treasury mandates allow only foreign exchange spot, forward or non-deliverable forward, foreign exchange swap, cross currency swap, purchase of foreign exchange call, put or collar option, forward rate agreement, interest rate swap, purchase of interest rate cap, floor or collar option (Permitted Transactions). These instruments are generic in nature with no embedded or leverage features and any deviation from these instruments would require specific approval from the Board of Directors.

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C13 Financial risk management objectives and policies (continued)

The policies for managing each of these risks are broadly summarised below:

Interest rate risk

As at reporting date, the interest rate profile of the interest-bearing financial instruments is:

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Fixed rate instruments			
Financial assets	90,144	376,530	535,617
Financial liabilities	(250,835)	(818,211)	(850,380)
	(160,691)	(441,681)	(314,763)
Variable rate instruments			
Financial assets	–	350,975	499,812
Financial liabilities	(314,654)	(297,853)	(229,895)
	(314,654)	53,122	269,917

The Group has cash balances placed with reputable banks and financial institutions. The Group manages its interest rate risk on its interest income by placing the cash balances in varying maturities and interest rate terms with due consideration to operating cash flow requirements and optimising yield.

The Group's debts include bank loans and lease commitments (2017: 10-year bonds issued, bank loans and lease commitments). The Group seeks to minimise its interest rate risk exposure through tapping different sources of funds to refinance the debt instruments and/or enter into interest rate swaps and cross currency interest rate swaps.

An increase/decrease of 50 basis points in interest rate, with all other variables being held constant, would lead to a reduction/increase of the Group's profit or loss by approximately \$1.6 million (2017: \$1.5 million).

Information relating to the Group's interest rate risk exposure is also disclosed in the notes on the Group's borrowings, investments and loans receivable, where applicable.

Foreign exchange risk

The Group is exposed to foreign exchange risk from its global operations and revenues, costs and borrowings denominated in a currency other than the respective functional currencies of the Company and its subsidiaries. The Group's foreign exchange exposures are primarily from USD and Euro, and manages its exposure through forward currency contracts, cross currency interest rate swaps and embedded derivatives.

The Group's centralised Treasury Unit monitors the current and projected foreign currency cash flow within the Group and aims to reduce the exposure of the net position by transacting with the banks where appropriate.

No foreign exchange sensitivity analysis was disclosed as a reasonable change in the exchange rate would not result in any significant impact on the Group's results.

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C13 Financial risk management objectives and policies (continued)

Market risk

The Group has strategic investments in quoted and unquoted equity shares. The market value of these investments will fluctuate with market conditions.

No sensitivity analysis was disclosed as a reasonable change in the market value of these investments would not result in any significant impact on the Group's results.

Liquidity risk

To manage liquidity risk, the Group monitors its net operating cash flows and maintains an adequate level of cash and cash equivalents and secured committed funding facilities from financial institutions. In assessing the adequacy of these funding facilities, management reviews its working capital requirements regularly.

The table below analyses the maturity profile of the Group's financial liabilities based on the contractual undiscounted cash flows including estimated interest payments and excluding impact of netting arrangements.

Group	Contractual cash flow \$'000	Within 1 year \$'000	Between 1 and 5 years \$'000	More than 5 years \$'000
2018				
Bank loans	(499,291)	(231,435)	(230,210)	(37,646)
Lease obligations	(24,825)	(1,181)	(4,488)	(19,156)
Trade and other payables	(1,974,257)	(1,893,912)	(75,058)	(5,287)
Derivative financial instruments:				
• Gross-settled forward currency contracts				
- payments	(1,191,268)	(601,037)	(590,231)	-
- receipts	1,178,865	592,641	586,224	-
• Net-settled interest rate swaps	2,231	1,479	752	-
Financial guarantees	(87,921)	(2,384)	(19,239)	(66,298)
2017				
Bank loans	(439,014)	(217,399)	(206,407)	(15,208)
Bonds	(718,058)	(32,088)	(685,970)	-
Other loans	(7,418)	(7,403)	(15)	-
Lease obligations	(32,524)	(1,280)	(4,590)	(26,654)
Trade and other payables	(1,825,524)	(1,693,664)	(129,244)	(2,616)
Derivative financial instruments:				
• Gross-settled forward currency contracts				
- payments	(1,291,846)	(697,921)	(587,116)	(6,809)
- receipts	1,312,620	709,860	596,041	6,719
• Net-settled interest rate swaps	2,769	441	2,328	-
• Net-settled cross currency interest rate swaps	8,624	1,529	7,095	-
Financial guarantees	(84,856)	(7)	(18,108)	(66,741)

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C13 Financial risk management objectives and policies (continued)

Except for the cash flows arising from the intra-group financial guarantee, it is not expected that the cash flows included in the maturity analysis could occur significantly earlier, or at significantly different amounts.

At the reporting date, the Group does not consider it probable that a claim will be made against the Group under the financial guarantees.

Recognition and measurement

Financial guarantees issued by the Group to joint ventures are recognised initially at fair value and are classified as financial liabilities. Subsequent to initial measurement, the financial guarantees are stated at the higher of the initial fair value less cumulative amortisation and the amount that would be recognised if they were accounted for as contingent liabilities.

When financial guarantees are terminated before their original expiry date, the carrying amount of the financial guarantee is transferred to profit or loss.

Credit risk

Credit risk is managed through the application of credit approvals, credit limits and monitoring procedures. Where appropriate, the Company or its subsidiaries obtain collaterals from customers or arrange master netting agreements. Cash terms, advance payments, and letters of credit or bank guarantees are required for customers of lower credit standing.

The carrying amounts of financial assets and contract assets represent the Group's maximum exposures to credit risk, before taking into account any collateral held.

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Investments	16,814	360,703	510,941
Derivative financial instruments, non-current	11,483	33,082	32,967
Contract assets	1,070,396	939,073	968,608
Trade receivables	1,138,988	940,725	1,065,408
Amounts due from related parties	40,198	33,077	29,424
Advances and other receivables	92,457	104,850	103,269
Bank balances and other liquids funds	415,780	999,003	904,890
	2,786,116	3,410,513	3,615,507

Impairment losses on financial assets and contract assets recognised in profit or loss are as follows:

Group	2018 \$'000	2017 \$'000
Trade receivables	1,612	16,628
Contract balances arising from contracts with customers	5,793	(1,113)
	7,405	15,515

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C13 Financial risk management objectives and policies (continued)

Exposure to credit risk

As at 31 December 2018, 26% (2017: 35%) of trade debts relate to three major customers of the Group.

The table below analyses the trade receivables and contract assets by the Group's main reportable segments:

Group	Carrying amount		
	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Aerospace	780,856	642,977	694,602
Electronics	1,040,822	815,805	876,361
Land Systems	269,770	218,001	276,286
Marine	108,768	195,552	165,334
Others	9,168	7,463	21,433
	2,209,384	1,879,798	2,034,016

A summary of the Group's exposures to credit risk for trade receivables and contract assets is as follows:

Group	2018	
	Not credit impaired S\$'000	Credit impaired S\$'000
Receivables measured at lifetime ECL:		
Trade receivables and contract assets	2,209,384	38,986
Loss allowance	–	(38,986)
Total	2,209,384	–

Comparative information under FRS 39

The age analysis of trade receivables and contract assets as at 31 December 2017 and 1 January 2017 are as follows:

Group	2017 \$'000	1 January 2017 \$'000
Not past due	1,614,814	1,712,608
1 – 90 days	217,759	257,812
91 – 180 days	35,927	34,511
181 – 360 days	10,462	28,351
> 360 days	836	734
Total gross carrying amount	1,879,798	2,034,016

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C13 Financial risk management objectives and policies (continued)

Expected credit loss assessment

Trade receivables and contract assets

The Group uses an allowance matrix to measure the expected credit loss (ECL) of trade receivables and contract assets from its customers as there is no applicable credit ratings (or equivalent).

Loss rates are calculated using a 'roll rate' method based on the probability of a receivable progressing through successive stages of delinquency to write-off. Roll rates are calculated separately for exposures in different segments based on the common credit risk characteristics.

The following table provides information about the exposure to credit risk and ECLs for trade receivables and contract assets for customers:

Group	Weighted average loss rate	Gross carrying amount \$'000	Impairment loss allowance \$'000	Credit Impaired
Not past due	0.55%	1,807,360	(9,860)	No
1 – 90 days	0.57%	338,958	(1,927)	No
91 – 180 days	2.07%	64,920	(1,347)	No
181 – 360 days	31.81%	10,902	(3,468)	No
> 360 days	85.34%	26,230	(22,384)	Yes
		<u>2,248,370</u>	<u>(38,986)</u>	

Loss rates are based on actual credit loss experience over the past four years adjusted for current conditions and the Group's view of economic conditions over the expected lives of the receivables only if these factors have a significant impact to the credit loss. As of 2018, no scalar factors has been applied.

Movements in allowance for impairment in respect of trade receivables and contract assets

The movements in the allowance for impairment in respect of trade receivables and contract assets during the year were as follows:

Group	Individual impairments \$'000	Collective impairments \$'000
At 1 January 2017 per FRS 39	45,850	4,781
Impairment loss/(write-back of impairment) recognised	15,870	(355)
Amounts written off	(20,598)	–
Acquisition of subsidiary	75	3
Translation difference	(1,838)	(218)
At 31 December 2017 per FRS 39	<u>39,359</u>	<u>4,211</u>

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C13 Financial risk management objectives and policies (continued)

	Group lifetime ECL \$'000
At 1 January 2018 per FRS 39	43,570
Adjustment on initial application of SFRS(I) 9	4,196
At 1 January 2018 per SFRS(I) 9	47,766
Impairment loss recognised	7,405
Amounts written off	(4,594)
Disposal of subsidiaries	(11,048)
Translation difference	(543)
At 31 December 2018 per SFRS(I) 9	38,986

Bank balances and other liquid funds

Bank balances and other liquid funds are placed with financial institutions, which mainly have long-term rating of A3 by Moody's or A- by Standard & Poor's or the equivalent by a reputable credit rating agency. Impairment on bank balances and other liquid funds has been measured on the 12-month expected loss basis and reflects the short maturities of the exposures. The Group considers that its bank balances and other liquid funds to have low credit risk based on the external credit ratings of the counterparties. The amount of the allowance on bank balances and other liquid funds is insignificant.

Other financial assets

Other financial assets comprise amounts due from related parties and other receivables, which are mostly short-term in nature. Impairment on other financial assets has been measured on the 12-month expected loss basis and reflects the short maturities of the exposures. The Group considers its other financial assets to have low credit risk and the amount of the allowance on other financial assets is insignificant.

Policy under SFRS(I) 9 – Policy applicable from 1 January 2018

The Group recognises loss allowances for ECLs on financial assets measured at amortised cost, contract assets (as defined in SFRS(I)15), debt investments at FVOCI and financial guarantee contracts, but not for equity investments.

The Group measures loss allowances at an amount equal to lifetime ECL.

Lifetime ECLs are the ECLs that result from all the possible default events over the expected life of a financial instrument.

The Group considers a financial asset to be in default when:

- the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- the financial asset remains outstanding for more than the reasonable range of past due days, taking into consideration historical payment track record, current macroeconomics situation as well as general industry trend.

Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortised cost and debt investments at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C13 Financial risk management objectives and policies (continued)

Policy under SFRS(I) 9 – Policy applicable from 1 January 2018 (continued)

Evidence that a financial asset is credit-impaired includes the following observable data:

- significant financial difficulty of the borrower or issuer;
- a breach of contract such as a default or payment remains outstanding for more than the reasonable range of past due days;
- the restructuring of a loan or advance by the Group on terms that the Group would not consider otherwise;
- it is probable that the borrower will enter bankruptcy or other financial reorganisation; or
- the disappearance of an active market for a security because of financial difficulties.

Presentation of allowance for ECL in the balance sheets

Loss allowances for financial assets measured at amortised cost and contract assets are deducted from the gross carrying amounts of these assets.

Write-off

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

Policy under FRS 39 – Policy applicable before 1 January 2018

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset not carried at FVTPL is impaired.

To determine whether there is objective evidence that financial assets (including equity securities) are impaired, the Group considers factors such as the probability of insolvency or significant financial difficulties of the debtor/issuer, default or significant delay in payments, significant adverse changes in the business environment where the debtor/issuer operates and disappearance of an active market for a security. If there is objective evidence that an impairment loss on an unquoted equity instrument that is not carried at fair value because its fair value cannot be reliably measured, or on a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. The loss recognised is not reversed in future periods.

In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is objective evidence of impairment. Impairment losses previously recognised are reversed through OCI and for available-for-sale debt instruments are reversed through the profit and loss, if the increase in fair value is related objectively to a subsequent event.

Key estimate and judgement: Impairment of financial assets and contract assets

Impairment of financial assets and contract assets are estimated based on historical loss experience for assets with similar credit risk characteristics. The estimated ECL is reviewed every reporting period and adjusted where necessary, with the corresponding effect of change being recognised prospectively from the date of change.

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C14 Classification and fair value of financial instruments

Group	Carrying amount		
	Amortised cost \$'000	Mandatorily at FVTPL \$'000	Fair value – hedging instruments \$'000
31 December 2018			
Financial assets measured at fair value			
Investments	–	–	–
Associates	–	23,698	–
Derivative financial instruments	–	5,728	12,320
	–	29,426	12,320
Financial assets not measured at fair value			
Trade receivables	1,138,988	–	–
Amounts due from related parties	40,198	–	–
Advances and other receivables	85,892	–	–
Bank balances and other liquid funds	415,780	–	–
	1,680,858	–	–
Financial liabilities measured at fair value			
Derivative financial instruments	–	(3,057)	(38,076)
Financial liabilities not measured at fair value			
Creditors and accruals	–	–	–
Amounts due to related parties	–	–	–
Borrowings	–	–	–
	–	–	–

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Carrying amount			Fair value			
FVOCI – equity instruments \$'000	Other financial liabilities \$'000	Total carrying amount \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000	Total \$'000
16,814	–	16,814	422	16,392	–	16,814
–	–	23,698	–	23,698	–	23,698
–	–	18,048	–	18,048	–	18,048
16,814	–	58,560	422	58,138	–	58,560
–	–	1,138,988				
–	–	40,198				
–	–	85,892				
–	–	415,780				
–	–	1,680,858				
–	–	(41,133)	–	(41,133)	–	(41,133)
–	(1,888,812)	(1,888,812)				
–	(85,445)	(85,445)				
–	(495,779)	(495,779)				
–	(2,470,036)	(2,470,036)				

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C14 Classification and fair value of financial instruments (continued)

Group	Carrying amount		
	Loans and receivables \$'000	Fair value through profit or loss \$'000	Available -for-sale \$'000
31 December 2017			
Financial assets measured at fair value			
Investments	-	-	351,344
Associates	-	7,863	-
Derivative financial instruments	-	18,247	-
	-	26,110	351,344
Financial assets not measured at fair value			
Investments	-	-	9,359
Trade receivables	940,725	-	-
Amounts due from related parties	33,077	-	-
Advances and other receivables	84,349	-	-
Bank balances and other liquid funds	999,003	-	-
	2,057,154	-	9,359
Financial liabilities measured at fair value			
Derivative financial instruments	-	(3,459)	-
Financial liabilities not measured at fair value			
Creditors and accruals	-	-	-
Amounts due to related parties	-	-	-
Borrowings	-	-	-
	-	-	-

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Carrying amount			Fair value			
Liabilities at amortised cost \$'000	Derivatives used for hedging \$'000	Total carrying amount \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000	Total \$'000
-	-	351,344	357	350,975	12	351,344
-	-	7,863	-	7,863	-	7,863
-	35,336	53,583	-	53,583	-	53,583
-	35,336	412,790	357	412,421	12	412,790
-	-	9,359	-	-	-	-
-	-	940,725	-	-	-	-
-	-	33,077	-	-	-	-
-	-	84,349	-	-	-	-
-	-	999,003	-	-	-	-
-	-	2,066,513	-	-	-	-
-	(22,211)	(25,670)	-	(25,670)	-	(25,670)
(1,721,465)	-	(1,721,465)	-	-	-	-
(104,059)	-	(104,059)	-	-	-	-
(1,116,064)	-	(1,116,064)	-	-	-	-
(2,941,588)	-	(2,941,588)	-	-	-	-

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C14 Classification and fair value of financial instruments (continued)

Group	Carrying amount		
	Loans and receivables \$'000	Fair value through profit or loss \$'000	Available -for-sale \$'000
1 January 2017			
Financial assets measured at fair value			
Investments	-	364	500,463
Derivative financial instruments	-	28,894	-
	-	29,258	500,463
Financial assets not measured at fair value			
Investments	-	-	10,114
Trade receivables	1,065,408	-	-
Amounts due from related parties	29,424	-	-
Advances and other receivables	99,221	-	-
Bank balances and other liquid funds	904,890	-	-
	2,098,943	-	10,114
Financial liabilities measured at fair value			
Derivative financial instruments	-	(13,776)	-
Financial liabilities not measured at fair value			
Trade payables and accruals	-	-	-
Amounts due to related parties	-	-	-
Borrowings	-	-	-
	-	-	-

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Carrying amount			Fair value			
Liabilities at amortised cost \$'000	Derivatives used for hedging \$'000	Total carrying amount \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000	Total \$'000
-	-	500,827	1,003	499,812	12	500,827
-	8,121	37,015	-	37,015	-	37,015
-	8,121	537,842	1,003	536,827	12	537,842
-	-	10,114				
-	-	1,065,408				
-	-	29,424				
-	-	99,221				
-	-	904,890				
-	-	2,109,057				
-	(55,762)	(69,538)	-	(69,538)	-	(69,538)
(1,822,423)	-	(1,822,423)				
(28,407)	-	(28,407)				
(1,080,275)	-	(1,080,275)				
(2,931,105)	-	(2,931,105)				

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C14 Classification and fair value of financial instruments (continued)

(a) Non-derivative financial assets and liabilities

Policy under SFRS(I) 9 – Policy applicable from 1 January 2018

Classification and subsequent measurement

On initial recognition, a financial asset is classified as measured at: amortised cost; FVOCI – debt investment; FVOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Financial assets	Classification	Subsequent measurement
Amortised cost	The asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and The contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.	Measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognised in profit or loss. Any gain or loss on derecognition is recognised in profit or loss.
Debt investments at FVOCI	The asset is held within a business model whose objective is achieved by collecting contractual cash flows and selling financial assets; and The contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.	Measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognised in profit or loss. Other net gains and losses are recognised in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.
Equity investments at FVOCI	On initial recognition of an equity investment that is not held-for-trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.	Measured at fair value. Dividends are recognised as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.
FVTPL*	All other financial assets are classified as measured at FVTPL. Financial assets that are held-for-trading or are managed, and whose performance is evaluated on a fair value basis, are measured at FVTPL. * On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVOCI, as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.	Measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in profit or loss.

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C14 Classification and fair value of financial instruments (continued)

(a) Non-derivative financial assets and liabilities (continued)

Business model assessment

The Group makes an assessment of the objective of a business model in which an asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- The stated policies and objectives for the portfolio and the operation of those policies in practice;
- How the performance of the portfolio is evaluated and reported to the Group's management;
- The risks that affect the performance of the business model and how those risks are managed;
- How managers of the portfolio are compensated; and
- The frequency, volume and timing of disposals in prior periods, the reasons for such disposals and its expectations about future activity.

Assessment of whether contractual cash flows are solely payments of principal and interest

For assessment purposes, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers contingent events, leverage features, modifications of the time value of money and other limiting terms in the contractual terms of the instrument, which change the timing or amount of contractual cash flows such that the cash flows of the instrument would not be reflective of solely payments of principal and interest.

Reclassifications

Financial assets are not reclassified subsequent to their initial recognition, except in the period after the Group changes its business model for managing those financial assets.

Financial liabilities

The Group classifies its financial liabilities, other than financial guarantees and loan commitments, as measured at amortised cost or FVTPL.

Policy under FRS 39 – Policy applicable before 1 January 2018

Recognition and initial measurement

Financial assets and liabilities are recognised on the balance sheet when, and only when, the Group becomes a party to the contractual provisions of the financial instrument. All regular way purchases and sales of financial assets are recognised on the trade date, i.e. the date that the Group commits to purchase or sell the asset.

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C14 Classification and fair value of financial instruments (continued)

(a) Non-derivative financial assets and liabilities (continued)

Policy under FRS 39 – Policy applicable before 1 January 2018 (continued)

Classification and subsequent measurement

Category	Subsequent measurement
Loans and receivables <ul style="list-style-type: none"> - With fixed or determinable payments, that are not quoted in an active market - Comprise bank balances and other liquid funds, and trade and other receivables (including finance lease receivables and amounts due from related parties) 	Amortised cost, computed using effective interest method, less impairment losses.
Fair value through profit or loss <ul style="list-style-type: none"> - Acquired principally for the purposes of selling in the near term - Includes separable embedded derivatives and other derivatives not designated in hedging relationship - Investments in associates acquired by the Group's Corporate Venture Unit which are designated upon initial recognition to be measured at fair value through profit or loss 	<p>Gains and losses arising from fair value changes are recognised in profit or loss.</p> <p>Fair value gains/losses arising from embedded derivatives and forward currency contracts that provide an economic hedge to trading transactions, are considered to be part of the Group's operating activities and are classified as part of cost of sales to reflect the nature of the transactions.</p>
Available-for-sale <ul style="list-style-type: none"> - Designated or are not classified in the other categories of financial assets - Comprise equity securities and bonds 	<p>Gains and losses arising from changes in fair value are recognised in other comprehensive income and presented in fair value reserve in equity, until the investment is disposed of or is determined to be impaired, at which time, the cumulative gain or loss previously recognised in reserve is included in profit or loss for the year.</p> <p>For those financial assets where there is no active market and where fair value cannot be reliably measured, they are measured at cost.</p>
Liabilities at amortised cost <ul style="list-style-type: none"> - Comprise bank overdrafts, trade and other payables (including lease obligations and amounts due to related parties) and borrowings 	Amortised cost, computed using effective interest method.

Derecognition

Financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or when it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

Financial liabilities

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C14 Classification and fair value of financial instruments (continued)

(b) Fair value

The Group has an established approach with respect to the measurement of fair values.

Fair value hierarchy

The Group classifies fair value measurement using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The following table shows the levels of fair value hierarchy and the respective valuation technique used in measuring the fair values, as well as significant unobservable inputs:

Types of financial instruments	Valuation method
Level 1 FVOCI - Equity investments (quoted) Fair value through profit or loss - Equity investments (quoted)	Determined by reference to their quoted bid prices for these investments as at reporting date.
Level 2 FVOCI - Bonds (unquoted) - Equity investments (unquoted) Derivatives - Forward currency contracts - Cross currency interest rate swaps - Interest rate swaps - Embedded derivatives FVTPL - Investment in associate	Determined based on quoted market prices. Determined by reference to the most recent purchase price. Determined based on broker quotes. Similar contracts are traded in an active market and the quotes reflect the actual transactions in similar instruments. Determined by reference to the most recent purchase price.
Level 3 FVOCI - Venture capital funds and limited partnership	Determined by reference to valuation provided by non-related fund managers based on non-observable data. Changing one or more of the inputs to reasonable alternative assumptions is not expected to have a material impact on the changes in fair value.

Measurement of fair values

The Group regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair value, then the Group assesses and documents the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of SFRS(I)s, including the level in the fair value hierarchy the resulting fair value estimate should be classified.

The Group recognises transfers between levels of the fair value hierarchy as of the end of the reporting period during which the change has occurred. There were no transfers between Level 1, Level 2 and Level 3 during 2018 and 2017.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

C14 Classification and fair value of financial instruments (continued)

(b) Fair value (continued)

Movements in level 3 financial instruments measured at fair value

The following table presents the reconciliation for all financial instruments measured at fair value based on significant unobservable inputs (Level 3).

Group	2018 \$'000	2017 \$'000
Equity instruments (unquoted)		
Opening balance	12	12
Total gain:		
- recognised in other comprehensive income	(12)	-
Closing balance	-	12

The following methods and assumptions are used to estimate the fair value of other classes of financial instruments:

Types of financial instruments	Valuation method
Bank balances, other liquid funds and short-term receivables Short-term borrowings and other current payables	Carrying amounts approximate fair values due to the relatively short-term maturity of these instruments.
Long-term receivables	Estimated based on the expected cash flows discounted to present value.
Long-term payables	Estimated based on present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date.

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C15 Derivative financial instruments

Cash flow hedges

At 31 December 2018, the Group held the following instruments to hedge exposures to changes in foreign currency and interest rates:

	Maturity	
	Within 1 year	Between 1 to 5 years
2018		
Foreign currency risk		
Nominal amount of forward exchange contracts (in thousands of SGD)	493,801	237,406
- Average SGD:USD forward contract rate	1.3539	-
- Average SGD:EUR forward contract rate	1.5423	1.6645
- Average USD:EUR forward contract rate	1.2049	1.2251
Nominal amount of embedded derivatives (in thousands of SGD)	69,832	250,421
- Average SGD:USD	1.3794	1.3801
- Average SGD:EUR	1.6573	1.6452
- Average USD:GBP	1.7934	1.8144
Interest rate risk		
Nominal amount of interest rate swaps	-	163,914
- Average fixed interest rate	-	1.6273

The amounts at the reporting date relating to items designated as hedged items were as follows:

	Change in value used for calculating hedge ineffectiveness \$'000	Cash flow hedge reserve \$'000	Balances remaining in the cash flow hedge reserve from hedging relationships for which hedge accounting is no longer applied \$'000
Foreign currency risk			
Sales	(19,837)	6,090	-
Receivables	(481)	(458)	-
Purchases	(4,884)	(1,277)	-
Payables	170	(20)	-
Embedded derivatives	(8,207)	(12,127)	-
Interest rate risk			
Fixed rate borrowings	794	2,831	-

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C15 Derivative financial instruments (continued)

The amounts relating to items designated as hedging instruments and hedge ineffectiveness were as follows:

 2018			
	Nominal amount \$'000	Assets \$'000	Liabilities \$'000	Line item in the statement of financial position where the hedging instrument is included \$'000
Foreign currency risk				
Forward exchange contracts	731,206	3,766	(20,734)	Derivative financial instruments, advances and other receivables and trade payables and accruals
Embedded derivatives	320,253	156	(11,427)	
Interest rate risk				
Interest rate swaps	163,914	2,854	-	Derivative financial instruments

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..... During the year 2018

Changes in the value of the hedging instrument recognised in OCI \$'000	Hedge ineffectiveness recognised in profit or loss \$'000	Line item in profit or loss that includes hedge ineffectiveness \$'000	Amount from hedging reserve transferred to cost of inventory \$'000	Amount reclassified from hedging reserve to profit or loss \$'000	Line item in profit or loss affected by the reclassification \$'000
(25,032)	(201)	Cost of sales/ Finance costs, net	3,955	2	Revenue/ Cost of sales/ Operating expenses/ Finance costs, net
(8,207)	-	-	-	-	-
794	-	-	-	-	-

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C15 Derivative financial instruments (continued)

The following table provides a reconciliation by risk category of components of equity and analysis of OCI items, net of tax, resulting from cash flow hedge accounting:

	2018 Hedging reserve \$'000
Balance at 1 January	20,408
Change in fair value:	
Foreign currency risk	(33,239)
Interest rate risk	794
Equity accounted joint ventures	505
Amount reclassified to profit or loss:	
Foreign currency risk	2
Amount included in the cost of non-financial items:	
Foreign currency risk – inventory purchases	3,955
Tax movements on reserves during the year	7,151
Balance at 31 December	<u>(424)</u>

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C15 Derivative financial instruments (continued)**Comparative information under FRS 39**

Derivative financial instruments included in the balance sheet are as follows:

	2017		
	Contractual/ notional amount \$'000	Estimated fair value	
		Asset \$'000	Liability \$'000
Cash flow hedges			
Forward currency contracts:			
- to hedge confirmed sales in foreign currencies	576,409	19,445	(4,136)
- to hedge firm purchase commitments in foreign currencies	269,182	3,816	(2,533)
- to hedge accounts receivable in foreign currencies	9,410	283	(15)
- to hedge accounts payable in foreign currencies	12,024	254	(50)
Interest rate swaps	207,235	2,035	-
Embedded derivatives	322,926	5,671	(11,302)
Fair value hedges			
Forward currency contracts:			
- to hedge confirmed sales in foreign currencies	146,880	628	(2,134)
- to hedge accounts payable in foreign currencies	354	-	(18)
Embedded derivatives	132,321	2,551	(1,928)
Non-hedging instruments			
Forward currency contracts:			
- sales	227,002	5,082	(2,312)
- purchases	67,426	2,599	(135)
Cross currency interest rate swaps	124,025	10,788	-
Embedded derivatives	8,137	431	(1,107)
Total		53,583	(25,670)
Less: Current portion		(20,501)	10,117
Non-current portion		33,082	(15,553)

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C15 Derivative financial instruments (continued)

Derivative financial instruments and hedge accounting – Policy applicable from 1 January 2018

The derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into. Attributable transaction costs are recognised in profit or loss as incurred. Subsequent to initial recognition, derivative financial instruments are remeasured at their fair values.

Any gains or losses arising from changes in the fair value of derivatives that do not qualify for hedge accounting are taken directly to the profit or loss.

Designation of hedges

At inception or upon reassessment of the hedge arrangement, the Group documents the relationship between hedging instrument and hedged item, and the methods that will be used to measure the effectiveness of the hedged relationship, to measure the effectiveness of the hedged relationship, as well as risk management policies and strategies in undertaking various hedged transactions.

The Group also documents its assessment, both at inception and on an ongoing basis, the economic relationship between hedging instruments and hedged item, including whether derivatives designated as hedging instruments are highly effective in offsetting changes in fair values or cash flows of the hedged item.

Category	Subsequent measurement
Cash flow hedges	<p>When a derivative is designated in a cash flow hedge, the effective portion of changes in the fair value of the derivative is recognised in other comprehensive income limited to the cumulative change in the fair value of the hedged item and presented in the fair value reserve. Any ineffective portion of changes in the fair value of the derivative (i.e. the extent to which changes in the fair value of the hedge instrument do not match the changes in fair value of the hedged item) is recognised immediately in profit or loss.</p> <p>The amount accumulated in equity is retained in other comprehensive income, and depending on the nature of the hedged item, will either be transferred to the profit or loss in the same period that the underlying transaction affects profit or loss or be capitalised in the initial carrying amount of the non-financial item.</p> <p>If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognised in the fair value reserve remains there until the forecast transaction occurs. If the forecast transaction is no longer expected to occur, then the amount accumulated in equity is reclassified to profit or loss.</p>
Fair value hedges	<p>Changes in the fair value of derivative financial instruments that are designated and qualify as fair value hedges are recorded in profit or loss, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.</p>

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C15 Derivative financial instruments (continued)

Derivative financial instruments and hedge accounting – Policy applicable from 1 January 2018 (continued)

Designation of hedges (continued)

Category	Subsequent measurement
Net investment hedges	<p>The Group designates certain derivatives and non-derivative financial liabilities as hedges of foreign exchange risk on a net investment in a foreign operation.</p> <p>When a derivative instrument or a non-derivative financial liability is designated as the hedging instrument in a hedge of a net investment in a foreign operation, the effective portion of, for a derivative, changes in the fair value of the hedging instrument or, for a non-derivative, foreign exchange gains and losses is recognised in OCI and presented in the translation reserve within equity. Any ineffective portion of the changes in the fair value of the derivative or foreign exchange gains and losses on the non-derivative is recognised immediately in profit or loss. The amount recognised in OCI is reclassified to profit or loss as a reclassification adjustment on disposal of the foreign operation.</p>

Derivative financial instruments and hedge accounting – Policy applicable before 1 January 2018

The policy applied in the comparative information presented for 2017 is similar to that applied for 2018. However, embedded derivatives are not separated from host contracts that are financial assets in the scope of SFRS(I) 9. Instead, the hybrid financial instrument is assessed as a whole for classification of financial assets under SFRS(I) 9. Furthermore, for all cash flow hedges, including hedges of transactions resulting in the recognition of non-financial items, the amounts accumulated in the cash flow hedge reserve were reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affected profit or loss. Furthermore, for cash flow hedges that were terminated before 2017, forward points were recognised immediately in profit or loss.

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D | EMPLOYEE BENEFITS

The Group uses the following programs to reward and recognise employees and key executives, including key management personnel.

- Economic Value Added (EVA)-based Incentive Scheme
- Defined contribution plans
- Employee benefits
- Share plans

The Group believes that these programs reinforce the value of ownership and incentivise and drive performance both individually and collectively to maximise returns to the shareholders.

D1 Economic Value Added (EVA)-based Incentive Scheme

D2 Personnel expenses

D3 Employee benefits

D4 Share-based payment arrangements

D1 Economic Value Added (EVA)-based Incentive Scheme (EBIS)

The Group adopts an incentive compensation plan, which is tied to the creation of EVA, as well as attainment of individual and Group performance goals for its key executives. An EVA bank is used to hold incentive compensation credited in any year.

Typically a portion of EVA-based bonus declared in the financial year is paid out in cash each year, with the balance being deferred for payment in the following years.

Key estimate and judgement: EBIS

Estimates of the Group's obligations arising from the EBIS at the reporting date may be affected by future events, which cannot be predicated with any certainty. The assumptions and estimates are made based on management's knowledge and experience and may vary from actual experience so that the actual liability may vary considerably from the best estimates. Negative EVA will result in a clawback of EVA bonus accumulated in previous years.

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D2 Personnel expenses

Group	2018 \$'000	2017 \$'000
Wages and salaries	1,617,337	1,582,092
Contributions to defined contribution plans	174,852	172,640
Defined benefit plan expenses	8,140	6,109
Share-based payments	20,038	14,160
Other personnel expenses	195,720	186,244
	2,016,087	1,961,245

Recognition and measurement

(i) Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

(ii) Defined contribution plans

Defined contribution plans are post-employment benefit plans under which the Group pays fixed contributions into separate entities such as the Central Provident Fund and will have no legal or constructive obligation to pay further amounts. The Group's contributions to the defined contribution plans are recognised in the income statement as expenses in the financial year to which they relate.

D3 Employee benefits

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Net defined benefit asset	–	(243)	(151)
Total employee benefit asset	–	(243)	(151)
Net defined benefit liabilities	106,041	100,514	82,438
Liability for staff benefits	4,376	4,646	4,678
Total employee benefit liabilities	110,417	105,160	87,116
Non-current	108,016	102,669	85,200
Current	2,401	2,491	1,916
	110,417	105,160	87,116

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D3 Employee benefits (continued)**Movement in net defined (asset)/liability**

The following table shows a reconciliation from the opening balances to the closing balances for net defined benefit (asset)/liability and its components.

Group	Defined benefit obligation		Fair value of plan assets		Net defined benefit liability/(asset)	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at 1 January	107,874	89,706	(7,603)	(7,419)	100,271	82,287
Included in profit or loss						
Current service cost	6,522	4,975	–	–	6,522	4,975
Interest cost/(income)	2,044	1,737	(117)	(162)	1,927	1,575
Administrative expenses	–	–	(243)	(238)	(243)	(238)
Translation difference	(591)	770	525	(698)	(66)	72
	7,975	7,482	165	(1,098)	8,140	6,384
Included in OCI						
Remeasurements loss/(gain):						
• Actuarial loss/(gain) arising from:						
- demographic assumptions	143	8,662	–	–	143	8,662
- financial assumptions	424	(1,880)	35	–	459	(1,880)
- experience assumptions	146	1,918	–	8	146	1,926
• Return on plan assets excluding interest income	–	–	(13)	(30)	(13)	(30)
	713	8,700	22	(22)	735	8,678
Other						
Contributions paid by the employer	1,181	881	–	–	1,181	881
Benefits paid	(2,271)	(2,427)	226	448	(2,045)	(1,979)
Translation difference	(2,111)	3,532	(130)	488	(2,241)	4,020
Balance at 31 December	113,361	107,874	(7,320)	(7,603)	106,041	100,271

The expenses are recognised in the following line items in profit or loss:

Group	2018 \$'000	2017 \$'000
Cost of sales	8,393	6,146
Administrative expenses	(243)	(12)
Other operating expenses	–	(25)
Finance cost, net	(10)	275
Defined benefit obligation expenses	8,140	6,384

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D3 Employee benefits (continued)

The fair values of plan assets in each category are as follows:

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Equity securities	214	228	207
Government bonds	433	426	378
Derivatives	67	97	93
Funds managed by a trustee	1,990	2,163	2,046
Funds with insurance companies	4,616	4,689	4,695
Fair value of plan assets	7,320	7,603	7,419

All equity securities and government bonds have quoted prices in active markets. All government bonds have an average rating of A+.

Defined benefit obligation

(a) Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date (expressed as weighted averages):

Group	2018 %	2017 %	1 January 2017 %
Discount rate	1.9	1.8	1.7
Future salary growth	2.8	2.8	2.8
Future pension growth	1.6	1.5	1.7

Assumptions regarding future mortality have been based on published statistics and mortality tables. The current longevities underlying the values of the defined benefit obligation at the reporting date were as follows:

Group	2018	2017	1 January 2017
Longevity at age 65 for current pensioners:			
Males	20.2	19.4	19.3
Females	23.7	23.5	23.4
Longevity at age 65 for current members aged 45:			
Males	23.0	22.0	21.9
Females	25.9	25.9	25.9

At 31 December 2018, the weighted average duration of the defined benefit obligation was 17.8 years (2017: 18.9 years; 1 January 2017: 14.2 years).

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D3 Employee benefits (continued)

Defined benefit obligation (continued)

(b) Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

Group	2018		2017	
	Increase \$'000	Decrease \$'000	Increase \$'000	Decrease \$'000
Discount rate (0.5% movement)	(8,453)	9,690	(8,044)	9,206
Future salary growth (0.25% movement)	200	(183)	988	(932)
Future pension growth (0.25% movement)	880	(847)	243	(220)
Future mortality (10% movement)	–	1,253	–	1,041

Recognition and measurement

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value.

The fair value of any plan assets is deducted. The Group determines the net interest expense/(income) on the net defined benefit liability/(asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the net defined benefit liability/(asset).

D4 Share-based payment arrangements

Movements in the number of shares under the ESOP, PSP and RSP are as follows:

Group	2018		ESOP	2017	
	PSP2010	RSP2010		PSP2010	RSP2010
Outstanding options/awards					
Balance at 1 January	5,007,919	10,412,458	10,051,479	4,842,471	10,727,047
Granted	1,724,540	7,299,438	–	1,714,650	5,355,322
Exercised	–	–	(7,323,524)	–	–
Lapsed	(261,901)	(654,122)	(2,727,955)	(345,415)	(371,665)
Released	(842,788)	(4,550,187)	–	–	(4,292,460)
Cancelled	(809,736)	(6,300)	–	(1,203,787)	(1,005,786)
Balance at 31 December	4,818,034	12,501,287	–	5,007,919	10,412,458

These shares were awarded by reissuance of treasury shares.

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D4 Share-based payment arrangements (continued)

Singapore Technologies Engineering Share Option Plan (ESOP)

The weighted average share price for options exercised in 2017 was \$3.68. All options have expired on 10 August 2017.

The fair value of services received in return for share options granted are measured by reference to the fair value of share options granted. The estimate of the fair value of the services received is measured based on a binomial model, taking into account the terms and conditions upon which the options were granted.

Singapore Technologies Engineering Performance Share Plan 2010 (PSP2010) and Singapore Technologies Engineering Restricted Share Plan 2010 (RSP2010)

Group	PSP		RSP	
	Year of grant		Year of grant	
	2018	2017	2018	2017
Volatility of the Company's shares (%)	18.17	18.50	18.17	18.50
Risk-free rate (%)	1.99	1.36	1.73 – 2.03	0.97 – 1.55
Share price (\$)	3.59	3.66	3.59	3.66
Cost of equity (%)	7.3	7.1	N.A.	N.A.
Correlation of Index Constituents / Defensive Index vs. the Company (%)	N.A.	-7.3 – 59.9	N.A.	N.A.
Dividend yield	(--Management's forecast in line with dividend policy--)		(--Management's forecast in line with dividend policy--)	

The fair value of the performance and restricted shares is determined on grant date using the Monte Carlo simulation model.

During the current year, the Group met the pre-determined target performance level and hence, 842,788 performance shares were awarded in respect of grant made in 2015 under PSP2010.

Recognition and measurement

The Group operates a number of share-based payment plans. A description of each type of share-based payment arrangement that existed at any time during the period is described above.

The grant date fair value of share-based payment awards granted to employees is recognised as an employee expense, with a corresponding increase in equity, over the period that the employees unconditionally become entitled to the awards.

The amount recognised as an expense is adjusted to reflect the number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognised as an expense is based on the number of awards that meet the related service and non-market performance conditions at the vesting date.

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E | CAPITAL STRUCTURE AND FINANCING

This section provides information relating to the Group's capital structure and how they affect the Group's financial position and performance, and how the risks are managed.

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy financial metrics in order to support its business and maximise shareholder value. Capital consists of total shareholders' funds and gross debts.

The Group manages its capital structure and makes adjustment to it, in the light of changes in economic and financial market conditions. The Group may adjust the dividend payout to shareholders, buy back or issue new shares to optimise capital structure within the Group.

E1 Capital management	E6 Share capital
E2 Finance costs, net	E7 Treasury shares
E3 Investments	E8 Capital reserves
E4 Borrowings	E9 Other reserves
E5 Commitments and contingent liabilities	E10 Dividends

E1 Capital management

The Group is currently in a net debt position after inclusion of present value of operating lease obligations. The Group will continue to be guided by prudent financial policies of which gearing is an important aspect. Neither the Company nor any of its subsidiaries is subject to externally imposed capital requirements other than those imposed by local regulatory bodies.

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Gross debt			
Bank loans	481,060	424,857	338,524
Bonds	–	667,750	721,098
Capitalised lease obligations	14,719	16,639	18,785
Present value of operating leases	243,359	293,724	330,585
Other loans	–	6,818	1,868
Financial guarantees	87,921	84,856	52,000
	827,059	1,494,644	1,462,860

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E1 Capital management (continued)

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Shareholders' funds			
Share capital	895,926	895,926	895,926
Treasury shares	(9,030)	(22,870)	(44,081)
Capital and other reserves	46,120	52,302	56,518
Retained earnings	1,313,361	1,289,653	1,258,179
	2,246,377	2,215,011	2,166,542
Non-controlling interests	288,236	281,325	261,934
	2,534,613	2,496,336	2,428,476
Gross debt/equity ratio	0.3	0.6	0.6
Cash and cash equivalents	414,400	997,614	903,632
Funds under management	–	350,975	499,812
	414,400	1,348,589	1,403,444
Gross debt (excluding bank overdrafts)	(827,059)	(1,494,644)	(1,462,860)
Net debt position	(412,659)	(146,055)	(59,416)

E2 Finance costs, net

Group	2018 \$'000	2017 \$'000
Finance income		
Dividend income from quoted equity investments	–	7
Interest income		
- bank deposits	8,809	8,570
- staff loans	9	9
- finance lease	107	118
- bonds	6,834	13,846
- contracts with customers	495	428
- others	1,652	1,647
Exchange gain, net	3,895	12,025
Gain on disposal of investments	–	540
Fair value changes of financial instruments		
- gain on forward currency contract designated as hedging instrument	359	213
- gain on ineffective portion of forward currency contract designated as hedging instrument in cash flow hedges	8	–
Fair value changes of hedged items	189	1,247
	22,357	38,650

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E2 Finance costs, net (continued)

Group	2018 \$'000	2017 \$'000
Finance costs		
Interest expense		
- bank loans and overdrafts	(7,754)	(7,397)
- bonds	(31,891)	(31,595)
- finance lease	(1,210)	(760)
- contracts with customers	(1,550)	(1,411)
- others	(2,495)	(1,446)
Loss on disposal of investments	(5,173)	–
Net change in fair value of cash flow hedges reclassified from equity on occurrence of forecast transactions	(570)	(1,598)
Fair value changes of financial instruments		
- loss on fair value changes of forward currency contract and cross currency interest rate swaps not designated as hedging instrument	(5,266)	(13,023)
- loss on ineffective portion of forward currency contract designated as hedging instrument	–	(5)
Impairment losses on unquoted investments	–	(447)
	(55,909)	(57,682)
Finance costs, net, recognised in profit or loss	(33,552)	(19,032)

Recognition and measurement

Finance income comprises interest income, dividend income, gains on disposal and fair valuation of financial assets and gains on hedging instruments that are recognised in profit or loss. Interest income is recognised as it accrues in profit or loss, using the effective interest method. Dividend income is recognised in profit or loss when the shareholder's right to receive payment is established.

Finance costs comprise interest expense, losses on disposal and fair valuation of financial assets or impairment losses recognised on investments, and losses on hedging instruments that are recognised in profit or loss. Interest expense that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

Foreign currency gains and losses on financial assets and liabilities are reported on a net basis as either finance income or finance cost.

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E3 Investments

Group	Note	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Quoted investments				
Equity shares, at FVOCI	C14	422	–	–
Equity shares, at fair value (Available-for-sale)		–	357	639
Equity shares, at FVTPL	C14	–	–	364
Total quoted investments		422	357	1,003
Unquoted investments				
Equity shares (FVOCI)		16,392	9,359	10,114
Bonds, at fair value (Available-for-sale)	C14	–	350,975	499,812
Venture capital funds and limited partnership, at fair value (Available-for-sale)	C14	–	12	12
Total unquoted investments		16,392	360,346	509,938
Total investments, net of impairment losses		16,814	360,703	510,941
Represented by:				
Short-term investments		422	357	188,890
Long-term investments		16,392	360,346	322,051
		16,814	360,703	510,941

In the prior year, the bonds at fair value had stated interest rates of 1.875% to 7.625% per annum and matured from 21 March 2018 to 28 March 2073.

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E4 Borrowings

Group	Note	Non-current \$'000	Current \$'000	Total \$'000
31 December 2018				
Bank loans	(b)	256,105	224,955	481,060
Lease obligations	(c)	14,258	461	14,719
		<u>270,363</u>	<u>225,416</u>	<u>495,779</u>
31 December 2017				
Unsecured fixed rate bonds	(a)	667,750	–	667,750
Bank loans	(b)	210,640	214,217	424,857
Lease obligations	(c)	16,017	622	16,639
Other loans		15	6,803	6,818
		<u>894,422</u>	<u>221,642</u>	<u>1,116,064</u>
1 January 2017				
Unsecured fixed rate bonds	(a)	721,098	–	721,098
Bank loans	(b)	253,471	85,053	338,524
Lease obligations	(c)	18,124	661	18,785
Other loans		155	1,713	1,868
		<u>992,848</u>	<u>87,427</u>	<u>1,080,275</u>

(a) Unsecured fixed rate bonds

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Principal	–	668,500	722,400
Unamortised discount	–	(750)	(1,302)
	–	<u>667,750</u>	<u>721,098</u>
Unamortised discount:			
At beginning of the year	750	1,302	1,733
Amortisation for the year	(748)	(471)	(446)
Translation difference	(2)	(81)	15
	<u>–</u>	<u>750</u>	<u>1,302</u>

On 16 July 2009, the Group issued US\$500 million 4.80% Notes due 2019 under its US\$1.2 billion Multicurrency Medium Term Note Programme. The bonds bore interest at a fixed rate of 4.80% per annum and interest was payable every six months from the date of issue. The bonds were unconditionally and irrevocably guaranteed by the Company.

On 16 July 2018, the Group redeemed all outstanding US\$500 million 4.80% Notes, at the make whole redemption price amounting to US\$510,784,000, of which US\$10,784,000 was recognised as part of finance cost.

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E4 Borrowings (continued)**(b) Secured and unsecured bank loans**

Group	Currency	Effective interest rate %	Maturity	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Bank loans	SGD	2.00	2019	80,000	25,000	25,000
	USD	2.07 – 4.62	2019 – 2023	299,394	321,639	242,726
	RMB	4.75	2019 – 2021	21,106	32,422	43,006
	BRL	–	–	–	–	1,031
	EUR	0.53 – 1.59	2025 – 2027	80,560	45,796	26,761
				481,060	424,857	338,524
- Unsecured				400,253	361,402	252,065
- Secured				80,807	63,455	86,459
				481,060	424,857	338,524

There are bank loans which are secured by assets as follows:

Secured by	Loan amount (\$)
Certain property, plant and equipment of subsidiaries	– \$62,573,000 (2017: \$57,032,000; 1 January 2017: \$57,678,000)
Subsidiary's land use right	– \$18,234,000 (2017: \$6,423,000; 1 January 2017: \$6,510,000)

Bank loans denominated in currencies other than the functional currency of the Company and its subsidiaries as at 31 December 2018 is \$81,960,000 (2017: \$42,206,000; 1 January 2017: \$43,344,000) denominated in USD.

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

E4 Borrowings (continued)

(c) Lease obligations

A subsidiary leases certain land, buildings and equipment from a foreign airport authority under a finance lease arrangement until 31 October 2041, with an option to terminate the lease at any time with a 36-month written notice. The leased assets are pledged as collateral against the lease.

The obligations under the finance leases to be paid are as follows:

Group	Within 1 year \$'000	Between 1 and 5 years \$'000	After 5 years \$'000	Total \$'000
31 December 2018				
Minimum lease payment	1,181	4,488	19,156	24,825
Interest	(720)	(2,727)	(6,659)	(10,106)
Present value of payment	461	1,761	12,497	14,719
31 December 2017				
Minimum lease payment	1,280	4,590	26,654	32,524
Interest	(658)	(2,666)	(12,561)	(15,885)
Present value of payment	622	1,924	14,093	16,639
1 January 2017				
Minimum lease payment	1,353	5,040	30,082	36,475
Interest	(692)	(2,845)	(14,153)	(17,690)
Present value of payment	661	2,195	15,929	18,785
		2018	2017	1 January
		\$'000	\$'000	2017
Repayable:				\$'000
Within 1 year		461	622	661
After 1 year		14,258	16,017	18,124
		14,719	16,639	18,785

Lease terms do not contain restrictions concerning dividends, additional debt or further leasing.

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E4 Borrowings (continued)

	Liabilities				Total \$'000
	Borrowings \$'000	Trade payables and accruals \$'000	Amounts due to related parties \$'000	Deposits pledged \$'000	
Balance at 1 January 2018	1,116,064	1,731,582	104,059	(1,389)	2,950,316
Changes from financing cash flows					
Proceeds from bank loans	307,901	-	-	-	307,901
Proceeds of a loan from a joint venture	-	-	17,925	-	17,925
Repayment of bank loans	(247,134)	-	-	-	(247,134)
Repayment of other loans	(148)	-	-	-	(148)
Repayment of lease obligations	(2,513)	-	-	-	(2,513)
Repayment of loan to a joint venture	-	-	(30,805)	-	(30,805)
Redemption of medium term notes	(681,100)	-	-	-	(681,100)
Interest paid	-	(49,416)	-	-	(49,416)
Deposit discharged	-	-	-	9	9
Total changes from financing cash flows	(622,994)	(49,416)	(12,880)	9	(685,281)
Changes arising from obtaining or losing control of subsidiaries or other businesses	(13,326)	(45,345)	-	-	(58,671)
The effect of changes in foreign exchange rates	14,714	1,595	8	-	16,317
Change in fair value	-	11,174	-	-	11,174
Liability-related other changes					
Working capital changes	573	216,814	(6,195)	-	211,192
Interest expense	748	43,699	453	-	44,900
Total liability-related other changes	1,321	260,513	(5,742)	-	256,092
Balance at 31 December 2018	495,779	1,910,103	85,445	(1,380)	2,489,947

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

E4 Borrowings (continued)**Reconciliation of movements of liabilities to cash flows arising from financing activities**

	Liabilities				Total \$'000
	Borrowings \$'000	Trade payables and accruals \$'000	Amounts due to related parties \$'000	Deposits pledged \$'000	
Balance at 1 January 2017	1,080,275	1,872,526	28,407	(1,258)	2,979,950
Changes from financing cash flows					
Proceeds from bank loans	171,412	-	-	-	171,412
Proceeds from loan from non-controlling interests of a subsidiary	5,152	-	-	-	5,152
Proceeds of a loan from a joint venture	-	-	36,463	-	36,463
Repayment of bank loans	(65,702)	-	-	-	(65,702)
Repayment of other loans	(137)	-	-	-	(137)
Repayment of lease obligations	(784)	-	-	-	(784)
Repayment of loan to a joint venture	-	-	(19,607)	-	(19,607)
Interest paid	-	(41,824)	-	-	(41,824)
Deposit pledged	-	-	-	(131)	(131)
Total changes from financing cash flows	109,941	(41,824)	16,856	(131)	84,842
Changes arising from obtaining or losing control of subsidiaries or other businesses	-	9,504	-	-	9,504
The effect of changes in foreign exchange rates	(74,623)	(24,722)	-	-	(99,345)
Change in fair value	-	(39,986)	-	-	(39,986)
Liability-related other changes					
Working capital changes	-	(86,054)	58,796	-	(27,258)
Interest expense	471	42,138	-	-	42,609
Total liability-related other changes	471	(43,916)	58,796	-	15,351
Balance at 31 December 2017	1,116,064	1,731,582	104,059	(1,389)	2,950,316

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

E5 Commitments and contingent liabilities

(i) Capital commitments

Group	2018 \$'000	2017 \$'000
Capital expenditure contracted but not provided in the financial statements	98,976	34,621

(ii) Leases – As lessee

The Group has several operating lease agreements for leasehold land and buildings, office premises and computers. Lease terms do not contain restrictions on the Group's activities concerning dividends, additional debt or further leasing. None of the operating leases is subject to contingent rent arrangements.

Future minimum lease payments under non-cancellable operating leases are payable as follows:

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Third parties			
Within 1 year	56,588	48,267	46,506
Between 1 and 5 years	119,768	122,879	130,658
After 5 years	172,039	188,381	206,243
	348,395	359,527	383,407
Related parties			
Within 1 year	5,972	5,657	5,342
Between 1 and 5 years	15,426	14,708	15,430
After 5 years	21,079	24,821	28,419
	42,477	45,186	49,191

(iii) Leases – As lessor

The Group has entered into commercial leases on its aircraft, aircraft engines and certain property, plant and equipment. The non-cancellable leases have lease terms ranging from 3 months to 13 years.

The future minimum lease payments under non-cancellable operating leases are receivable as follows:

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Within 1 year	8,751	16,926	13,614
Between 1 and 5 years	13,727	25,657	28,727
After 5 years	7,639	9,876	11,650
	30,117	52,459	53,991

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E5 Commitments and contingent liabilities (continued)

(iv) Contingent liabilities (unsecured)

The Group is a party to various claims that arise in the normal course of the Group's business. The total liability on these matters cannot be determined with certainty. However, in the opinion of management, the ultimate liability, to the extent not otherwise provided for, will not materially impact the consolidated financial statements of the Group.

Recognition and measurement

Leases where the lessor effectively retains substantially all the risks and benefits of ownership of the leased asset, are classified as operating leases. Operating lease payments are recognised as an expense in profit or loss on a straight-line basis over the lease term.

The aggregate benefit of incentives provided by the lessor is recognised as a reduction of rental expense over the lease term on a straight-line basis.

E6 Share capital

Company	2018 \$'000	2017 \$'000
Issued and fully paid		
At beginning and end of the year		
3,122,495,197 ordinary shares	895,926	895,926

Included in share capital is a special share issued to the Minister for Finance. The special share enjoys all the rights attached to the ordinary shares. In addition, the special share carries the right to approve any resolution to be passed by the Company, either in general meeting or by its Board of Directors, on certain matters specified in the Company's Constitution. The special share may be converted at any time into an ordinary share.

The holders of ordinary shares are entitled to receive dividends as and when declared by the Company. All ordinary shares carry one vote per share without restriction.

Recognition and measurement

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares are recognised as a deduction from equity, net of any tax effects.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

E7 Treasury shares

Group	2018 \$'000	2017 \$'000
At beginning of the year	(22,870)	(44,081)
Purchased during the year	(4,354)	(15,748)
Reissue of treasury shares pursuant to share plans	18,194	36,959
At end of the year	(9,030)	(22,870)

Treasury shares relate to ordinary shares of the Company that are held by the Company.

During the financial year, the Company purchased 1,321,400 (2017: 4,500,000; 1 January 2017: 1,088,900) of its ordinary shares by way of on-market purchases. The shares, held as treasury shares, were included as deduction against shareholders' equity.

The cost of treasury shares re-issued pursuant to the share option plans amounted to Nil (2017: \$23,272,000; 1 January 2017: \$10,399,000). In addition, 5,392,975 (2017: 4,292,460; 1 January 2017: 4,890,801) treasury shares, at a cost of \$18,194,000 (2017: \$13,687,000; 1 January 2017: \$15,527,000), were reissued pursuant to its RSP and PSP respectively.

Recognition and measurement

When ordinary shares are reacquired by the Company, the consideration paid is recognised as deduction from equity. Reacquired shares are classified as treasury shares. When treasury shares are sold, or re-issued subsequently, the cost of treasury shares is reversed from treasury shares account and the realised gain or loss on transaction is presented as a change in equity of the Company. No gain or loss is recognised in profit or loss.

Treasury shares have no voting rights and no dividends are allocated to them.

E8 Capital reserves

Included in capital reserve is:

- (a) an amount of \$115,948,000 (2017: \$115,948,000; 1 January 2017: \$115,948,000) relating to share premium of the respective pooled enterprises, namely ST Engineering Aerospace Ltd, ST Engineering Electronics Ltd, ST Engineering Land Systems Ltd and ST Engineering Marine Ltd classified as capital reserve upon the pooling of interests during the financial year ended 31 December 1997; and
- (b) an amount of \$2,226,000 (2017: realised gain of \$3,834,000; 1 January 2017: realised loss of \$2,764,000) relating to realised gain on re-issuance of treasury shares under share-based payment arrangements as at 31 December 2018.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

E9 Other reserves

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Foreign currency translation reserve	(142,980)	(157,191)	(100,181)
Statutory reserve	1,190	2,064	1,974
Fair value reserve	(359)	22,764	(27,896)
Share-based payment reserve	75,264	71,372	75,462
Premium paid on acquisition of non-controlling interests	(5,169)	(6,489)	(6,025)
	(72,054)	(67,480)	(56,666)

Group	2018 \$'000	2017 \$'000
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Fair value reserve movement arising from other comprehensive income comprises of:

Net fair value changes on financial assets:

- Net fair value changes during the year		
• FVOCI equity instruments	124	-
• Available-for-sale financial assets	-	9,627
- Reclassification adjustment to profit or loss on disposal of financial assets in finance costs, net	(2,343)	(510)
- Reclassification to retained earnings on realisation	(28)	(447)
	(2,247)	8,670

Foreign currency translation reserve movement arising from other comprehensive income comprises of:

Foreign currency translation differences arising from:

- Translation of quasi equity loans forming part of net investments in foreign entities	(1,180)	5,255
- Translation of foreign currency loans used as hedging instruments for effective net investment hedges	(7,254)	25,225
- Share of translation difference of associates and joint ventures	(213)	(11,102)
- Reserves released on disposal of subsidiaries	12,394	2,161
- Translation of foreign entities	10,464	(78,549)
	14,211	(57,010)

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E9 Other reserves (continued)

In the prior year, bonds amounting to \$312.9 million (US\$234 million) (1 January 2017: \$338.1 million (US\$234 million)) was designated as a hedge of the net investment in Vision Technologies Systems, Inc. and its subsidiaries and was being used to hedge the Group's exposure to foreign exchange risk on this investment.

Type of reserve	Nature
Foreign currency translation reserve	Comprises foreign exchange differences arising from the translation of the financial statements of foreign entities, effective portion of the hedging instrument which is used to hedge against the Group's net investment in foreign currencies as well as from the translation of foreign currency loans used to hedge or form part of the Group's net investments in foreign entities.
Statutory reserve	Statutory reserve comprise of transfers from revenue reserve in accordance with the regulations of the foreign jurisdiction in which the Group's subsidiaries and joint ventures operate, principally in the People's Republic of China where the subsidiaries and joint ventures are required to make appropriation to a Statutory Reserve Fund and Enterprise Expansion Fund. The laws of the countries restrict the distribution and use of these statutory reserves.
Fair value reserve	Fair value reserve records the cumulative fair value changes of financial instruments at FVOCI and the effective portion of hedging instruments, until they are disposed or impaired.
Share-based payment reserve	Represents the cumulative value of services received for the issuance of the options and shares under the share plans of the Company issued to employees and non-executive directors.
Premium paid on acquisition of non-controlling interests	Difference between the consideration paid on acquisition of non-controlling interests and the carrying value of the proportionate share of the net assets acquired.

E10 Dividends

Company	2018 \$'000	2017 \$'000
Final dividend paid in respect of the previous financial year of 10.0 cents (2017: 10.0 cents) per share	312,250	312,250
Interim dividend paid in respect of the current financial year of 5.0 cents (2017: 5.0 cents) per share	155,968	155,996
	468,218	468,246
Additional final dividend paid in respect of the previous financial year due to issue of shares before books closure date	(214)	(605)
	468,004	467,641

The Directors propose a final dividend of 10.0 cents (2017: 10.0 cents) per share amounting to \$312.2 million (2017: \$312.2 million) in respect of the financial year ended 31 December 2018.

These dividends have not been recognised as a liability as at year end as they are subject to approval of the shareholders at the Annual General Meeting of the Company.

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F | GROUP STRUCTURE

This section explains significant aspects of ST Engineering's group structure, including joint arrangements that the Group has interest in, its controlled entities and how changes have affected the Group structure. It also provides information on business acquisitions and disposals made during the financial year as well as information relating to ST Engineering's related parties and the extent of related party transactions.

F1	Subsidiaries	F4	Associates and joint ventures
F2	Acquisition and disposal of controlling interests in subsidiaries in 2018/2017	F5	Related party information
F3	Non-controlling interests in subsidiaries	F6	Parent entity disclosures

F1 Subsidiaries

Details of the significant subsidiaries of the Group are as follows:

	Effective equity interest held by the Group		
	2018 %	2017 %	1 January 2017 %
(a) ST Engineering Aerospace Ltd (formerly known as Singapore Technologies Aerospace Ltd) and its subsidiaries	100	100	100
Elbe Flugzeugwerke GmbH ^z	55	55	55
ST Aerospace Engineering Pte Ltd	100	100	100
ST Aerospace Engines Pte Ltd	100	100	100
ST Aerospace Services Co Pte. Ltd.	80	80	80
ST Aerospace Solutions (Europe) A/S ^z	100	100	100
ST Aerospace Supplies Pte Ltd	100	100	100
ST Aerospace Systems Pte Ltd	100	100	100
(b) ST Engineering Electronics Ltd (formerly known as Singapore Technologies Electronics Limited) and its subsidiaries	100	100	100
ST Electronics (Info-Comm Systems) Pte. Ltd.	100	100	100
ST Electronics (Info-Software Systems) Pte. Ltd. and its subsidiaries:	100	100	100
ST Electronics (e-Services) Pte. Ltd.	100	100	100
ST Electronics (Data Centre Solutions) Pte. Ltd.	100	100	100
ST Electronics (Satcom & Sensor Systems) Pte. Ltd.	100	100	100
ST Electronics (Training & Simulation Systems) Pte. Ltd.	100	100	100

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F1 Subsidiaries (continued)

	Effective equity interest held by the Group		
	2018 %	2017 %	1 January 2017 %
(c) ST Engineering Land Systems Ltd (formerly known as Singapore Technologies Kinetics Ltd) and its subsidiaries	100	100	100
Advanced Material Engineering Pte. Ltd.	100	100	100
SDDA Pte. Ltd.	100	100	100
ST Synthesis Pte Ltd	100	100	100
STA Inspection Pte Ltd	100	100	100
(d) ST Engineering Marine Ltd (formerly known as Singapore Technologies Marine Ltd)	100	100	100
(e) Vision Technologies Systems, Inc.[#] and its subsidiaries	100	100	100
Vision Technologies Aerospace, Incorporated [#] and its subsidiaries:	100	100	100
VT Mobile Aerospace Engineering, Inc. [#]	100	100	100
VT San Antonio Aerospace, Inc. [#]	100	100	100
Vision Technologies Electronics, Inc. [#] and its subsidiary:	100	100	100
VT iDirect, Inc. [#]	100	100	100
Vision Technologies Land Systems, Inc. [#] and its subsidiaries:	100	100	100
VT Hackney, Inc. ^{#z}	100	100	100
VT LeeBoy, Inc. ^{#z}	100	100	100
Vision Technologies Marine, Inc. ^{#z} and its subsidiary:	100	100	100
VT Halter Marine, Inc. ^{#z}	100	100	100
(f) ST Engineering Financial II Pte. Ltd.	100	100	100

[#] Not required to be audited under the law in the country of incorporation.

^z Audited by member firms of KPMG International for consolidation purposes.

All significant subsidiaries that are required to be audited under the law in the country of incorporation are audited by KPMG LLP, Singapore and other member firms of KPMG International.

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F2 Acquisition and disposal of controlling interests in subsidiaries in 2018/2017

De-consolidation and disposal of subsidiaries in 2018

In February 2018, the Group dissolved Dalfort Aerospace LP and Dalfort Aerospace GP, Inc (collectively Dalfort) as part of an effort to streamline its organisation structure.

In April 2018, the Group, together with the non-controlling shareholder, filed a bankruptcy petition to the People's Court of Dantu District in Zhenjiang, Jiangsu for its two subsidiaries, Jiangsu Huatong Kinetics Co., Ltd and Jiangsu Huaran Kinetics Co., Ltd (collectively JHK). The Group derecognised the related assets, liabilities and non-controlling interest of JHK after the Court approved the bankruptcy petition in May 2018.

During the year, the Group completed its divestment of LeeBoy India Construction Equipment Private Limited (LBI) and Aviation Academy of America, Inc. and VT Aviation Services, Inc. (collectively AAA) in October 2018 and December 2018 respectively.

The disposed subsidiaries contributed revenue of \$11,492,000 and loss before tax of \$5,937,000 for the period from 1 January 2018 to the respective dates of disposal.

The financial effects arising from the de-consolidation and disposal of subsidiaries are as follows:

	Dalfort \$'000	JHK \$'000	LBI \$'000	AAA \$'000	Total \$'000
Property, plant and equipment	–	64,187	1,357	3,713	69,257
Intangible assets	–	–	–	996	996
Inventories	–	2,497	6,062	–	8,559
Trade receivables	–	–	2,850	–	2,850
Advances and other receivables	–	727	4,789	669	6,185
Bank balances and other liquid funds	–	2,622	317	3	2,942
Trade payables and accruals	–	(39,850)	(4,964)	(531)	(45,345)
Provisions	–	(186)	(477)	–	(663)
Borrowings	–	(13,326)	–	–	(13,326)
Deferred income	–	(15,148)	–	–	(15,148)
Contract liabilities	–	(1,519)	(20)	–	(1,539)
Deferred tax liabilities	–	(4)	–	–	(4)
Net assets disposed	–	–	9,914	4,850	14,764
Realisation of reserves	4,752	–	3,065	955	8,772
Loss on disposal	(4,752)	–	(11,543)	(3,786)	(20,081)
Sale consideration	–	–	1,436	2,019	3,455
Less: bank balances and other liquid funds in subsidiaries disposed	–	(2,622)	(317)	(3)	(2,942)
Consideration receivable as at 31 December 2018	–	–	(375)	–	(375)
Net cash (outflow)/inflow on disposal	–	(2,622)	744	2,016	138

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F2 Acquisition and disposal of controlling interests in subsidiaries in 2018/2017 (continued)

Acquisitions of controlling interests in Aethon, Inc. (Aethon) in 2017

In the prior year, the Group acquired 100% of Aethon for a cash consideration of \$52.6 million. Aethon specialises in provision of autonomous mobile robots for material transportation and delivery.

Following the completion of the final purchase price allocation during the financial year, the Group made adjustments to the provisional fair value originally recorded in the prior year.

The effect of the adjustments made during the 12-month period from acquisition date (the Window Period) is set out below:

	Fair values recognised on acquisition (provisional) 2017 \$'000	Adjustments during Window Period 2018 \$'000	Fair values recognised on acquisition (final) 2018 \$'000
Property, plant and equipment	993	–	993
Intangible assets	20,406	–	20,406
Inventories and work-in-progress	3,477	–	3,477
Trade receivables	2,455	–	2,455
Bank balances and other liquid funds	2,560	–	2,560
Trade payables and accruals	(9,504)	–	(9,504)
Deferred tax liabilities	(7,647)	4,293	(3,354)
Net identifiable assets	12,740	4,293	17,033
Goodwill arising on consolidation	39,825	(4,293)	35,532
Total purchase consideration	52,565	–	52,565
Cash outflow on acquisition:			
Cash consideration paid	52,565	–	52,565
Less: cash acquired	(2,560)	–	(2,560)
Net cash outflow on acquisition	50,005	–	50,005

Purchase price adjustments, which are non-cash in nature, made during the Window Period have not been applied retrospectively as these adjustments, which relate mainly to balance sheet effects and certain consequential income statement effects, are immaterial to the Group.

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F3 Non-controlling interests in subsidiaries

The following table summarises the information relating to each of the Group's subsidiaries with material non-controlling interests (NCI), based on their respective (consolidated) financial statements prepared in accordance with SFRS(I), modified for fair value adjustments on acquisition and differences in Group's accounting policies. The summarised financial information is not adjusted for percentage ownership held by NCI.

Name of subsidiary	2018							Total \$'000
	ST Aerospace Services Co Pte. Ltd. \$'000	Eco- Services, LLC \$'000	Elbe Flugzeuwerke GmbH \$'000	STELOP Pte. Ltd. \$'000	Other individually immaterial subsidiaries \$'000	Intra- group elimination \$'000		
NCI percentage	20%	49.9%	45%	49.95%				
Principal place of business/country of incorporation	Singapore	USA	Germany	Singapore				
Revenue	261,838	22,448	480,806	46,983				
Profit	30,660	2,233	26,272	1,721				
Other comprehensive income	(226)	1,176	(26,177)	–				
Total comprehensive income	30,434	3,409	95	1,721				
Attributable to NCI:								
- Profit/(loss)	6,132	1,114	11,822	858	2,733	(478)	22,181	
- Other comprehensive loss	(45)	587	(11,780)	–	(270)	(1)	(11,509)	
- Total comprehensive income	6,087	1,701	42	858	2,463	(479)	10,672	
Non-current assets	52,018	21,530	571,589	2,394				
Current assets	233,439	36,610	264,608	47,893				
Non-current liabilities	(7,016)	–	(297,484)	(1,258)				
Current liabilities	(99,185)	(2,488)	(123,683)	(35,853)				
Net assets	179,256	55,652	415,030	13,176				
Net assets attributable to NCI	35,851	27,770	186,764	6,581	25,375	5,895	288,236	
Cash flows from operating activities	15,841	4,060	21,782	(630)				
Cash flows from investing activities	(3,117)	(1,560)	(62,054)	(240)				
Cash flows from financing activities*	(18,843)	(2,862)	34,610	(1,226)				
Net (decrease)/increase in cash and cash equivalents	(6,119)	(362)	(5,662)	(2,096)				
* including dividends to NCI	(1,342)	(953)	–	–				

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F3 Non-controlling interests in subsidiaries (continued)

2017						
ST Aerospace Services Co Pte. Ltd. \$'000	Eco-Services, LLC \$'000	Elbe Flugzeuwerke GmbH \$'000	STELOP Pte. Ltd. \$'000	Other individually immaterial subsidiaries \$'000	Intra-group elimination \$'000	Total \$'000
20%	49.9%	45%	49.95%			
Singapore	USA	Germany	Singapore			
260,475	27,196	489,127	42,233			
34,539	3,106	28,205	285			
4,904	(4,361)	28,297	–			
39,443	(1,255)	56,502	285			
6,908	1,550	12,692	145	2,616	(450)	23,461
981	(2,176)	12,734	–	383	9	11,931
7,889	(626)	25,426	145	2,999	(441)	35,392
55,021	23,411	533,691	2,674			
209,938	34,999	304,341	53,910			
(9,769)	–	(243,243)	–			
(76,378)	(4,269)	(178,575)	(44,961)			
178,812	54,141	416,214	11,623			
35,762	27,016	187,296	5,806	23,831	1,614	281,325
50,231	(4,913)	89,780	8,218			
(6,111)	(919)	(74,184)	(100)			
(46,610)	(4,527)	17,814	6,987			
(2,490)	(10,359)	33,410	15,105			
(12,000)	(1,507)	–	–			

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F3 Non-controlling interests in subsidiaries (continued)

Name of subsidiary	ST Aerospace Services Co Pte. Ltd. \$'000	Eco-Services, LLC \$'000	Elbe Flugzeuwerke GmbH \$'000	STELOP Pte. Ltd. \$'000	Jiangsu Huatong Kinetics Co., Ltd \$'000	Other individually immaterial subsidiaries \$'000	Intra-group elimination \$'000	Total \$'000
1 January 2017								
NCI percentage	20%	49.9%	45%	49.95%	24.7%			
Principal place of business/ country of incorporation	Singapore	USA	Germany	Singapore	China			
Non-current assets	56,476	28,822	489,570	2,287	66,294			
Current assets	240,509	34,858	224,751	56,304	14,666			
Non-current liabilities	(14,303)	–	(215,829)	–	(31,154)			
Current liabilities	(83,353)	(5,264)	(135,876)	(46,042)	(49,806)			
Net assets	199,329	58,416	362,616	12,549	–			
Net assets attributable to NCI	39,866	29,150	163,177	6,268	–	22,730	743	261,934

F4 Associates and joint ventures

Group	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Unquoted shares, at fair value	23,610	7,863	–
Unquoted shares, at cost	336,682	330,460	252,540
Goodwill on acquisition written off, net	38	(146)	(146)
Share of net assets acquired	336,720	330,314	252,394
Impairment in associates and joint ventures	(865)	(865)	(865)
Share of post-acquisition reserves	96,238	111,075	154,001
	432,093	440,524	405,530
	455,703	448,387	405,530
Represented by:			
Interest in associates	327,960	315,760	344,925
Interest in joint ventures	127,743	132,627	60,605
	455,703	448,387	405,530

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F4 Associates and joint ventures (continued)

During the year,

- (i) the Group sold its entire 25% interest in Airbus Helicopters Southeast Asia Private Limited for a cash consideration of \$14,246,000 and a gain on disposal of \$8,984,000 was recognised.
- (ii) the Group partially sold 5% of its interest in ST Aerospace (Guangzhou) Aviation Services Company Limited for a cash consideration of \$9,234,000 and a gain on disposal of \$3,766,000 was recognised.

In the prior year, the Group acquired 51% equity interest in SP Telecommunications Pte Ltd (SPTel) for a cash consideration of \$55 million. Following the acquisition, SPTel became a joint venture of the Group. At the acquisition date, based on provisionally determined fair values of the identifiable assets acquired and liabilities assumed of SPTel, a provisional goodwill of \$2.9 million was recognised within the cost of investment. During the year, the amounts were finalised with no changes to the provisional amounts previously recorded.

Details of significant associates and joint ventures are as follows:

Name	Principal activities	Country of incorporation/ place of business	Effective equity interest held by the Group		
			2018 %	2017 %	1 January 2017 %
Associates					
Shanghai Technologies Aerospace Company Limited [#]	Aircraft and component maintenance, repair, overhaul and other related maintenance business	People's Republic of China	49	49	49
ST Aerospace (Guangzhou) Aviation Services Company Limited [#]	Aircraft and component maintenance, repair, overhaul and other related maintenance business	People's Republic of China	44	49	49
Turbine Coating Services Pte Ltd [#]	Repair, refurbishment and upgrading of aircraft jet engine turbine blades and vanes	Singapore	24.5	24.5	24.5
Turbine Overhaul Services Pte Ltd [#]	Repair and service of gas and steam turbine components	Singapore	49	49	49
CityCab Pte Ltd [#]	Rental of taxis and the provision of charge card facilities	Singapore	46.5	46.5	46.5
Experia Events Pte. Ltd.	Organising and management of conferences, exhibitions and other related activities, including the biennial Singapore Airshow event	Singapore	33	33	33

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F4 Associates and joint ventures (continued)

Name	Principal activities	Country of incorporation/ place of business	Effective equity interest held by the Group		
			2018 %	2017 %	1 January 2017 %
Joint ventures					
Total Engine Asset Management Pte. Ltd. #	Leasing of engines	Singapore	50	50	50
Keystone Holdings (Global) Pte. Ltd.	Investment holding	Singapore	50	50	50
SP Telecommunications Pte Ltd	Running, operation, management and supply of telecommunications systems	Singapore	51	51	–

Not audited by KPMG LLP, Singapore and other member firms of KPMG International.

All significant associates and joint ventures that are required to be audited under the law in the country of incorporation are audited by KPMG LLP, Singapore and other member firms of KPMG International, except as indicated above.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F4 Associates and joint ventures (continued)

Associates

The following table summarises the information of each of the Group's material associates, based on their respective financial statements prepared in accordance with SFRS(I), modified for fair value adjustments on acquisitions and differences with the Group's accounting policies. The summarised financial information is not adjusted for percentage ownership held by the Group.

Name of associate	Shanghai Technologies Aerospace Company Limited \$'000	ST Aerospace (Guangzhou) Aviation Services Co Ltd \$'000	Turbine Coating Services Pte Ltd \$'000	Turbine Overhaul Services Pte Ltd \$'000	CityCab Pte Ltd \$'000	Experia Events Pte. Ltd. \$'000	Immaterial associates \$'000	Total \$'000
31 December 2018								
Percentage of interest	49%	44%	24.5%	49%	46.5%	33%		
Revenue	111,681	61,405	47,223	335,111	127,607	54,724		
Profit for the year	13,317	7,114	16,171	43,259	15,224	15,945		
Other comprehensive income	(4,578)	(3,784)	1,101	1,976	-	-		
Total comprehensive income	8,739	3,330	17,272	45,235	15,224	15,945		
Attributable to NCI	-	-	-	-	161	-		
Attributable to investee's shareholders	8,739	3,330	17,272	45,235	15,063	15,945		
Non-current assets	82,953	82,346	30,469	32,455	155,300	52,706		
Current assets	82,437	34,416	37,774	92,449	66,693	37,758		
Non-current liabilities	-	(2,719)	-	-	(25,736)	(3,841)		
Current liabilities	(25,437)	(9,184)	(11,468)	(17,879)	(34,345)	(13,763)		
Net assets	139,953	104,859	56,775	107,025	161,912	72,860		
Attributable to NCI	-	-	-	-	1,377	-		
Attributable to investee's shareholders	139,953	104,859	56,775	107,025	160,535	72,860		
Group's interest in net assets of investee at beginning of the year	64,295	49,589	13,620	53,268	90,895	18,782	25,311	315,760
Group's share of:								
- Profit for the year	6,525	3,345	3,962	21,197	7,004	5,262	43	47,338
- Total other comprehensive income	(2,243)	(1,328)	270	968	-	-	982	(1,351)
Total comprehensive income	4,282	2,017	4,232	22,165	7,004	5,262	1,025	45,987
Group's contribution during the year	-	-	-	-	-	-	29,136	29,136
Dividends received during the year	-	-	(3,942)	(22,991)	(23,250)	-	(1,686)	(51,869)
Partial/complete disposal of associates during the year	-	(5,468)	-	-	-	-	(5,586)	(11,054)
Carrying amount of interest in investee at end of the year	68,577	46,138	13,910	52,442	74,649	24,044	48,200	327,960

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F4 Associates and joint ventures (continued)

Associates (continued)

Name of associate	Shanghai Technologies Aerospace Company Limited \$'000	ST Aerospace (Guangzhou) Aviation Services Co Ltd \$'000	Turbine Coating Services Pte Ltd \$'000	Turbine Overhaul Services Pte Ltd \$'000	CityCab Pte Ltd \$'000	Experia Events Pte. Ltd. \$'000	Immaterial associates \$'000	Total \$'000
31 December 2017								
Percentage of interest	49%	49%	24.5%	49%	46.5%	33%		
Revenue	88,119	58,947	53,538	311,274	366,555	10,219		
Profit/(loss) for the year	10,607	3,218	19,735	49,300	22,131	(5,734)		
Other comprehensive income	(2,641)	(1,316)	(3,980)	(9,361)	-	-		
Total comprehensive income	7,966	1,902	15,755	39,939	22,131	(5,734)		
Attributable to NCI	-	-	-	-	255	-		
Attributable to investee's shareholders	7,966	1,902	15,755	39,939	21,876	(5,734)		
Non-current assets	86,477	81,583	30,195	28,960	204,182	55,303		
Current assets	67,273	28,444	36,640	93,672	75,956	47,546		
Non-current liabilities	-	-	-	-	(21,932)	(3,631)		
Current liabilities	(22,536)	(8,826)	(11,243)	(13,932)	(61,267)	(42,304)		
Net assets	131,214	101,201	55,592	108,700	196,939	56,914		
Attributable to NCI	-	-	-	-	1,470	-		
Attributable to investee's shareholders	131,214	101,201	55,592	108,700	195,469	56,914		
Group's interest in net assets of investee at beginning of the year	67,271	48,657	12,470	67,576	108,622	23,974	16,355	344,925
Group's share of:								
- Profit/(loss) for the year	5,197	1,577	4,835	24,162	10,172	(1,892)	1,906	45,957
- Total other comprehensive income	(1,294)	(645)	(975)	(4,587)	-	-	395	(7,106)
Total comprehensive income	3,903	932	3,860	19,575	10,172	(1,892)	2,301	38,851
Group's contribution during the year	-	-	-	-	-	-	9,663	9,663
Dividends received during the year	(6,879)	-	(2,710)	(33,883)	(27,899)	(3,300)	(3,008)	(77,679)
Carrying amount of interest in investee at end of the year	64,295	49,589	13,620	53,268	90,895	18,782	25,311	315,760

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F4 Associates and joint ventures (continued)**Associates** (continued)

Name of associate	Shanghai Technologies Aerospace Company Limited \$'000	ST Aerospace (Guangzhou) Aviation Services Co Ltd \$'000	Turbine Coating Services Pte Ltd \$'000	Turbine Overhaul Services Pte Ltd \$'000	CityCab Pte Ltd \$'000	Experia Events Pte. Ltd. \$'000	Immaterial associates \$'000	Total \$'000
1 January 2017								
Percentage of interest	49%	49%	24.5%	49%	46.5%	33%		
Non-current assets	89,443	64,290	59,128	29,007	222,630	57,937		
Current assets	69,127	47,292	2,895	216,105	106,412	33,784		
Non-current liabilities	-	-	-	-	(28,341)	(3,416)		
Current liabilities	(21,282)	(12,281)	(11,127)	(107,202)	(65,626)	(15,657)		
Net assets	137,288	99,301	50,896	137,910	235,075	72,648		
Attributable to NCI	-	-	-	-	1,480	-		
Attributable to investee's shareholders	137,288	99,301	50,896	137,910	233,595	72,648		
Group's interest in net assets	67,271	48,657	12,470	67,576	108,622	23,974	16,355	344,925
Carrying amount of interest in investee	67,271	48,657	12,470	67,576	108,622	23,974	16,355	344,925

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F4 Associates and joint ventures (continued)

Joint ventures

The following table summarises the information of each of the Group's material joint ventures, adjusted for any differences in accounting policies and reconciles the carrying amount of the Group's interest in joint ventures and the share of profit and other comprehensive income of equity-accounted investment (net of tax). The summarised financial information is not adjusted for the percentage ownership held by the Group.

Name of joint venture	Keystone Holdings (Global) Pte. Ltd. \$'000	Total Engine Asset Management Pte Ltd. \$'000	Telecommunication Pte Ltd \$'000	SP Immaterial joint ventures \$'000	Total \$'000
31 December 2018					
Percentage of interest	50%	50%		51%	
Revenue	16,825	29,289		20,075	
Profit/(loss) for the year ^a	5,168	3,830		(10,220)	
Other comprehensive income	1,096	2,806		–	
Total comprehensive income	6,264	6,636		(10,220)	
^a Includes:					
- Depreciation and amortisation of:	10,303	13,249		6,148	
- Interest expense of:	2,586	8,779		–	
- Income tax expense of:	962	2,308		1,345	
Non-current assets	117,583	476,711		29,052	
Current assets ^b	8,508	15,601		79,260	
Non-current liabilities ^c	(56,892)	(360,776)		(2,712)	
Current liabilities ^d	(17,199)	(50,086)		(19,894)	
Net assets excluding goodwill	52,000	81,450		85,706	
^b Includes cash and cash equivalents of:	6,819	13,287		73,281	
^c Includes non-current financial liabilities (excluding trade and other payables and provisions) of:	56,892	360,776		2,712	
^d Includes current financial liabilities (excluding trade and other payables and provisions) of:	13,866	50,086		–	
Group's interest in net assets of investee at beginning of the year	28,656	32,899		51,550	19,522
Share of total comprehensive income	3,132	3,318		(5,011)	1,922
(Return of capital)/Group's contribution during the year	(3,761)	5,169		–	(441)
Dividends received during the year	(2,027)	(661)		–	(6,524)
Carrying amount of interest in investee at end of the year	26,000	40,725		46,539	14,479
					127,743

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F4 Associates and joint ventures (continued)**Joint ventures** (continued)

Name of joint venture	Keystone Holdings (Global) Pte. Ltd. \$'000	Total Engine Asset Management Pte Ltd. \$'000	Telecommunication SP Pte Ltd \$'000	Immaterial joint ventures \$'000	Total \$'000
31 December 2017					
Percentage of interest	50%	50%	51%		
Revenue	15,477	24,003	11,499		
Profit/(loss) for the year ^a	1,465	6,015	(6,256)		
Other comprehensive income	(2,669)	(5,282)	–		
Total comprehensive income	(1,204)	733	(6,256)		
^a Includes:					
- Depreciation and amortisation of:	8,903	9,542	4,105		
- Interest expense of:	3,311	5,435	–		
- Income tax expense of:	149	1,405	(634)		
		–			
Non-current assets	128,006	303,550	29,717		
Current assets ^b	17,336	26,261	82,715		
Non-current liabilities ^c	(64,258)	(258,174)	(4,054)		
Current liabilities ^d	(23,772)	(5,839)	(12,452)		
Net assets excluding goodwill	57,312	65,798	95,926		
^b Includes cash and cash equivalents of:	16,635	14,101	78,510		
^c Includes non-current financial liabilities (excluding trade and other payables and provisions) of:	64,258	258,174	–		
^d Includes current financial liabilities (excluding trade and other payables and provisions) of:	23,772	4,948	–		
Group's interest in net assets of investee at beginning of the year	15,560	26,025	–	19,020	60,605
Share of total comprehensive income	(602)	367	(3,191)	2,949	(477)
Group's contribution during the year	14,271	6,837	52,113	–	73,221
Dividends received during the year	(573)	(330)	–	(2,447)	(3,350)
Group's interest in net assets	28,656	32,899	48,922	19,522	129,999
Goodwill	–	–	2,628	–	2,628
Carrying amount of interest in investee at end of the year	28,656	32,899	51,550	19,522	132,627

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F4 Associates and joint ventures (continued)

Joint ventures (continued)

Name of joint venture	Keystone Holdings (Global) Pte. Ltd. \$'000	Total Engine Asset Management Pte Ltd. \$'000	Fortis Marine Solutions Pte. Ltd. \$'000	Immaterial joint ventures \$'000	Total \$'000
1 January 2017					
Percentage of interest	50%	50%	51%		
Non-current assets	111,493	168,003	–		
Current assets	5,973	25,965	11,815		
Non-current liabilities	(54,181)	(139,527)	–		
Current liabilities	(32,166)	(2,390)	(159)		
Net assets	31,119	52,051	11,656		
Group's interest in net assets	15,560	26,025	5,945	13,075	60,605
Carrying amount of interest in investee	15,560	26,025	5,945	13,075	60,605

Basis of consolidation

(i) Business combinations

Business combinations are accounted for using the acquisition method in accordance with SFRS(I) 3 *Business Combination* as at the acquisition date, which is the date on which control is transferred to the Group.

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets. For the measurement of goodwill at initial recognition, refer to Note C2.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in profit or loss.

Costs related to the acquisition, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

Any contingent consideration payable is recognised at fair value at the acquisition date. If the contingent consideration is classified as equity, it is not remeasured and settlement is accounted for within equity. Otherwise, any subsequent changes to the fair value of the contingent consideration are recognised in profit or loss.

Non-controlling interests (NCI) that are present ownership interests and entitle their holders to a proportionate share of the acquiree's net assets in the event of liquidation are measured either at fair value or at the NCI's proportionate share of the recognised amounts of the acquiree's identifiable net assets, at the acquisition date. The measurement basis taken is elected on a transaction-by-transaction basis. All other NCI are measured at acquisition-date fair value, unless another measurement basis is required by SFRS(I)s.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as transactions with owners in their capacity as owners and therefore no adjustments are made to goodwill and no gain or loss is recognised in profit or loss. Adjustments to NCI arising from transactions that do not involve the loss of control are based on a proportionate amount of the net assets of the subsidiary.

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F4 Associates and joint ventures (continued)

Basis of consolidation (continued)

(ii) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

Consistent accounting policies are applied to like transactions and events in similar circumstances. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

In the Company's separate financial statements, investments in subsidiaries are accounted for at cost less accumulated impairment losses.

(iii) Acquisitions of entities under amalgamation

The Company's interests in ST Engineering Aerospace Ltd, ST Engineering Electronics Ltd, ST Engineering Land Systems Ltd, and ST Engineering Marine Ltd (collectively referred to as the Scheme Companies) resulted from the amalgamation of the Scheme Companies pursuant to a scheme of arrangement under Section 210 of the Companies Act, Chapter 50 in 1997.

As the amalgamation of the Scheme Companies constitutes a uniting of interests, the pooling of interests method has been adopted in the preparation of the consolidated financial statements in connection with the amalgamation.

Under the pooling of interests method, the combined assets, liabilities and reserves of the pooled enterprises are recorded at their existing carrying amounts at the date of amalgamation. The excess or deficiency of amount recorded as share capital issued (plus any additional consideration in the form of cash or other assets) over the amount recorded for the share capital acquired is recorded as capital reserve.

(iv) Loss of control

Upon the loss of control, the Group derecognises the assets and liabilities of the subsidiary, any non-controlling interests and the other components of equity related to the subsidiary. Any surplus or deficit arising on the loss of control is recognised in profit or loss. If the Group retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost. Subsequently, it is accounted for as an equity-accounted investee or as a financial asset at FVOCI, depending on the level of influence retained.

(v) Investments in associates and joint ventures

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. Significant influence is presumed to exist when the Group holds between 20% or more of the voting power of another entity. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Investments in associates and joint ventures are accounted for by the Group using the equity method (except for those acquired by the Group's Corporate Venture Capital unit) and are recognised initially at cost, which includes transaction costs.

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F4 Associates and joint ventures (continued)

Basis of consolidation (continued)

(v) Investments in associates and joint ventures (continued)

The consolidated financial statements include the Group's share of the profit or loss and other comprehensive income (OCI) from the date that significant influence or joint control commences until the date that significant influence or joint control ceases.

When the Group's share of losses exceeds its interest in an equity-accounted investee, the carrying amount of the investment, including any long-term interest, is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Group has an obligation to fund the investee's operations or has made payments on behalf of the investee.

For investments in associates acquired by the Group's Corporate Venture Capital Unit, the Group has elected to measure its investment in associates at FVTPL in accordance with SFRS(I) 9 *Financial Instruments*.

In the Company's separate financial statements, investments in associates and joint ventures are accounted for at cost, less accumulated impairment losses.

(vi) Transactions eliminated on consolidation

All significant inter-company balances and transactions are eliminated on consolidation.

Recognition and measurement

Goodwill that forms part of the carrying amount of an investment in an associate and/or joint venture is not recognised separately, and therefore is not tested for impairment separately. Instead, the entire amount of the investment in an associate and/or joint venture is tested for impairment as a single asset when there is objective evidence that the investment in an associate and/or joint venture may be impaired.

Key estimates and judgements: Critical judgements made in applying accounting policies

Information about critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements relates to assessing whether the Group has control over its investee companies.

During the year, the Group assessed the terms and conditions of the shareholders' agreement of subsidiaries that are not wholly-owned by the Group. The Group made critical judgements over:

- (a) their ability to exercise power over its investees;
- (b) their exposure or rights to variable returns for its investments with those investees; and
- (c) their ability to use its power to affect those returns.

The Group's judgement included considerations of their power exercised at the board of the respective investees and rights and obligations arising from board reserve of matters as agreed with the other shareholders.

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F5 Related party information

Key management personnel compensation

Group	2018 \$'000	2017 \$'000
Short-term employee benefits	37,308	38,468
Contributions to defined contribution plans	778	825
Share-based payments	9,982	8,141
	48,068	47,434

In addition to related party information disclosed elsewhere in the financial statements, the Group has significant transactions with the following related parties on terms agreed between the parties.

Group	2018 \$'000	2017 \$'000
Associates of the Group		
Sales and services rendered	14,442	10,137
Purchases and services received	(41,057)	(41,054)
Dividend income	51,869	77,679
	26,161	17,501
Joint ventures of the Group		
Sales and services rendered	26,161	17,501
Purchases and services received	(14,444)	(28,554)
Dividend income	9,212	3,350
	38,201	46,226
Other related parties *		
Sales and services rendered	38,201	46,226
Purchases and services received	(25,581)	(27,918)
Rental expense	(6,481)	(5,994)
Rental income	44	2,216
	44	2,216

* Other related parties refer to subsidiaries, associates and joint ventures of immediate holding company.

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F6 Parent entity disclosures

Balance Sheet

Company	Note	2018 \$'000	2017 \$'000	1 January 2017 \$'000
ASSETS				
Non-current assets				
Property, plant and equipment		18,129	9,661	3,251
Subsidiaries	(i)	1,328,153	1,277,232	1,277,609
Associates and joint ventures		17,657	17,657	17,657
Deferred tax assets		365	2,200	4,813
Amounts due from related parties	(ii)	–	344,514	507,257
		1,364,304	1,651,264	1,810,587
Current assets				
Amounts due from related parties	(ii)	46,382	388,894	199,634
Advances and other receivables		9,170	12,923	2,084
Bank balances and other liquid funds	(iii)	273,456	596,494	588,862
		329,008	998,311	790,580
Total assets		1,693,312	2,649,575	2,601,167
EQUITY AND LIABILITIES				
Current liabilities				
Trade payables and accruals		21,337	21,019	24,148
Amounts due to related parties	(iv)	210,275	545,066	504,827
Provision for taxation		4,518	1,000	–
		236,130	567,085	528,975
Net current assets		92,878	431,226	261,605
Non-current liabilities				
Trade payables and accruals		8,706	7,608	8,997
Amounts due to related parties		964	667,594	676,417
		9,670	675,202	685,414
Total liabilities		245,800	1,242,287	1,214,389
Net assets		1,447,512	1,407,288	1,386,778

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F6 Parent entity disclosures (continued)**Balance Sheet** (continued)

Company	Note	2018 \$'000	2017 \$'000	1 January 2017 \$'000
Share capital and reserves				
Share capital		895,926	895,926	895,926
Treasury shares		(9,030)	(22,870)	(44,081)
Capital reserves	(v)	2,199	3,807	(2,791)
Other reserves		65,054	61,151	65,231
Retained earnings		493,363	469,274	472,493
Equity attributable to owners of the Company		1,447,512	1,407,288	1,386,778
Total equity and liabilities		1,693,312	2,649,575	2,601,167

- (i) There was capital contribution in the form of share options, performance shares and restricted shares issued to employees of subsidiaries amounting to \$109,980,000 in 2018 (2017: \$107,746,000; 1 January 2017: \$106,876,000).
- (ii) Included in the amounts due from related parties are:
- (a) unsecured interest-free loans of \$17,500,000 (2017: \$9,500,000; 1 January 2017: \$20,307,000) which were fully impaired. The fully impaired loans in 1 January 2017 were forgiven in the prior year;
 - (b) loans in 2017: \$611,579,000 and 1 January 2017: \$693,886,000, bearing interest at per annum rates ranging 0.56% to 2.46% and 0.72% to 2.46% respectively. The loans were unsecured and fully repaid during the year; and
 - (c) dividend receivable in 2017: \$110,000,000 that was fully repaid during the year.

Amounts due from related parties denominated in currencies other than the functional currency of the Company as at 31 December 2018 is \$3,853,000 (2017: \$152,983,000; 1 January 2017: \$162,599,000) denominated in USD.

- (iii) Prior to 2018, the Company managed cash placed by subsidiaries and joint ventures to the Company under a cash pooling arrangement (2017: \$541,958,000; 1 January 2017: \$492,676,000) as part of the Group cash management and treasury activities. In 2017, fixed deposits with financial institutions matured on varying periods within 2 months (1 January 2017: 1 month) from the financial year end. Interest rates ranged from 2017: 0.32% to 3.75% (1 January 2017: 0.2% to 6.5%) per annum, which were also the effective rates.

Cash and cash equivalents denominated in currencies other than the functional currency of the Company as at 31 December are mainly as follows:

- \$193,826,000 (2017: \$12,082,000; 1 January 2017: \$256,698,000) denominated in USD.

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

F6 Parent entity disclosures (continued)

(iv) Included in the amounts due to related parties are:

- (a) loans of \$941,000 (2017: \$606,733,000; 1 January 2017: \$642,313,000) bearing interest at 5.03% (2017: 5.03%; 1 January 2017: 4.75%) per annum. The loans are unsecured and repayable on 28 February 2019; and
- (b) an amount of \$199,150,000 (2017: Nil; 1 January 2017: Nil) with a related corporation for overdrafts used for cash management purposes and bears an effective interest of 1.94% to 2.75% per annum (2017: Nil; 1 January 2017: Nil).

Amounts due to related parties denominated in currencies other than the functional currency of the Company as at 31 December 2018 is \$857,000 (2017: \$462,715,000; 1 January 2017: \$477,553,000) denominated in USD.

(v) It relates to realised gain or loss on re-issuance of treasury shares under share-based payment arrangements.

Financial risk management

- **Interest rate risk:** No interest rate risk exposure was disclosed as the Company had assessed that a reasonable change in the interest risk exposure would not result in any significant impact on the Company's results.
- **Foreign exchange risk:** No foreign exchange sensitivity analysis was disclosed as the Company had assessed that a reasonable change in the exchange rate would not result in any significant impact on the Company's results.
- **Liquidity risk:** It is not expected that the cash flows associated with the liabilities of the Company could occur at significantly different amounts.
- **Credit risk:** The Company limits its exposure to credit risk on amounts due from related parties which are mostly short-term in nature and bank balances and other liquid funds which are placed with reputable financial institutions.

Management actively monitors the credit ratings and does not expect any counterparty to fail to meet its obligations.

Derivatives are entered into with financial institutions which have long-term rating of A3 by Moody's, A- by Standard & Poor's or the equivalent by a reputable credit rating agency.

Cash and bank deposits are placed with reputable financial institutions.

As at 31 December 2018, there were no significant concentrations of credit risk, as the Company's receivables mainly relate to related parties.

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G | OTHERS

G1 New standards and interpretations not adopted

G2 Explanation of transition to SFRS(I) and adoption of new standards

G1 New standards and interpretations not adopted

The following new SFRS(I), amendments to and interpretations of SFRS(I) are effective for annual periods beginning after 1 January 2018:

Applicable to 2019 financial statements

- SFRS(I) 16 *Leases*
- IFRIC 23 *Uncertainty over Income Tax Treatments*

Applicable to 2021 financial statements

- SFRS(I) 17 *Insurance Contracts*

Mandatory effective date deferred

- *Sale or Contribution of Assets between an Investor and its Associate or Joint Venture* (Amendments to SFRS(I) 10 and IAS 28).

The Group is still in the process of assessing the impact of the new SFRS(I)s, amendments to and interpretations of SFRS(I)s on the financial statements. The Group's preliminary assessment of SFRS(I) 16, which is expected to have a more significant impact on the Group, is as described below.

The Group also preliminarily assessed that SFRS(I) 17 is not relevant to the Group as the Group does not issue insurance contracts nor account for financial guarantee contracts as insurance contracts.

SFRS(I) 16

SFRS(I) 16 introduces a single, on-balance sheet lease accounting model for lessees. A lessee recognises a right-of-use (ROU) asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value items. Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases as finance or operating leases. The standard is effective for annual periods beginning on or after 1 January 2019, with early adoption permitted.

The Group plans to apply SFRS(I) 16 initially on 1 January 2019, using the modified retrospective approach. Therefore, the cumulative effect of adopting SFRS(I) 16 will be recognised as an adjustment to the opening balance of retained earnings at 1 January 2019, with no restatement of comparative information. The Group plans to apply the practical expedient to grandfather the definition of a lease on transition. The Group will apply SFRS(I) 16 to all contracts entered into before 1 January 2019 and identified as leases in accordance with SFRS(I) 1-17.

The Group expects to recognise right-of-use assets of approximately \$422,497,000 on 1 January 2019, lease liabilities of \$390,495,000 (after adjustments of prepayments and accrued lease payments recognised). Overall net current assets will be \$49,672,000 lower due to the presentation of a portion of the liability as current liability.

The Group's activities as a lessor are not material and the Group does not expect any significant impact on the financial statements.

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards

In the current year, the Group has adopted the new financial reporting framework, SFRS(I), mandatory for Singapore-incorporated companies with equity instruments traded in a public market in Singapore for annual periods beginning on or after 1 January 2018. In adopting SFRS(I), the Group has applied the specific transition requirements in SFRS(I) 1 *First-time Adoption of International Financial Reporting Standards*.

As stated in note A, these are the first financial statements of the Group and of the Company prepared in accordance with SFRS(I).

In preparing the opening SFRS(I) balance sheet, the Group has adjusted amounts reported previously in the financial statements prepared in accordance with previous FRS.

The accounting policies set out above have been applied in preparing the financial statements for the year ended 31 December 2018, the comparative information presented in these financial statements for the year ended 31 December 2017 and in the preparation of the opening SFRS(I) balance sheet at 1 January 2017 (the Group's date of transition), subject to the mandatory exceptions and optional exemptions under SFRS(I) 1.

In addition to the adoption of the new framework, the Group also concurrently applied new SFRS(I)s, amendments to and interpretations of SFRS(I) effective from the same date. The adoption of these SFRS(I)s, amendments to and interpretations of SFRS(I) did not have a material impact on the financial statements of the Group except for the adoption of SFRS(I) 15.

An explanation of how the transition from previous FRS to SFRS(I) and the adoption of SFRS(I) 9 and SFRS(I) 15 have affected the Group's balance sheet, income statement and cash flows is set out under the summary of quantitative impact.

Summary of quantitative impact

The following reconciliations summarise the impacts on initial application of SFRS(I) 1, SFRS(I) 15 and SFRS(I) 9 on the Group's balance sheet as at 1 January 2017, 31 December 2017 and 1 January 2018 and the Group's income statement and other comprehensive income for the year ended 31 December 2017. There were no material adjustments to the Group's statement of cash flows for the year ended 31 December 2017 arising on transition to SFRS(I).

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)**Consolidated Balance Sheet**

Group	31 December 2017		1 January 2018		
	FRS framework \$'000	SFRS(I) 15 \$'000	SFRS(I) framework \$'000	SFRS(I) 9 \$'000	SFRS(I) framework \$'000
ASSETS					
Non-current assets					
Property, plant and equipment	1,719,396	–	1,719,396	–	1,719,396
Associates and joint ventures	448,387	–	448,387	–	448,387
Investments	360,346	–	360,346	–	360,346
Intangible assets	1,087,412	–	1,087,412	–	1,087,412
Long-term trade receivables	1,052	(1,052)	–	–	–
Deferred tax assets	74,047	(19)	74,028	–	74,028
Amounts due from related parties	4,806	–	4,806	–	4,806
Advances and other receivables	20,406	–	20,406	–	20,406
Derivative financial instruments	33,082	–	33,082	–	33,082
Employee benefits	243	–	243	–	243
	3,749,177	(1,071)	3,748,106	–	3,748,106
Current assets					
Contract assets	–	939,073	939,073	–	939,073
Inventories and work-in-progress	1,764,320	(681,964)	1,082,356	–	1,082,356
Trade receivables	1,645,824	(705,099)	940,725	(4,206)	936,519
Amounts due from related parties	28,271	–	28,271	–	28,271
Advances and other receivables	286,419	105	286,524	–	286,524
Short-term investments	357	–	357	–	357
Bank balances and other liquid funds	999,003	–	999,003	–	999,003
	4,724,194	(447,885)	4,276,309	(4,206)	4,272,103
Total assets	8,473,371	(448,956)	8,024,415	(4,206)	8,020,209
EQUITY AND LIABILITIES					
Current liabilities					
Contract liabilities	–	1,258,247	1,258,247	–	1,258,247
Advance payments from customers	822,958	(817,149)	5,809	–	5,809
Trade payables and accruals	1,612,509	(12,770)	1,599,739	–	1,599,739
Amounts due to related parties	104,042	–	104,042	–	104,042
Provisions	235,240	24,906	260,146	–	260,146
Progress billings in excess of work-in-progress	762,483	(762,483)	–	–	–
Provision for taxation	138,730	(4,044)	134,686	–	134,686
Borrowings	221,642	–	221,642	–	221,642
Deferred income	630	–	630	–	630
Employee benefits	2,491	–	2,491	–	2,491
	3,900,725	(313,293)	3,587,432	–	3,587,432
Net current assets	823,469	(134,592)	688,877	(4,206)	684,671

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G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Consolidated Balance Sheet (continued)

Group	31 December 2017			1 January 2018	
	FRS framework \$'000	SFRS(I) 15 \$'000	SFRS(I) framework \$'000	SFRS(I) 9 \$'000	SFRS(I) framework \$'000
Non-current liabilities					
Contract liabilities	–	521,787	521,787	–	521,787
Advance payments from customers	641,262	(641,262)	–	–	–
Trade payables and accruals	122,978	8,865	131,843	–	131,843
Deferred tax liabilities	205,200	–	205,200	–	205,200
Borrowings	894,422	–	894,422	–	894,422
Deferred income	69,156	–	69,156	–	69,156
Employee benefits	102,669	–	102,669	–	102,669
Derivative financial instruments	15,553	–	15,553	–	15,553
Amounts due to related parties	17	–	17	–	17
	2,051,257	(110,610)	1,940,647	–	1,940,647
Total liabilities	5,951,982	(423,903)	5,528,079	–	5,528,079
Net assets	2,521,389	(25,053)	2,496,336	(4,206)	2,492,130
Share capital and reserves					
Share capital	895,926	–	895,926	–	895,926
Treasury shares	(22,870)	–	(22,870)	–	(22,870)
Capital reserves	119,782	–	119,782	–	119,782
Other reserves	(67,468)	(12)	(67,480)	–	(67,480)
Retained earnings	1,314,610	(24,957)	1,289,653	(3,597)	1,286,056
Equity attributable to owners of the Company	2,239,980	(24,969)	2,215,011	(3,597)	2,211,414
Non-controlling interests	281,409	(84)	281,325	(609)	280,716
	2,521,389	(25,053)	2,496,336	(4,206)	2,492,130
Total equity and liabilities	8,473,371	(448,956)	8,024,415	(4,206)	8,020,209

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Consolidated Balance Sheet (continued)

Group	1 January 2017		
	FRS framework \$'000	SFRS(I) 15 \$'000	SFRS(I) framework \$'000
ASSETS			
Non-current assets			
Property, plant and equipment	1,670,132	–	1,670,132
Associates and joint ventures	405,530	–	405,530
Investments	322,051	–	322,051
Intangible assets	1,019,585	–	1,019,585
Long-term trade receivables	1,894	–	1,894
Deferred tax assets	92,528	–	92,528
Amounts due from related parties	4,806	–	4,806
Advances and other receivables	2,534	–	2,534
Derivative financial instruments	32,967	–	32,967
Employee benefits	151	–	151
	3,552,178	–	3,552,178
Current assets			
Contract assets	–	968,608	968,608
Inventories and work-in-progress	1,898,278	(830,913)	1,067,365
Trade receivables	1,457,982	(394,468)	1,063,514
Amounts due from related parties	24,618	–	24,618
Advances and other receivables	338,217	(1,911)	336,306
Short-term investments	188,890	–	188,890
Bank balances and other liquid funds	904,890	–	904,890
	4,812,875	(258,684)	4,554,191
Total assets	8,365,053	(258,684)	8,106,369
EQUITY AND LIABILITIES			
Current liabilities			
Contract liabilities	–	1,369,532	1,369,532
Advance payments from customers	932,515	(921,525)	10,990
Trade payables and accruals	1,722,488	12,275	1,734,763
Amounts due to related parties	28,449	(59)	28,390
Provisions	274,662	6,104	280,766
Progress billings in excess of work-in-progress	620,331	(620,331)	–
Provision for taxation	133,227	(1,910)	131,317
Borrowings	87,427	–	87,427
Employee benefits	1,916	–	1,916
	3,801,015	(155,914)	3,645,101
Net current assets	1,011,860	(102,770)	909,090

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(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Consolidated Balance Sheet (continued)

Group	1 January 2017		
	FRS framework \$'000	SFRS(I) 15 \$'000	SFRS(I) framework \$'000
Non-current liabilities			
Contract liabilities	–	505,492	505,492
Advance payments from customers	590,828	(590,828)	–
Trade payables and accruals	137,763	–	137,763
Deferred tax liabilities	216,592	–	216,592
Borrowings	992,848	–	992,848
Deferred income	77,159	(1,714)	75,445
Employee benefits	85,200	–	85,200
Derivative financial instruments	19,435	–	19,435
Amounts due to related parties	17	–	17
	2,119,842	(87,050)	2,032,792
Total liabilities	5,920,857	(242,964)	5,677,893
Net assets	2,444,196	(15,720)	2,428,476
Share capital and reserves			
Share capital	895,926	–	895,926
Treasury shares	(44,081)	–	(44,081)
Capital reserves	113,184	–	113,184
Other reserves	(56,653)	(13)	(56,666)
Retained earnings	1,273,886	(15,707)	1,258,179
Equity attributable to owners of the Company	2,182,262	(15,720)	2,166,542
Non-controlling interests	261,934	–	261,934
	2,444,196	(15,720)	2,428,476
Total equity and liabilities	8,365,053	(258,684)	8,106,369

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31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Consolidated Income Statement

Group	31 December 2017		
	FRS framework \$'000	SFRS(I) 15 \$'000	SFRS(I) framework \$'000
Revenue	6,619,491	(98,428)	6,521,063
Cost of sales	(5,296,209)	87,931	(5,208,278)
Gross profit	1,323,282	(10,497)	1,312,785
Distribution and selling expenses	(169,488)	–	(169,488)
Administrative expenses	(474,045)	–	(474,045)
Other operating expenses	(126,404)	–	(126,404)
Profit from operations	553,345	(10,497)	542,848
Other income	39,944	–	39,944
Other expenses	(1,278)	–	(1,278)
Other income, net	38,666	–	38,666
Finance income	38,222	428	38,650
Finance costs	(56,271)	(1,411)	(57,682)
Finance costs, net	(18,049)	(983)	(19,032)
Share of results of associates and joint ventures, net of tax	49,332	–	49,332
Profit before taxation	623,294	(11,480)	611,814
Taxation	(87,867)	2,146	(85,721)
Profit for the year	535,427	(9,334)	526,093
Attributable to:			
Shareholders of the Company	511,882	(9,250)	502,632
Non-controlling interests	23,545	(84)	23,461
	535,427	(9,334)	526,093

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31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Consolidated Statement of Comprehensive Income

Group	31 December 2017		
	FRS framework \$'000	SFRS(I) 15 \$'000	SFRS(I) framework \$'000
Profit for the year	535,427	(9,334)	526,093
Other comprehensive income			
<i>Items that will not be reclassified subsequently to profit or loss:</i>			
Defined benefit plan remeasurements	(6,109)	–	(6,109)
<i>Items that are or may be reclassified subsequently to profit or loss:</i>			
Net fair value changes on available-for-sale financial assets	8,670	–	8,670
Net fair value changes on cash flow hedges	56,112	–	56,112
Share of net fair value changes on cash flow hedges of joint ventures	(127)	–	(127)
Foreign currency translation differences	(47,327)	1	(47,326)
Share of foreign currency translation differences of associates and joint ventures	(11,102)	–	(11,102)
Reclassification of foreign currency translation reserve to profit or loss arising from disposal of foreign entities	2,161	–	2,161
	8,387	1	8,388
Other comprehensive income for the year, net of tax	2,278	1	2,279
Total comprehensive income for the year, net of tax	537,705	(9,333)	528,372
Total comprehensive income attributable to:			
Shareholders of the Company	502,229	(9,249)	492,980
Non-controlling interests	35,476	(84)	35,392
	537,705	(9,333)	528,372

Notes to the reconciliations

A. SFRS(I) 1

In adopting SFRS(I) in 2018, the Group has applied the transition requirements in SFRS(I) 1 with 1 January 2017 as the date of transition. SFRS(I) 1 generally requires that the Group applies SFRS(I) that are effective as at 31 December 2018 on a retrospective basis, as if such accounting policy had always been applied, subject to the mandatory exceptions and optional exemptions in SFRS(I) 1. The application of the mandatory exceptions and the optional exemptions in SFRS(I) 1 did not have any significant impact on the financial statements.

NOTES TO THE FINANCIAL STATEMENTS

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(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Notes to the reconciliations (continued)

B. SFRS(I) 15 – Revenue from Contracts with Customers

SFRS(I) 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. Under SFRS(I) 15, the Group is required to identify distinct performance obligations (PO) in bundled arrangements and account for each PO separately.

The Group is also required to estimate the amount of consideration to which it expects to be entitled and variable amounts are included in contract revenue to the extent that it is probable that there will be no significant reversal when the uncertainty is resolved.

For contracts that contain significant financing components, the Group adjusts the transaction price for the effects of the time value of money.

The Group adopted SFRS(I) 15 in its financial statements using the retrospective approach. All requirements of SFRS(I) 15 have been applied retrospectively, except for the application of the practical expedients as described below, and the information presented for 2017 has been restated.

The Group has applied the following practical expedients as allowed under SFRS(I) 1.

- Completed contracts that began and ended in the same annual reporting period in 2017 and contracts completed at 1 January 2017 are not restated.
- For completed contracts that have variable consideration, the Group used the transaction price at the date the contract was completed to restate comparative information.
- For contracts modified before 1 January 2017, the Group has reflected the aggregate effect of all of the modifications that occurred before 1 January 2017 when identifying the satisfied and unsatisfied performance obligations, determining the transaction price, and allocating the transaction price to the satisfied and unsatisfied performance obligations.
- For the year ended 31 December 2017, the Group did not disclose the amount of the transaction price allocated to the remaining performance obligations and an explanation of when the Group expects to recognise that amount as revenue.

C. SFRS(I) 9 – Financial Instruments

SFRS(I) 9 contains new requirements for classification and measurement of financial instruments, a new expected credit loss model for calculating impairment of financial assets, and new general hedge accounting requirements.

Classification of financial assets and financial liabilities

Under SFRS(I) 9, financial assets are classified in the following categories: measured at amortised cost, FVOCI – debt instrument, FVOCI – equity instrument; or FVTPL. The classification of financial assets under SFRS(I) 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. SFRS(I) 9 eliminates the previous FRS 39 categories of held-to-maturity, loans and receivables and available-for-sale. Under SFRS(I) 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification.

NOTES TO THE FINANCIAL STATEMENTS

31 DECEMBER 2018

(CURRENCY – SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Notes to the reconciliations (continued)

C. SFRS(I) 9 – Financial Instruments (continued)

Classification of financial assets and financial liabilities (continued)

Changes in accounting policies resulting from the adoption of SFRS(I) 9 have been applied by the Group retrospectively, except as described below.

- The following assessments were made on the basis of facts and circumstances that existed at 1 January 2018.
 - The determination of the business model within which a financial asset is held;
 - The determination of whether the contractual terms of a financial asset give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding;
 - The designation of an equity investment that is not held-for-trading as at FVOCI; and
 - The designation and revocation of previous designations of certain financial assets and financial liabilities measured at FVTPL.
- If a debt investment has low credit risk at 1 January 2018, the Group had assumed that the credit risk on the asset has not increased significantly since its initial recognition.
- New hedge accounting requirements are applied prospectively. All hedging relationships designated under FRS 39 at 31 December 2017 met the criteria for hedge accounting under SFRS(I) 9 at 1 January 2018 and therefore were regarded as continuing hedging relationships.

The following table and the accompanying notes below explain the original measurement categories under FRS 39 and the new measurement categories under SFRS(I) 9 for each class of the Group's financial assets as at 1 January 2018.

NOTES TO THE FINANCIAL STATEMENTS

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)**Notes to the reconciliations** (continued)**C. SFRS(I) 9 – Financial Instruments** (continued)**Classification of financial assets and financial liabilities** (continued)

Group	Note	Original classification under FRS 39	New classification under SFRS(I) 9	1 January 2018	
				Original carrying amount under FRS 39 \$'000	New carrying amount under SFRS(I) 9 \$'000
Other investments including derivatives					
Equity investments	(a)	Available-for-sale	FVOCI – Equity instrument	9,728	9,728
Debt investments		Available-for-sale	FVOCI – Debt instrument	350,975	350,975
Derivative financial instruments		FV – Hedging Instruments	FV – Hedging Instruments	35,336	35,336
Derivative financial instruments		Designated as FVTPL	Mandatorily at FVTPL	18,247	18,247
Financial assets					
Trade receivables	(b)	Loans and other receivables	Amortised cost	940,725	940,725
Amounts due from related parties	(b)	Loans and other receivables	Amortised cost	33,077	33,077
Advances and other receivables	(b)	Loans and other receivables	Amortised cost	84,349	84,349
Bank balances and other liquid funds	(b)	Loans and other receivables	Amortised cost	999,003	999,003
Total financial assets				2,471,440	2,471,440

(a) These equity investments represent investments that the Group intend to hold for the long term for strategic purposes. The Group have designated these investments at 1 January 2018 as measured at FVOCI. Unlike FRS 39, the accumulated fair value reserve related to these investments will never be reclassified to profit or loss.

(b) Trade and other receivables that were classified as loans and receivables under FRS 39 are now classified at amortised cost. An increase of \$4,196,000 in the allowance for impairment was recognised in opening retained earnings of the Group at 1 January 2018 on transition to SFRS(I) 9.

NOTES TO THE FINANCIAL STATEMENTS

31 DECEMBER 2018

(CURRENCY - SINGAPORE DOLLARS UNLESS OTHERWISE STATED)

G2 Explanation of transition to SFRS(I) and adoption of new standards (continued)

Notes to the reconciliations (continued)

C. SFRS(I) 9 – Financial Instruments (continued)

Impairment of financial assets

SFRS(I) 9 replaces the 'incurred loss' model in FRS 39 with an 'expected credit loss' (ECL) model. The new impairment model applies to financial assets measured at amortised cost, contract assets, debt investments at FVOCI and intra-group financial guarantee contracts, but not equity investments. The adoption of the new impairment model under SFRS(I) does not affect the carrying amount of intra-group financial guarantee contracts at 1 January 2018, as the amount initially recognised less the cumulative amount of income recognised in accordance with SFRS(I) 15 is higher than the estimated ECL amount.

As a result of the adoption of SFRS(I) 9, the Group presented impairment loss related to trade receivables and contract assets separately in Note B3.

The application of SFRS(I) 9 impairment requirements at 1 January 2018 results in additional allowances for impairment as follows:

Group	\$'000
Loss allowance at 31 December 2017 under FRS 39	41,774
Additional impairment recognised at 1 January 2018 on:	
Trade receivables as at 31 December 2017	4,196
Loss allowance at 1 January 2018 under SFRS(I) 9	45,970

Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets. For debt investments at FVOCI, the loss allowance is recognised in OCI, instead of reducing the carrying amount of the asset.

Additional information about how the Group measure the allowance for impairment is described in Note C13.

For an explanation of how the Group applies hedge accounting under SFRS(I) 9, see note C15.

Transition impact on equity

The following table summarises the impact, net of tax, of transition to SFRS(I) 9 on reserves, retained earnings and NCI at 1 January 2018.

Group	Impact of adopting SFRS(I) 9 at 1 January 2018 \$'000
Retained earnings	
Closing balance under FRS 39 (31 December 2017)	1,289,653
Recognition of expected credit losses under SFRS(I) 9	(3,607)
Related tax	10
Opening balance under SFRS(I) 9 (1 January 2018)	1,286,056

SECTORAL FINANCIAL REVIEW – AEROSPACE

INCOME STATEMENT

	2018 \$'000	2017 \$'000
Revenue	2,654,119	2,546,913
Cost of sales	(2,190,755)	(2,108,291)
Gross profit	463,364	438,622
Distribution and selling expenses	(26,078)	(10,487)
Administrative expenses	(124,063)	(119,356)
Other operating expenses	(45,075)	(36,512)
Profit from operations	268,148	272,267
Other income	30,380	13,793
Other expenses	(13,281)	(5,261)
Other income, net	17,099	8,532
Finance income	8,773	8,489
Finance costs	(14,773)	(11,994)
Finance costs, net	(6,000)	(3,505)
Share of results of associates and joint ventures, net of tax	40,748	41,171
Profit before taxation	319,995	318,465
Taxation	(54,644)	(51,453)
Profit for the year	265,351	267,012
Attributable to:		
Shareholder of the Company	244,627	244,840
Non-controlling interests	20,724	22,172
	265,351	267,012

SECTORAL FINANCIAL REVIEW – AEROSPACE

BALANCE SHEET

	2018 \$'000	2017 \$'000	1 January 2017 \$'000
ASSETS			
Non-current assets			
Property, plant and equipment	930,228	848,949	833,628
Associates and joint ventures	248,906	248,168	244,263
Investments	–	12	12
Intangible assets	516,246	473,671	433,294
Long-term receivables	18,863	18,552	2,333
Deferred tax assets	27,377	18,993	27,356
Derivative financial instruments	572	3,663	221
Employee benefits	–	243	151
	1,742,192	1,612,251	1,541,258
Current assets			
Contract assets	297,808	353,132	355,504
Inventories	410,712	368,621	341,046
Trade receivables	483,572	289,845	339,548
Amount due from related parties	51,070	38,462	24,301
Advances and other receivables	74,153	95,585	116,026
Short term investments	–	–	364
Bank balances and other liquid funds	294,210	322,896	272,683
	1,611,525	1,468,541	1,449,472
Total assets	3,353,717	3,080,792	2,990,730
EQUITY AND LIABILITIES			
Current liabilities			
Contract liabilities	446,179	391,292	330,801
Deposits from customers	2,222	1,588	2,444
Trade payables and accruals	619,533	535,777	548,897
Amount due to related parties	263,889	338,085	244,950
Provisions	38,305	77,240	61,161
Provision for taxation	70,231	61,942	60,941
Borrowings	303,716	53,902	64,805
Employee benefits	2,401	2,491	1,916
	1,746,476	1,462,317	1,315,915
Net current (liabilities)/assets	(134,951)	6,224	133,557
Non-current liabilities			
Contract liabilities	113,093	130,641	197,911
Trade payables and accruals	35,717	57,163	70,238
Deferred tax liabilities	150,484	157,117	158,831
Borrowings	140,414	99,642	83,771
Employee benefits	107,276	101,793	84,531
Derivative financial instruments	5,558	–	6,734
Amount due to related parties	95,663	112,384	94,671
	648,205	658,740	696,687
Total liabilities	2,394,681	2,121,057	2,012,602
Net assets	959,036	959,735	978,128
Share capital and reserves	689,618	696,325	734,653
Non-controlling interests	269,418	263,410	243,475
	959,036	959,735	978,128
TOTAL EQUITY AND LIABILITIES	3,353,717	3,080,792	2,990,730

SECTORAL FINANCIAL REVIEW – AEROSPACE

STATEMENT OF CASH FLOWS

	2018 \$'000	2017 \$'000
Net cash from operating activities	248,136	392,908
Net cash used in investing activities	(238,773)	(143,054)
Proceeds from sale of property, plant and equipment	3,162	1,124
Dividends from associates and joint ventures	31,307	47,054
Dividends from investments	–	7
Purchase of property, plant and equipment	(221,164)	(123,073)
Investment in joint ventures and an associate	(1,408)	(21,108)
Proceeds from disposal of subsidiaries	4,433	–
Proceeds from disposal of associates	23,480	–
Proceeds from sale of an investment	39	388
Proceeds from sale of intangible assets	47	–
Development of intangible assets	(78,669)	(47,446)
Net cash used in financing activities	(325,146)	(194,181)
Capital contribution from non-controlling interests	432	397
Proceeds from bank loans	79,614	56,805
Repayment of bank loans	(68,912)	(46,922)
Repayment of lease obligations, net	(2,513)	(784)
Proceeds from related party loans	264,997	92,817
Loan to a related party	–	(6,017)
Repayment of related party loans	(349,313)	(93,156)
Dividends paid to shareholder	(238,914)	(174,904)
Dividends paid to non-controlling interests	(3,001)	(14,081)
Interest paid	(7,536)	(8,336)
Net (decrease)/increase in cash and cash equivalents	(315,783)	55,673
Cash and cash equivalents at beginning of the year	322,896	272,683
Exchange difference on cash and cash equivalents at beginning of the year	3,072	(5,460)
Cash and cash equivalents at end of the year	10,185	322,896

SECTORAL FINANCIAL REVIEW – AEROSPACE

FINANCIAL HIGHLIGHTS

	2018 \$'000	2017 \$'000	2016 \$'000	2015 \$'000	2014 \$'000
Income Statement					
Revenue	2,654,119	2,546,913	2,492,857	2,095,614	2,071,464
Profit					
EBITDA	381,163	375,804	353,419	293,483	321,637
EBIT	268,148	272,267	240,431	222,013	261,471
PBT	319,995	318,465	300,318	290,600	282,999
Net Profit	244,627	244,840	234,385	226,720	220,144
Balance Sheet					
Property, plant and equipment	930,228	848,949	833,628	820,145	671,068
Intangible and other assets	793,290	761,576	706,002	465,133	470,953
Inventories and work-in-progress	410,712	368,621	475,477	494,257	560,001
Trade receivables, contract assets, deposits and prepayments	925,277	778,750	727,046	626,286	579,149
Bank balances and other liquid funds	294,210	322,896	272,683	234,274	243,856
Current liabilities	1,746,476	1,462,317	1,339,342	1,262,967	1,139,953
Non-current liabilities	648,205	658,740	691,214	611,257	639,407
Share capital	368,512	368,512	368,512	368,512	368,512
Capital and other reserves	(14,683)	(4,576)	(9,517)	(18,560)	(41,493)
Retained earnings	335,789	332,389	381,810	336,358	341,402
Non-controlling interests	269,418	263,410	243,475	79,561	77,246
Financial Indicators					
Earnings per share (cents)	52.21	52.26	50.03	48.39	46.99
Net assets value per share (cents)	147.19	148.62	158.12	146.49	142.67
Return on sales (%)	10.0	10.5	10.1	11.2	11.1
Return on equity (%)	31.2	30.9	28.1	29.2	29.2
Return on total assets (%)	7.9	8.7	8.3	8.9	9.1
Return on capital employed (%)	13.6	13.3	13.7	16.9	15.7
Productivity Data					
Average staff strength (numbers)	8,182	8,192	7,600	7,126	7,314
Revenue per employee (\$)	324,385	310,902	328,008	294,080	283,219
Net profit per employee (\$)	29,898	29,888	30,840	31,816	30,099
Employment costs	760,064	752,319	747,045	625,475	607,228
Employment costs per \$ of revenue (\$)	0.29	0.30	0.30	0.30	0.29
Economic Value Added	150,859	141,259	154,055	169,548	162,092
Economic Value Added spread (%)	7.6	7.2	7.9	11.1	10.1
Economic Value Added per employee (\$)	18,438	17,244	20,270	23,793	22,162
Value added	1,209,185	1,190,984	1,178,284	1,002,326	975,569
Value added per employee (\$)	147,786	145,384	155,037	140,658	133,384
Value added per \$ of employment costs (\$)	1.59	1.58	1.58	1.60	1.61
Value added per \$ of gross property, plant and equipment (\$)	0.66	0.70	0.72	0.64	0.72
Value added per \$ of revenue (\$)	0.46	0.47	0.47	0.48	0.47

Figures from FY2014 to FY2016 were prepared in accordance with the previous FRS and were not restated on adoption of SFRS (I).

SECTORAL FINANCIAL REVIEW – ELECTRONICS

INCOME STATEMENT

	2018 \$'000	2017 \$'000
Revenue	2,166,533	2,041,454
Cost of sales	(1,601,515)	(1,494,278)
Gross profit	565,018	547,176
Distribution and selling expenses	(99,334)	(90,901)
Administrative expenses	(170,782)	(177,462)
Other operating expenses	(74,128)	(83,967)
Profit from operations	220,774	194,846
Other income	15,718	14,911
Other expenses	(53)	(66)
Other income, net	15,665	14,845
Finance income	2,533	1,778
Finance costs	(9,375)	(8,989)
Finance costs, net	(6,842)	(7,211)
Share of results of associates and joint ventures, net of tax	(4,905)	(2,282)
Profit before taxation	224,692	200,198
Taxation	(37,419)	(31,433)
Profit for the year	187,273	168,765
Attributable to:		
Shareholder of the Company	186,491	168,772
Non-controlling interests	782	(7)
	187,273	168,765

SECTORAL FINANCIAL REVIEW – ELECTRONICS

BALANCE SHEET

	2018 \$'000	2017 \$'000	1 January 2017 \$'000
ASSETS			
Non-current assets			
Property, plant and equipment	246,892	233,744	212,030
Associates and joint ventures	62,749	54,523	1,565
Investments	9,562	9,359	10,114
Intangible assets	358,766	333,744	347,989
Long-term trade receivables	1,172	–	966
Deferred tax assets	16,630	20,831	25,889
Derivative financial instruments	269	163	845
	696,040	652,364	599,398
Current assets			
Contract assets	703,354	502,227	473,601
Inventories	86,654	80,290	92,306
Trade receivables	343,745	317,062	401,961
Amounts due from related parties	26,913	32,426	38,020
Advances and other receivables	72,378	75,767	77,235
Bank balances and other liquid funds	307,956	295,564	236,180
	1,541,000	1,303,336	1,319,303
Total assets	2,237,040	1,955,700	1,918,701
EQUITY AND LIABILITIES			
Current liabilities			
Contract liabilities	478,116	454,247	556,462
Deposits from customers	–	67	4
Trade payables and accruals	560,337	454,671	470,140
Amounts due to related parties	289,937	181,705	101,719
Provisions	60,922	63,734	64,755
Provision for taxation	37,884	38,386	43,739
	1,427,196	1,192,810	1,236,819
Net current assets	113,804	109,474	82,484
Non-current liabilities			
Contract liabilities	145,492	109,330	56,332
Trade payables and accruals	21,499	34,229	34,620
Deferred tax liabilities	11,839	7,949	7,700
Employee benefits	740	876	669
Deferred income	5,607	6,475	1,108
Derivative financial instruments	8	824	–
Amounts due to related parties	297,024	314,416	318,603
	482,209	474,099	419,032
Total liabilities	1,909,405	1,666,909	1,655,851
Net assets	327,635	288,791	262,850
Share capital and reserves	320,859	282,768	256,240
Non-controlling interests	6,776	6,023	6,610
	327,635	288,791	262,850
TOTAL EQUITY AND LIABILITIES	2,237,040	1,955,700	1,918,701

SECTORAL FINANCIAL REVIEW – ELECTRONICS

STATEMENT OF CASH FLOWS

	2018 \$'000	2017 \$'000
Net cash from operating activities	198,691	207,822
Net cash used in investing activities	(102,030)	(136,988)
Proceeds from sale of property, plant and equipment	63	43
Proceeds from disposal of an unquoted investment	104	–
Dividends from an associate	–	114
Purchase of property, plant and equipment	(52,696)	(59,028)
Investments in an associate and a joint venture	(13,381)	(55,013)
Additions to other intangible assets	(36,120)	(23,104)
Net cash used in financing activities	(333,616)	(7,202)
Repayment of related party loans	(82,631)	(207,183)
Repayment of loans by a related party	52,000	–
Repayment of loans to a joint venture	(30,805)	(19,607)
Proceeds from related party loans	30,584	194,891
Proceeds of loans from a joint venture	17,925	36,463
Loans to a related party	(52,000)	–
Dividends paid to shareholder	(263,000)	(5,363)
Dividends paid to non-controlling interests	(605)	–
Interest paid	(5,063)	(6,272)
Deposits pledged	(21)	(131)
Net decrease in cash and cash equivalents	(236,955)	(63,632)
Cash and cash equivalents at beginning of the year	294,205	234,952
Exchange difference on cash and cash equivalents at beginning of the year	208	(4,379)
Cash and cash equivalents at end of the year	57,458	294,205

SECTORAL FINANCIAL REVIEW – ELECTRONICS

FINANCIAL HIGHLIGHTS

	2018 \$'000	2017 \$'000	2016 \$'000	2015 \$'000	2014 \$'000
Income Statement					
Revenue	2,166,533	2,041,454	1,910,501	1,743,174	1,614,079
Profit					
EBITDA	277,293	242,656	237,382	218,570	212,733
EBIT	220,774	194,846	191,846	178,699	174,371
PBT	224,692	200,198	207,798	190,952	183,968
Net Profit	186,491	168,772	174,546	163,000	152,143
Balance Sheet					
Property, plant and equipment	246,892	233,744	212,030	185,192	179,704
Intangible and other assets	448,755	419,517	388,241	377,131	348,855
Inventories and work-in-progress	86,654	80,290	589,492	528,333	381,322
Trade receivables, contract assets, deposits and prepayments	1,146,783	926,585	630,476	499,940	606,661
Bank balances and other liquid funds	307,956	295,564	236,180	271,435	277,528
Current liabilities	1,427,196	1,192,810	1,270,920	1,114,278	1,086,428
Non-current liabilities	482,209	474,099	513,017	523,445	510,536
Share capital	52,522	52,522	52,522	52,522	52,522
Capital and other reserves	2,598	(3,240)	23,432	15,802	(5,135)
Retained earnings	265,739	233,486	189,918	148,764	144,460
Non-controlling interests	6,776	6,023	6,610	7,220	5,259
Financial Indicators					
Earnings per share (cents)	177.54	160.67	166.16	155.17	144.84
Net assets value per share (cents)	305.45	269.19	253.10	206.66	182.63
Return on sales (%)	8.6	8.3	9.1	9.4	9.5
Return on equity (%)	41.3	40.8	44.0	46.8	47.1
Return on total assets (%)	8.4	8.6	8.5	8.8	8.5
Return on capital employed (%)	24.7	20.6	23.1	23.7	22.2
Productivity Data					
Average staff strength (numbers)	6,369	6,570	6,568	6,293	5,933
Revenue per employee (\$)	340,168	310,724	290,880	277,002	272,051
Net profit per employee (\$)	29,281	25,688	26,575	25,902	25,644
Employment costs	605,329	632,285	622,933	591,543	536,807
Employment costs per \$ of revenue (\$)	0.28	0.31	0.33	0.34	0.33
Economic Value Added	165,358	133,753	138,891	130,117	118,650
Economic Value Added Spread (%)	18.5	14.4	17.0	17.8	16.6
Economic Value Added per employee (\$)	25,963	20,358	21,147	20,676	19,998
Value added	901,081	893,495	887,570	833,641	764,967
Value added per employee (\$)	141,479	135,996	135,136	132,471	128,934
Value added per \$ of employment costs (\$)	1.49	1.41	1.42	1.41	1.43
Value added per \$ of gross property, plant and equipment (\$)	1.65	1.78	1.95	2.13	2.12
Value added per \$ of revenue (\$)	0.42	0.44	0.46	0.48	0.47

Figures from FY2014 to FY2016 were prepared in accordance with the previous FRS and were not restated on adoption of SFRS (I).

SECTORAL FINANCIAL REVIEW – LAND SYSTEMS

INCOME STATEMENT

	2018 \$'000	2017 \$'000
Revenue	1,302,809	1,262,659
Cost of sales	(1,050,142)	(1,030,876)
Gross profit	252,667	231,783
Distribution and selling expenses	(51,085)	(40,177)
Administrative expenses	(92,466)	(86,300)
Other operating expenses	(50,040)	(35,075)
Profit from operations	59,076	70,231
Other income	12,775	11,230
Other expenses	(12,071)	(1,766)
Other income, net	704	9,464
Finance income	1,375	935
Finance costs	(6,290)	(6,820)
Finance costs, net	(4,915)	(5,885)
Share of results of associates and joint ventures, net of tax	7,396	11,229
Profit before taxation	62,261	85,039
Taxation	(8,726)	3,677
Profit for the year	53,535	88,716
Attributable to:		
Shareholder of the Company	52,860	87,420
Non-controlling interests	675	1,296
	53,535	88,716

SECTORAL FINANCIAL REVIEW – LAND SYSTEMS

BALANCE SHEET

	2018 \$'000	2017 \$'000	1 January 2017 \$'000
ASSETS			
Non-current assets			
Property, plant and equipment	235,445	296,739	298,689
Associates and joint ventures	92,206	108,233	126,737
Investments	–	–	86
Intangible assets	240,882	245,371	200,881
Deferred tax assets	17,790	12,753	18,246
Amounts due from related parties	5,842	5,719	6,180
Derivative financial instruments	7,738	12,099	1,780
	599,903	680,914	652,599
Current assets			
Contract assets	23,983	17,894	36,300
Inventories	605,464	521,923	508,956
Trade receivables	247,379	200,107	255,133
Amounts due from related parties	25,266	12,116	11,852
Advances and other receivables	73,552	70,718	76,593
Bank balances and other liquid funds	143,079	135,700	173,782
	1,118,723	958,458	1,062,616
Total assets	1,718,626	1,639,372	1,715,215
EQUITY AND LIABILITIES			
Current liabilities			
Contract liabilities	199,066	140,605	242,016
Deposits from customers	1,885	–	58
Trade payables and accruals	326,914	323,725	350,550
Amounts due to related parties	188,128	23,712	83,692
Provisions	69,589	65,835	100,206
Provision for taxation	16,615	20,466	29,585
Borrowings	56	15,322	11,064
Derivative financial instruments	5,174	5,432	12,614
	807,427	595,097	829,785
Net current assets	311,296	363,361	232,831
Non-current liabilities			
Contract liabilities	238,856	310,778	252,724
Trade payables and accruals	–	4,680	499
Amounts due to related parties	233,637	316,221	282,490
Borrowings	184	15	155
Deferred income	416	34,756	32,340
Deferred tax liabilities	45,265	40,744	63,329
Derivative financial instruments	13,975	13,071	6,437
	532,333	720,265	637,974
Total liabilities	1,339,760	1,315,362	1,467,759
Net assets	378,866	324,010	247,456
Share capital and reserves	367,284	312,575	236,125
Non-controlling interests	11,582	11,435	11,331
	378,866	324,010	247,456
TOTAL EQUITY AND LIABILITIES	1,718,626	1,639,372	1,715,215

SECTORAL FINANCIAL REVIEW – LAND SYSTEMS

STATEMENT OF CASH FLOWS

	2018 \$'000	2017 \$'000
Net cash (used in)/from operating activities	(36,429)	29,023
Cash flows used in investing activities	(16,262)	(52,010)
Proceeds from sale of property, plant and equipment	265	80
Proceeds from sale of unquoted equity investment	–	93
Disposal of subsidiaries, net of cash disposed	(1,878)	8,324
Acquisition of subsidiary, net of cash acquired	–	(50,005)
Acquisition of subsidiary under common control	–	(6,876)
Dividends from associates	23,250	29,511
Purchase of property, plant and equipment	(37,280)	(30,416)
Purchase of intangible assets	(619)	(2,721)
Cash flows from/(used in) financing activities	60,195	(12,994)
Interest paid	(5,372)	(3,783)
Repayment of related party loans	(22,286)	(69,864)
Proceeds from related party loans	92,620	59,167
Repayment of other loans	(148)	(137)
Proceeds from bank loans	7,712	3,161
Repayment of bank loans	(9,988)	(3,859)
Proceeds from a loan from non-controlling interest	–	5,152
Dividends paid to related parties	(1,779)	(679)
Dividends paid to non-controlling interests	(594)	(1,929)
Deposits discharged	30	–
Acquisition of non-controlling interests in a subsidiary	–	(223)
Net increase/(decrease) in cash and cash equivalents	7,504	(35,981)
Cash and cash equivalents at beginning of the year	135,670	173,752
Exchange difference on cash and cash equivalents at beginning of the year	(95)	(2,101)
Cash and cash equivalents at end of the year	143,079	135,670

SECTORAL FINANCIAL REVIEW – LAND SYSTEMS

FINANCIAL HIGHLIGHTS

	2018 \$'000	2017 \$'000	2016 \$'000	2015 \$'000	2014 \$'000
Income Statement					
Revenue	1,302,809	1,262,659	1,405,316	1,485,591	1,482,086
Profit					
EBITDA	97,069	102,734	44,268	94,768	79,368
EBIT	59,076	70,231	4,119	54,553	40,001
PBT	62,261	85,039	38,758	73,256	57,829
Net Profit	52,860	87,420	25,461	62,618	51,536
Balance Sheet					
Property, plant and equipment	235,445	296,739	298,689	356,472	373,943
Intangible and other assets	359,648	381,313	349,727	362,014	339,596
Inventories and work-in-progress	605,464	521,923	547,476	664,498	677,302
Trade receivables, contract assets, deposits and prepayments	374,990	303,697	349,348	420,554	554,338
Bank balances and other liquid funds	143,079	135,700	173,782	208,241	292,977
Current liabilities	807,427	595,097	836,529	966,904	988,985
Non-current liabilities	532,333	720,265	635,037	773,858	975,968
Share capital	194,445	194,445	194,445	194,445	194,445
Capital and other reserves	69	(2,537)	5,911	14,695	13,739
Retained earnings	172,770	120,667	35,769	20,334	15,640
Non-controlling interests	11,582	11,435	11,331	41,543	49,379
Financial Indicators					
Earnings per share (cents)	10.05	16.62	4.84	11.91	9.80
Net assets value per share (cents)	69.83	59.43	44.89	43.63	42.55
Return on sales (%)	4.1	7.0	1.2	3.9	3.1
Return on equity (%)	9.0	16.5	6.0	16.7	13.9
Return on total assets (%)	3.1	5.4	1.0	2.9	2.1
Return on capital employed (%)	6.2	9.4	3.3	6.9	5.3
Productivity Data					
Average staff strength (numbers)	4,754	4,899	5,801	6,839	7,208
Revenue per employee (\$)	274,045	257,738	242,254	217,223	205,617
Net profit per employee (\$)	11,119	17,844	4,389	9,156	7,150
Employment costs	363,280	363,173	369,438	377,217	365,175
Employment costs per \$ of revenue (\$)	0.28	0.29	0.26	0.25	0.25
Economic Value Added	1,337	24,347	(39,512)	16,760	6,312
Economic Value Added spread (%)	0.1	3.3	(6.0)	0.9	(0.3)
Economic Value Added per employee (\$)	281	4,970	(6,811)	2,451	876
Value added	473,196	489,184	512,960	518,512	509,483
Value added per employee (\$)	99,536	99,854	88,426	75,817	70,683
Value added per \$ of employment costs (\$)	1.30	1.35	1.39	1.37	1.40
Value added per \$ of gross property, plant and equipment (\$)	0.72	0.67	0.72	0.71	0.70
Value added per \$ of revenue (\$)	0.36	0.39	0.37	0.35	0.34

Figures from FY2014 to FY2016 were prepared in accordance with the previous FRS and were not restated on adoption of SFRS (I).

SECTORAL FINANCIAL REVIEW – MARINE

INCOME STATEMENT

	2018 \$'000	2017 \$'000
Revenue	574,354	637,531
Cost of sales	(468,074)	(559,857)
Gross profit	106,280	77,674
Distribution and selling expenses	(12,479)	(18,557)
Administrative expenses	(40,400)	(33,254)
Other operating expenses	(9,026)	(11,068)
Profit from operations	44,375	14,795
Other income	6,809	7,122
Other expenses	(276)	(109)
Other income, net	6,533	7,013
Finance income	3,072	2,690
Finance costs	(4,275)	(3,196)
Finance costs, net	(1,203)	(506)
Share of results of associate and joint ventures, net of tax	555	1,106
Profit before taxation	50,260	22,408
Taxation	(5,059)	4,641
Profit for the year	45,201	27,049

SECTORAL FINANCIAL REVIEW – MARINE

BALANCE SHEET

	2018 \$'000	2017 \$'000	1 January 2017 \$'000
ASSETS			
Non-current assets			
Property, plant and equipment	303,001	319,653	315,031
Associate and joint ventures	4,099	10,493	8,666
Intangible assets	92	121	134
Long-term receivables	1,870	1,854	1,129
Deferred tax assets	46,313	27,002	21,334
Amounts due from related parties	4,806	4,806	4,806
Derivative financial instruments	1,362	2,400	2,397
	361,543	366,329	353,497
Current assets			
Contract assets	53,917	75,924	103,288
Inventories	43,412	81,004	80,837
Trade receivables	54,851	119,628	61,118
Amounts due from related parties	106,090	147,909	153,011
Advances and other receivables	20,358	27,252	50,972
Bank balances and other liquid funds	164,006	84,751	81,860
	442,634	536,468	531,086
Total assets	804,177	902,797	884,583
EQUITY AND LIABILITIES			
Current liabilities			
Contract liabilities	202,698	255,918	249,666
Deposits from customers	104	–	–
Trade payables and accruals	252,957	210,068	251,840
Amounts due to related parties	147,673	147,210	61,461
Provisions	42,641	50,251	49,497
Provision for taxation	19,236	10,562	304
Borrowings	–	9,359	11,558
	665,309	683,368	624,326
Net current liabilities	(222,675)	(146,900)	(93,240)
Non-current liabilities			
Trade payables and accruals	16,271	19,298	23,409
Deferred income	36,382	37,230	41,997
Amounts due to related parties	43,327	43,327	26,343
Derivative financial instruments	307	726	2,107
	96,287	100,581	93,856
Total liabilities	761,596	783,949	718,182
Net assets	42,581	118,848	166,401
Share capital and reserves	42,581	118,848	166,375
Non-controlling interests	–	–	26
	42,581	118,848	166,401
TOTAL EQUITY AND LIABILITIES	804,177	902,797	884,583

SECTORAL FINANCIAL REVIEW – MARINE

STATEMENT OF CASH FLOWS

	2018 \$'000	2017 \$'000
Net cash from/(used in) operating activities	212,412	(4,351)
Net cash used in investing activities	(2,886)	(44,336)
Proceeds from disposal of property, plant and equipment	449	590
Purchase of property, plant and equipment	(10,309)	(44,176)
Dividends from joint ventures	6,524	1,050
Investment in associate and joint venture	(8)	(1,800)
Disposal of a joint venture	441	–
Disposal of other intangible assets	17	–
Net cash (used in)/from financing activities	(130,358)	52,947
Repayment of related party loans	(43,047)	–
Repayment of bank loans	(9,233)	(1,396)
Proceeds from related party loans	29,106	109,660
Loans to related parties	(87,900)	(70,000)
Repayment of loans by related parties	104,900	95,000
Dividends paid to shareholder	(120,000)	(77,158)
Interest paid	(4,184)	(3,116)
Return of capital to non-controlling interests	–	(43)
Net increase in cash and cash equivalents	79,168	4,260
Cash and cash equivalents at beginning of the year	84,751	81,860
Exchange difference on cash and cash equivalents at beginning of the year	87	(1,369)
Cash and cash equivalents at end of the year	164,006	84,751

SECTORAL FINANCIAL REVIEW – MARINE

FINANCIAL HIGHLIGHTS

	2018 \$'000	2017 \$'000	2016 \$'000	2015 \$'000	2014 \$'000
Income Statement					
Revenue	574,354	637,531	841,160	958,373	1,341,951
Profit					
EBITDA	74,360	43,670	91,998	101,404	127,933
EBIT	44,375	14,795	63,576	71,795	100,835
PBT	50,260	22,408	75,121	88,275	122,780
Net Profit	45,201	27,049	67,757	85,725	108,086
Balance Sheet					
Property, plant and equipment	303,001	319,653	315,031	332,533	334,075
Intangible and other assets	56,581	40,016	32,531	30,219	28,776
Inventories and work-in-progress	43,412	81,004	239,936	205,539	110,445
Trade receivables, contract assets, deposits and prepayments	237,177	377,373	306,516	355,956	416,932
Bank balances and other liquid funds	164,006	84,751	81,860	78,605	224,027
Current liabilities	665,309	683,368	715,617	709,493	856,315
Non-current liabilities	96,287	100,581	93,856	101,234	99,068
Share capital	50,856	50,856	50,856	50,856	50,856
Capital and other reserves	10,977	12,445	9,863	9,051	2,494
Retained earnings	(19,252)	55,547	105,656	132,186	105,484
Non-controlling interests	–	–	26	32	38
Financial Indicators					
Earnings per share (cents)	23.11	13.83	34.65	43.83	55.27
Net assets value per share (cents)	21.77	60.77	85.07	98.22	81.22
Return on sales (%)	7.9	4.2	8.1	8.9	8.1
Return on equity (%)	52.6	16.7	35.2	39.2	58.4
Return on total assets (%)	5.6	3.0	6.9	8.5	9.7
Return on capital employed (%)	12.5	7.5	25.3	41.3	42.9
Productivity Data					
Average staff strength (numbers)	1,368	1,522	1,690	1,822	1,884
Revenue per employee (\$)	419,849	418,877	497,728	526,001	712,288
Net profit per employee (\$)	33,042	17,772	40,093	47,050	57,370
Employment costs	122,061	139,138	154,490	173,487	180,390
Employment costs per \$ of revenue (\$)	0.21	0.22	0.18	0.18	0.13
Economic Value Added	18,161	5,200	51,113	76,544	93,593
Economic Value Added spread (%)	6.8	1.8	19.7	35.8	37.3
Economic Value Added per employee (\$)	13,276	3,417	30,244	42,011	49,678
Value added	210,717	208,752	264,414	294,698	336,164
Value added per employee (\$)	154,033	137,156	156,458	161,744	178,431
Value added per \$ of employment costs (\$)	1.73	1.50	1.71	1.70	1.86
Value added per \$ of gross property, plant and equipment (\$)	0.28	0.28	0.37	0.41	0.49
Value added per \$ of revenue (\$)	0.37	0.33	0.31	0.31	0.25

Figures from FY2014 to FY2016 were prepared in accordance with the previous FRS and were not restated on adoption of SFRS (I).

SHAREHOLDING STATISTICS

AS AT 25 FEBRUARY 2019

SHARE CAPITAL

Paid-Up Capital (including treasury shares)	:	S\$895,925,583.405
Number of issued ordinary shares (excluding treasury shares)	:	3,119,914,644
Number of ordinary shares held in treasury	:	2,580,553
Percentage of such holding against the total number of issued ordinary shares (excluding ordinary shares held in treasury)	:	0.08%
Class of Shares	:	Ordinary Shares One Special Share held by the Minister for Finance
Voting Rights	:	One vote per share

SHAREHOLDING HELD IN HANDS OF PUBLIC

Based on the information available to the Company as at 25 February 2019, 47.93% of the issued ordinary shares of the Company is held by the public and therefore, Rule 723 of the Listing Manual issued by SGX-ST is complied with.

ANALYSIS OF SHAREHOLDINGS

Range of Shareholdings	No. of Shareholders	%	No. of Shares (excluding treasury shares)	%*
1 --- 99	906	2.58	20,241	0.00
100 --- 1,000	5,087	14.52	4,157,369	0.13
1,001 --- 10,000	22,877	65.28	103,618,434	3.32
10,001 --- 1,000,000	6,143	17.53	237,344,295	7.61
1,000,001 and above	32	0.09	2,774,774,305	88.94
	35,045	100.00	3,119,914,644	100.00

Substantial Shareholder	No. of Shares			%*
	Direct Interest	Deemed Interest	Total Interest	
Temasek Holdings (Private) Limited	1,554,764,574	67,339,429 ⁽¹⁾	1,622,104,003	51.99

Notes:

* The percentage of issued ordinary shares is calculated based on the number of issued ordinary shares of the Company (excluding ordinary shares held in treasury) as at 25 February 2019.

⁽¹⁾ Includes deemed interests held through subsidiaries and associated companies.

SHAREHOLDING STATISTICS

AS AT 25 FEBRUARY 2019

MAJOR SHAREHOLDERS LIST – TOP 20

No.	Name	No. of Shares Held	%*
1	Temasek Holdings (Private) Limited	1,554,764,574	49.83
2	Citibank Nominees Singapore Pte Ltd	393,038,068	12.60
3	DBS Nominees (Private) Limited	337,528,171	10.82
4	DBSN Services Pte. Ltd.	178,481,389	5.72
5	HSBC (Singapore) Nominees Pte Ltd	118,821,931	3.81
6	Raffles Nominees (Pte.) Limited	40,450,340	1.29
7	BPSS Nominees Singapore (Pte.) Ltd.	37,365,831	1.20
8	Vestal Investments Pte. Ltd.	28,501,000	0.91
9	United Overseas Bank Nominees (Private) Limited	13,045,258	0.42
10	Morgan Stanley Asia (Singapore) Securities Pte Ltd	9,643,965	0.31
11	DB Nominees (Singapore) Pte Ltd	8,396,727	0.27
12	DBS Vickers Securities (Singapore) Pte Ltd	7,865,142	0.25
13	OCBC Nominees Singapore Private Limited	7,441,025	0.24
14	Merrill Lynch (Singapore) Pte. Ltd.	5,831,694	0.19
15	Phillip Securities Pte Ltd	3,823,876	0.12
16	Tan Pheng Hock	3,315,785	0.11
17	OCBC Securities Private Limited	3,212,646	0.10
18	UOB Kay Hian Private Limited	2,437,494	0.08
19	NTUC Fairprice Co-Operative Ltd	2,240,000	0.07
20	Heng Siew Eng	2,112,000	0.07
		<u>2,758,316,916</u>	<u>88.41</u>

* The percentage of issued ordinary shares is calculated based on the number of issued ordinary shares of the Company (excluding ordinary shares held in treasury) as at 25 February 2019.

SGX LISTING MANUAL REQUIREMENTS

31 DECEMBER 2018
(CURRENCY - SINGAPORE DOLLARS)

INTERESTED PERSON TRANSACTIONS

Interested person transactions carried out during the financial year pursuant to the Shareholders' Mandate obtained under Chapter 9 of the Listing Manual of the Singapore Exchange Securities Trading Limited (SGX) by the Group are as follows:

	Aggregate value of all transactions excluding transactions conducted under a shareholders mandate pursuant to Rule 920 of the SGX Listing Manual		Aggregate value of all transactions conducted under a shareholders mandate pursuant to Rule 920 of the SGX Listing Manual	
	FY2018 \$'000	FY2017 \$'000	FY2018 \$'000	FY2017 \$'000
Transactions for the Sale of Goods and Services				
SATS Ltd. and its Associates	–	–	7,562	857
SembCorp Industries Ltd and its Associates	–	–	4,549	2,548
Singapore Airlines Limited and its Associates	–	–	1,397	222
SIA Engineering Company Limited and its Associates	–	–	–	102
Singapore Telecommunications Limited and its Associates	–	–	1,534	414
StarHub Ltd and its Associates	–	–	668	–
Temasek Holdings (Private) Limited and its Associates (non-listed)	–	–	36,177	23,262
	–	–	51,887	27,405
Transactions for the Purchase of Goods and Services				
Mapletree Industrial Trust	–	–	417	1,068
SATS Ltd. and its Associates	–	–	3,617	3,353
SembCorp Industries Ltd and its Associates	–	–	12,726	–
Singapore Telecommunications Limited and its Associates	–	–	6,728	3,268
StarHub Ltd and its Associates	–	–	2,601	1,114
Temasek Holdings (Private) Limited and its Associates (non-listed)	–	55,326	30,499	9,905
	–	55,326	56,588	18,708
Total Interested Person Transactions	–	55,326	108,475	46,113

CORPORATE INFORMATION

BOARD OF DIRECTORS

Kwa Chong Seng,
Chairman

Vincent Chong,
President & CEO

Quek See Tiat

Lieutenant-General
Ong Su Kiat Melvyn

Quek Gim Pew

Khoo Boon Hui

Dr Beh Swan Gin

Lim Sim Seng

Lim Ah Doo

Lim Chin Hu

Song Su-Min

Colonel Xu Youfeng
(Alternate Director to
Lieutenant-General
Ong Su Kiat Melvyn)

COMPANY SECRETARY

Karen Ng Kwee Lian

REGISTERED OFFICE

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AUDITORS

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Singapore 048581
Quek Shu Ping (Partner-in-charge)
(Date of Appointment: 15 February 2017)



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