SID
SINGAPORE
INSTITUTE OF
DIRECTORS

THE SUSTAINABILITY Imperative

SID DIRECTORS' CONFERENCE 2017

A MULTIFACETED, MINDSHIFTING LOOK AT
MONEY & MEANING IN THE NEW CAPITALISM

Conference Book

TUESDAY, 12 SEPTEMBER 2017

SID
SINGAPORE INSTITUTE OF DIRECTORS

Mission

To foster good governance and ethics in corporate leadership.

Vision

To be the national association advancing the highest level of ethical values, governance, and professional development of directors.

Formed in 1998, the Singapore Institute of Directors (SID) is the national association of company directors. It works closely with the authorities and regulators, and its network of members and professionals to uphold and enhance the highest standards of corporate governance and ethical conduct.

SID's membership comprises mainly directors of commercial companies and nonprofit organisations, as well as lawyers, accountants, academics and other professionals in the field of corporate governance. The affairs of SID are directed by an elected Governing Council and managed by a Secretariat.

SID has a comprehensive professional education curriculum that covers the entire spectrum of a director's developmental needs. Numerous courses cater to different groups of directors – from aspiring and new directors, to experienced directors and Chairmen of Boards, and the various Board Committees.

In particular, SID provides thought leadership on corporate governance and directorship issues. It keeps directors apprised of the latest thinking and happenings through a quarterly *Directors' Bulletin*, boards and directorship surveys, research publications, and forums and seminars. SID has produced a comprehensive series of Corporate Governance Guides for Boards and Board Committees in Singapore.

To encourage excellence in corporate governance, SID manages the Best Managed Board Award, the Best CEO Award and the Best Investor Relations Award; these are presented at the annual Singapore Corporate Awards which it co-organises with the Institute of Singapore Chartered Accountants and *The Business Times*. In addition, SID and NUS Centre for Governance, Institutions and Organisations (CGIO) produce the Singapore rankings for the ASEAN Corporate Governance Scorecard. Furthermore, SID, CGIO and CPA Australia collaborate on the Singapore Governance and Transparency Index.

SID also provides other value-added services to its members including regular networking events and socials, board appointment services, and a one-stop information service on governance related matters.

For more information, please visit www.sid.org.sg or contact the Secretariat at (65) 6422 1188.

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SECTION 1

Conference Programme

0900 **Welcome Address**

Mr Willie Cheng
Chairman, SID

Guest-of-Honour's Address

Mr Chan Chun Sing
Minister in the Prime Minister's Office and
Secretary-General, National Trades Union Congress

Launch of the Sustainability Guide for Boards See Page 10

Presentation of the Inaugural Singapore Sustainability Reporting Awards See Page 11

0935 **Keynote Address | The Global Sustainability Agenda: Towards sustainable growth business models and moral capitalism**

Prof Dr Jan Peter Balkenende, Former Prime Minister of The Netherlands and Professor of Governance, Institutions and Internationalisation, Erasmus University Rotterdam

The last two years have seen a resurgence of the global sustainability agenda and move to a more restorative and regenerative "circular economy". The UN adopted the Sustainable Development Goals to end poverty, protect the planet and ensure prosperity for all, and 196 countries signed a historic climate change agreement at the Climate Summit COP21 in Paris.

This global agenda will affect the role of businesses. Companies need to seriously consider how they can fully implement sustainability in their business strategies and business models. Leading corporations are collaborating to be responsible with a long-term focus. They include the Dutch Sustainable Growth Coalition, the Caux Round Table for Moral Capitalism, and the World Business Council for Sustainable Development.

This global agenda also affects the organisation of economies. There needs to be a new balance between economy and ethics, an understanding of the meaning of the new economy for responsible business behaviour, and an awareness of the legacy, purpose and values for companies.

Prof Dr Jan Peter Balkenende, former Prime Minister of The Netherlands and a strong advocate of governance and sustainable development, will share his insights on the business pressures and emerging models, and whether the 21st Century will be an age of moral capitalism.

1000 Panel Discussion | The Sustainability Agenda: How should boards respond?

Customers, investors, regulators, indeed the world at large, are telling companies that they need to embrace the sustainability agenda: incorporating environmental, social and governance (ESG) factors into the companies' strategies and day-to-day operations. Yet, many companies are struggling to implement impactful policies, and dabbling with a range of fringe activities, not least because boards are failing to drive the agenda. What should boards do?

This panel of board chairs, sustainability champions and the regulator will share and discuss the relevance and importance of sustainability, their experience in advocating the mindshifts required to successfully integrate and implement sustainability in their strategy formulation and execution, within their organisations and with their partners and stakeholders.

MODERATOR **Ms Diaan-Yi Lin,** Managing Partner, Singapore, McKinsey & Company
PANELLISTS **Prof Dr Jan Peter Balkenende**, Former Prime Minister of The Netherlands
Ms Chew Gek Khim, Executive Chairman, The Straits Trading Company Limited
Mr Heinrich Jessen, Chairman, Jebsen & Jessen
Mr Tan Boon Gin, CEO, Singapore Exchange Regulation

1100 Networking Coffee Break

1130 Panel Discussion | The New Capitalism: Will hybrid organisations and new business models succeed?

Current models of businesses are failing to address the needs of the environment, the community and even the company's immediate stakeholders such as their employees. As a result, there is a new emphasis on balancing economic and social value with the UN Sustainable Development Goals and the call for a more compassionate form of capitalism.

Social-business hybrids such as B Corps, social enterprises and inclusive businesses are emerging. Investors are going beyond pure economic returns to look at impact investing and venture philanthropy. Will these new organisations and business approaches work?

A panel of practitioners and advocates of these new business models and organisations will share how these work. They will discuss their cases, the lessons learnt and ways in which more traditional companies can enter this space.

MODERATOR **Ms Teng Pei Yun**, Global Director of Social Impact, A.T. Kearney
PANELLISTS **Mr Gautam Banerjee**, Chairman, Blackstone Singapore
Mr Marcello Palazzi, Global Ambassador, B Corps
Dato Dr Kim Tan, Co-Founder, Transformational Business Network
Prof Mahendra K. Chouhan, Vice Chairman, Global Advisory Board, Asian Centre for Corporate Governance and Sustainability

1240 Global Realities Lunch: Food for thought, thought for good See Page 12

A lunch providing much food for thought, enabling participants to be recharged and learn more about the details of sustainability practices covering the three areas – environment, social and governance – and the new capitalism company.

1300 Sustainability Showcase Opens See Page 97

1400 Breakouts - Session 1

1A | ENVIRONMENT: IS THERE A CHANGE IN CLIMATE TOWARDS SAVING THE EARTH?

The last few years have seen a growing scientific consensus about human influence on climate and the significant risks posed by climate change. While scientific consensus and media messages have been increasingly certain on the matter, governments and the public attitudes and actions towards the matter have been varied. Whereas the current US political leadership has recently withdrawn from the Paris Agreement, the Singapore Government has recently announced that it is committed to a low carbon future. This panel of environmental advocates and practitioners will explore the opportunities and challenges that businesses face in the changing climate towards sustainability.

MODERATOR **Mr Sharad Somani**, Partner and Head, Infrastructure Advisory, KPMG
PANELLISTS **Ms Esther An**, Chief Sustainability Officer, City Developments Limited
Dr Cheong Koon Hean, CEO, Housing & Development Board
Mr Edwin T.F. Khew, Chairman, Sustainable Energy Association of Singapore
Mr Frank Phuan, Co-Founder and Managing Director, Sunseap Group

1B | SOCIAL: SERVING OR LEVERAGING THE COMMUNITY?

Before sustainability became defined as including the three components of ESG, many businesses have addressed sustainability, in particular, the social component within Corporate Social Responsibility (CSR), which was often parked within the larger marketing or public relations function. Hence, it was not surprising that companies' motivations for CSR are often questioned. This panel of "do good and do well" champions will discuss the value and values in engaging the community, and whether companies have or should get as much out of the engagement as they put in.

MODERATOR **Mr Wilson Ang**, Executive Director, Global Compact Network Singapore
PANELLISTS **Mr K.V. Rao**, Resident Director, ASEAN Region, Tata Sons
Dr Ruth A. Shapiro, Chief Executive, Centre for Asian Philanthropy and Society
Mr Sim Gim Guan, CEO, National Council of Social Service
Mr Augustine Tan, Executive Director, Far East Organization

1530 Breakouts - Session 2

2A | GOVERNANCE: HOW IS IT CONNECTED TO SUSTAINABILITY?

Good governance is recognised as a critical tool for advancing sustainable development. It contributes to the long-term commitment and strategic objectives of sustainability. Good governance is the open and transparent process of involving and consulting stakeholders, and to delivering value in sustainable development to the communities. Regulators are mandating sustainability reporting as part of their drive for good governance. However, good governance should mean that businesses embrace sustainability in form and in substance. Sustainability in governance is more than conforming to regulatory requirements and reporting sustainability practices. This panel examines the whys and hows of strengthening the connection between governance and sustainability.

MODERATOR **Mr Simon Yeo**, Partner, Climate Change & Sustainability Services, Ernst & Young LLP

PANELLISTS **Dr Lawrence Loh,** Director, CGIO, NUS Business School, National University of Singapore

Ms Neo Gim Huay, Managing Director, Sustainability & Enterprise Development, Temasek International

Mr Thomas Thomas, CEO, ASEAN CSR Network

Mr Constant Van Aerschot, Executive Director, Business Council for Sustainable Development Singapore

2B | HYBRID ORGANISATIONS: WHAT MAKES THEM TICK?

Hybrid organisations incorporate elements from multiple sectors into their organisational and business models. They often exhibit qualities of both nonprofit and for-profit enterprises. But at the core of any hybrid organisation is a commitment to making positive social and/or environmental impact. Hybrid organisations compensate for the dual challenges of achieving economic and social values by being attentive to consumer preferences, by being innovative and radically efficient. There is also interest from investors who are socially and environmentally responsible. This panel explores the different hybrid models, lessons learnt and the implications for businesses.

MODERATOR **Ms Naina Subberwal Batra**, CEO, Asian Venture Philanthropy Network

PANELLISTS **Mr Marcus Lim**, Co-Founder and Managing Director, Ecosoftt

Mr Alfie Othman, CEO, raiSE Singapore

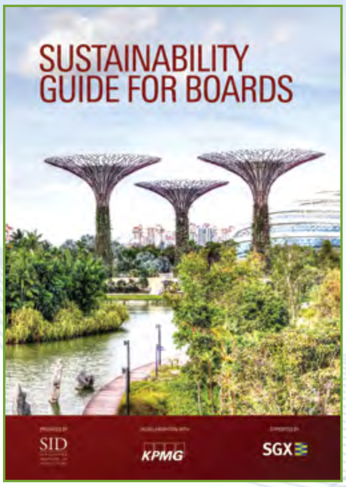
Mr Jack Sim, Founder, World Toilet Organisation and BOP Hub

Mr Kenneth Tan, Chief Strategy Officer, NTUC Enterprise

1630 End of Programme

SUSTAINABILITY GUIDE FOR BOARDS

The *Sustainability Guide for Boards* is designed to guide directors on how they can best deal with the issues and discharge their responsibilities to benefit the company and its stakeholders.



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SINGAPORE SUSTAINABILITY REPORTING AWARDS

The Singapore Sustainability Reporting Awards (SSRA) seek to encourage and recognise excellence in sustainability reporting among Singapore listed companies.

The Singapore Sustainability Reporting Awards

THE AWARDS COMPRISE THREE CATEGORIES:

- Best Inaugural Sustainability Report (Catalist)
- Best Inaugural Sustainability Report (Mainboard)
- Best Sustainability Report for Established Reporters (Mainboard and Catalist)

The sustainability reports are examined for the quality of presentation and the information disclosed, including the key areas as set out in the SGX sustainability reporting rules and guidelines. The key assessment areas broadly include material ESG factors, sustainability policies, practices and performance.

JUDGES

Robert Chew
Managing Partner,
iGlobe and Member of SID Governing Council

Nicholas Hadow
Director, Aberdeen Asset Management Asia Limited

Robin Hu
Head, Sustainability & Stewardship Group,
Temasek International

Lawrence Loh
Director, CGIO, NUS Business School

Jeanne Stampe
Head, Asia Finance & Commodities, WWF International

Michael Tang
Vice President, Head, Listing Policy & Product
Admission Regulation, Singapore Exchange

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GLOBAL REALITIES LUNCH: FOOD FOR THOUGHT, THOUGHT FOR GOOD

A lunch that will provide much food for thought, especially for those who are hungry to change the world for the better.

Participants will be recharged and learn more about the details of sustainability practices covering the three areas – environment, social and governance – and the new capitalism company.

GLOBAL REALITIES LUNCH

Presented by

ABR HOLDINGS LIMITED

SECTION 2

Speaker Biographies

Mr Chan Chun Sing

Minister in the Prime Minister's Office,
Secretary-General,
National Trades Union Congress

Mr Chan Chun Sing is currently Minister in the Prime Minister's Office and Secretary-General of the National Trades Union Congress (NTUC). On 1 October 2015, Mr Chan was appointed Deputy Chairman of the People's Association.

On 9 April 2015, Mr Chan was appointed Minister in the Prime Minister's Office and relinquished his appointments as Minister for Social and Family Development and Second Minister for Defence, both of which he had held since 1 September 2013. At the Ministry of Social and Family Development, he was responsible for improving social service delivery, enhancing social safety nets and strengthening support for families in Singapore. His previous appointments included Acting Minister for Community Development, Youth and Sports (21 May 2011 to 31 October 2012) and Minister of State for Information, Communications and the Arts (21 May 2011 to 31 July 2012).

Mr Chan was appointed Secretary-General of NTUC on 4 May 2015 after the NTUC Central Committee unanimously elected him to this appointment on 8 April 2015. He was first appointed Deputy Secretary-General on 27 January 2015 by the NTUC Central Committee after joining NTUC on 23 January 2015 to help strengthen labour leadership at NTUC and the link between the Labour Movement and the Government. He was re-elected as the NTUC Secretary-General by the NTUC National Delegates' Conference on 29 October 2015.

In 2011, Mr Chan left the Singapore Armed Forces to run in the 2011 General Election and was elected Member of Parliament for Tanjong Pagar Group Representation Constituency (GRC). During his military career with the Singapore Armed Forces (1987 to 2011), he held various appointments, including the Chief of Army (2010 to 2011), Chief of Staff of Joint Staff (2009 to 2010) and Chief Infantry Officer (2007 to 2009).

Mr Chan also served on various statutory boards and government-linked companies, including Singapore Totalisator Board (2011), ST Kinetics Limited (2010 to 2011), Civil Service College (2010 to 2011), Defence Science & Technology Agency (2009 to 2010), Defence Science Organisation (2009 to 2010) and International Enterprise Singapore (2006 to 2009).

Educated at the Raffles Institution (1982 to 1985) and Raffles Junior College (1986 to 1987), Mr Chan was awarded the SAF (Overseas) and President's Scholarship to study Economics at Christ's College, Cambridge University in the United Kingdom in 1988 and graduated with First Class Honours. In 2005, he completed the Sloan Fellows Programme at the Massachusetts Institute of Technology under the Lee Kuan Yew Scholarship.

Born in 1969, Mr Chan is married with three children and enjoys reading and jogging.

Jan Peter Balkenende

Former Prime Minister of
The Netherlands,
Professor of Governance, Institutions
and Internationalisation,
Erasmus University Rotterdam

Prof Dr Jan Peter Balkenende, former Prime Minister of the Netherlands, has been Professor of Governance, Institutions and Internationalisation at Erasmus University Rotterdam since 2010.

Between 2011 and 2016 he has been a partner at EY, focusing on corporate responsibility, international affairs and areas at the interface of the public and private sectors. Since 1 July 2016 he has been External Senior Advisor to EY. He also chairs the International Advisory Board of Rotterdam, the Dutch Sustainable Growth Coalition, the Germany-Netherlands Forum and the Major Alliance. Jan Peter Balkenende is a member of the Supervisory Board of ING per 1 September 2017.

He studied economic and social history, as well as Dutch law, at VU University Amsterdam. He obtained a doctorate in law with a thesis entitled "Government Regulation and Civil Society Organisations". He subsequently worked at the Netherlands' Universities Council, the Research Institute of the political party CDA and as a part-time professor at VU University Amsterdam. He was a member of the Amstelveen municipal council and of the Lower House of the Dutch Parliament. From 2002 to 2010, Jan Peter Balkenende was Prime Minister and Minister of General Affairs of the Kingdom of the Netherlands. In that capacity, he also served as Chair of the Innovation Platform. Before becoming Prime Minister, he published a number of books and articles on a range of subjects, including innovation, development cooperation, European integration, public-private partnerships, social security, government finance, poverty, economic growth, confidence in the economy and the role of the business sector in society. He received five honorary doctorates from universities in Hungary, Japan, South Korea and the United States.

Willie Cheng

Chairman,
Singapore Institute of Directors

Mr Willie Cheng is a former Managing Partner of Accenture, a global management consulting and technology services firm. Since his retirement in 2003, he has stayed involved with the business and the infocomm communities. He currently sits on the boards of UOB, Far East Hospitality Asset Management, SingHealth and Integrated Health Information Systems.

However, he spends the larger part of his time working with nonprofit organisations on boards and as a volunteer. He is currently a Director of CHARIS, apVentures, Council for the Third Age, NTUC Health, Catholic Foundation and SymAsia Foundation.

He has written extensively on the nonprofit sector. He is author of *Doing Good Well: What does (and does not) make sense in the nonprofit world*, and co-editor of *The World That Changes The World: How philanthropy, innovation, and entrepreneurship are transforming the social ecosystem.*

He is an honorary Fellow of the Singapore Computer Society, a Fellow of the Singapore Institute of Chartered Accountants and the Singapore Institute of Directors.

Esther An

Chief Sustainability Officer,
City Developments Limited (CDL)

A pioneer CSR practitioner for over 20 years, Ms Esther An is instrumental in building up CDL's sustainability leadership.

CDL is the first and only Singapore company listed on Global 100 Most Sustainable Corporations in the World for eight consecutive years and is currently ranked top real estate company. It is also the first to be included in leading global sustainability benchmarks such as the FTSE4Good Index Series since 2002, MSCI ESG Research since 2009 and Dow Jones Sustainability Indices since 2011.

A Committee Member of the Global Compact Network Singapore, which is the local network of UN Global Compact for CSR, Ms An is a Member of the World Green Building Council's Corporate Advisory Board and the Urban Land Institute Women's Leadership Initiative Singapore Steering Committee. Her latest appointments include a Member of the UNEP Finance Initiative Real Estate Work Group and GRI Corporate Leadership Group on Integrated Reporting.

Wilson Ang

Executive Director,
Global Compact
Network Singapore

Mr Wilson Ang is Executive Director of the Global Compact Network Singapore. Wilson holds a Masters in Diplomacy from the University of Oxford. He began his sustainability journey as the Founder and President of a local non-profit, ECO Singapore, which has since engaged some 60,000 youths in Singapore.

Over the last 10 years, he has held several appointments with expansive portfolios ranging serving on various national, regional and global boards. He believes the only way to create a better planet for human survivability is for every individual to take responsibility for their own actions by being more conscious about daily choices in consumption habits. He also hopes to create 10,000 green jobs through working with the people, private and public sectors.

Gautam Banerjee

Senior Managing Director
and Chairman,
Blackstone Singapore

Mr Gautam Banerjee is Senior Managing Director and Chairman of Blackstone Singapore.

Mr Banerjee's non-executive corporate roles outside of Blackstone include serving as an Independent Director of Singapore Airlines, GIC (Singapore's Sovereign Wealth Fund), The Indian Hotels Company and Piramal Enterprises. He also serves as Vice Chairman of the Singapore Business Federation, Member of the Singapore Legal Service Commission and Chairman of the Singapore Centre for Social Enterprise, raiSE. He is a Term Trustee of SINDA and a Member of the governing Board of Yale NUS College.

Previously, he served as Executive Chairman of PricewaterhouseCoopers (PwC) Singapore for nine years until his retirement in December 2012. He is a Fellow of the Institute of Chartered Accountants in England and Wales, the Institute of Singapore Chartered Accountants and the Singapore Institute of Directors. He graduated with a Bachelor of Science (Honours) degree from Warwick University in 1977 and was awarded an Honorary Doctor of Laws (LLD) by the same University in 2014.

Naina Subberwal Batra

CEO,
Asian Venture Philanthropy Network

Ms Naina Subberwal Batra is CEO of Asian Venture Philanthropy Network (AVPN), a unique funders' network based in Singapore committed to building a vibrant and high impact philanthropy and social investment community across Asia. AVPN's mission is to catalyse the movement toward a more strategic, collaborative and outcome focused approach to philanthropy and social investing, ensuring that resources are deployed as effectively as possible to address key social challenges facing Asia today and in the future.

Ms Batra's past experience of over 20 years includes being part of the senior leadership team at Monitor Inclusive Markets, a mission-driven consulting unit of the Monitor Group that aimed at catalysing market based solutions for social change. In addition, she has worked in organisations such as KPMG and Citibank.

She has a Master's degree in Industrial and Labor Relations from Cornell University and holds a bachelor degree in Economics and International Relations from Mount Holyoke College, Massachusetts, USA and a General Course Diploma in economics from London School of Economics.

Cheong Koon Hean

CEO,
Housing & Development Board

Dr Cheong Koon Hean is CEO of Housing & Development Board since 2010. She oversees one million public housing flats and leads the development of well designed, community-centric, sustainable and smart towns. She was CEO of Urban Redevelopment Authority from 2004 to 2010, in charge of strategic land use planning, conservation of built heritage, promotion of design excellence and the real estate market. She was credited with major urban transformations of Singapore, including Marina Bay.

Dr Cheong is currently on the Boards of HDB, NUS, and the Civil Service College. Active internationally, she is a Member of the World Economic Forum's Real Estate and Urbanisation Global Agenda Council, the Deputy President of the International Federation for Housing and Planning, and a Nominating Committee Member of the Lee Kuan Yew World City Prize.

Dr Cheong has been conferred multiple awards, including the Meritorious Service Medal for outstanding public service.

Chew Gek Khim, PJG

Executive Chairman,
The Straits Trading
Company Limited

Ms Chew Gek Khim is a lawyer by training. She has been Chairman of The Straits Trading Company Limited since April 2008, first as Non-Executive and Non-Independent Chairman and then as Executive Chairman since 1 November 2009.

She is Executive Chairman of Tecity Group, which she joined in 1987. She is Chairman of Malaysia Smelting Corporation Berhad and ARA Trust Management (Suntec) Limited, and sits on the Board of ARA Asset Management Holdings Pte Ltd and Singapore Exchange Limited.

She is also Deputy Chairman of Tan Chin Tuan Foundation in Singapore and Chairman of Tan Sri Tan Foundation in Malaysia. She is a Member of Securities Industry Council of Singapore, SSO Council and Board of Governors of S. Rajaratnam School of International Studies.

Ms Chew graduated from the National University of Singapore in 1984. She was awarded the Chevalier de l'Ordre National du Merite in 2010, Singapore Businessman of the Year 2014 in 2015, and the Meritorious Service Medal at the National Day Awards in 2016.

Robert Chew

Council Member,
Singapore Institute of Directors

Mr Robert Chew is Managing Partner of iGlobe Partners, an early stage technology investor, and Stream Global. He is currently a board member of Alexandra Health System, Anacle Pte Ltd, Kwong Wai Shiu Hospital, Integrated Health Information Systems, Scanadu Holdings, Shared Services for Charities, and the National Council of Social Service. He was a former Partner of Accenture.

Mr Chew is a Fellow of the Singapore Computer Society (SCS), and a Council Member in the National Information Technology Standards Committee (ITSC), where he chairs ITSC's Cloud Computing Standards Task Force.

He was awarded SCS's IT Leader of the Year in 2009, and was conferred the Public Service Medal in 2013 and the Public Service Star in 2017.

Mahendra K. Chouhan

Vice Chairman,
Global Advisory Board,
Asian Centre for Corporate Governance and Sustainability

Prof Mahendra K. Chouhan is Non-Executive Chairman of Fino Payment Bank and MD of Mahendra & Ardneham Consulting (P) Limited. He is a Member of Independent Appointment Committee of GRI, Amsterdam. Member of the Global Council of International Integrated Reporting Council (IIRC), UK, and Member of Global Board of The International Institute of Governance & Leadership, Netherlands.

Prof Chouhan sits on several boards in various sectors such as Financial Services, IT, Capital Goods, Exposition and Telecom as Independent Director. He has served on policymaking and regulatory committees, SEBI Committee on Corporate Governance and Ministry of Corporate Affairs Committee for National Policy on Corporate Governance. He is currently a Member of the Managing Committee of the Indian Merchants Chamber.

He is respected as an expert on Strategic Management, Corporate Governance, Sustainability, CSR and Integrated Reporting. He has co-authored two International books on Corporate Governance, one published from Singapore and the other by Institute of Directors, London.

Keith Chua

Executive Chairman,
ABR Holdings Limited

Mr Keith Chua is Executive Chairman of ABR Holdings Limited, a food service business listed on the Singapore Exchange.

He is currently Vice President and Chairman of the Management Committee of the Singapore Anglican Community Services (SACS). SACS runs a broad range of Psychiatric Rehabilitation and Recovery Services. SACS is a community service arm of the Anglican Diocese of Singapore and Mr Chua is also a member of the Diocesan Standing Committee and Vicar's Warden of the St Andrew's Cathedral.

Mr Chua is also Advisory Board Chairman of Asia Centre for Social Entrepreneurship and Philanthropy at National University of Singapore Business School, Board Member of National Council of Social Service, Community Foundation of Singapore and Chairman of Asia Philanthropic Ventures. He is Co-Trustee of Mrs Lee Choon Guan Trust Fund, a charitable trust that supports education and various charitable community and healthcare services. He holds a degree in Business Administration from the University of Singapore (now NUS).

Philip Forrest

Council Member,
Singapore Institute of Directors

Mr Philip Forrest has lived in South East Asia for over 35 years. After a career in banking (including as ANZ's Head of Asia), he is now a Singapore-based independent company director focused on the Australia/ASEAN commercial relationship.

Mr Forrest is a Non-Executive Director of several private companies, and one ASX-listed company (he is also Chairman of the Audit Committee). He is a Fellow and Member of the Governing Council of the Singapore Institute of Directors, a Fellow of the Australian Institute of Company Directors, a Fellow of CPA Australia, and an Honorary Fellow of the Australian Institute for Business and Economics.

For six years he was a Council Member of the Singapore Business Federation. He is a Board Member of AustCham Singapore (President from 2000 to 2004), a Foundation Director of AustCham ASEAN, and is a Past President of the Australia Thai Chamber of Commerce.

Heinrich Jessen

Chairman,
Jebsen & Jessen SEA

Mr Heinrich Jessen is Chairman and Principal Partner of Jebsen & Jessen SEA, a diversified ASEAN industrial group. He is also Partner and Director in the five independent business groups that make up the Jebsen & Jessen Family Enterprise.

Mr Jessen started his career as a tropical biologist before joining the family enterprise in 1995. In Jebsen & Jessen SEA, he has worked as Group Director - Environment, Health and Safety, General Manager of two of the group's packaging companies and Regional Managing Director of its material handling joint-venture MHE-Demag. He has been Chairman of Jebsen & Jessen's executive board since 2010.

Mr Jessen was educated at George Washington University and Yale University.

Edwin T.F. Khew

Chairman,
Sustainable Energy Association of Singapore (SEAS)

Mr Edwin T.F. Khew is Chairman and Director of Decision Point Global Asia, a global accelerator and commercialisation unit of deep technology start-ups, with its HQ in Seattle, USA. He is a former Nominated Member of Parliament and currently Chairman of the Sustainable Energy Association of Singapore, President of The Institution of Engineers, Singapore, Supervisory Board Member of Solar Energy Research Institute of Singapore and immediate past Chairman of the Singapore Standards Council.

Mr Khew represents SEAS on the Asian Development Bank Energy for All Partnership's Steering Committee as its Co-Chair and Chairman of its Enterprise Development Working Group.

He has an Executive MBA from the National University of Singapore, a Bachelor's Degree in Chemical Engineering from the University of Queensland, Australia, is a Fellow of the Institute of Engineers, Singapore, Fellow of the Academy of Engineering, Singapore, Fellow and Chartered Engineer of the Institute of Chemical Engineers (UK), and a Board Member of the Professional Engineers Board, Singapore.

Marcus Lim

Co-Founder,
ECOSOFTT

Mr Marcus Lim is Co-Founder of ECOSOFTT and leads its Singapore and Greater China operations. A strong believer that businesses must be a force for social good, he actively channels technology, capital and talent to where they are most needed - communities facing water, sanitation and livelihood challenges. Mr Lim is now engaged with local and international organisations to co-create leading-edge water management solutions that contribute to sustainable development and creation of Smart Cities.

Prior to co-founding ECOSOFTT, Mr Lim worked in management consulting for 16 years, and last held the role of Director and Leader of PricewaterhouseCoopers' Strategy Consulting practice in Singapore, Hong Kong and South China.

Mr Lim holds a BBA (Honours) degree from the National University of Singapore, a Diploma in Wastewater Treatment from the University of Chile and a dual degree Executive MBA from INSEAD and Tsinghua University. He is a holder of the Chartered Financial Analyst, Chartered Management Accountant (UK) and Chartered Global Management Accountant designations.

Diaan-Yi Lin

Senior Partner,
McKinsey & Company,
Managing Partner,
McKinsey Singapore

Ms Diaan-Yi (DY) Lin is Senior Partner at McKinsey & Company and Managing Partner of McKinsey's Singapore practice. She is also a leader of the Public Sector, Private Equity, and Infrastructure practices in Asia. She helps direct the firm's work with government entities and government-linked companies across Asia, particularly on the design and implementation of large-scale programmes to drive performance transformation and economic development.

DY specialises in setting up efficient and effective public-private partnerships and is an expert in building alignment among multiple government entities.

Prior to joining McKinsey, she worked as an investment banker at Credit Suisse First Boston in New York and London, and as an analyst at Barclays de Zoete Wedd.

She holds an MA in Law with honours from University of Cambridge, and an MBA with distinction from Harvard Business School.

Lawrence Loh

Director,
CGIO, NUS Business School,
National University of Singapore

Dr Lawrence Loh is Director, Centre for Governance, Institutions and Organisations (CGIO) at the NUS Business School, National University of Singapore. He is also Deputy Head and Associate Professor of Strategy and Policy at the School.

At CGIO, Dr Loh leads the Singapore Governance and Transparency Index project in collaboration with CPA Australia, Singapore Institute of Directors and *The Business Times*. He guides the ASEAN Corporate Governance Scorecard project conducted with the Singapore Institute of Directors. He oversees the Business Integrity and Sustainability Reporting initiatives with the ASEAN CSR Network.

Dr Loh received a PhD in Management from Massachusetts Institute of Technology. He was lead consultant on information and technology policy studies for Singapore government agencies. He consulted for Fortune 500 companies and international organisations in management and strategy.

He is a regular commentator on corporate governance and sustainability for Singapore media such as *The Business Times*, *The Straits Times* and Channel NewsAsia and global media such as BBC, Bloomberg and *The Washington Post*.

Neo Gim Huay

Managing Director,
Sustainability and
Enterprise Development,
Temasek International

Ms Neo Gim Huay is Managing Director, Sustainability and Enterprise Development at Temasek International. Her responsibilities include developing new businesses, building capabilities of portfolio companies and promoting sustainability strategy and initiatives.

Prior to joining Temasek, Ms Neo was a Management Consultant at McKinsey in the Lagos, New York and San Francisco offices. She was formerly with the Administrative Service of the Singapore Government, holding various appointments in the Ministry of Finance, Trade and Industry as well as the Prime Minister's Office and the Singapore Embassy in United States.

She is a Board Member of Surbana Jurong Private Limited, Mandai Park Holdings, the Intellectual Property Office of Singapore and the National Library Board. She holds an MBA from Stanford University (Arjay Miller Scholar) and a Master of Engineering (Distinction) and Bachelor of Arts (First Class Honors) from Cambridge University. She was awarded an Eisenhower fellowship in 2015.

Alfie Othman

CEO,
raiSE Singapore

Mr Alfie Othman had a successful banking career of over twelve years in the banking sector. Alongside his private sector work, Mr Othman has devoted significant time to the public sector and civil society. He is also recognised as a Social Enterprise practitioner within Singapore.

Mr Othman heads raiSE Singapore (Singapore Centre for Social Enterprise, raiSE). raiSE was set up to raise awareness on social entrepreneurship and raise support for social enterprises (SE) in Singapore. raiSE hopes to strengthen the social enterprise sector in Singapore and encourage the growth of social enterprises as a sustainable way to address social needs. raiSE has gained support from its multiple stakeholders in the Government, community and corporations.

Since 2016, Mr Othman has been appointed as a Fellow at SIM University, providing advice on Financial Inclusion and the emerging Fin Tech phenomenon.

Marcello Palazzi

Global Ambassador,
B Corps

Mr Marcello Palazzi is a serial entrepreneur for human progress. Following 11 years as Co-Head of his international family business in environmental technologies from Italy and the UK in the 80s and early 90s, he founded Progressio Foundation, which has completed 300 projects in 30 countries with dozens of partners under his leadership, in pursuit of the "civic economy", "civic enterprise" and "civic innovation", which Mr Palazzi wrote about in 1990 in a book which has proved prescient, predicting the rise of CSR, sustainability, public-private partnerships, ethical investments, social enterprise and other forms of a more "integrative" economy and enterprise.

From 2014 to April 2017, Mr Palazzi has been leading the B Corps movement in continental Europe from Amsterdam. In 2016, he was invited to be Chair of SIX, the worldwide social innovation exchange. In 2017, he joined DanoneWave's Advisory Committee in the USA.

Frank Phuan

Co-Founder and Managing Director, Sunseap Group

Mr Frank Phuan is Co-Founder and Managing Director of Sunseap Group, the leading clean energy solutions provider in Singapore. Mr Phuan belongs to the second generation of a family business that has been in the solar industry for over 35 years, where he spent time learning about the business. He has over 20 years of experience in the solar industry, and possesses an Honours Degree in Applied Science in Materials Engineering from Nanyang Technological University.

A seasoned entrepreneur, he also spent time in marketing and advertising, information technology, as well as food and beverage industries. He was awarded the distinguished Nanyang Outstanding Young Alumni Award 2014, the prestigious Entrepreneur of the Year Award (EYA) 2015, and the PVSEC Special Award in 2016 in recognition of his contribution to the growth in areas of photovoltaic industrial technology in Singapore. He is also a Member of the NTU College of Engineering Advisory Board.

K.V. Rao

Resident Director – ASEAN, Tata Sons Limited

Mr K.V. Rao is currently Resident Director – ASEAN, for Tata Sons Limited, promoter of the Tata Group. Concurrently, he serves as Chairman of several Tata subsidiaries in Singapore and Indonesia.

He sits on the Executive Boards of SINDA (Singapore Indian Development Association) as Vice President and SIFAS (the Singapore Indian Fine Arts Society). He is also Vice Chairman of the South Asia Business Council of the Singapore Business Federation, Member of Board of Advisers of Singapore Indian Chamber of Commerce and Industry, and Independent Director of Life Insurance Corporation of India, Singapore.

Mr Rao has a Masters in International Business from the Indian Institute of Foreign Trade, New Delhi, India. He has worked in diversified industries and enterprises, in leadership positions, including a stint with the Singapore Civil Service as a Director with International Enterprise Singapore. He is specialised in International Business, and has an experience that covers 40 countries in the developed and emerging markets, with a focus on Asia.

Ruth A. Shapiro

Chief Executive, Centre for Asian Philanthropy and Society

Dr Ruth A. Shapiro is Chief Executive of the Centre for Asian Philanthropy and Society (CAPS).

Dr Shapiro is the Editor of *The Real Problem Solvers*, a book about social entrepreneurship in America. *The Real Problem Solvers* was published in China with the addition of Chinese social entrepreneurs in March 2015. She also co-authored the book, *Building Energy Efficiency: Why Green Buildings are Key to Asia's Future*.

Prior to founding CAPS, she founded the Asia Business Council and served as its Executive Director since its inception in 1997 until May 2007. She is now Senior Adviser to the Council. During this time, Dr Shapiro gained expertise on issues such as corporate social responsibility, scenario planning, training and innovation, corporate governance, energy efficiency, social entrepreneurship and Asian regional economic growth and political change.

She spent the early part of her career in international development. She holds a doctorate from Stanford University and Master's Degrees from Harvard University and George Washington University. She completed her undergraduate work at the University of Michigan.

Sim Gim Guan

CEO,
National Council of Social Service

Mr Sim Gim Guan was appointed Chief Executive Officer of National Council of Social Service (NCSS) on 1 November 2013. He had spent 23 years in the Republic of Singapore Navy, and retired from the Singapore Armed Forces in June 2006. He joined the Ministry of Information, Communications and the Arts (MICA) in August 2006 as Senior Director (Information and Corporate Management). From February 2007, Mr Sim served as the Deputy Secretary (Information and Corporate Management) in MICA, and subsequently, as Deputy Secretary (Industry and Information) from July 2012.

He currently serves on the Board of Directors of the Singapore Centre for Social Enterprise (raiSE), Charity Council, National Arts Council (NAC) and National Environment Agency (NEA).

He graduated from Oxford University with a Bachelors degree and holds a Masters of Business Administration from the Massachusetts Institute of Technology through its Sloan Fellows programme.

Jack Sim

Founder,
World Toilet Organisation
and BPO Hub

Failing in school, Mr Sim started business at age 24 and after founding 16 businesses and attaining financial independence, he retired at 40 to devote full time to social work. He founded the World Toilet Organisation that transformed the taboo of Toilet and Sanitation into a media darling using his unique blend of humour and serious facts.

His current endeavours are to end global poverty for four billion low-income people living at Base of Pyramid. As charity-buying was not effective, he believes that business and efficient marketplace are the best ways to help the poor help themselves by unlocking their spirit of enterprise and good work ethics.

Mr Sim is an Ashoka Global Fellow, Schwab Fellow of the World Economic Forum, Time Magazine at Hero of the Environment 2008, Winner of President Award for Philanthropy and Volunteerism 2016 and UN Novus Award for SDG 2016.

Dylan Soh

At 12 years old, Dylan Soh is an avid thinker and questioner about life, death, consciousness, love, existentialism, and math homework. He loves to daydream and create things to make the world a little bit better. He draws and reads cartoons, woodworks rubber band guns and dabbles in cooking.

He co-wrote and illustrated a book titled, "The Big Red Dot", successfully launched the GIY (Grow It Yourself) stick on kickstarter to help beginner Farmers overcome the fear of farming and make concrete jungles fertile. He helped create a 21st-century kampung in the East Coast called One Kind House.

He has given two TEDx talks in Singapore when he was 10 and 12 and more to other companies and Brands such as PnG, SK2, Slush. He was the opening speaker for National Reading Month in Singapore with Minister Yaacob Ibrahim. He has interned at Lightneer in Finland, developing a game to help teach young kids particle physics, while touring the local schools and interviewing the Teachers and the MOE there.

Sharad Somani

Partner & Head,
Infrastructure Advisory,
KPMG Singapore

Mr Sharad Somani is a Partner for KPMG in Singapore's Deal Advisory team and heads up the Infrastructure Advisory space with a focus on Carbon and Sustainability Advisory. He has amassed over 20 years of experience, and has been with KPMG for the last 10 years.

Mr Somani has been the Engagement Partner of numerous sustainability reporting engagements for large, complex and government-linked companies, covering sectors such as energy, transportation, info communications and urban infrastructure. He has also advised multiple clients across the entire lifecycle of infrastructure projects from conception to successful execution.

Most notably, Mr Somani led the development of a sustainability reporting whitepaper which formed input to SGX's development of its Sustainability Reporting Guidelines. Since 2010, he has been the lead knowledge partner to Singapore Business Federation for the annual Singapore Sustainability Awards.

Augustine Tan

Executive Director,
Property Sales Business Group
& Corporate Affairs,
Far East Organization

Mr Augustine Tan provides strategic leadership for the Property Sales Business Group, playing a key role in strengthening the group's business regionally and identifying potential growth opportunities around the globe for Far East Organization. He also heads the corporate affairs department and is responsible for spearheading branding and marketing activities, as well as steering communication strategy and programmes that promote the Organization's brands and range of products in Singapore and the region. He also serves on several high-level executive committees in Far East Organization, providing oversight of various business groups.

Mr Tan is the President of Real Estate Developers' Association of Singapore, Board Member of Institute of Real Estate Studies at the National University of Singapore, Council Member of Singapore Business Federation, and Member of Urban Land Institute Singapore Executive Committee. He was formerly President of Singapore Residential and Head of Regional Investments at Keppel Land International Limited.

He holds a Masters of Business Administration from the University of Birmingham, United Kingdom and a Bachelor of Science in Estate Management from the University of Singapore.

Tan Boon Gin

CEO,
Singapore Exchange Regulation

Mr Tan Boon Gin joined SGX as Chief Regulatory Officer on 15 June 2015. He now heads Singapore Exchange Regulation, the independent regulatory subsidiary of SGX, which undertakes all front-line regulatory functions to promote a fair, orderly and transparent market.

Before joining SGX, Mr Tan was the Director of the Commercial Affairs Department of the Singapore Police Force. Prior to this, Mr Tan held several appointments at the Monetary Authority of Singapore (MAS) including Director of the Enforcement Division, Director of the Corporate Finance Division and Executive Director of the Investment Intermediaries Department. Mr Tan was seconded to MAS after serving as a District Judge at Singapore's Subordinate Courts.

Mr Tan is an advocate and solicitor and holds degrees from the University of Cambridge and Harvard Law School. Mr Tan was awarded the Public Administration (Silver) Medal in 2010.

Kenneth Tan

Chief Strategy Officer,
NTUC Enterprise

Mr Kenneth Tan is Chief Strategy Officer at NTUC Enterprise, the holding co-operative of the group of eight NTUC social enterprises in Singapore, including NTUC FairPrice and NTUC Income. He is a Member of the Group Executive Committee and Group Management Committee. The NTUC social enterprises provide a suite of integrated services targeted to meet the social needs of people in Singapore at every stage of their lifecycle. The group collectively serves about two million customers annually.

Prior to his appointment at NTUC Enterprise, Mr Tan consulted widely across industries and geographies with Bain and Company. Mr Tan is a graduate of the Financial Management Program of General Electric and has held several finance appointments across different General Electric businesses.

Mr Tan received an MBA from INSEAD and BSc in Economics from The London School of Economics and Political Science.

Kim Tan

Co-Founder,
Transformational Business Network

Dato Dr Kim Tan is Chairman of SpringHill Management, a private fund management company specialising in biotech and social venture capital investments. He was the Founder Chairman of the NCI Cancer Hospital. He is a Partner of a number of social impact funds including Inqo Investments, Springhill Equity Partners, Novastar Ventures and Garden Impact Investment.

He is the Co-Founder of the Transformational Business Network and is on the advisory boards of the John Templeton Foundation, J&J Citizenship Trust, PovertyCure and Sustainia. He is also a Board Member of the APEC Life Science Innovation Forum, a Pro-Chancellor of the University of Surrey and a Fellow of the Royal Society of Medicine. He is the co-author of *Fighting Poverty through Enterprise and Social Impact Investing: New agenda in fighting poverty*.

Teng Pei Yun

Global Director of Social Impact,
A.T. Kearney

Ms Teng Pei Yun is A.T. Kearney's Global Director of Social Impact. Focusing on some of the world's most critical challenges, A.T. Kearney aims to drive positive impact through three primary areas: economic development, energy and sustainability, and education and workforce.

Leading the firm's client engagements, pro bono work and strategic partnerships, Ms Teng has worked with a wide range of social enterprises, non-profits, and multinational firms. Her diverse sector experience includes infrastructure, water, environment, buildings, sanitation, microfinance, technology, and consumer goods.

She also brings more than a decade of experience focused on emerging markets in Asia, Middle East, Africa and Latin America. Prior to rejoining A.T. Kearney, Ms Teng worked with Arcadis, a leading global design and consultancy firm for natural and built assets and where she was responsible for corporate strategy and mergers and acquisitions.

Thomas Thomas

CEO,
ASEAN CSR Network

Mr Thomas Thomas is CEO of the ASEAN CSR Network, a network of Corporate Social Responsibility (CSR) networks in ASEAN.

Mr Thomas is also an Honorary Professor of CSR with the Nottingham University Business School, UK, member of the UN Economic and Social Commission for Asia Pacific's Business Advisory Council, and the lead of the ASEAN Intergovernmental Commission on Human Rights study team on CSR and Human Rights in ASEAN.

He was the founding Executive Director of the Global Compact Network Singapore (formerly known as Singapore Compact for CSR), the national CSR society in Singapore. He was also involved in developing as an Expert and the Chair's Advisory Group (CAG) for the ISO 26000 international guidance standard on social responsibility.

Mr Thomas had been active with trade unions, co-operatives, the consumer movement and social enterprises. He was also a Nominated Member of Parliament in Singapore.

Constant Van Aerschot

Executive Director,
Business Council for Sustainable Development Singapore

Mr Constant Van Aerschot set up the Singapore chapter of the World Business Council for Sustainable Development in 2013. This global CEO-led organisation has member companies from all business sectors and major economies, representing a combined revenue of more than US$8.5 trillion and 19 million employees.

As head of BCSD Singapore, he shapes and implements projects, shares know-how, tools and methodologies related to business and sustainability and engages in national and regional advocacy activities.

He is a Senior Adviser to Vriens & Partners, an ASEAN-wide Government Affairs consulting company. Formerly Vice President of Public Affairs and Sustainable Development at LafargeHolcim, he was also a corporate strategy senior analyst at Alcatel-Lucent. He sat on various Boards such as a Foundation and on United Nation public-private sector initiative.

Holder of a SMU-SID Executive Diploma of Directorship, he started his career as a civil engineer after obtaining his Master's degree from the ETHZ (Switzerland) and obtained later an MBA from Cranfield University (UK).

Simon Yeo

Partner,
Climate Change and Sustainability Services,
Ernst & Young LLP Singapore

Mr Simon Yeo is Co-Leader of Ernst & Young's Climate Change and Sustainability Service practice based in Singapore.

He has 30 years of work experience which includes providing climate change and sustainability advisory services, assurance services to large, diversified public companies with multinational operations, as well as MNCs based in Singapore. In his career in EY, he spent seven years with the firm's Transaction Advisory Services team, working in commercial due diligence and valuation services in the ASEAN region.

Mr Yeo was also Partner in-charge of launching the Ernst & Young Entrepreneur of the Year Programme in Singapore and has a good understanding of the key issues and challenges faced by leading entrepreneurial companies.

He has a Bachelor of Accountancy degree from the National University of Singapore, and is a Fellow of the Institute of Singapore Chartered Accountants and an FCPA (Aust.). He is also a member of ISCA's Corporate Reporting Committee SR Quality Working Group.

SECTION 3

Readings: Sustainability in General

- Achieving economic sustainability in a labour-scarce market
- The sustainability imperative for businesses
- Connecting sustainable development with enduring commercial success
- Innovate for sustainability
- Addressing sustainability challenges through smart cities
- Sustainability is a serious business
- The elephants in the boardroom

Achieving Economic Sustainability in a Labour-Scarce Market

Paul Chong, President & Group Chief Executive Officer, Certis Group

"Singapore's labour shortage is probably the biggest challenge for growth, and the restructuring of the economy towards coping with such pressures will take a considerable amount of time," said Mr Ravi Menon, managing director of the Monetary Authority of Singapore in September 2016.

At the national level, the manpower landscape in Singapore is experiencing a paradigm shift with the introduction of the Progressive Wage Model and the reduction in foreign worker quotas. These initiatives are expected to drive manpower costs up significantly in companies across a wide range of industries. To remain competitive in the current market climate, companies have started looking into ways to improve productivity and reduce manpower costs.

Optimising security manpower

The local security manpower landscape has not been spared the challenges. In the last decade, it has seen an increasingly tighter labour market amidst an ageing population, and changing aspirations among youths.

In the face of a decreasing manpower resource, Singapore's largest security manpower company, Certis Group has created a business model that creates more effective security solutions through process re-engineering and application of technology, ultimately reducing the over reliance on manpower. We call this model, BPRO® or Business Process Re-engineering and Operations.

BPRO® involves the analysis and complete redesign of workflows within a company in order to optimise end-to-end processes and automate non-value-added tasks through the use of technology. It is very much an outcome based solutioning approach with clearly defined outcome targets, and it requires very thorough design thinking and a robust user change management plan. This is very much in tune with the company's M3 operating philosophy, which integrates "Man" (competent manpower), "Machine" (smart use of technology) and "Method" (proven processes) to achieve higher productivity and efficiency from the start of the project and throughout the tenure of the contract.

Implementing business process reengineering

This approach towards a manpower-intensive security service, however, requires businesses to embrace a mindset change in the way they purchase security service. One of the company's earliest customers was CapitaLand Mall Asia, which adopted the BPRO® security solutioning for eight of its malls in Singapore.

A security risk assessment is conducted for every participating mall in order to identify the higher risk areas based on common threat profiles. The physical security infrastructure is enhanced to enable robust security zoning, in order to channel the potential threat profiles to pre-identified areas of the malls. This enables the limited pool of ground security officers to focus their operational attention on these target areas, supported by a central monitoring centre and its networked sensory systems surveilling the perimeters of the security zones for breaches.

A layered security approach has been adopted as the overall concept for the solution to meet CapitaLand Mall Asia's security needs. As majority of the mall operating hours fall within the day shift, Security Presence, Customer Engagement & Safety and Incident Response are the primary focus. When the mall operation ceases, the focus shifts to Premises Protection and enforcing Security Zoning to segregate the public from restricted areas.

For enhanced situational awareness, centralised Remote Monitoring & Surveillance is provided by Certis CISCO's Integrated Operation Centre (IOC). Leveraging on networked front-end sensors such as CCTV, alarms detection and security patrol on site, IOC is able to maintain situation awareness on all the eight malls. The IOC deploys specially trained personnel to conduct dedicated monitoring and surveillance with a structured methodology and process, thereby relieving the ground security officers from such duties to focus on handling ground security operations, which specifically require a human touch-point.

Video Content Analytics detects video anomalies against pre-set rules and prompts the user for follow up action.This enables machine-enhanced surveillance by the CCTVs and the IOC operators need only to respond to notifications by exception. Certain areas in the malls may require more regular or active monitoring. The IOC will programme dedicated CCTV monitoring of these key areas on pre-determined frequencies, such as every 15 minutes. Through a comprehensive study of all CCTV monitoring needs and by incorporating all sensory inputs, including security patrols, a shortlist of key areas is identified for such intensive Active Monitoring. This ensures a more productive and targeted surveillance regime using CCTVs.

The BPRO® approach allows dynamic deployment of manpower for physical patrol and virtual patrol to be effected. Based on a detailed study on-site and from the information disclosed by the client, the peak and trough demands within the shifts are mapped out. The deployment of the security officers is then adjusted to match the respective peak periods, and technology solutions are used to monitor the off-peak periods.

The main purpose of physical patrol primarily in crowded areas of the mall is to maximise the projection of deterrence. Besides increasing the sense of security, patrolling in crowded areas will shorten the average response time of the security officers as incidents are more likely to occur in crowded areas. While physical patrols are re-routed to cover the more crowded areas, the surveillance of the secluded areas of the malls will be covered by hourly virtual patrol conducted by the IOC. This approach thus optimised the deployment of security officers to focus on higher priority tasks as jointly determined with the Malls.

In summary, through BPRO®, security officers are deployed to the right place at the right time, thereby reducing the participating eight malls' security manpower requirements by 20 per cent.

An integrated approach for productivity

Prior to this business model, to get to where it is today, Certis had to implement and refine robust systems and processes, allowing it to re-engineer its businesses for higher productivity and efficiency.

Commanding a workforce of over 34,000 staff across 63 cities, the Certis Group has managed manpower costs and maintained high productivity and efficiency. Ultimately, this integrated solutions approach brings about increased productivity, improved customer satisfaction while achieving cost containment and reduction in errors. •

The Sustainability Imperative for Businesses

Tan Tong Hai, CEO, StarHub

The world and Asia, in particular, have enjoyed tremendous growth over the past few decades.

Yet this prosperity has been masked by challenges such as rising inequality, lack of access to basic education and healthcare, loss of biodiversity, pollution and climate change.

Focusing on SDGs

The flagship report titled *Better Business, Better World* published by the Business & Sustainable Development Council (BSDC) on World Environment Day 2017, points to faults within the economic model and offers a strong case for businesses in Asia to centre their growth strategies around the UN Sustainable Development Goals (SDGs). The SDGs are a framework of 17 goals to address the most urgent environmental, social and economic challenges and serve as a guide for governments, businesses and civil society on development.

As the world's most populous region, the report estimates an economic prize of US$5 trillion of opportunities, with approximately 230 million jobs to be created in the region by 2030, if businesses adopt more sustainable models. It also identifies opportunities across four industry systems in cities, food and agriculture, energy and materials, and health.

With the biggest opportunities in the cities and energy sectors, we have already seen an upward trend in using renewables, electric vehicles, shared transport models, and this looks set to grow with a general shift to the circular economy particularly in developed markets in the region.

Sustainable development in Singapore

Closer to home, Singapore's push for sustainable development revolves around the four pillars of the economy, living environment, its people and international collaboration. We see heavy investments in the social, human, manufactured, and natural capital in building up a resilient, inclusive and digitised society.

The government has also reiterated its commitment to the Paris climate change accord. In reducing its national emissions intensity by 36 per cent from 2005 levels by 2030 and to stabilise the country's emissions with the aim of peaking around 2030, there is a huge push on getting the public sector to go green. Moves include slashing energy and water consumption, food waste recycling and responsible procurement.

Likewise, to ensure market resilience and efficiency, SGX has also mandated sustainability reporting from 2018 on a "comply or explain basis" to enhance transparency on the sustainability impacts of companies.

So, what does this really mean for the private sector?

Firstly, it means that businesses can no longer detach profits from purpose. While shareholders seek to maximise financial returns, other stakeholders such as employees and customers, in particular, the millennial generation increasingly want to understand how businesses are chipping in to the "greater good". If businesses continue to pursue short-term financial gains at the expense of long-term shared prosperity, the swelling list of environmental and social burdens will only result in greater business risks and uncertainty, thereby restricting growth. Quoting the BSDC, "doing nothing is a costly option."

Secondly, for competitive advantage, businesses need to start rebuilding trust and the "social contract" through inclusive business models and demonstrate how they are contributing to the national development agenda. Centring growth around the SDGs helps drive innovation, mitigate risks, promotes brand equity, attract and retain talent.

Thirdly, business leaders must exercise real leadership to drive transformation towards sustainable business. This means sustainability is not and should not be the role of a specific department or team, but rather a shared responsibility throughout the entire company. Leaders need to re-think their business models and engagement strategies, to forge effective collaborations to realise sector and industry transformation.

StarHub's response

Against this backdrop, StarHub has been working to align and integrate its business strategy with the Sustainable Singapore Blueprint and the SDGs more broadly. While the 17 SDGs are interlinked, with its business contributing to a majority of the goals, it has decided to focus on those which are especially pertinent to its business and where it can contribute most significantly. These include SDG 8 - Decent work and economic growth, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 - Sustainable cities and communities, and SDG 13 - Climate action.

StarHub plays a critical role in augmenting the national info-communications infrastructure by investing in the upgrade of the wireless communications and cable TV infrastructure, and enhancing national cyber security. The launch of Hubtricity, an innovation centre and converged operations cockpit, acts as a foundation to accelerate service innovation and co-creation with partners and customers. In so doing, StarHub will help transform Singapore into a vibrant and connected Smart Nation, enhancing people's everyday lives, strengthening enterprise capabilities and deepening Singapore's international connectivity.

StarHub believes in fair, non-discriminatory employment where diversity is valued and celebrated. In the war for talent, it strives to provide decent, meaningful work and invest in building up the capacities and upskilling the workforce so that employees remain happy, productive and engaged. A part of the company's operations is outsourced to disadvantaged segments of the community to promote inclusivity and economic empowerment. Such efforts have paid off in the form of a lower-than-industry average attrition.

Given the urgency of climate action, StarHub continually works to reduce its carbon footprint, focus on energy efficiency, resource and waste management and low carbon development by investing in clean technologies to build climate resilience. Consequently, its absolute greenhouse gas (GHG) emissions had dropped 11 per cent in 2016 compared with 2010 even as it expanded its infrastructure. Complementing these green efforts, its flagship electronic waste (e-waste) recycling programme RENEW (REcycling Nation's Electronic Waste), which started in 2012 and re-launched in 2014 has evolved to become Singapore's most inclusive and extensive e-waste recycling programme for the public. To date, 137 tonnes of e-waste has been recycled.

Despite all these, the work is not done. The company recognises that it must and will continue to review, measure and integrate the sustainability imperative more fully into the business. It also looks forward to partnering peers and stakeholders in contributing to the achievement of the SDGs in creating a better, safer, more sustainable world. •

Connecting Sustainable Development with Enduring Commercial Success

Sam Baker, Partner, Monitor Deloitte

In 2015, two remarkable world events marked a step change in global co-operation. At the Paris Conference COP21, leaders came together to agree on the steps towards a legally binding and universal agreement on climate change to keep global warming below 2˚C.

Just a few weeks earlier, at the UN HQ in New York, world leaders made another commitment, not just to prevent climate change, but to set collaborative, consensus-driven, actionable goals to protect both our collective future as society and the future of the planet – the 2030 Agenda for Sustainable Development.

The Agenda contains 17 Sustainable Development Goals (SDGs) that call for urgent collective action. Despite considerable progress, poverty, hunger, water scarcity, unemployment and inequality plague too many people across the world. The adverse impacts of climate change continue to increase. According to the Social Progress Imperative, current global trajectories show that we will fall far short of SDG aspirations for 2030.

Business has an important role to play

To respond effectively to these global challenges, all parts of society need to contribute. It is self-evident that businesses have a critical role to play, contributing to public and individual finances, providing products and services and influencing the evolution of society as a whole.

The magnitude of this potential, together with broader societies' suspicion that business is prioritising a much narrower agenda, is driving calls for greater, active participation.

Commercial success and sustainable development are interdependent

Playing a positive role in wider society is not just the right thing for business to do, it's good for business. A wide body of evidence demonstrates that businesses can be more successful and more sustainable in the long term when they link to a wider social, economic or environmental goal (or "sustainable development" as per the UN definition of "development that meets the needs of the present without compromising the ability of future generations to meet their own needs").

Evidence shows that businesses outperform the market when they make an authentic commitment of this nature, driven by an ability to better engage and inspire all stakeholders including talent, consumers, partners, regulators and investors.

Employee satisfaction is more challenging to deliver than ever, and businesses with a connection to a social, environmental or economic goal are better able to attract and retain talent. Consumers will actively choose brands they trust, and belief in the positive contribution a business makes to wider society is an important component of this trust.

Business partnerships between companies and other constituencies who share the same values are stronger and can be mutually beneficial. Businesses that commit to sustainable development can also enjoy a more constructive dialogue with regulators and better shape the industries they work in. Finally, investors are increasingly recognising the benefits of a focus on sustainable development and its impact on both return and risk.

Digital disruption accelerates interdependency

In the digital age, recognising the interdependent link between a commitment to sustainable development and commercial success is even more important. Business activities are more transparent and measurable. The positive or negative impact of business behaviour can be more easily tracked and reported, impacting value.

Data collected now will be used in the future to attribute impact, both good and bad. Digital technology also continues to transform how businesses engage with stakeholders. As customers increasingly base their decisions on peer review, information shared online becomes more important.

Digitally enabled campaigning presents new opportunities and risks. The democratision, proliferation, zero time and zero cost of opinion forces businesses to consider how they present themselves as contributors to the wider world. Further, all businesses are now facing rapid technology inspired change that disrupts their established models and strategies. As a result, businesses need to redefine their identities in ways that are enduring. Building relationships with the wider world will help maintain identity despite short term changes in plans and strategy.

Respond through 2030 Purpose

As long-term success and wider positive impact become ever more interdependent, businesses must explicitly connect what they do to the contribution they make to the wider world. This contribution cannot be a by-product of the business model, it needs to be a driving force that helps shape strategy, culture and stakeholder engagement. The contribution needs to be enshrined in the way the business sees itself, the bedrock of its purpose, at the heart of any statement of belief in why that business exists.

By embedding purpose across the business from strategy and operating model to culture and values and brand and stakeholder engagement, companies can address the economic, social and environmental challenges facing humanity and respond to the accelerating challenges to securing long term financial success.

To fully benefit from the interdependency between sustainable development and commercial success, businesses must articulate a clear purpose that can be linked to the SDGs and use it to shape the activities and culture of the organisation. We call this 2030 Purpose.

More businesses need to respond

Businesses are beginning to take note. Business leaders recognise that there is a gap between the opportunity and current actions. Deloitte's Culture of Purpose survey shows that the majority recognise that their organisations are "not doing enough" to instil purpose and drive positive impact for all stakeholders into the heart of their business.

Of those companies which link the purpose with sustainable development, half explicitly embed the purpose in their strategy. The imperative for purpose is there and executives recognise that there is a need. So why are not more businesses living their purpose?

Today, businesses across the globe face a choice: direct their considerable power towards the benefit of wider society and secure long term success, or continue to focus on short term returns and sub-optimise?

This choice is not black and white. In connecting what they do to why they exist, businesses have the opportunity to choose how they can link their core business to the positive contribution they make to humanity. In positioning themselves around their purpose, businesses can make a sustained contribution and at the same time benefit from deep engagement with stakeholders across talent, consumers, partners, regulators and investors, driving enduring commercial success. •

Innovate for Sustainability

Jean Yang Sook Chin, Consultant, BBR Holdings

Anchored on more than 20 years of excellent track record and a strong reputation in our general construction and specialised engineering divisions, BBR is geared up for sustainable growth which encompasses not only strengthening its robust business model, but harnessing sustainable revenue growth.

It is focused on embedding sustainability in strengthening its core competencies while staying invested in the environmental, social and governance (ESG) structure within the Group.

Driven by Innovation

Innovate for sustainability is the key business driver embedded within its business model as it seeks to balance profit maximisation and set business goals with advancing environmental and social goals.

The Singapore business units contributed $216 million or 78 per cent of the total revenue while the Malaysia division generated $61 million or 22 per cent of the total revenue in FY2016. The Group achieved higher revenue from its new businesses, namely Prefabricated Prefinished Volumetric Construction ("PPVC") and solar leasing projects.

To stay abreast of the building and construction technology innovation curve, BBR invested in PPVC through the acquisition of Moderna Homes in September 2014. PPVC technology is slated to be the key smart technology for boosting productivity in the building and construction sector. The recent spike in construction project tenders by government agencies in Singapore specifying PPVC applications attests to the upturn of the growth cycle for the adoption of PPVC construction technology.

PPVC system has been recognised for its level of innovation and the expected 20 per cent improvement in construction productivity. It delivers up to 40 per cent improvement in labour productivity and shortened construction timeframe. As the bulk of prefabrication works are moved to a controlled environment off-site within a factory, not only will there be reduced noise and dust pollution, site safety will also be improved.

Propelled by Green Technology

The company holds the long-term view that renewable energy will increasingly be the alternative source to fossil fuels in Singapore and will continue to seek new solar integration projects. Towards this end, it created a Green Technology division in 2013.

The company has successfully completed the design and installation of a 6 MW peak grid-tied solar photovoltaic system on the rooftops of 80 HDB flats, in Ang Mo Kio Town and had successfully deployed 10 floating photovoltaic systems at Tengah Reservoir, each with a capacity of around 100 kW peak in a joint pilot project by Singapore Economic Development Board and the Public Utilities Board.

Building a Strong WSH and Environmental Culture

At the operational level, BBR emphasises on building workplace safety and health awareness, as well as being an environmentally-responsible organisation.

The management team sets a strong foundation by providing clear direction within the organisation of the value of an effective occupational health and safety management approach to foster risk-free and environmentally-friendly premises.

It has rigorously put in place not only the safety measures, but also the risk management guidelines for WSH Hazards in Construction and Landscape Industries. In addition to the adoption of local as well as international Workplace Safety and Health (WSH) systems and practices, the company has attained bizSAFE and CultureSAFE certifications for several of its divisions.

To reduce environmental hazards and be environmentally friendly, BBR seeks to carry out its daily business operations in a socially responsible way and contribute positively to the communities in which it operates. Major operating subsidiaries of BBR have adopted ISO 9001, OHSAS 18001 and 14001 systems to set the firm foundation for its EHS management frameworks.

Driving Social Impact

Navigating success in the future economy requires people to deliver their best towards sustaining the company's long term success.

BBR drives a holistic human resources strategy focused on fair remuneration and equal opportunities, training and development, employee wellness and engagement, and work-life harmony. It is taking progressive steps to go beyond compliance with labour laws in Singapore to develop and implement human resource policies and staff engagement programmes that aim to help employees build long-term, fulfilling careers with the company.

Training and development not only ensure that employees are adequately equipped to perform their functional roles, but also raise their overall competencies and productivity levels, and prepare them to serve in larger capacities in the future.

The training roadmap comprises induction, on-the-job training and strategic skills development roadmap.

Improving Community Welfare

Responsible corporate citizenry is a core pillar of the company's business approach and sustainability strategy. Its corporate social responsibility (CSR) philosophy and vision began in 2014 with the formation of BBR CARE, with the mission of "Making a Difference". The core thrusts of its CSR programme are encouraging employee volunteerism, empowering community engagement and enhancing the environment. The company recognises the importance of encouraging employees to play an active role in the communities of which it is a part of, and in doing so, develop their leadership potential, corporate camaraderie, community spirit and environmental awareness.

It has embarked on several local and overseas employee-led community-enhancing initiatives over the years. In 2016, more than 377 volunteer hours were contributed by employees to the Group's community engagement programmes.

In Singapore, BBR supported a blood donation drive and a joint community Walk for Rice programme to help raise approximately 1,850 bowls of rice for needy families.

In the region, it supports CSR initiatives that boost local accessibility to necessary resources essential to safe and sustainable living. BBR has supported Lien AID's Gift for Water Programme to provide water and sanitation solutions for Asia's rural poor.

Upholding Corporate Governance

Underpinned by the Code of Corporate Governance, the company has maintained a strong system of corporate governance and enterprise risk management system, to mitigate against the business risks, be it strategic, operational, financial or compliance risks, it faces in conducting its business operation.

Since its early adoption of sustainability reporting in 2015, its ranking in the Singapore Governance and Transparency Index 2016 has improved from 157th in 2015 to 74th position in 2016.

In driving a smooth succession planning, the senior management team has also been rejuvenated with the new members following the retirement of several long-serving management staff.

Gearing Up for the Future

Geared up for sustainable growth, BBR is ready for the new opportunities and challenges, building market leadership in the construction industry to meet the urbanisation needs of Singapore and beyond. •

Addressing Sustainability Challenges through Smart Cities

Willie Chan, Director, Smart & Safe City Centre Of Excellence, NCS

Cities around the world are growing rapidly as more and more people migrate to urban centres in search of better job prospects and a brighter future. By 2050, the proportion of the world's population living in cities is expected to reach 70 per cent, up from 54 per cent in 2014. This will pose a significant challenge to urban centres as they struggle to cope with infrastructure and resource constraints in the face of rising population density.

In Singapore, we have a population of 5.4 million within a land area of 718 sq km. This translates into about 8,000 people per sq km, making us the third most densely populated nation in the world. Energy consumption is on the rise, with total electricity consumed by households rising about 4.3 per cent year on year. Transportation is also an issue both from the perspective of rising carbon footprint through the burning of fossil fuels, as well as the perspective of land use. According to the Ministry of Transport, roads took up 12 per cent of land in Singapore in 2012.

These challenges are not unique to our city state. Sustainability is an imperative for cities around the world if they are to successfully transform their growing populations into an economic asset rather than a burden and deliver a better quality of life for all residents. And, one way that many urban centres are seeking to achieve this is through the creation of smart cities where technology and data can be harnessed to better manage and optimise infrastructure and resources.

What are smart cities?

According to the European Commission, a smart city is a place where "traditional networks and services are made more efficient with use of digital and telecommunication technologies, for the benefit of its inhabitants and businesses".

The smart city concept means "smarter urban transport networks, upgraded water supply and waste disposal facilities, and more efficient ways to light and heat buildings. And it also encompasses a more interactive and responsive city administration, safer public spaces and meeting the needs of an ageing population".

Smart city initiatives have the potential to impact many different aspects of residents' lives. In unveiling Singapore's Smart Nation vision in 2014, Prime Minister Lee Hsien Loong said, "We should see it in our daily living where networks of sensors and smart devices enable us to live sustainably and comfortably. We should see it in our communities where technology will enable more people to connect to one another more easily and intensely. We should see it in our future where we can create possibilities for ourselves beyond what we imagined possible."

An operating platform for smart cities

One platform for smart and sustainable cities developed by NCS is SURF (Solutions for Urbanised Future), where next-generation technologies are harnessed to transform public services, empower individuals and create vibrant and sustainable communities. This requires working closely with stakeholders across the value chain to transform current city infrastructure to smart cities. This includes collaborating with urban master planners to strategise on technology blueprints, designing and developing smart city products, as well as delivering and supporting smart city deployments.

Underpinning all these smart city efforts is data. The smart city of the future can only be enabled by actionable insights derived from the synthesis of data from a wide range of sources.

This has led to the development of IntelliSURF, a next-generation smart city operating platform designed to help government agencies and enterprises take on the challenges of urbanisation and work towards a more sustainable future.

IntelliSURF is an open, interoperable and scalable smart city platform that can help governments and enterprises to ingest data from a wide range of sources such as video cameras, geospatial and other sensors, social media and corporate information systems. The information is then synthesised to detect evolving situations and visualised through a unified dashboard to provide real-time situation awareness. The actionable intelligence derived from the platform helps increase operational efficiency through automated responses with standard operating procedures, notification and collaboration tools, and also empowers individuals on the ground with information and insights.

A foundation for sustainability

IntelliSURF lies at the heart of a smart hub that would transform the management of housing estates as part of Singapore's Housing Development Board's Smart Urban Habitat Master Plan. It also has the potential to transform public transport, supporting initiatives such as Singapore's Smart Mobility 2030 masterplan which outlines the way forward for a car-lite community.

Another solution with a strong angle on sustainability is integrated outdoor and indoor lighting control management system that allows automated control of lights based on weather and light conditions in order to optimise power consumption. With lighting accounting for about 20 per cent of the global building electricity consumption, the implementation of sustainable and cost-effective lighting solutions will not only increase direct energy savings but also enhance comfort, improve security and promote safer navigation.

The challenges facing today's urban centres are huge – increased density, ageing populations, limited healthcare resources, transport constraints and rising energy consumption. These problems are not unsurmountable. The solution lies in making effective use of data and next-generation technologies in a holistic and integrated fashion to improve decision-making, influence behaviours and automate processes where appropriate, so that our cities can be smart, safe, citizen-centric and sustainable. •

Sustainability is a Serious Business

Ken Hickson, Founder Chairman and CEO,
Sustain Ability Showcase Asia

Speak to any corporate leader in Singapore there is certainly a greater awareness on sustainability and how it can impact the competitiveness of their organisations. It is a good start and for that, kudos to the considerable efforts by the SGX, government agencies, industry bodies, the media and specialist organisations like Global Compact Network Singapore to "talk up" the subject of sustainability.

That said, there remains considerable confusion as to what sustainability is actually about. Some think it is about green buildings. Still others confuse it with corporate social responsibility, or suspect it has something to do with climate change. Yes, the ideal of sustainability covers all these points, but there is much more.

Having watched with close interest the development of global, regional and local sustainability matters, it would not be wrong to say that there is currently a much greater awareness of sustainability though this awareness is not necessarily being translated into action.

In October 2016, *The Business Times* reported that Singapore companies disappoint in sustainability reporting. The conclusion was based on a study by the National University of Singapore Business School's Centre for Governance, Institutions and Organisations and the ASEAN CSR Network.

Of the 502 mainboard-listed companies that disclosed information between 1 January 2014 and 31 December 2015, only 186 or just 37.1 per cent had communicated their sustainability practices to their stakeholders.

So, are Singaporean businesses taking sustainability seriously?

More to the point, is sustainability reporting going to be seen as an onerous obligation (it becomes mandatory from 2018 onwards), or as an ideal opportunity to embark on a journey to be more productive, innovative and sustainable in the long term?

From awareness to action

The SGX reporting guidelines, which are based on globally accepted standards, are focused on environmental, social and governance factors. Observing these factors alone already has a far-reaching impact.

Indeed, by actively addressing and implementing sustainability initiatives, a company is more able to protect its licence to operate, save costs, recruit and retain talent, drive innovation, and open up new markets, all while managing its risks and driving long-term growth.

Acting on sustainability

In my book, *Race for Sustainability*, sustainability can be summed up by taking account of, and managing, the Four Es: Energy, Environment, Economy, and Ethics. This summation goes a little further than John Elkington's triple bottom line of People, Planet and Profit, in that there is more emphasis on energy, a critical resource that must be managed much more effectively.

In fact, energy is a primary driving force behind the 12 practical steps (see box) developed to help companies, large or small, put sustainability into context so that they can start on the journey. These steps may sound simplistic, but they are realistic and practical.

12 Steps Towards Sustainability

1. Commit to the sustainability journey. This must come from the top.
2. Get advice and assistance from good consultants.
3. Get certified. Start with a Green Biz Check or an Eco Office certification. Next, aim for a relevant ISO standard and the Dow Jones Sustainability Index. Sign up with the Global Reporting Initiative.
4. Engage an energy auditor. Call on an Energy Services Company accredited by the National Environment Agency.
5. Become energy efficient. Look into all the ways you could become more energy efficient as a company.
6. Find the bottom line benefits. It won't take long to discover that becoming sustainable can save, and make, money for the business.
7. Commit to water and waste management. There's money to be made by saving water, reducing waste and recycling. The Public Utilities Board and the NEA can help.
8. Set high ethical standards. Be transparent, practise good corporate governance, and be ethical in all your business dealings.
9. Adopt Corporate Social Responsibility practices.
10. Commit to sustainability reporting. Guidelines have been produced by the SGX.
11. Communicate effectively with all stakeholders. This demonstrates you mean business and showcases your goals and achievements.
12. Commit to environmental and community projects. Becoming a good corporate citizen is part and parcel of your sustainability journey.

More Singapore companies need to realise that reporting on sustainability is not a nuisance, but an opportunity. A few leading Singapore companies have demonstrated, by their example, just how important it is to be recognised internationally for their commitment to sustainability.

And, if more companies actively address sustainability issues, they will find they have a better ability to manage their risks and drive long-term growth. Is not that something worth striving for? •

The Elephants in the Boardroom

John Lee Chuan Guan, Director, Sustainability, Virtus Assure Pte Ltd

Some leading companies are pioneering best practice towards truly sustainable business models. For the majority, followers and a handful of sceptic, whilst there is some acceptance that sustainability is "good", there remains doubts as to how, in the current capitalism, sustainability can positively impact company financial performance.

The reality is that the vast majority of boardrooms today work to an agenda dominated by short-term issues, pressures and priorities. Current financial decision-making does not fully capture the value of sustainability-related investments. These investments are often based on long-term and intangible rewards, environments, social and governance (ESG) factors, whereas many investments made are based on the short-term impact on the bottom line.

Hence, it is imperative to address the short-term and long-term ways to assess and justify sustainability related investments. Until sustainability becomes accepted as a legitimate and value-creating activity, it will remain as the "elephant in the boardroom".

The sustainability elephant

A May 2016 INSEAD paper, "Turning Sustainability into Value Drivers", highlighted how an asset manager, Robeco Asset Management use of a "Value Driver Adjustment" (VDA) approach is giving companies practising sustainability higher market valuations.

The VDA approach consists of three steps:

1. Identify and focus on the most material issues for the respective industries.
2. Analyse the impact of these material factors on the individual company.
3. Quantify competitive (dis-)advantages to adjust value driver assumptions.

In the context of sustainability, materiality as defined by Global Reporting Initiative is "relevant topics that reflect the organisation's significant economic, environmental, and social impacts or that substantively influences the assessments and decisions of stakeholders."

The VDA approach ties traditional investment approaches, linking ESG factors to value drivers through their expected effects on business models and competitive positions. In deriving competitive advantage from its ability to manage any ESG factor, the company should reflect such advantage in its value drivers. In the end, the company should have higher sales growth, higher margins, more efficient use of capital, or lower risk, which in turn drive the ROIC (return on invested capital) and the firm's valuation.

Robeco is not alone in applying sustainable investing. A *Wall Street Journal* article, "'Sustainable Investing' Goes Mainstream", reported that signatories to the Principles of Responsible Investment, a UN-supported initiative, pledge to incorporate elements of sustainability into their financial decisions, with funds under their management totalling about US$59 trillion, or about half of all institutional assets worldwide.

Ever since the Industrial Revolution, our economy has a basic structure: we dig things out of the ground, turn them into products and then dispose of them into the air, water or bury them back into the ground as landfill. This linear model has recently experienced economic pressure from rising resource prices. This continued resource depletion and subsequent commodity price increases, has motivated some leading companies to adopt a regenerative business model in which products and components are reused multiple times, the circular economy.

An effective transition from a linear economy to a circular economy entails a substantial departure from the status quo, requiring collaboration from various stakeholders, and would release a vast amount of disruptive innovation across a variety of industries.

The Asian Development Bank estimates Asia Pacific (APAC) food wastage, including both food losses (up to the moment of sale) and consumer waste, to be at 37 per cent. Often ending up on trash heaps and in landfills, where they break down releasing methane, 21 times more potent than carbon dioxide as a greenhouse gas.

To feed an ever-increasing hungry population, reducing this massive wastage proves to be both an uncharted challenge and a golden opportunity. "Disrupting the Food Logistics" is an initiative of "Forum for the Future", an international non-profit organisation which is working with business, government and civil society to solve complex sustainability challenge. The initiative aims to use today's cutting edge web based tools to map the innovations that can deliver sustainable, zero-waste food supply chains, ensuring that all produce, whether animal or vegetable, contributes to feeding the growing population.

Natural capital elephant

Another elephant in the boardroom is natural capital depletion. Natural capital refers to the elements of nature that produce value, directly and indirectly, for people and organisations, such as forests, rivers, land, minerals and oceans. It includes the living aspects of nature, such as fish stocks, as well as the non-living aspects, such as minerals and renewable or non-renewable resources.

In the not-too-distant future, we may well have to value, account and make public the natural capital in our businesses. A concerted effort is underway to create methodologies and frameworks to value and account for natural capital in business. The Natural Capital Coalition, a multi-stakeholder initiative, is seeking to create a harmonised framework that will help standardise how natural capital is accounted for and valued: the Natural Capital Protocol (NCP). It is supported by, among others, the United Nations Environment Programme, the World Bank's International Finance Corporation, and the accountancy professions.

The NCP is designed to generate trusted, credible, and actionable information that business managers need to make truly informed decisions. It brings together and builds on a number of approaches that already exist to help business measure and value natural capital, and, by harmonising them, will allow all businesses everywhere to benefit from understanding their relationships with nature.

According to a 2013 report commissioned by the Natural Capital Coalition, half of all existing corporate profits would be at risk if the costs associated with natural capital were to be internalised through market mechanisms, regulation or taxation. A water shortage, for example, would have a catastrophic impact on 40 per cent of Fortune 100 companies.

Natural capital brings together the environmental strands of climate, water, energy, biodiversity and waste into a uniform strategic approach. When adopted, the NCP has the power to revolutionise the way that businesses evaluate their operations and make decisions, helping them to reduce pollution, protect biodiversity, and limit the impacts of climate change, while simultaneously producing positive business results, safeguarding operations and supporting efforts to create a more sustainable world.

We are committed

With 139 Parties of the 197 Parties to the Convention having ratified, the Paris Agreement entered into force on 4 November 2016. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below two degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

Singapore is a signatory of the Paris Agreement and is committed to reducing emission intensity by 36 per cent from 2005 levels, and peaking around 2030. Towards achieving this commitment, Finance Minister announced in February 2017 that the government is looking at a tax rate of between S$10 and S$20 per tonne of greenhouse gas emissions on large direct emitters such as power stations from 2019.

To the skeptics, the message is this: climate change and other sustainability issues are not a passing fad; it is a disruptor that will transform our economy and society. •

SECTION 4

Readings: Environment

- Saving the planet from ecological disaster is a US$12 trillion opportunity
- Carbon tax for Singapore
- The Singapore way to green and sustainable homes
- Built to last
- An integrated approach to sustainability and value creation

Saving the Planet from Ecological Disaster is a US$12 Trillion Opportunity

John Elkington

How can we create US$12 trillion a year in market opportunities by 2030?

How about by meeting the UN Sustainable Development Goals?

The goals, a set of 17 stretch goals and 169 related targets championed by the United Nations, are ambitious. But, a recent report by the Business & Sustainable Business Commission concludes that meeting the goals in just four out of 60 sectors (food and agriculture, cities, energy and materials, and health and wellbeing) could indeed open up market opportunities worth up to US$12 trillion a year in less than 15 years.

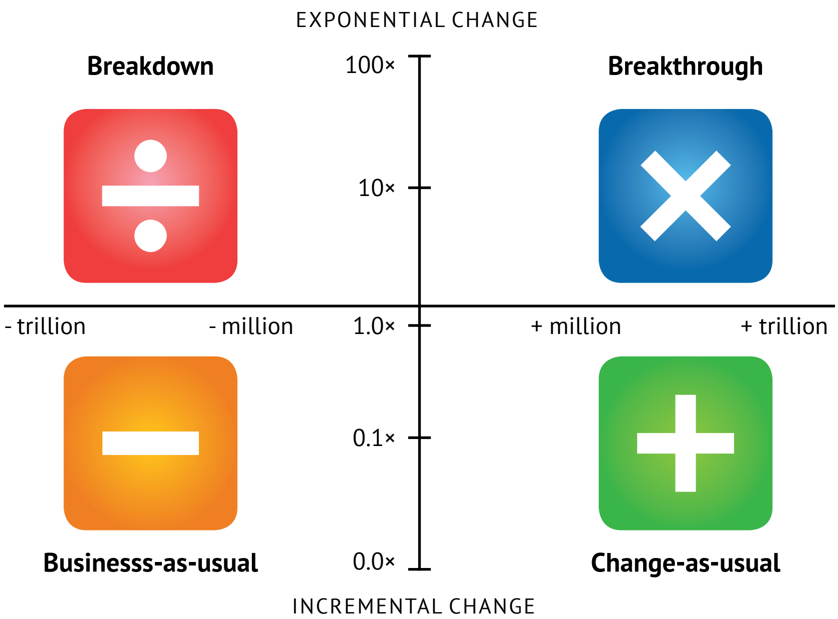
However, to get there, we have to break out of the zone of incremental change, or "Change-as-Usual." Incrementalism has its uses, but it is worrying to see even committed business leaders treating the goals as an incremental change agenda. Their assumption: if we do more of what we have been doing, but a little bit faster and a little better, we can deliver many – if not most – of the goals by the 2030 target date. Mistake. Big mistake. Huge.

We have to admit that our planet has strict boundaries on the activities it can support. By exceeding these boundaries, we are helping climate change to accelerate at an alarming pace. There's an urgent and intensifying need to shift toward real breakthroughs.

To help support those moving in this direction, Volans, PA Consulting and the UN Global Compact (the world's largest sustainable business platform, with over 9,000 corporate members) joined forces to create Project Breakthrough, an online showcase spotlighting the best thinking and examples in sustainable innovation. In the process, we developed "the Breakthrough Compass" to map the emerging landscape of risk and opportunity.

Our conclusion: instead of pursuing incremental goals, we need to start chasing goals that will have 10x or 100x the impact on anywhere between a million and a billion people.

The Breakthrough Compass



Source: Volans, © HBR.ORG

Mindsets

Organisations like The X Prize Foundation, Google's X facility, and Singularity University have operated on the conviction that our global challenges will not be solved by hitting one per cent or even 10 per cent targets. Rather, business must embrace "10X" thinking – to aim for at least a 10-fold improvement. This is the attitude now needed to make real progress on sustainability.

We have been exploring the edges of exponential thinking for quite a while, trying to work out how it could impact the sustainable business agenda. Two books – *Out of Control* and *New Rules for the New Economy* by Kevin Kelly, Wires magazine's founding editor – have helped shaped our vision of sustainability from a future of scarcity to one increasingly characterised by abundance.

In 2008, Kelly wrote an article on his personal blog that captures the conundrum of shifting to an exponential mindset:

> "[W]hile progress runs on exponential curves, our individual lives proceed in a linear fashion. We live day by day by day... Today will always be more valuable than some day in the future, in large part because we have no guarantee we'll get that extra day. Ditto for civilisations. In linear time, the future is a loss. But because human minds and societies can improve things over time, and compound that improvement in virtuous circles, the future in this dimension is a gain. Therefore, long-term thinking entails the confluence of the linear and the exponential."

Shifting to an exponential mindset is challenging, precisely for the reasons Kelly gives. It is also now vital — for those very same reasons.

Technology

Peter Diamandis, co-founder of the X Prize Foundation and Singularity University, has long argued that technology can help create what he calls "a world of abundance". The world has lots of resources – water, energy, and so on – but we are hampered because we cannot access it efficiently. He said, in a 2012 TED talk, that ultimately, "technology is a resource-liberating force". It could help us solve our resource constraints.

Although technology is central to the exponential and abundance mindsets, much of the sustainability world remains distracted by incremental improvements to incumbent technologies, ranging from gasoline-powered automobiles to energy and chemical-intensive air-conditioning systems. Moving well beyond that, we now need to do much more to understand and shape the thinking and priorities of those who promise (or threaten) to give us artificial intelligence, the internet of everything, autonomous everything, synthetic biology and, some insist, geoengineering. This is an area that sits at the very heart of the evolving Project Breakthrough initiative.

In terms of the potential upsides, it is relevant to share an example from Israel. So great is the pressure for water in the country, with even the Dead Sea dying of water starvation, interest is growing in aeroponics – which involves growing plants in mist or even air, rather than soil or water. One company is now growing 50 times more plants per meter, and in the process using 20 times less water than traditional agriculture.

In terms of potential downsides, a good reminder comes from Thomas Midgley, Jr. A brilliant engineer and chemist with General Motors and DuPont, Midgley held over 100 patents. He came up with leaded gasoline (a breakthrough in anti-knock technology, but one that had immense unforeseen consequences in terms of children's nervous systems) and he also synthesised early Freons, chemicals that went on to tear a hole in the stratospheric ozone layer.

As a final illustration of the downsides of some innovations, Midgley developed an automatic bed, using ropes and pulleys, to get him in and out of bed when he sadly contracted polio. In 1944, the bed strangled him.

Business models

The sustainability industry has laboured to identify issues that are “material” across the triple bottom line, not simply in financial terms. It has developed sophisticated tools to help companies build and test the business case for action, or inaction. But the spotlight must expand to business models, the essence of how wealth is created.

Business models need to become exponentially more social, lean, integrated, and circular. The challenge is to ensure that emerging technologies meet difficult-to-reach social goals, while being “lean” across scarce forms of capital, integrated from the point of use right out to the edges of the atmosphere and biosphere, and part of an increasingly circular economy.

One example comes from Patrick Thomas, CEO of the advanced materials company Covestro. In a recent interview by the Project Breakthrough team, he discussed why his firm developed – and then chose to license — a technology for turning carbon dioxide into plastic.

“If you make a breakthrough in innovation, you cannot keep it to yourself,” Thomas explained. “That’s very, very important. It’s a different way of thinking about how you make money. To keep it to yourself runs the risk that it would die. If you license it to everybody else, you guarantee that they change their view, they change their method of operation, and they adopt your technology. And that’s why we went from nothing to commercial manufacture of a product in less than 10 years... That is way faster than traditional innovation technologies where everything’s kept secret. You’ve got to blow things open.”

Only if we make the shift from incremental to breakthrough logic will business realise the huge market values now being forecast – and only if we succeed in accelerating a critical mass of business leaders into the breakthrough zone will the sustainability forecast truly brighten. •

John Elkington is Chairman and Chief Pollinator at Volans. This article is adapted from an original article he wrote for the *Harvard Business Review*, published on *HBR.org* in May 2017.

Carbon Tax for Singapore

Sharad Somani, Executive Director and Head of Climate Change and Sustainability, KPMG Singapore

The Singapore government has recently announced its intent to implement a carbon tax in Singapore from 2019.

What does this mean for businesses? Is it simply another tax or is it an opportunity? What are other countries doing to reduce their carbon emissions?

This article explores these questions.

Pricing carbon

Putting a price on carbon is recognised as one of the most efficient ways to facilitate reduction of emissions intensity for the private sector. It can be done either through a cap-and-trade system or a carbon tax.

Based on global carbon pricing trends, a number of jurisdictions have implemented cap-and-trade schemes. One of the first and largest among these is the European Union's Emission Trading Scheme (EU-ETS) that started in 2005. Since then, other schemes have been launched such as Regional Greenhouse Gas Initiative (RGGI) and California Cap-and-Trade Program in the Americas. China is also slated to launch a national ETS this year.

Other countries have opted for a carbon tax owing to its simplicity, greater price certainty and stability. Sweden introduced a carbon tax in 1991 starting with €29 (S$43) per tonne; today, the tax stands at €137 (S$204) per tonne. The UK has maintained a carbon tax since 2013 that is essentially a minimum price that fossil fuel producers need to pay to emit CO2. Canada will impose a carbon price of C$10 (S$11) per tonne from 2018 onwards and will increase it annually by C$10 (S$11) per tonne to reach C$50 (S$53) in 2022. South Africa is also considering a carbon tax at the rate of ZAR 120 (S$12) per tonne which will be increased annually to take into account inflation.

However, the International Energy Agency has estimated that carbon prices would need to be as high as US$190 (S$267) per tonne in order to limit the rise in global mean temperature to well within 2°C, as committed under the Paris Agreement.

Singapore situation

Singapore has one of the highest carbon intensities in terms of CO2 emissions per dollar GDP, and at the same time significantly disadvantaged when it comes to the adoption of alternate energy. Thus, the country started with switching to a cleaner fuel mix for electricity generation, moving from fuel oil to natural gas. However, this potential has been almost completely utilised with natural gas already contributing to 95 per cent of the current electricity generation mix. Further reduction in emissions intensity is possible only through increased utilisation of solar energy and further deepening of energy efficiency in industrial operations.

At Budget 2017, the Singapore Government announced an intent to implement a carbon tax on the emission of greenhouse gases. The tax is envisaged primarily on upstream companies such as power stations and other large direct emitters and is expected to be in the range of S$10 and S$20 per tonne of greenhouse gas emissions.

The measure is expected to create a price signal to incentivise companies to reduce their emissions, complementing other regulatory measures. The revenue collected will also be used to further finance emission reduction measures by industries.

Singapore has committed to reduce emissions by 16 per cent below 2020 business-as-usual (BAU) level. Having ratified the Paris Agreement in September 2016, it further aims to further reduce its emissions intensity by 36 per cent from 2005 levels by 2030, and stabilise its emissions with the aim of peaking around 2030.

Industry and public consultations are currently ongoing to seek feedback from all stakeholders on the proposed carbon tax.

Why carbon pricing

The effectiveness of carbon pricing as a tool to encourage private sector action arises from the simple fact that it helps put a value to externalities that were not accounted for earlier.

First, it encourages companies to invest in renewable sources of energy and innovative measures that reduce energy consumption.

Secondly, it changes the dynamics of how projects are evaluated at the board level. For example, while evaluating investments into new assets such as building or plant machinery, the board would need to understand the level of carbon emissions and corresponding tax payments that they are locking themselves with for the entire life of that asset. Similarly, low-carbon projects that may not have been attractive earlier due to higher upfront costs may now become more attractive after factoring a tax on the carbon-intensive alternatives.

Carbon price also drives companies to explore more opportunities for energy efficiency, which brings down the operating and maintenance costs and makes them more competitive in the market. The benefits of the reduced prices can subsequently be passed on to the consumers. The revenue from carbon tax also provides the government with more funds to support industrial energy efficiency through initiatives such as the Productivity Grant (Energy Efficiency), Energy Efficiency Financing Pilot, the Design for Efficiency scheme and the Energy Efficiency Improvement Assistance Scheme. The Intergovernmental Panel on Climate Change has assessed greenhouse gas emission reduction measures to have a number of associated benefits as well, such as, reduction of air pollution, energy-supply security, technological innovation and generation of employment in the low-carbon sectors.

A carbon pricing regime also brings added responsibilities for companies related to establishing their reduction targets and reporting on their carbon emissions. A KPMG 2015 survey of how the world's largest 250 companies report on carbon in their annual financial and corporate responsibility reports they are already reporting on their carbon performance in their corporate responsibility reports. But, key information is missing from many annual financial and corporate responsibility reports making it impossible to accurately compare company performances. It was also found that there is a vast room for improvement when it comes to publishing targets for corporate carbon reduction.

Preparing for carbon taxation

In preparation for an upcoming carbon tax regime, companies should have well-defined responsibilities and systems for data collection at entity or business unit level, consistent reporting systems for various carbon emission scopes (direct, indirect and other indirect emissions), identify carbon reduction opportunities, set realistic long-term targets for reduction and prepare a roadmap for their implementation in the short, medium and long term.

Carbon tax can result in low-carbon growth. It can decouple GDP and emissions growth. For example, in Sweden, GDP has grown by 60 per cent while emissions have reduced by 25 per cent since the introduction of a carbon tax.

Over 1,200 companies around the world are realising this and are already using or planning to use internal carbon pricing in the coming two years. Finally, companies have a lot to gain as well from this tax – opportunities to improve efficiency and reduced operation and maintenance costs; access more funds from government for implementing industrial energy efficiency projects and contribute to improvement of public health and job creation. At the same time, they should also prepare themselves for data collection, consistent reporting on carbon performance, setting reduction targets and roadmaps for their implementation. •

The Singapore Way to Green and Sustainable Homes

Cheong Koon Hean, Chief Executive Officer, Housing & Development Board

Climate change is a global challenge. We see its impact on many cities. In Singapore, we are not spared as well. One does not need to be a scientist to see that the rainfall we are experiencing recently is more intense. The daily temperature is also rising, and we can expect more warm days and nights.

So, what is a small city-state like Singapore doing in response to this? At the national level, Singapore has a Climate Action Plan in place, led by the National Climate Change office under the Prime Minister's Office. The Singapore Sustainability Blueprint was also revised in 2015 to outline a more liveable and sustainable future in Singapore.

The Housing & Development Board (HDB) plays a big part in realising this vision as it provides homes for more than 80 per cent of Singapore's population. In recent years, it has launched new homes in Punggol and Bidadari, and are in the process of planning for the 24th town in Tengah. The challenge is to meet the housing needs of Singaporeans, and yet build in a manner where residents can experience a high-quality living environment that is green, liveable and sustainable.

Its strategy is to take it one step at a time – i.e. pilot at the precinct level, before scaling up to the town level. Eventually, its sustainability measures can be replicated across different towns to benefit more Singaporeans.

HDB's work in sustainable development has spanned more than a decade. How did it start? How has its efforts evolved? And, what lies ahead?

The start

Singaporeans got a first glimpse of how an eco-friendly housing project looks like when HDB's first eco-friendly public housing development, Treelodge @ Punggol, was launched in March 2007. It is also the first public housing development to receive the BCA Green Mark Platinum Award, through the use of both passive design strategies and green building technologies.

For instance, more greenery was introduced through green roofs, green spine and vertical greenery, all of which are aimed at reducing ambient temperatures. Other features included solar panels, energy-saving light fittings in the common areas and cool walls to reduce heat absorption.

HDB also used computer simulations to help identify the best orientation for the blocks to optimise wind flow which will in turn minimise the need for electrical cooling. This approach is now used to facilitate the planning of all its new housing developments.

Evolution

First an Eco-precinct, next step an Eco-Town. Punggol Eco-Town is where HDB test-bed new green technologies and urban solutions at the town level. Many initiatives for sustainable living in the areas of clean energy, water and waste management, have since been implemented.

The use of solar photovoltaic (PV) system and other energy-saving initiatives will reduce energy consumption for the common areas. Similarly, water conservation is achieved through rainwater harvesting system for common corridor washing and water smart meters.

In terms of waste management, recycling points connected to a separate centralised chute are provided conveniently on every floor, improving collection efficiency. The provision of this additional chute has increased the amount of recyclables collected by three to four times.

Beyond creating sustainable estates, HDB also took a significant step in 2014 to make every flat an eco-friendly home. HDB flats launched from the January 2014 Build-to-Order exercise come fitted with a standard suite of eco-features to manage water, energy and waste more efficiently to help build a greener, cleaner, and healthier environment for Singaporeans. They include eco-pedestals in bathrooms which recycle water for toilet flushing, LED lighting with motion sensor controls in common areas and energy regeneration systems in lifts that help to lower energy consumption, as well as Centralised Chutes for Recyclables to promote recycling.

More covered bicycle parking lots and bicycle wheel ramps have also been provided at new projects to encourage residents to adopt a more environmentally-friendly mode of transport.

What about existing public housing estates?

The HDB Greenprint was introduced in Yuhua in Jurong East Town in 2012, reaching out to some 3,200 households.

Completed in 2015, the HDB Greenprint has transformed Yuhua into a sustainable neighbourhood, through energy and water-efficient, and better waste management features.

Amongst the eco-friendly lifestyle features, Yuhua residents enjoy the use of a Pneumatic Waste Conveyance System, which uses pneumatic suction to transport household waste via an underground pipe network to a centralised bin centre. Rooftop and vertical greenery also help to reduce ambient and surface temperatures.

The HDB Greenprint was extended to Teck Ghee in Ang Mo Kio Town in 2015, to bring greener living environment to more residents. About 5,800 households living in 40 HDB blocks in Teck Ghee estate can look forward to an improved living environment under the HDB Greenprint.

Moving ahead

HDB is constantly on the lookout for opportunities to bring its sustainability effort up a notch. Solar is one such area.

Given Singapore's geographical size, lack of natural resources and tropical weather with an abundance of sunshine, solar energy is the most feasible source of renewable energy.

Solar PV systems installed on the rooftops of HDB blocks can generate clean energy and also contribute to the reduction of our carbon footprint in the long-run. With close to 10,000 HDB blocks located island-wide, HDB is currently the largest stakeholder and forerunner in the installation of solar PV systems in Singapore.

HDB will progressively roll out 220-megawatt peak (MWp) of solar panels across 5,500 HDB blocks by 2020, contributing to Singapore's plan to raise the adoption of solar power to 350 MWp by 2020.

With a solar PV capacity of 220MWp, 265GWh of clean energy can be generated annually – this is equivalent to powering about 55,000 four-room flats, reducing carbon emissions by 132,500 tonnes a year. The solar energy harnessed is used to power common services in the HDB estates like lifts, water pumps and lighting in common areas, helping town councils to mitigate rising energy costs.

HDB is already carrying out active research in the management of energy, water, waste and use of greenery. Beyond this, it is exploring the use of smart technology in its planning to improve the environmental performance and comfort of its estates, to better manage and maintain estate services and to encourage residents to adopt a greener lifestyle.

The Time is now

There is a pressing need to take action against the effects of climate change. HDB's intervention has started more than a decade ago. Moving forward, it intends to pick up pace. However, these objectives cannot be achieved alone. It will need to partner industry and research institutions to tackle and find the best solutions.

Step by step, HDB hopes to see its efforts pay off – first at a precinct level, subsequently at a town level and eventually across many HDB towns in Singapore.

HDB plays a lead role in Singapore's efforts to achieve its overall goal of growing in an efficient, clean, and green way and it hopes to encourage other companies to join in the journey. •

Built to Last

Judy Tan, Assistant Director, Group Corporate Development & Investor Relations, ARA Asset Management Limited

As a premier integrated real estate fund manager focused on delivering enduring value to its investors, ARA Asset Management Limited (ARA) is committed to achieving sustainable growth and a positive impact on the communities it operates in.

Established in 2002, ARA is today one of the largest REIT managers in Asia ex-Japan. It currently manages six REITs listed in three countries, namely Fortune REIT dual-listed in Singapore and Hong Kong, Suntec REIT and Cache Logistics Trust listed in Singapore, Hui Xian REIT and Prosperity REIT listed in Hong Kong and AmFIRST REIT listed in Malaysia. The Group also manages six privately-held REITs in South Korea, as well as some 10 private real estate funds.

ARA drives long-term financial growth for investors through its assets under management. It builds perpetual products with unlimited or long-term fund life and covers various classes of real estate assets in different stages of the lifecycle. Its private funds develop various investment and franchise products where the assets may be developed into new funds or REITS upon maturity.

The company firmly believes that its economic success is closely tied to responsible behaviours towards corporate governance, human capital, the community, and the environment.

Strong Corporate Governance as its Foundation

As a real estate fund manager, ARA holds the fiduciary responsibility of managing funds on behalf of its investors. Strong corporate governance is therefore an integral aspect of its core business.

The company works towards protecting the interests of investors through a robust system of effective policies, sound internal controls, oversight of the board, and the independent involvement of both internal and external auditors. It counts some of the world's largest pension funds, sovereign wealth funds, endowment funds, insurance companies and global financial institutions as its investors and partners.

Over the years, it has built a respectable reputation, winning numerous awards for its good corporate governance practices. In 2016, ARA was ranked in the top four per cent on the Singapore Governance & Transparency Index among over 600 listed companies on SGX, and among the top 50 listed companies on the ASEAN Corporate Governance Scorecard.

Human Capital is Key

ARA's success is built on the dedication and contributions of close to 1,300 staff in 19 cities across Asia Pacific, comprising individuals of 16 different nationalities.

The company promotes equality, fairness, personal development, mutual trust and teamwork within an inclusive workplace to build a competent and experienced team which is instrumental in contributing to the long-term success of the company. It has a stable employment since its inception, with zero layoff through redundancy. The company also places a strong emphasis on meritocracy and gender equality where women are encouraged to excel in their respective career specialisations. In fact, more than 40 per cent of senior management positions are helmed by female employees.

Creating Communities

In the area of community development, the company also gives back to the community through charitable actions and donations.

To drive the growth of the industry, ARA participates actively in national and industry efforts towards economic growth, environmental conservation, education and community development. Its involvement at the public level enables it to consider issues in a broader industry and economic context. Through senior management representation on various committees of industry bodies, the company leverages its resources and expertise in public policy advocacy.

ARA believes that good corporate citizenship creates shared value for the communities and its business. Through partnerships, donations and staff volunteerism, its corporate giving is directed towards the focus areas of education and promoting bilingualism. One of the cornerstones of its corporate philanthropy programme is an endowment of S$1 million, made in collaboration with the Lim Hoon Foundation (LHF) in 2009, to fund eight annual scholarships at the Singapore Management University under the ARA-LHF Scholarship programme. Since its inception, 30 scholarships have been awarded. In 2017, ARA and Lim Hoon will contribute another S$1 million to the programme.

Reducing its impact on the Environment

As ARA is not in the business of greenfield development, it may not, at times, have a direct control over the design of a property and its environmental impact. Nevertheless, as a responsible real estate fund manager, it seeks to protect the environment through various initiatives, including improving energy efficiency in the buildings it manages, raising environmental awareness and committing to green causes on recycling and the reduction of energy and resource consumption.

With some 100 assets under its management in Asia Pacific, ARA believes it can play its part in protecting our fragile environment. For example, in the asset enhancement of Suntec Singapore Convention and Exhibition Centre which reopened in June 2013, ARA made a conscious effort to integrate various environmental features and implement green practices in day-to-day processes of the property, such as the use of LED lightings, PUB WELS-certified water fittings and even recycling nearly 8,000 litres of cooking oil annually into biodiesel fuel.

In China, it has installed ice makers to function as chillers by making use of night time low peak electricity to create ice to cool shopping centres during peak hours. This initiative, when implemented at the recently-acquired Century Link, a commercial development in the Lujiazui Finance and Trade Zone, helps to save energy and reduce carbon dioxide emission equivalent to 2.9 million square metres of forest planting every year.

Sustaining the journey

These are just the beginnings of ARA's focus on achieving a more balanced triple bottom line in financial, environmental and social performance. As it celebrates its 15th anniversary this year, ARA is committed to building on the experiences in its sustainability journey to continue serving the communities that it is a part of. •

An Integrated Approach to Sustainability and Value Creation

Manohar Khiatani, Deputy Group CEO, Ascendas-Singbridge

Today, sustainability has become a best practice for many companies in various sectors. On a strategic level, it entails a top-down management approach that focuses on long-term value creation. A clear focus on value creation helps businesses in managing the top and bottom lines, improve operating efficiency and optimise deployment of capital and resources, while harmonising the social and environmental impact of their activities on their stakeholders.

Sustainability disclosure has gradually become an integral part of non-financial information issued by listed companies amidst rising interest from shareholders and potential investors worldwide. The momentum of sustainability disclosures has stepped up in recent years as voluntary and mandatory reporting requirements have been introduced throughout Asia. In June 2016, the Singapore Exchange (SGX) introduced sustainability reporting on a "comply or explain" basis for listed companies.

Driving value creation

As an urban and business space solutions provider, Ascendas-Singbridge Group recognises that its business activities have varying direct and indirect impact on the communities in which it operates.

Since 2012, Ascendas has taken a holistic approach to include beyond financial reporting, issues vital to business continuity, evolving social, environmental and governance concerns in its communications with stakeholders. Ascendas published its first sustainability report that year and this practice continued after the merger in June 2015 to form Ascendas-Singbridge.

Although Ascendas-Singbridge is not listed and thus not required to follow listing rules, it has nevertheless aligned with the Code of Corporate Governance and sustainability reporting guidelines of SGX.

The voluntary publication of sustainability reports is one of the Group's initiatives to engage its stakeholders and ensure alignment of objectives to deliver value. The Group's sustainability reports are prepared and published in accordance with the Global Reporting Initiative (GRI) G4 guidelines – Core, and the GRO Construction and Real Estate Sector Supplement (CRESS).

To ensure the long-term sustainable future of the group, Ascendas-Singbridge always strives for accountability and remains committed to managing its businesses in an ethical, responsible and sustainable manner. Its framework of policies and procedures covering matters such as anti-corruption and whistleblowing has been developed in line with the Code of Corporate Governance 2012.

At the same time, Ascendas-Singbridge also recognises that risk management is an integral part of its planning and decision-making process, and implements a risk management framework that facilitates capitalising business opportunities by taking measured risks just as much as it monitors and mitigates potential risks.

With a robust corporate governance and risk management framework in place, the Group is capable of implementing business decisions on a sustainable business model which is built upon an integrated value chain that creates value for customers and stakeholders

As an urban and business space solutions provider, Ascendas-Singbridge recognises that its very business drives value creation and serves as a catalyst for economic and social development at host locations. As it strives for profitability, the Group seeks to support the economic and social development of the host countries in which it operates. In fact, it believes that environmentally friendly and socially responsible practices are key contributors to its competitive advantage.

A case in point may be noted in the Group's selection of material issues for reporting. An extensive list of environmental, social and governance issues was ranked according to their importance to the business from both the internal and external stakeholders' perspectives. These include issues beyond standard disclosures relating corporate governance, regulatory compliance, employment and talent management practices and stakeholder communications.

An integrated approach

Advocates of sustainability believe that integrated reporting is the way forward for most companies. Integrated reporting goes beyond sustainability reporting, and delves further into how a company manages its long-term value creation by taking an integrated approach to both traditional and sustainability risks.

However, integrated reporting is not a simple process or just a paper exercise. It requires effort and resources to embed the necessary elements into a company's strategy, policies, practices and processes. This may also require a fundamental change or overhaul of certain aspects of the business.

The key to success lies largely in the commitment of the senior leadership, who have to set the tone in driving the culture of integrated thinking and encouraging necessary transformation across the Group. It takes time for companies to fully appreciate and reap the real benefits and to develop appropriate systems and processes that suit the needs of the individual company.

Ascendas-Singbridge recognises that this is a journey entailing a continuous process of improvement towards achieving its goal of greater sustainability and value creation. •

SECTION 5

Readings: Social

- Sustainability as competitive advantage
- Contributing to a thriving society in a thriving environment
- Doing good better through impact investing and venture philanthropy

Sustainability as Competitive Advantage

Stanley Samuel, Founder and Marcus Lim, Co-Founder, ECOSOFTT

ECOSOFTT creates a unique position in the water sector through a dual focus on social impact and financial sustainability.

The pressure on businesses to improve social and environmental sustainability is increasing and irreversible. While some companies may have considered greater investments in social impact activities, many are concerned that their businesses will be disadvantaged if they do so. It is feared that distracting management from their core commercial functions could reduce operating efficiency. Redirecting scarce resources from core commercial activities might reduce shareholder returns and result in a higher cost of capital.

However, does an increased attention to sustainability inevitably come at the expense of management efficiency and financial performance? Can social impact co-exist with financial returns, or even create competitive advantages?

Challenges and opportunities in the water sector

Eco Solutions for Tomorrow Today (ECOSOFTT) is a Singapore-based water company with a business model that aims to achieve both social impact and financial sustainability simultaneously. The company was founded in 2012 with the aim of addressing the massive problems of water scarcity, shortages and quality globally.

Two-thirds of the world's population is already living in water-scarce conditions and 50 per cent of diseases is related to water. In Asia, this issue affects almost 2.5 billion underprivileged people who have very limited ability to pay for water, and also a middle-class of 600 million people living in "city-like" conditions who need and can afford to pay for water supply, products or projects. The water phenomenon thus presents a huge problem and a huge market opportunity at the same time.

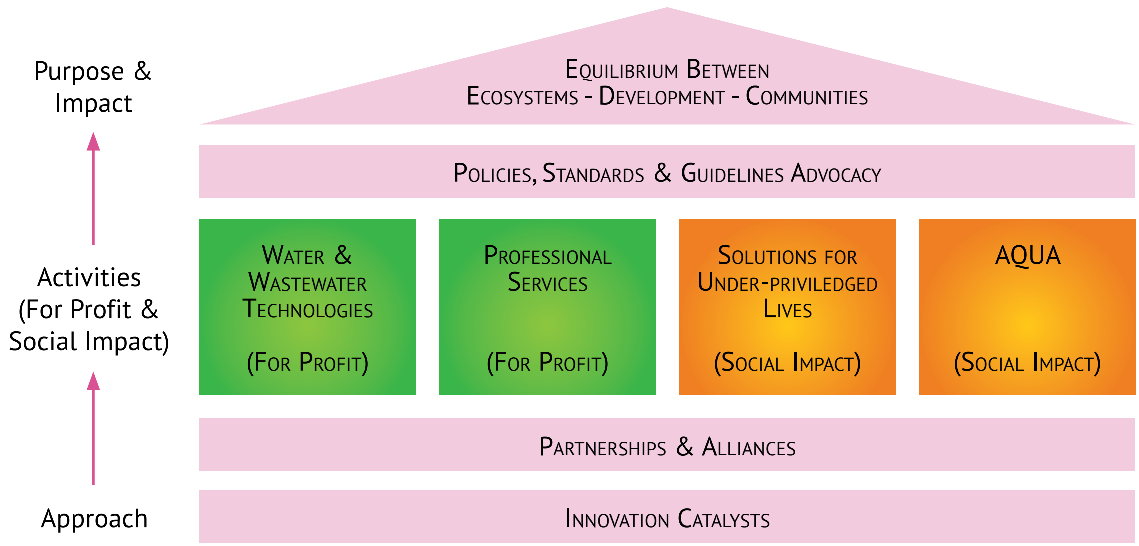
Technology and financial investments are critical aspects of a sustainable solution. However, as water is a shared resource, the needs of the underprivileged communities must also be part of the equation.

Hybrid Business Model

ECOSOFTT defined its purpose as "to achieve an equilibrium between natural ecosystems, economic development and living communities". Its business model comprises a combination of:

- For-profit activities that generate income by providing technology-based solutions for those affected by water and have the ability to pay.
- Social impact activities targeted at those affected by water and require subsidies.

Hybrid Business Model



The business model is made up of four key pillars of activities:

- **Water & wastewater technologies**
  These "Water Smart Blue Building" solutions incorporate low cost, innovative technologies to harvest, treat, conserve and recycle water. Customers include developers, building owners, hotels, educational institutions and public sector agencies that are off-grid or on deficient grids.
- **Professional services**
  These provide water audit, technical design, feasibility studies and policy advice to address water, wastewater and environmental challenges faced by policy-makers, municipals corporations, building owners and facility managers.
- **Solutions for underprivileged lives**
  These include water supply, toilets and wastewater systems for underprivileged communities facing water and sanitation challenges. They are executed through SAAMARTH Social Services Organisation, ECOSOFTT'S social impact arm registered as an NGO.
- **AQUA**
  Education on water and environmental issues through classroom exercises, experiments, collaborative learning and real-life projects. Over 15,000 students to date have been engaged in Singapore, Hong Kong, India and the UK in this area.

This model is unique among companies in the water industry, which typically focus only on for-profit activities. ECOSOFTT's social impact activities are seen not as CSR projects, but core to the purpose of the company. Its first project was a social impact project for a village at the bottom of the pyramid, started before it secured the first dollar of revenue. The organisation allocates significant organisation and financial resources to these activities even during (and especially during) times of where there is a low level of commercial activities.

Social impact and financial sustainability

Since its founding five years ago, ECOSOFTT has grown and delivered over 30 projects that serve over 250,000 people in Singapore, Southeast Asia, India and Hong Kong. Revenues have grown at a triple-digit pace and it turned profitable in the last financial year. The company's growth is inextricably linked to its purpose and sustainability agenda, which its stakeholders - customers, employees, local communities and investors value.

The simultaneous attention to creating social impact and financial sustainability has not made ECOSOFTT any less competitive. On the contrary, the experience shows that social impact and financial sustainability can be mutually-reinforcing. It has made ECOSOFTT more uniquely positioned in addressing the issue of water, one of the great challenges of our times. •

Contributing to a Thriving Society in a Thriving Environment

Yeoh Oon Jin, Executive Chairman and Fang Eu-Lin, Head of Sustainability and Climate Change Practice, PwC Singapore

Understanding the relationship and interdependencies between government, business and society are fundamental in working towards the success of a thriving society in a thriving environment. Businesses play a key role in this endeavour and it is in their best interests to consider the impacts and contributions brought about by their business activities.

Appreciating interconnectivity

Most people would have a basic expectation for safety, jobs, basic healthcare, a clean environment, reliable infrastructure and so on. It is not always easy to meet these expectations, but when it does happen, it is usually not by chance.

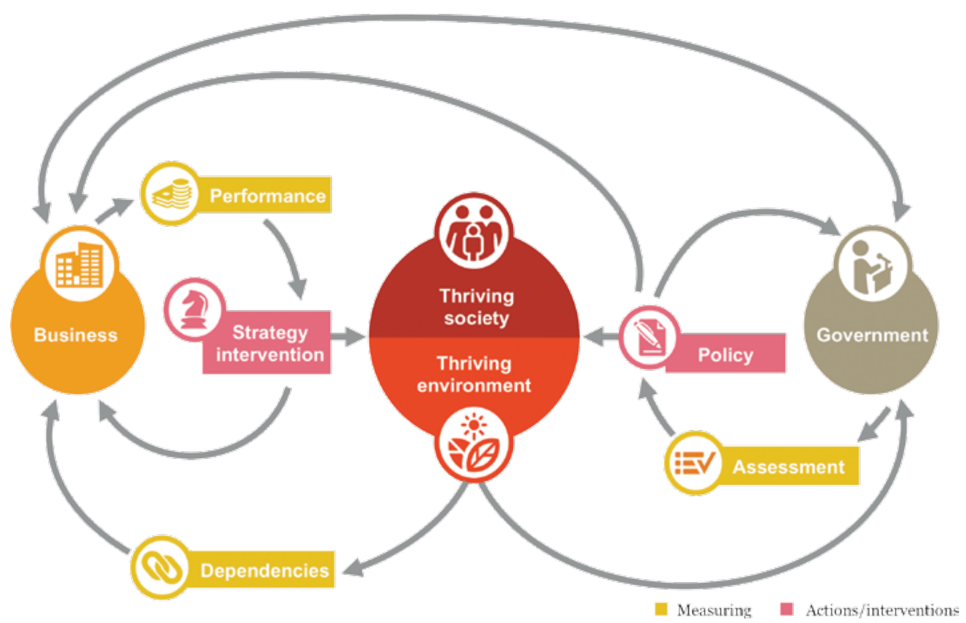
Two key institutions drive this: government (through regulation, tax and policy) and businesses (through strategy implementation). Both make and implement decisions that can have a direct and lasting impact.

Government policies impact society and the environment directly, but they also impact businesses, which in turn impacts the ecosystem. For example, the government policy changes announced in the recent Singapore budget on carbon tax on large emitters could have a positive impact on the environment, and the extension of Special Employment Credits and Wage Credit Schemes can influence businesses' approach towards jobs and employment. In turn, a gainfully employed and vibrant society will have continued positive impact on businesses overtime.

Therefore, it is in the best interests of businesses to be operating in a thriving society and in a thriving environment. But to be successful, these relationships, impacts and dependencies need to be recognised, valued and managed.

This can be summarised in the accompany diagram, "Interconnected: Business in Context Model".

Interconnected: Business in Context



Source: PWC

As can be seen, these actors are inextricably linked, and indeed there are opportunities for businesses to do more, i.e. beyond what is required.

Given the interconnectivities, what might drive businesses to shift gears towards more sustainable approaches?

From shareholder to stakeholder mindset

The first is the increasing pressures for companies to move from a focus only on shareholders to stakeholders. In PwC's 2016 Global CEO Survey, CEOs indicated that they are increasingly feeling the pressure to address wider stakeholder needs. Stakeholders include employees, customers, suppliers and the community at large. About 84 per cent of respondents believe that businesses are expected to address wider stakeholder needs with 52 per cent agreeing that creating value for wider stakeholders helps their businesses become more profitable.

Addressing wider stakeholder needs could lead to better ways of managing risk and seizing opportunities. Transnational food and beverage company, Nestlé conducts global stakeholder meetings regularly each year across locations to address targeted issues not only to improve their product performance but also to safeguard their trust, respect and reputation. Annual forums and meetings with both internal and external stakeholders help to better understand potential gaps between internal and external perception of risks and impact on reputation. It is also used as a platform to increase operational efficiency and innovation.

Moving away from a shareholder-centric position to one that is more inclusive and takes into consideration other influencers is a very different way of looking at businesses and one that could ultimately drive different strategic outcomes.

Engendering trust through sustainability and communication

In 2016, SGX issued the Sustainability Reporting Guidelines, which recommend listed companies to use reporting frameworks such as the Global Reporting Initiative, to consider the most important risk and opportunities to the organisation through the lens of its stakeholders. It is encouraging that many listed companies in Singapore are well into their journey of issuing their first sustainability report.

Another growing priority is the UN Sustainable Development Goals (SDGs), a set of 17 global goals to address the world's challenges, in a coordinated and unified way on issues such as poverty, decent work, climate change, access to clean water, access to energy and much more. Each country has its own unique challenges, and some are more important to address than others. It is encouraging to note some Singapore organisations are already disclosing how their strategies align to the prioritised SDGs. Nestlé is one company that is doing so globally, and at the local level, companies such as Singtel and City Developments Limited, have communicated their SDG story and how their actions positively contribute to address some of the world's and Singapore's most complex issues.

Such communications allow organisations to articulate their purpose and how they impact stakeholders as well as the society and environment. This is especially useful at a time where there are increasing expectations by stakeholders (including institutional investors). The 2017 Edelman Trust Barometer revealed that the general population's trust in key institutions, including businesses has declined. Singapore has fallen from the "Trusters" to "Neutrals" category for the first time, perhaps contributed by the recent high profile going-concern and related party transaction issues in several listed companies.

To safeguard or build further trust in the system, the actors must step outside their traditional roles to do more and leverage on sustainability approaches and communications with and beyond their businesses. Senior management must lead as role models to effectively engage employees and stakeholders as partners in the value creation process in building trust and transparency in the organisation.

Bolder voices in policy making and advocacy

Society and environment is often too complex and large for only government or only businesses to take on the responsibility to solve its most important issues. Diverse views need to be solicited to roll out effective and inclusive policies, and businesses can play an important role in offering their voice to policy makers, being the voice of industry and business groups. Committees, such as the Committee for the Future Economy, allow for constructive voices from the business community to be heard alongside others to enable the co-creation of strategies to enable a thriving economy and thriving society.

Grants and subsidies such as the SME working capital loans and wage credit schemes are often welcomed by the business community, but instances of tougher measures or regulations are often met with resistance from the business community, despite best intentions and their long-term benefits. It is not surprising that industry or business communities can often feel polarised arising from such policy changes. However, businesses and industry associations can play a role in making the transition much easier through supporting each other, boldly advocating or giving further input to refine the policy approaches. Such active and responsible corporate citizenry will benefit the businesses and society at large in the longer term.

Role of the Board

The Board is collectively responsible for the long term success of the organisation. The Board, in reviewing the organisation's strategy, can consider placing more emphasis on stakeholder engagement to further refine an organisation's assessment of risks and opportunities including its impact on various stakeholders.

Leveraging sustainability approaches and communications can also help increase transparency and engender trust, and more active corporate citizenry can help enable shaper and more inclusive business strategies. Through interconnectivity, such endeavours can further contribute to a thriving society in a thriving environment. •

Doing Good Better Through Impact Investing and Venture Philanthropy

En Lee, Partner and Head Asia Pacific
and Paolo Limcaoco, Investment Associate, LGT Impact

The philanthropic sector is becoming increasingly sophisticated as individual and corporate philanthropists adopt innovative and sustainable approaches to doing good, such as impact investing and venture philanthropy.

Despite Asia's strong economic growth and immense wealth accumulation, pressing developmental challenges such as poverty, rising income inequality and climate change remain in the region. These persistent issues have prompted many to explore how they can transfer their personal and professional legacies to future generations, align shared interests and values, whilst creating effective, sustainable and scalable solutions.

Impact Investing

Impact investments are investments intended to create positive social and environmental impact in addition to financial return. In essence, impact investing includes any profit-seeking investing activity that intentionally generates measurable benefits for society and the environment.

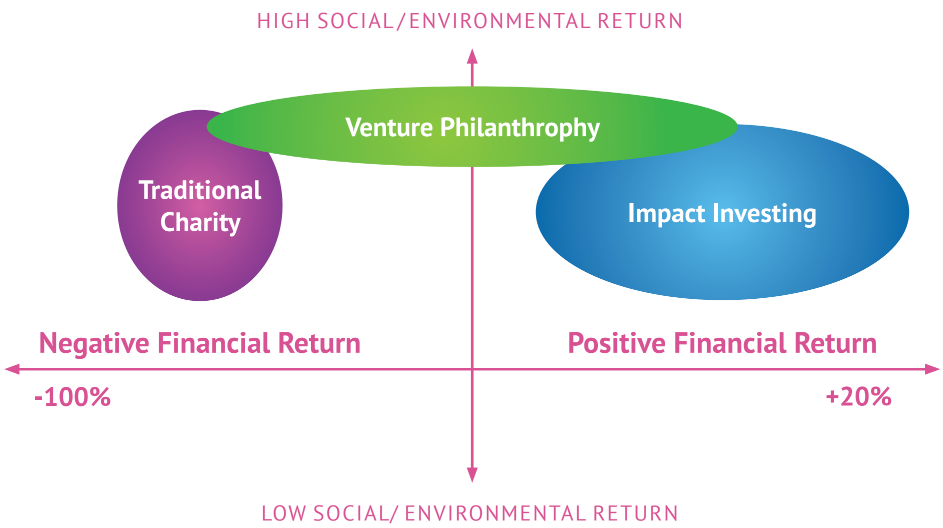
Driven by the need for greater transparency, accountability and efficiency of capital, impact investing has several distinctive features that differentiate it from traditional charity or grant-giving:

- Profitable investment with an expectation of financial return.
- Direct correlation between social / environmental impact and financial return.
- Generates intentional and measurable social / environmental impact.
- Regular reporting on financial performance and impact measurement.
- Delivers sustainable and long-term outcomes for society and environment.

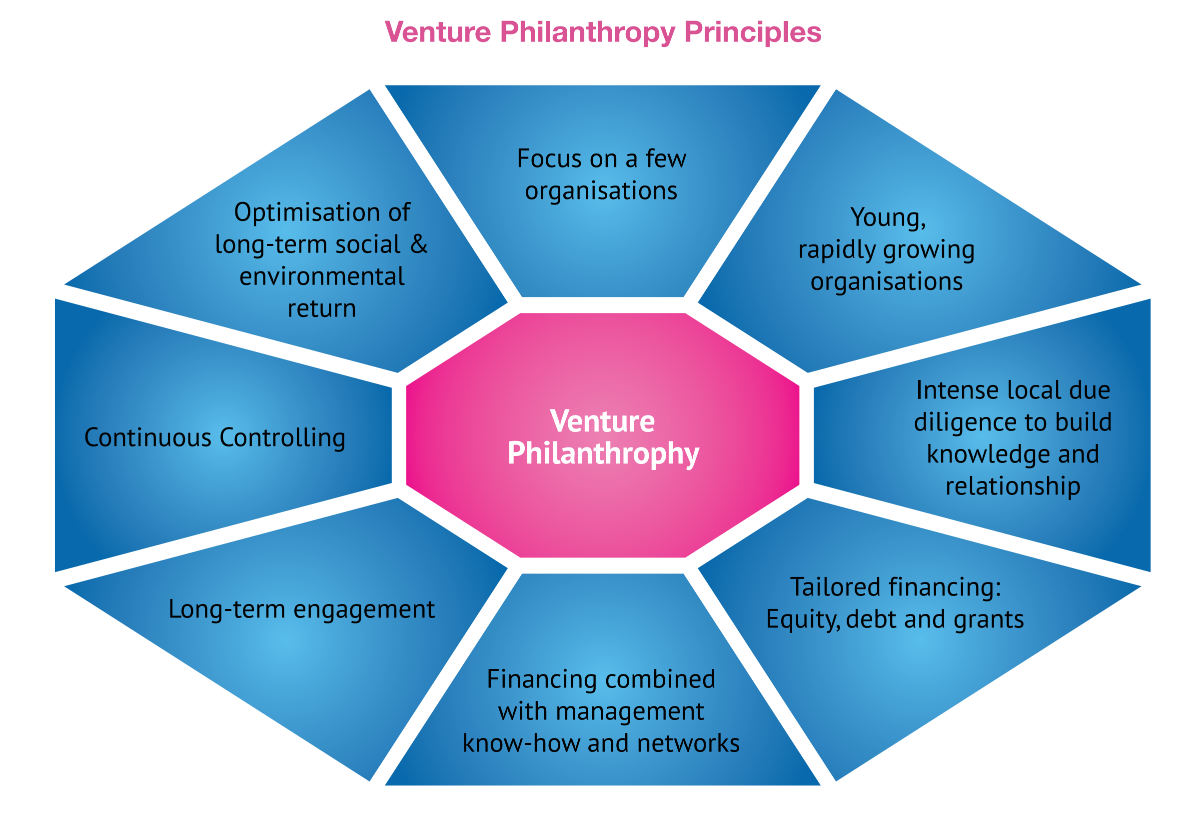
Venture Philanthropy

As a complementary bridge between traditional charity and impact investing, venture philanthropy works to build sustainable social organsations by providing them with a blend of financial and non-financial support to increase their positive impact.

Venture Philanthropy: Bridge Between Charity and Investment



As the hybrid name implies, venture philanthropy incorporates eight key principles from the venture capital industry and applies them to creating philanthropic outcomes. Unlike impact investing which is generally limited to investment capital, venture philanthropy is broader and includes the provision of grants (with no expectation of financial returns) as well as investments (with expectation of financial returns).



Venture philanthropists focus on young, rapidly growing social organisations; conduct deep due diligence to build their knowledge and relationship with each organisation; and use tailored financing, such as equity, debt, and grants, along with business know-how and relevant networks.

The organisations supported may take various corporate forms from social enterprises, to non-profit organisations or socially driven for-profit businesses. A venture philanthropist commits to a long-term engagement not just with the organisation, but also with its beneficiaries and stakeholders. They assume an active role and focus on building the operational capacity and long-term viability of the organisation, constantly monitoring and measuring performance and outcomes to optimise long-term social and environmental returns.

The following case studies illustrate the support provided by LGT Impact, a global impact investor, in delivering positive outcomes through impact investing and venture philanthropy.

Impact Investment Case Study: Kennemer Foods International

Kennemer Foods International, Inc. (Kennemer) is a for-profit inclusive agri-business in the Philippines that empowers smallholder cacao farmers and addresses critical gaps in the agricultural value chain. Kennemer delivers a comprehensive, end-to-end solution for farmers by providing them with high-quality planting materials, farm inputs, technical assistance, and access to global markets with a guaranteed offtake and fair pricing. Kennemer also arranges and provides access to crop-appropriate financing to enable farmers to make the necessary investments for planting cacao. After purchasing beans from farmers, Kennemer processes and sells the cacao to international buyers.

Kennemer has built a unique market position in the Philippines. It is one of the largest cacao companies offering opportunities for smallholder farmers to engage in contract growership. Through its inclusive business model, Kennemer engages smallholder farmers and creates incentive systems to boost their skills and productivity as opposed to employing agricultural workers in plantation-style farms. This has helped to create a new generation of farmer-entrepreneurs with a sense of ownership and dignity.

Through a combination of financial (funding), intellectual (expertise) and social capital (networks), LGT Impact has helped Kennemer scale operationally and financially, whilst achieving both breadth and depth of social and environmental impact. Smallholder farmers engaged will experience as much as four times increase in yield and income. As of 2016, Kennemer has trained more than 600 cacao doctors and has worked with more than 14,000 smallholder farmers who have planted more than 14 million trees. Kennemer has been profitable since 2014 and grown its revenue at a compounded annual growth rate of 43 per cent.

Venture Philanthropy Case Study: Rags2Riches

Rags2Riches, Inc. (R2R) is a for-profit social enterprise that empowers men and women artisans from poor communities in the Philippines. R2R provides them with the training and operational expertise to produce stylish products from scrap materials, (e.g. woven rugs, designer bags and home accessories) and allows them to gain direct access to the market through the R2R brand. R2R also provides additional guidance to the artisans with regards to modules on ethics, financial literacy, and business management.

Financially and professionally, R2R aims to teach these women artisans new skills; provide them with access to markets; increase their productivity; and ultimately improve their livelihoods. Since LGT Impact first engaged with R2R in 2009, R2R has managed to establish and refine its community engagement model by developing best practices and systems for organising and training communities; compensating and incentivising artisans; and providing opportunities for career growth and development.

LGT Impact's contribution to R2R includes customised financial support, operational expertise, talent placement, corporate governance and strategic guidance. The financing provided has been used to hire additional key team members; fund working capital needs; and establish an in-house workshop for product assembly.

As of end 2016, R2R has worked and improved the livelihoods of 1,400 low-income Filipino artisans. The company is operating three retail stores in major shopping malls in Manila and runs an e-commerce portal. The company has established good relationships with international fashion retailer Anthropologie, regional airline AirAsia as well as leading stores and distributors. It has a committed full-time team and an in-house workshop; connections in the local and international fashion world; and an experienced board of directors and advisors. Since 2009, R2R has grown its revenue at a compounded annual growth rate of 38 per cent. It has realised significant margin expansion, achieved domestic and international sales traction, and come closer to financial sustainability. Currently, R2R is planning its next fundraising round, to take the company to the next level of growth and positive impact. •

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SECTION 6

Readings: Governance

- Nurturing a culture of sustainability
- Sustainability reporting for the first time
- From good to great in sustainability reporting
- The heart of exceptional business performance
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- Sustainability and stewardship
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Nurturing a Culture of Sustainability

Tan Boon Gin, CEO, Singapore Exchange Regulation

Conventional wisdom has been that investors are only interested in corporate earnings and care little about a company's efforts in environmental, social and governance (ESG) metrics. In recent years however, we have seen strong calls for the adoption of a corporate culture that places at its forefront the goal of sustainability.

Beyond rhetoric and buzzwords, it is worthwhile to examine the benefits behind this drive and determine how best we can foster a culture of sustainability in concrete ways.

Sustainability and our capital markets

Sustainability has been touted as a critical success factor for companies to ensure long-term value creation. There is a correlation between strong sustainability performance on the one hand, and good returns and lower cost of equity funding on the other. For example, a meta-analysis of more than 2,000 empirical studies published in the *Journal of Sustainable Finance & Investment* highlights how the positive ESG impact on corporate financial performance appears stable over time.

Investors actually care more about sustainability issues than many executives believe. A 2015 study on corporate sustainability by the MIT Sloan Management Review and The Boston Consulting Group, for example, highlights how 75 per cent of senior executives in investment firms attest to the material importance of a company's sustainability performance when making investment decisions. However, only 60 per cent of managers in publicly traded companies feel likewise.

Sustainability as part of corporate strategy

For sustainability efforts to add value to a company, directors must assess how ESG factors potentially impact the company's business. Are there ESG issues which may hinder the company's operations? Or are there ESG opportunities that the company can leverage on to further its business success?

Once sustainability and corporate imperatives are aligned, a company would be better able to face the demands and challenges of a rapidly evolving world.

The next step is to communicate a tailored sustainability vision – both to internal as well as external stakeholders.

Sustainability reporting

Non-financial information on risks and opportunities of the company helps the company to differentiate itself from competitors, in alignment with the values of investors. In this regard, the drive towards sustainability reporting is an uncomplicated one: investors have to know what you are doing before they can trust you to manage their capital.

While cynics might view this as yet another regulatory hurdle to circumvent, the overwhelming majority of the feedback from investors is that they want this information. This is also an opportunity for companies to narrate a compelling sustainability story that complements – indeed underpins – their corporate story.

Sustainability reporting also helps the business to define its long-term vision by setting performance targets, and by instilling discipline to track performance, staff will be able to improve their efficiencies and engage employees. This in turn encourages innovation, helping the company to capitalise on their opportunities. Sustainability reporting can therefore be meaningful for investors, and more importantly, for the company itself both in the short, medium and the long-term.

A flexible approach

Consistent with the goal of making information available to investors, Singapore Exchange (SGX) has gradually stepped up efforts to improve the state of sustainability reporting by listed companies.

In 2011, SGX published a voluntary reporting guide to encourage listed companies to report on their sustainability performance. After continuous engagement with investors and listed companies, as well as a public consultation, the guide was upgraded to a listing rule requirement in 2016. The sustainability reporting requirement takes effect for financial years ending on or after 31 December 2017.

SGX is also allowing companies the flexibility to tailor reports to their circumstances. SGX is not prescriptive. While it provides guidance on "what" and "how" to report, it does not tell listed companies what to do in sustainability or prescribe a format of report. SGX also advocates a phased approach whereby issuers can individually progress the quality and depth of their sustainability reporting over several years.

Assisting companies in adoption

Although companies new to sustainability reporting may have reservations about this new rule and the financial and physical resources required, the reports will help these companies in opening up to the global markets. SGX has run subsidised sustainability reporting workshops conducted by consultants for listed companies who wish to prepare their own reports. Feedback from companies shows that they found the workshops provided them with the skills necessary to produce their first report.

SGX has received questions on what sort of enforcement actions it will take with respect to non-compliance with the sustainability reporting rule. Its paramount objective now is to share with companies the benefits of reporting, and working through with them any implementation issues they may face. SGX prefers to look at the other side of the equation i.e. how much more shareholders will value the company if they know that it is managing well risks that could affect or even derail its business.

SGX recognises and is prepared for the sustainability reporting journey to take years as companies will need time to transition and adopt sustainability reporting. Its eventual goal is that companies and their investors will find sustainability reporting meaningful and an essential step towards long-term value creation. •

Sustainability Reporting for the First Time

**Joan Yap, Director, Sustainability Consultancy,
Asia Business Resource Centre**

Sustainability reporting will be mandatory from 2018. By this time, all Singapore-listed companies that have not published any sustainability reports before should be in the process of preparing or bringing together a team to prepare their sustainability reports.

With growing media connectivity and rising expectations from investors for companies to disclose their environmental, social and governance (ESG) factors on a regular basis, the business case for sustainability reporting is fast becoming more pronounced.

The process of developing a sustainability report will invariably lead to a sustainability practice that can benefit the company in the following ways:

- Create an organisational culture for sustainability.
- Improve operations through sustainability policies, programmes and systems.
- Monitor issues that matter most to the business and stakeholders.
- Allow management to make more effective sustainable investments to enhance the business.
- Align sustainability performance with company's KPIs.

Getting started

Sustainability reporting should not be simply taken as a "tick-the-box" exercise. ESG disclosures ought to be an extension of current operational management and companies should connect business strategies and corporate objectives to its sustainability report.

The challenge for many first-time reporting companies is getting their house in order. This includes organising existing resources and processes to build a reporting structure with clear policies, procedures and performance guidelines aligned to the company's long-term goals.

The first step is to assign staff members and/or engage external consultants to plan, coordinate and develop the sustainability reporting process that involves various activities such as stakeholder engagement; materiality assessment; policies, procedures and targets definition; and finally delivering the sustainability report.

Good communication is key to the success of a company's sustainability reporting. The focus person or team must be able to work effectively with and articulate key sustainability messages to both internal and external stakeholders.

SGX Practice Note 7.6 Sustainability Reporting Guide is a good starting point for first-time reporting as it provides information on how the report should be approached, what topics to cover, and when to report.

Reporting framework

There are several established guidelines for sustainability reporting that companies may adopt. SGX has listed three reporting frameworks that can be used:

- The Global Reporting Initiative (GRI) Sustainability Reporting Guidelines is the most widely used for sustainability reporting. It offers disclosures that can be applied for businesses of any size across sectors, industries and regions based on a limited number of high-priority topics ("Core" level) or on all aspects ("Comprehensive" level).
- The International Integrated Reporting Council (IIRC) is a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs. It developed an integrated reporting framework for preparing an integrated report <IR> which describes how an organisation's strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term.
- The Sustainability Accounting Standards Board (SASB) is a non-profit organisation that provides standards for public-listed companies in the US to disclose material sustainability issues for investors and the public. These standards are designed for disclosure in annual mandatory filings to the Securities and Exchange Commission.

It is important to select the framework that suits the company's objectives and matches its reporting resources. The framework selected is expected to be used in the years to come as year-on-year performance comparisons are made using the same set of measurements and reporting criteria.

Phased approach

A phased approach is the most practical way to develop a company's sustainability reporting when reporting for the first time.

SGX Practice Note 7.6 Section 6 gives an outline on how companies may address the most critical material ESG factors and provide minimal description of management systems and performance commitments for the first year. Thereafter the report will improve stage-by-stage over the years as the company reviews their sustainability goals, reporting process, financial budgets and in-house expertise.

Typical sustainability reporting plan

For first-time reporting, it is advisable to begin the reporting process early in order to secure the availability of key team members, evaluate internal systems and reduce last-minute demands on resources to meet the reporting deadline.

Timelines and outcomes differ from one company to another and are dependent on the size and complexity of the organisation, the extent of disclosures and depth of reporting required.

The following provides an overview of how companies may approach the reporting process.

Kick-off
- Obtain Board and management level endorsement.
- Confirm roles and responsibilities of reporting team.
- Establish key steps and timelines.
- Agree on desired outcomes of the report.

Project
- Identify the project manager responsible for coordinating people and resources required to produce the report.
- Organise stakeholder engagement.
- Determine material ESG factors.
- Perform materiality assessment.
- Define policies, procedures and performance management based on targets set.
- Validate findings with board and management.

Report

- Compile information based on reporting framework.
- Ensure report completeness and clarity.
- Finalise report presentation.
- Publish the sustainability report.
- Communicate the outcomes to stakeholders.

Moving forward

To get the most out of sustainability reporting, the report should focus on what matters most to the company and its stakeholders including both risks and opportunities to ensure balance and credibility.

A sustainability report can be regarded as the blueprint for change and improvement in a company's approach of doing business. The first report sets the foundation for a company to develop a sustainability culture within the organisation and a broader commitment to its stakeholders as part of its value chain.

Sustainability reporting is not a one-off compliance exercise. It is an ongoing attempt to review and enhance a company's performance through sustainable practices that align to performance targets. As a result, it helps to build stronger links with internal and external stakeholders in order to support the company's business goals and continuous progress. •

From Good to Great in Sustainability Reporting

Max Loh

Non-financial disclosures such as sustainability reporting is today increasingly used by companies worldwide to benchmark success in place of the financial bottom line.

Against the backdrop of environmental and social scandals and a greater call for organisations to create long-term value, regulators, investors and the public are now focusing on the organisation's environmental, social and governance (ESG) risks.

According to a recent EY Climate Change and Sustainability Services survey of more than 320 global institutional investors worldwide, 82 per cent of respondents said that ESG risks have been ignored for too long by the business world. Now, investors want to shift businesses from rhetoric towards action. In fact, 68 per cent said a company's non-financial performance plays a pivotal role in influencing their investment decisions.

Sustainability reporting in Singapore

In Singapore, there is an increase in the awareness on non-financial disclosures and their impact on investors' impression of a company's performance and prospects. With the Singapore Exchange's (SGX) "comply or explain" requirements on sustainability reporting by listed companies, we can expect companies to pay more attention to such disclosures.

While this is a positive trend, equally important is the quality and depth of the reports that they produced.

The SGX "comply or explain" requirements is expected to move the quantity and quality of sustainability reports locally to some extent. It provides a basis for good disclosure, offering recommendations on globally acceptable approaches and frameworks to market-leading sustainability reporting.

One such reporting framework is the internationally recognised Global Reporting Initiative (GRI). Using the GRI standards as a yardstick, a 2016 study by the ASEAN CSR Network and National University of Singapore showed that while 186 SGX-listed companies had communicated their sustainability practices in some form or another, only 38 organisations from Singapore produced GRI framework-based sustainability reports.

A desktop research by EY in 2015 on the top 50 SGX-listed companies by market capitalisation also noted that the depth of sustainability reporting varied enormously, with some providing robust and detailed disclosures on their sustainability performance while others only offered limited information.

Of the 60 per cent that reported on their sustainability performance, 47 per cent produced unbalanced reports – providing invariably a one-sided view of their sustainability performance that focused solely on positive progress and corporate social responsibility programmes. They failed to mention the challenges, negative performances and the missed goals.

Just 10 per cent produced reports that could be considered truly balanced. They covered a wide range of performance data, disclosure on whether specific targets were met and any negative impact arising from the company's operations and how such impact was managed.

Makings of a quality report

First and foremost, a good sustainability report draws from appropriate international and national guidance. This includes the selection of a suitable sustainability reporting framework, such as the SGX's guidelines and the globally accepted GRI standards mentioned above.

A good sustainability report is stakeholder-centric. Throughout the report, the organisation should articulate its approach towards stakeholder inclusiveness and engagement, illuminate their understanding of their stakeholders' needs and concerns while at the same time not ignoring the sustainability context. This helps to build trust and a deeper relationship with the reader.

A quality report also focuses on the concept of materiality, prioritising aspects of sustainability based on their impact on both internal and external stakeholders. The focus on materiality signals a clear change from sustainability reporting of the past. Previously companies often released a mass of information with little regard to the relative importance of these disclosures to their business' performance and to their stakeholders.

Further, good sustainability reports offer comparability – both internally and externally. Consistency in presentation and disclosure allows stakeholders to compare the organisation's current performance against past performance and targets. Thus, organisations should adopt consistent calculation methodologies and assumptions used in the analysis of data and information.

External comparability against the performance of other organisations can elevate the quality of a report. Benchmarking against industry peers and leaders helps to provide context for readers to better analyse and understand the organisation's relative impacts and trends in performance over time.

Completeness, accuracy and balance of the report is also key. For larger organisations, deciding the topic boundaries may be challenging as they are increasingly expected to not only report on their direct impact but also their indirect impact through the value chain.

The best sustainability reports are those that disclose true performance – the good, the bad, and the ugly. Many organisations may find it daunting to include negative information but those who eventually come to terms with it can find themselves liberated, distinguishing themselves and seizing the chance to explain to stakeholders how they plan to improve.

Lastly, many organisations now look to establish stakeholders' confidence in the reliability and quality of the sustainability report through external independent assurance. While external assurance is not a mandatory requirement, this process adds to the credibility and integrity of the report, benefiting the board of directors, management and external stakeholders.

Barriers to quality

Moving from a good to great report is not without its challenges.

Historically, the business world has placed a greater emphasis on financial reporting. More organisations are now connecting the dots and identifying ESG risks and opportunities that affect their ability to create and sustain long-term value for their stakeholders. As awareness of the importance of non-financial reporting grows, the momentum must intensify.

One of the key practical challenges is perhaps the lack of sophisticated tools and techniques to gather and analyse non-financial data by organisations. Another challenge is in bridging and communicating these non-financial results within the ambit of traditional reporting by putting a monetary value to these elements. This will allow a smarter and more efficient usage and allocation of resources and capital, whether financial or non-financial.

Expanding operational reporting boundaries to reflect the entirety of the organisation will be challenging as it depends on a variety of factors. These include a mindset change to embrace sustainability and how management communicates this change. It requires the development of a sustainability strategy, the establishment of a governance structure supported by a clear direction and tone from the top.

Ultimately, it is the value that the organisation attaches to sustainability reporting as a proactive and dynamic stakeholder communication and performance tracking tool that will motivate quality sustainability reporting.

It's time to look beyond just sustainability reporting obligations. •

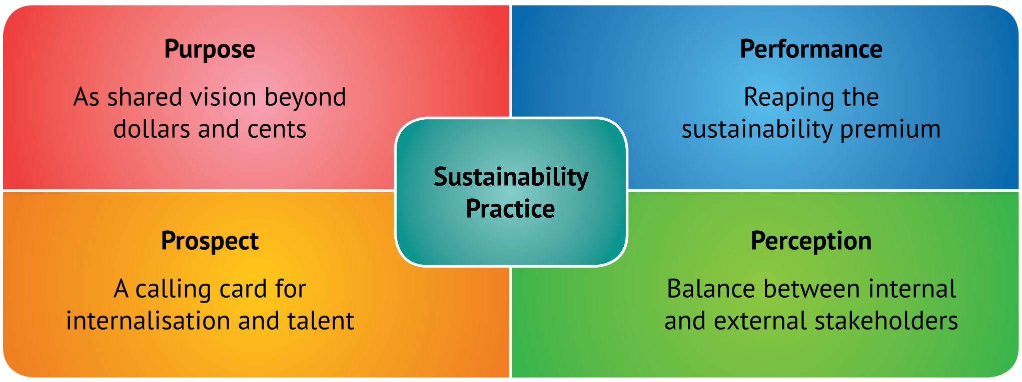
The author is Max Loh, EY Asean and Singapore Managing Partner, Ernst & Young LLP. The views in this article are those of the author and do not necessarily reflect the views of the global EY organisation or its member firms.

The Heart of Exceptional Business Performance

Sovann Giang, Senior Director and Claire Nie, Consultant,
RSM Risk Advisory Pte Ltd

The definition of a "good" company has changed. A good company today encompasses more than delivering strong profits to shareholders. Investors and stakeholders expect a company to assess the broader consequences of decision making and to honour their social accountabilities. Companies are expected to draw the linkage between sustainability practices and a business model that deliver profits.

When examining the sustainability framework of good companies, they are often found to possess four Ps: Purpose, Prospect, Profit, and Perception. They are the key principles which precede the concept of sustainability reporting and answer the very basic question about "why" the company exists. Corporates retain the ultimate control over how the four elements are exhibited, managed and interacted within the business ecosystem.



1. Purpose - A shared vision beyond dollars and cents

The reason for corporate existence is the purpose often crafted by the founding members of the business. In good companies, such messages are clear and invoke a sense of purpose. Companies which do well understand sustainable practices are not about form filling. They should resonate from the corporate DNA and form the building blocks of the company's mission and vision. Through devoted commitment and board awareness, companies could calibrate sustainability into why they exist and hence embody this in their purpose.

One good example is Starbucks. Starbucks believes that it is not in a coffee business serving people but rather a people business selling coffee. Through community engagement, fair trade coffee and scholarship programmes, Starbucks has integrated sustainability into its purpose and business model.

2. Perception - Establishing a self-reinforcing cycle

From purpose, the next common principle we have seen in a good company is the ability to generate the right perception. Good companies recognise that garnering the right kind of perception equates to half the battle won.

The digital economy and Internet of Things (IOT) has increased connectivity between businesses and their stakeholders. Good companies formulate their corporate message and ensure that they have the right medium to broadcast these messages to deliver the intended impact. Good companies are also leveraging more on newer media channels such as social media. They realise that this channel gives the corporate body a personality and creates a more human touch to its corporate image.

Good companies also address the perception issue by recognising their key stakeholders. They then evaluate the impact of their business activities on these parties (e.g. rural communities, local law makers, municipality and administration bodies, buyers, suppliers etc.). Good companies tend to engage actively with the affected parties, and act on their feedback.

3. Prospect - Calling card for internationalisation and talent

Once good companies get the first two "Ps" right, they have greater probability of securing opportunities and good prospects.

Prospects come in the form of local or international ventures, investment, innovation and talent acquisition opportunities. To step up the game, many local companies have responded actively to Singapore's Committee on the Future Economy's encouragement to take more active investments abroad. Such companies are able to exercise their corporate rights and choose the right business partners they wish to associate with.

Sustainable companies are a powerful magnet at attracting talents which are one of the most valuable assets. For example, Facebook receives overwhelming applications from top talents who are attracted to the company's promising prospect and the ambition to "give people the power to share and make the world more open and connected".

4. Performance - Reaping the sustainability premium

Naturally, sustainable business practices help companies preserve their value and sustain their financial performance. A recent report released by CDP (a nonprofit which runs a global disclosure system measuring environmental impact) revealed that S&P 500 companies that integrate sustainability into strategic objectives tend to outperform the market.

Savings derived from utilities and energy, is often a top sustainability priority. Calculating the full cost of energy consumption and subsequent direct and indirect savings allow senior management to interpret results and establish deeper trust in the measurement process. Good companies often apply SMART (i.e. Specific, Measurable, Achievable, Relevant and Time Management) targets to measure tangible outcomes. In these good companies, executives visualise the performance potential through the deployment of targets and then gather the data to quantify and justify the outcomes.

Towards sustained exceptional performance

It is clear that good companies begin with the outcome or end in mind. They stick to the 4Ps to achieve the corporate mission. Staying good however requires discipline, commitment and the right culture. The 4Ps, whilst fundamental to the development of the company, must nonetheless be recalibrated from time to time. This ensures that these Ps are relevant and well suited to delivering sustainable exceptional performance. •

Shaping the Company's Future through Sustainability Reporting

Chin Chee Choon, Corporate Advisory Director and Pamela Chen, Corporate Advisory Director, Nexia TS

The corporate reporting landscape has changed over the years with an increased focus on non-financial aspects revolving around environmental, social and governance (ESG) factors. In particular, the concept of Sustainability and Corporate Responsibility and how it forms an integral part of a business strategy has grown in significance. Institutional investors and general investors have placed greater emphasis on the consideration of these ESG factors in their investment decisions.

In view of the current expectations in creating value for the stakeholders, Sustainability reporting brings clarity to both investors and listed companies.

Since the issuance of Listing Rule 711A and Listing Rule 711B by the Singapore Stock Exchange (SGX) in June 2016, all listed issuers will have to publish a sustainability report to describe their sustainability practices on a "comply or explain" basis. This addresses the need for companies to integrate stakeholders' expectations with business strategies and objectives.

With this shift from voluntary to mandatory disclosure, all issuers will have to publish a sustainability report. It is important to note that there is a positive correlation between addressing sustainability issues and financial returns. Value creation and maintaining long-term competitiveness are some of the positive outcomes.

Existing requirements

Under the Code of Corporate Governance issued on 2 May 2012, one of the board's role is to consider sustainability issues as part of its strategic formulation. The board will, therefore, have to consider some of the key drivers of sustainability, including competition for resources, climate change etc., as part of their role in the responsibility for the long-term success of the company.

The Global Reporting Initiative (GRI) is one of the world's most widely-used sustainability frameworks when it launched the world's first global standards for sustainability known as the GRI Sustainability Reporting Standards. However, the divergent interests of stakeholders may complicate matters. Sustainability reporting therefore needs to encompass these differences. The GRI Reporting Standards provide reporters with a common language in disclosing non-financial information. This enables reporters to communicate their ESG aspects in a manner which is comprehensible to all stakeholders, including common industry peers.

Towards sustainability reporting

Sustainability reporting has often been seen as a reporting tool for large companies (MNCs) and not small and medium enterprises (SMEs). Many large local companies such as Keppel and SingTel produce sustainability reports long before they became mandatory.

Although voluntary disclosures used to be dominated by these larger capitalised issuers, SMEs play a crucial role in driving economic growth as well. With the integration of sustainability in the strategy and operations, SMEs will reap benefits in areas such as reputational image, competitive advantage, new capital, production efficiencies and employee retention etc. The GRI publication, *Small Business Big Impact*, reiterates the importance of SMEs in the economy and the need for them to consider factors which affect the environment, social and governance climate to be successful.

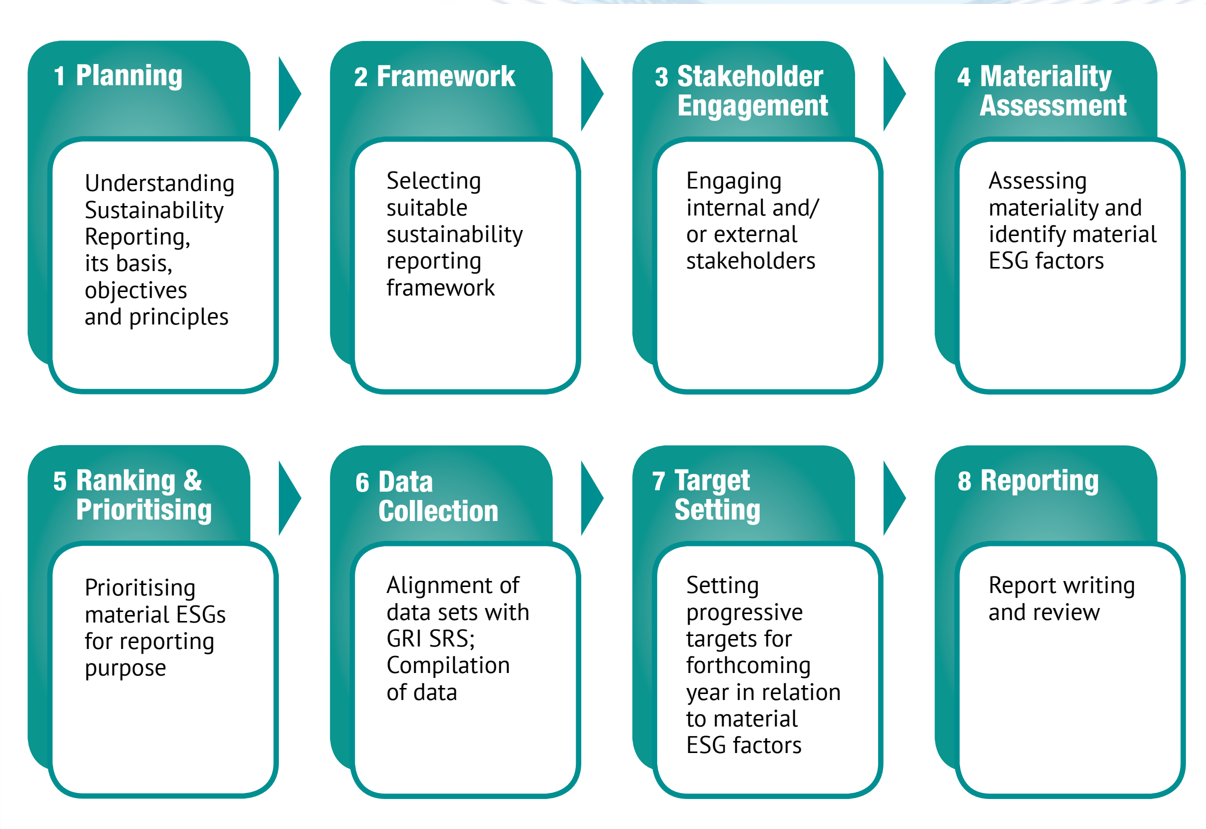
As an example, consider the upcoming carbon tax announced in the Singapore Budget 2017 which will be imposed on large direct emitters of greenhouse gases (such as power stations and refineries) from 2019. This is part of Singapore's commitment to the Paris Climate Agreement where emissions intensity will be reduced by 36 per cent by 2030 compared to 2005 levels. Carbon taxation could have potential adverse impact on many companies, large and small. Thus, reporting on their carbon footprints will aid both the companies and the investors to make informed decisions.

The Next Step

Many initiatives have been put in place to raise awareness and understanding of sustainability reporting. Singapore Institute of Directors is conducting forums and training sessions to educate directors on the importance of and measures for producing sustainability reports. The Institute of Singapore Chartered Accountants has set up a Corporate Reporting Committee to aid first time reporters in producing and publishing quality sustainability articles. Other organisations, such as the Global Compact Network Singapore, have been established to advance corporate responsibility in business strategy and practices. Initiatives such as the Singapore Sustainability Reporting Awards will also help to showcase leading examples of this new mandatory requirement.

Drawing from the guidelines, listed issuers will start to embark on their sustainability reporting journey. The diagram, Roadmap to Implementation, demonstrates the pathway for how a company or its appointed service provider should prepare for the publication of the sustainability report within 12 months for financial years ending on or after 31 December 2017.

Roadmap to Implementation



Sustainability remains and will continue to be an integral part of the business strategy. At this moment, the key challenge revolves around reporting in a form that aids both the stakeholders and reporters in aligning their expectations. •

Sustainability Reporting: The Latest Tool in the War for Capital

Koh Chin Beng, Partner, Risk Advisory Services, BDO LLP and Ho May May, Lecturer at Temple University, Japan

From this year, sustainability reporting is a requirement for Singapore Exchange (SGX) listed companies. This should be welcomed as an opportunity rather than yet another regulatory checkbox for companies to comply.

Why sustainability

Today, the fight for capital in markets is intense, and for many companies, this is not only about being the best-in-class but to be able to do it in a sustainable way.

Moreover, sustainability is changing businesses. For example, fashion used to be all about design, but going forward it also means sustainability for eco-conscious buyers and investors. An environmental scandal in the supply chain can wipe millions off the market cap.

The sustainability report should be viewed as a way to win investors. Similar to the annual report, it is one of the few chances that the company has to impress potential investors who are looking at its business. In many countries, we now see the sustainability report developing into a rich, graphical, professional publication to woo the ethical investors.

Preparing the sustainability report

The SGX adopts a "comply or explain" approach and has given companies sufficient flexibility to meet their sustainability reporting requirements. The SGX requires the report to cover five areas: Material ESG factors; policies, practices and performance; targets; sustainability reporting framework; and board statement.

Even before this requirement is made mandatory, a number of SGX-listed companies have chosen to early-adopt sustainability reporting and have set up their in-house sustainability departments to gain expertise and build up a set of best practices that other companies can refer to.

Sustainability will touch many parts of the company. For a company preparing the sustainability report for the first time, it should start small and focus on what matters most. It does not need to be a "perfect" report; this being the first year just getting across the finish line is an achievement. What is important is to strengthen the processes and systems to develop a more comprehensive report for next year and beyond.

Many companies are unlikely to have the luxury of dedicating resources solely to sustainability. Companies should tap on internal resources to work with a service provider that can champion the sustainability initiatives and contribute to the sustainability reports.

Companies should start by establishing a plan that can help to identify material issues that matter to the stakeholders, serving as a guide on the way the report is to be presented. Executives must determine what the stakeholders look for, what the company wants them to know and to feel, why it matters, and how best the company reach can out to them.

Companies should use various platforms to engage shareholders and key stakeholders. A good opportunity is to use their annual general meetings to reach out to the stakeholders, inform them about the sustainability journey and set up an email address for them to provide their comments. Shareholders who are professionals and from academia may want to share their views.

Of course, it does not need to be exactly this way. For example, a stakeholder of NTUC, one of the largest supermarkets in Singapore, decided to ensure that key items, such as palm oil and pulp and paper, come from suppliers who support sustainability and that the supermarket chain avoids buying from suppliers who are engaged in deforestation. In October 2015, the Singapore Environment Council imposed a temporary restriction on the use of the "Singapore Green Label" certification on certain paper products and the NTUC was the first retailer to withdraw affected products from all its supermarkets as a result.

Ultimately, sustainability reporting is about the narrative of how these practices are portrayed. It is important to know where these reside within an organisation. Many existing efficiency improvement frameworks like Six Sigma, Lean Manufacturing, and Kaizen are put in place for their benefit to the bottom line. However, these can also be part of the company's sustainability report, as can an initiative to reduce emission of dangerous chemical or to purchase new equipment to reduce energy use and thus carbon emissions.

Sustainability reporting for competitiveness

The company can sell its story in many ways but it needs to do so in an honest way. To a person, the reports that they trust are ones from organisations that are telling the good along with the bad.

One key point to note though is that while the rules stipulate that the sustainability report must be balanced, audits or independent assurance of the report is at this juncture not yet mandatory. That means the company could gloss over the negatives and unless it is a blatant lie about something that is in headline news that everyone knows about, there is no reason to expect it would fail the lenient SGX rules as they currently stand.

Sustainability is the new differentiator, not just for the consumer but also the ethical investor. A sustainability report that simply is there to tick the compliance boxes is nowhere near as valuable as one that helps the company win the fight for the global capital. •

The Director's Duty In Sustainable Governance

Kala Anandarajah, Head Competition & Antitrust and Trade Practice and Lead Partner, Corporate Governance Practice, Rajah & Tann

This article takes a quick dive into whether directors' duties have now been increased given the need for sustainable reporting. It concludes that there has been no increase in the directors' obligations, save for the need to provide a report on what they are expected to adhere to.

How does sustainable governance fit in with corporate governance?

The term "corporate governance" is not a term of art and there is no universally agreed upon definition. One of the early definitions, often referenced today, is by Sir Adrian Cadbury who in 1999 explained the concept of corporate governance as follows:

> "Corporate governance is holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations and society. The incentive to corporations is to achieve their corporate aims and to attract investment. The incentive for states is to strengthen their economics and discourage fraud and mismanagement."

Embedded within this definition is a call for balancing profit maximisation with the greater good for society. In like view, in the words of Dave Packard, the co-founder of Hewlett Packard Company:

> "I think many people assume, wrongly, that a company exists simply to make money. Whilst this is an important result of a company's existence, we have to go deeper and find the real reasons for our being. As we investigate this, we inevitably come to the conclusion that a group of people get together and exist as an institution that we call a company so that they are able to accomplish something collectively that they could not accomplish separately – they make a contribution to society, a phrase which sounds trite but is fundamental."

For traditional proponents of corporate governance, this explanation is a difficult pill to swallow as, on the face surface, it appears to undermine the very basis of why a business entity is formed. Surely making money must be for the prime purpose of profit maximisation. As observed by Milton Friedman:

> "There is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engage in open and free competition, without deception or fraud."

Yet, the call for sustainable governance is on the rise and new rules have been introduced for listed companies. Listing Rule 711A of the Singapore Exchange Listing Manual requires every listed company in Singapore to prepare an annual sustainability report, which must describe the company's sustainability practices with reference to material environmental, social and governance factors. The Code of Corporate Governance additionally provides that the board's role includes the need to consider sustainability issues at all times as part of its strategic formulation.

In essence then, the introduction of sustainable governance is not entirely new but goes back to how Sir Adrian Cadbury had defined corporate governance. Sustainable governance reminds the company to take a holistic longer-term view of the company's interests.

In this regard, whilst there has been no clear definition as to what sustainable governance means, drawing from literature, and Practice Note 7.6 of the SGX Sustainability Reporting Guide, what we do know is that sustainable governance is intended to encompass environmental, social and governance (ESG) factors. ESG is explained as encompassing materials, energy, emissions, effluents and waste, corruption, and diversity factors such as gender, skill and experience. The list of ESG factors is not closed.

Does sustainable governance increase a director's duties?

Paragraph 3.1 of the Practice Note 7.6 of the SGX Sustainability Reporting Guide states that "the board's close interaction with management will enable the board to satisfy itself on the way sustainability governance is structured and functioning through the various levels of management. The board has ultimate responsibility for the issuer's sustainability reporting". Without more, this expectation appears to require more from the directors. It is yet another review and reporting obligation that directors must now take responsibility for.

However, when one scrutinises what is required of sustainable reporting, it becomes clear that it is a function that the board has always been responsible for. The only addition is the preparation of the report that must now be included into the annual report.

In this regard, Section 157(1) of the Companies Act provides that a director shall at all times act honestly and use reasonable diligence in the discharge of the duties of his office. This requirement has been the subject of numerous court cases in various jurisdictions, including Singapore, and has summarily been interpreted as acting with due skill and care in the best interest of the company. The duty translates into the directors needing to interact closely with management to have a better understanding of the business of the company, so as to drive strategy as appropriate, to ensure compliance with all laws as business is undertaken, to better aid in enhancing the wealth of the company, and to be responsible for the long term success of the company.

In other words, the new sustainability reporting requirements do not increase the duties owed by a director; it is already encompassed in the role he performs. What is different is that the elements are now to be expressly articulated in the Listing Manual, the Practice Note and the Code of Corporate Governance.

There can be no argument that the director's duty as such loses its objectivity. One reason for this is that a director is required to always act in the best interest of the company. Stating that a director's duties are akin to the maintenance of a strict degree of ethics, Laskin J. in *Canadian Aero Service Ltd versus* O'Malley observed as follows:

> "... Strict application [of duties] against directors ... is simply recognition of the degree of control which their positions give them in corporate operations, a control which rises above day-to-day accountability to owning shareholders and which comes under scrutiny only at annual general meeting or at special meetings. It is a necessary supplement, in the public interest, of statutory regulation and accountability which themselves are, at one and the same time, an acknowledgement of the importance of the corporation in the life of the community and of the need to compel obedience by it and by its promoters, directors and managers to norms of exemplary behaviour."

It is also worth highlighting that "being a director is not an easy matter, and requires a responsible approach", as was observed in the English High Court in *In the Matter of Sunrise Radio Ltd & Ors versus Dr Avtar Lit & Ors*. The court went on to note that:

"The degree of regulation can catch the most sophisticated of directors unawares. Most directors do not have the requisite level of sophistication and skill to cope unaided with the extensive statutory framework to which they are subject, or the niceties of the company's constitution. Many become directors of companies to take advantage of limited liability, so as to exploit their entrepreneurial skills and instincts, and may not be temperamentally suited to statutory control or constitutional restraint. There is a strong public interest in encouraging entrepreneurial activity. There is equally a strong public interest in combating abuse which limited liability too often engenders."

This case is eight years old and well articulates the point that the number of regulations is not what increases a director's duties. Time and time again, it has been acknowledged that the principle based approach of managing directors' duties as captured in Section 157(1) of the Companies Act, does include basic ethics, integrity and hence, a clear consideration of all factors that go towards ensuring the best interest of the company is protected. Directors need to accept that their role has always come with holistic responsibilities, which rules and guidelines are now providing guidance for. There is no creation of new obligations. •

Navigating the Waters of Sustainability Reporting

**Jerry K.C. Koh, Deputy Managing Partner
and Victoria Leong, Associate, Allen & Gledhill LLP**

In a world where there is a growing emphasis on environmental, social and governance (ESG) issues, investors and other stakeholders increasingly expect companies to deliver more information about the financial and non-financial aspects of their businesses. In mid-2016, Singapore Exchange (SGX) introduced new rules requiring issuers to engage in sustainability reporting.

This article provides a brief overview of the new sustainability reporting requirements and the potential challenges faced by companies as they navigate the waters of sustainability reporting.

Sustainability reporting

Sustainability reporting refers to disclosure by a company about non-financial information such as the ESG factors relating to its business operations. Even prior to the introduction of the sustainability rules in the SGX's Listing Manual, out of 502 Mainboard-listed companies on the SGX in 2015, 186 companies have voluntarily communicated sustainability, according to a study by the Centre for Governance, Institutions and Organisations. This figure includes 24 companies that adopted the Global Reporting Initiative (GRI) framework, a commonly adopted reporting standard globally.

Under the new sustainability reporting rules, an issuer must make sustainability disclosures on a "comply or explain" basis, meaning that it must either comply with the stipulated sustainability disclosures, or disclose any deviation and describe its actual practice, with its reasons for such deviation(s) (Rule 711B of the Listing Manual). The new rules will take effect for any financial year ending on or after 31 December 2017. The rationale underlying these new rules stems from the SGX's recognition that ESG reporting is a business imperative, and that fulfilling investors' demand for greater quantity and quality of information would foster investor confidence.

The report must describe the issuer's sustainability practices with reference to the following primary components:

- **Material ESG factors**
  The issuer has to describe both the reasons for and the process of selection of each material ESG factor.
- **Policies, practices and performance**
  The report should describe the issuer's policies, practices and performance in relation to the above material ESG factors.
- **Targets**
  The issuer has to set out its targets for the forthcoming year in relation to each material ESG factor.
- **Sustainability reporting framework**
  The issuer should select a sustainability reporting framework, which would be suited to its industry and business model. The issuer should state the name of the framework, explain reasons for its choice and provide a general description of the extent of its application of the framework.
- **A statement by the board**
  The report should contain a board statement mentioning that the sustainability report complies with these primary components, or has otherwise explained the issuer's alternative practices.

Cost concerns

Some issuers have highlighted that the introduction of sustainability reporting requirements will increase compliance costs. In particular, smaller companies may lack the manpower, know-how and/or other resources needed to monitor and report their sustainability efforts as they lack access to the economies of scale unlike larger companies in producing their annual reports. Also, on a cost-benefit analysis, the costs of management time and resources required to produce the sustainability reports for smaller companies may potentially outweigh the benefits of disclosure.

To address this issue, the Maritime and Port Authority has announced an initiative whereby it will co-fund 50 per cent of qualifying costs for sustainability reports by Singapore-listed maritime companies, up to S$50,000 per company.

While sustainability reporting may heighten compliance costs, it also encourages issuers to consciously invest in sustainability efforts, which may ultimately improve their operational efficiencies and reputation. It will take time to see the impact of sustainability reporting on Singapore-listed companies. For now, sustainability reporting is still a developing practice which will probably evolve over time to meet the requirements of business.

The scope of disclosure

Another challenge faced by issuers is that the scope of the reporting requirements tends to be amorphous, and the outcomes of their sustainability efforts may be difficult to quantify.

Several organisations have sought to promote certainty in sustainability reporting by formulating frameworks and guidelines. For instance, the GRI has been recognised by the SGX as providing a "valuable framework to assist listed companies with sustainability reporting". The GRI and the Listing Manual both rely on the concept of "materiality" to delineate the scope of information to be disclosed. The Listing Manual provides some guidance on materiality by encouraging issuers to disclose "the most important ESG risks and opportunities that will act as barriers or enablers to achieving business goals".

With the growth of sustainability regulations, companies may be incentivised to treat sustainability reporting as an exercise in superficial box-ticking. Such superficial disclosures are unhelpful to the company and its stakeholders, and would therefore be a waste of resources. The key to effective reporting is to focus on disclosures that comply with the substance of the sustainability rules. A savvy company would consider weaving the company's business story into its non-financial disclosures, so that investors obtain a more holistic picture of the company's performance and potential.

Board responsibility

The role of the board in sustainability reporting is a vital one. The Listing Manual imposes upon the board "ultimate responsibility for the issuer's sustainability reporting". In line with this, Rule 711B(1)(e) of the Listing Manual requires the board to issue a statement on the board having considered sustainability issues as part of its strategic formulation, determined the material ESG factors and overseen the management and monitoring of material ESG factors.

It is worthwhile to consider the implications of the board statement for liability risks under Singapore law. Should the board deliver a Rule 711B(1)(e) statement without considering sustainability issues or overseeing the monitoring of material ESG factors, this may be a breach of Section 199 of the Securities and Futures Act, which prohibits the making of a statement that is false or misleading in a material particular. Investors may thus be able to hold the board accountable for failing to adequately manage the company's sustainability risks. That said, the issue of directors' liability in the context of sustainability reporting is still new, and directors should keep an eye out for any further legal developments.

Moving forward

With the emphasis on corporate governance standards in recent years, the practice of sustainability reporting is likely to gain momentum in Singapore. Issues that companies will have to grapple with include compliance costs, the scope and extent of appropriate disclosure and Board responsibility. Nevertheless, by making accurate and relevant disclosures on their ESG factors, companies will be able to leverage sustainability reporting as a tool to improve their reputation and bottom-lines. •

Sustainability and Stewardship

Mark Goyder

Are environmental, social and governance (ESG) metrics the key to responsible investment?

A fund manager, whose firm is a signatory to the UN Principles of Responsible Investment, explained to me that with good ESG metrics, responsible investors could say: "I'm looking for 6 per cent return. But if there is a particular investment that offered me only a 4 per cent return, with a social value of 2 per cent generated by this investment, then I would be happy."

I found this unconvincing. For one thing, it is based on the assumption that investors can know that they are going to get six per cent from a particular investment strategy, as if investments were scientific. Talented marketing people try to convince clients that investment is scientific, but it is not. As UK's *Evening Post* journalist Anthony Hilton pointed out in a recent article, "Investment shouldn't just be about profit", top poker players earn a better return than the best active fund managers.

This is not surprising. Investment is more of a gamble than poker-playing. There is far more volatility and uncertainty. That uncertainty is compounded by bubble effects and crowd behaviours. The pseudo-scientific view of investment also masks the mathematical truth that the average performance of all the asset managers who are trying to beat the market is zero. Some will outperform. Some will underperform. Typically, the star manager of one five-year period becomes the flop in the next.

Companies that create value

So, since so much of the "science" of investment management is bogus, it makes sense to concentrate on the different dimensions of investment that are clearly supported by research and, at the same time, have positive impacts on the economy and society and the planet.

There is a huge body of research which tells us that the companies which generate the most economic value over the long term have had a focus on what we today would call social value, provided that they combine this focus with other characteristics. If one wants to find a company which has a better chance of doing well over decades or even centuries, find a company which is financially prudent, has an enduring purpose (its reason for existing) a strong sense of its values, an ability to anticipate and adapt fast to changing markets and societal expectations. Such companies create more shareholder value over the longer term partly because of, not in spite of, their strong focus on the needs of society.

While it is not possible to guarantee investor returns of six per cent from any investment strategy, it seems to be prudent as well as responsible to prioritise companies which, all things being equal, follow these time-honoured stewardship principles.

Principles of stewardship

The challenges we face are multi-dimensional. Neither businesses, nor investors, nor governments, nor civil society, nor consumers alone can resolve them. We need all our actions to be connected by a golden thread of stewardship.

The best boards of companies see themselves as stewards of the relationships and the assets with which they have been entrusted. There are four principles of stewardship which will in future need to underlie the actions of boards and their investors if each are to play their part in tackling the problems we face.

The first is clarity. Boards need to be clear. The best companies show leadership, not followership, in their dealings with institutional investors. They set out their purpose and values and establishing a clear mandate for action from their investors, however dispersed those investors may be.

The second principle is attention to continuous improvement. The dialogue within board and between boards and institutions should add value in the way it challenges current assumptions and provokes renewal.

The third principle is about sensing and shaping the landscape.The companies that prosper and endure are those who are connected with the society around them and anticipate changes in their external environment that will offer risk and opportunity.

The fourth principle is about planting for the future: companies and investors alike need to balance the short and the long term. They need to ensure that the seeds are being sown in the form of future talent and future capacity.

Priorities for boards

This has four important implications for companies and their boards, especially those of listed companies with a dispersed shareholding.

Firstly, every board should define its mandate. Directors of companies are stewards of the company. Under most jurisdictions, they owe their duty to the company, not to shareholders. Shareholders elect them, and shareholders can dismiss them. But it is for the board to set out with clarity the purpose, the values, the time horizon, the strategy and the business model, so that shareholders can know what they are buying into when they buy shares and elect the board.

Secondly, investor relations need to mature into stewardship relations. Every board should ensure that its company is a leader and not a follower in their communications with shareholders. Companies should seek out those investors who share their vision and strategy for the company. If the company is only interested in the short term it should say so.

If it has a focus on the longer term it should stand up to shareholders who are pressurising it to deliver share buybacks and discouraging it from investing in the future. It can give priority of time and attention to those shareholding institutions who are serious themselves about being good stewards in their ownership of the company, and pay less attention to opportunists for whom the shares of the company are simply a casino chip, or algorithmic traders.

Thirdly, stewardship should then permeate the way companies report to and communicate with their shareholders and other stakeholders. Serious stewardship investors will want to see the chairman and the CEO give priority in their reports to the company's purpose. Does it go beyond profit? Does the company have a convincing vision of its role in the world? Can it, in its reports, demonstrate that it has a robust culture, in which employees can be relied on to represent the company well, be effective innovators, and behave ethically at all times? Is it adding to or subtracting from the stock of natural capital? This logically leads companies to the adoption of the principles of Integrated Reporting.

Fourthly, the board and the company as a whole must have an effective radar. How does the company get in touch with the next generation of people who might work for it, buy its products, or disrupt its activities through their protests and objections to what it does and how it does it? Is it well equipped to listen to stakeholders as well as to shareholders? Has it thought about having a form of stakeholder advisory council? And, what does this mean for directors?

Investment institutions – whether pension funds, or asset management firms, are stewards because they are investing the money of citizens.

Directors of companies are elected by shareholders to be stewards. They are entrusted with responsibility to nurture the business and secure its long term survival and success. To do so well they need to focus on the things that have always been associated with survival and success – the clear leadership of the business in line with robust purpose and values, and a focus on applying these values across all the company's key relationships.

So, both fund managers and boards have both the opportunity and the obligation to those who appointed them to live out the real meaning of stewardship - the "responsible management of entrusted resources so that we hand them on in better condition".

If this is what my lunch companion meant by "ESG metrics" then we are using different language to say the same thing. It is refreshing to hear it from the fund management community.

It would be refreshing to hear it with equal forcefulness from the chairs, CEOs and finance directors of listed companies around the world. •

Mark Goyder is the founder of Tomorrow's Company. Tomorrow's Company is a Research Partner of Stewardship Asia.

Sustainability Edge: From the Boardroom to the Front Desk

Patrick Liew, Managing Partner, Global Enterprise Exchange

There's a growing trend for enterprises to focus not only on the financial bottom lines but also on sustainability, including the environmental, social and governance (ESG) aspects of their businesses. Their capacity to respond to ESG risks, obligations and opportunities are at the heart of their ability to sustain and improve their profit, advantage and growth.

The UN Brundtland Commission defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

For companies, the UN Global Compact on its part has stated that "directors are uniquely positioned to ensure sustainability is fully embedded into business strategies and practices in a way that will support the long-term profitability and viability of the company".

There are five key strategies that directors can adopt to inculcate a healthy culture, discipline, and practice for corporate sustainability and benefit from them.

1. Show the way

A study conducted by the Sustainable Investments Institute suggests a strong correlation between the degree of directors' oversight of sustainability issues and the revenue and net income of a company. It shows that the top quintile companies by revenue were more than three times more likely to have board oversight of environmental and/or social issues than those in the bottom quintile.

To support and improve sustainability, directors should lead the way. As Mahatma Gandhi would say, "Be the change you want to see in the world."

Hence, directors should be exemplary so that others can look up to and emulate. They should demonstrate their commitment by articulating a clear vision, and communicating the values and benefits of sustainability. In addition, they should set short-term as well as long-term goals and help to develop effective models, organisations and operations to manage sustainability issues.

2. Shape the culture

The Network for Business Sustainability conducts annual surveys on the key strategies and initiatives for sustainability. Its leadership council has identified "embedding sustainability in corporate culture as a knowledge priority".

To strengthen a sustainability-oriented culture, it is important that directors play an active role and engage the right talents with the required domain-specific knowledge to promote and drive various sustainability initiatives.

They should define the roles and competencies for managing various sustainability initiatives. In addition, they should craft a continuous improvement programme to help relevant stakeholders and cross-functional teams cultivate the necessary knowledge and skills to achieve best practices.

To promote active buy-in, directors should encourage constructive dialogues with all staff, encourage them to collaborate and co-create solutions for sustainability.

3. Step up through lifelong improvement

According to the UN Global Corporate Sustainability Report 2013, although around 70 per cent of Global Compact companies are addressing society's most urgent sustainability issues, all the companies surveyed continue to face various challenges.

Therefore, directors need to commit themselves to lifelong learning. They need to stay abreast of legislative and regulatory requirements, the code of conduct in their industries, and expectations of their customers and the market.

As sustainability is still an evolving discipline and directors do not have a monopoly of wisdom, talents, and initiatives, they should tap on the experts to help formulate the frameworks and give guidance in implementing their plans and strategies. They should monitor the activities in their industries and explore how to achieve the relevant sustainability standards and best practices.

4. Soar through innovations

Directors should consistently promote the significance of sustainability and cultivate an innovative culture of sustainability. This can be done by crafting appropriate incentive schemes and performance-based bonuses to encourage employees to achieve targeted sustainability standards.

The need to catalyse innovations through financial incentives is supported by research conducted by Robert G. Eccles, Ioannis Ioannou, and George Serafeim. They found that directors of high sustainability companies are more likely to be formally responsible for sustainability and that top executive compensation incentives are more likely to be a function of sustainability metrics.

By developing the right structures, systems and processes, they can also reach out to key stakeholders, including customers, to participate in the development of sustainable products, services and initiatives. Through the engagement and sharing vital information with these stakeholders, companies may gain a competitive edge based on trust, disclosure, and close relationship.

5. Strengthen through performance measures and reporting

Directors should establish a system to monitor, measure and evaluate their performance on targeted environmental, social and governance issues. The outcomes and impact on financial bottomline should be measured. This will enable them to continue to improve their business models, objectives and operations.

A survey conducted by The Conference Board found that approximately only 30 per cent of participating companies have established a combined set of metrics related to their sustainability goals and objectives. The other companies either did not assess the impact of such activities on the company's financial performance (32.4 per cent) or they did not currently employ any performance metrics (38.2 per cent).

By reporting relevant information to internal and external stakeholders, directors can demonstrate integrity and responsibility, solicit feedback, and improve their decision-making processes. This increased transparency can lead to a stronger branding and better relationships and trust levels with their stakeholders, including governments, shareholders, employees and customers.

In the new economy, to achieve long-term values for their stakeholders, directors have to develop a targeted, balanced and comprehensive action plan to improve sustainability. They have to capitalise on opportunities and manage risks that are related to the environmental, social and governance aspects of their businesses. •

Banking on Sustainability

Tan Sze Yen, Senior Vice President, Group Finance, DBS

From financial year ending on, or after 31 December 2017, every listed company on the Singapore Exchange (SGX) is required to publish an annual sustainability report, on an "explain or comply" basis.

Those less familiar with the topic may associate sustainability reporting to be little more than "green" disclosures around energy savings and the number of trees saved. However, when applied to organisations such as a bank, which basic activities involve taking in deposits, giving out loans and processing cash in an increasingly digital environment, one may wonder: how is sustainability relevant to it?

ESG for banks

The key to answering this question would be to identify the most material environmental, social and governance (ESG) matters for banks.

When banks take in deposits from customers, they have a fiduciary duty to keep the monies safe. In this age of technology, it is no longer just about keeping wads of cash safe behind big heavy vaults. Cyber security has become an increasingly material matter for banks.

However, banks need to be sceptical about where the monies come from. To uphold the integrity of the financial system, banks need to ensure that monies come from licit means, and received funds are not misappropriated. Their responsibilities go beyond anti-bribery and corruption. They are the guardians of funds flow and are at the forefront of combating financial crime.

To attract customers' deposits, banks offer a variety of products and services. These range from vanilla savings and current accounts to more complex investment-linked products that have the potential to generate higher returns commensurate with the higher risks undertaken. Banks have a duty to ensure that they sell products and services that are suitable for customers in line with the latter's knowledge and appetite for risks. In banking terms, this is called fair dealing.

With funds in hand, banks lend monies to individuals and businesses for a variety of reasons – be it for buying a house, or for businesses to invest in production and technologies. Through lending, banks have the potential to improve lives, spur economic growth and create jobs. While the direct societal impact and environmental footprint of a bank may be limited, as financiers, banks are in a position to influence and channel funds responsibly to contribute to positive and sustainable impact for the economy, the society and the environment through responsible financing.

Moreover, to eliminate poverty and spur decent work and economic growth, banks play a critical role in financial inclusion, which means making banking accessible and affordable for the disadvantaged or underserved segments of society.

As can be seen above, the list of potential material ESG matters for banks (cyber security, financial crime, fair dealing, responsible financing, and financial inclusion) is unique to this industry sector. While there are generic global themes that cut across industries, such as climate change and talent management and retention which are no less important, the fact is, there is no standard boiler-plate.

For companies preparing their sustainability report for the first time under the SGX Sustainability Reporting requirements, it is time to take a hard look at their business models and do some soul-searching: What are their most material societal and environment impacts and how does the company ensure that the needs of the future are not compromised while making sure that the business thrives?

DBS case study

DBS defines its version of "sustainability" in its 2016 Annual Report as follows: "We seek to create long-term value for our stakeholders in a sustainable way. We believe that generating profits responsibly goes hand-in-hand with creating social impact. This aligns with our corporate value of being purpose-driven and our desire to make a difference beyond banking to touch real people, real businesses and real lives."

Under its ethos of "making banking joyful", DBS manages sustainability under four pillars:

- **Responsible banking**
  Here, the bank focuses on the material ESG matters related to its core banking business: fair dealing, customer privacy and cyber security, combating financial crime, responsible financing and financial inclusion.
- **Responsible corporate citizenship**
  Here DBS reflects inwards on its operations and look at how it manages its own environmental footprint and ensures that it sources products and services from suppliers in a sustainable manner. These discussions map to "climate change", which has been identified as a material matter.
- **Creating social impact**
  Leveraging on its long history of supporting SMEs across Asia and being a strong advocate of entrepreneurship and innovation, the bank launched the DBS Foundation in 2014 to champion social entrepreneurship in Asia to address the region's evolving social needs. The programmes go beyond philanthropy and seek to promote the development of the social enterprise sector and nurturing them through funding, mentorship and volunteerism. This, in turn, fosters greater social impact and innovation.
- **Employer of choice**
  DBS recognises that its ability to attract, retain and develop the best talent is essential for its continued success. It does so through its approaches to hiring and engaging employees, developing talents and promoting diversity and equal opportunity.

Having a clear framework for sustainability helps DBS articulate clearly and concisely its philosophy to creating long-term value for multiple stakeholders in a sustainable way. It provides a clear structure for explaining to stakeholders how the bank manages and measures those underlying ESG matters in line with generally accepted sustainability reporting frameworks such as the Global Reporting Initiative Guidelines on Sustainability Reporting.

And, last but not least, it lays a strong foundation for the bank to explore new opportunities to deliver banking solutions that are sustainable for our planet and contribute more to the communities in which it operates. •

Sustainability: An Esoteric Goal

H. Win Min, Head of Risk Management & Assurance, Yoma Strategic Holdings Ltd

The recent introduction of sustainability reporting requirements by the Singapore Exchange (SGX) has further prompted companies to rethink their business strategies going forward in the capital markets. Essentially it requires boards to be held responsible for identifying environmental, social and governance (ESG) factors which are material to the business, and provide explanation on how they are monitored and managed.

Mindshift: From money to meaning

Gone are the days where companies are rewarded for a growth in the bottom line and in market shares. In today's political economy, there is a paradigm shift where the commercial benefits are considered hand-in-hand with impact and long-term sustainability for social well-being, national development, planet Earth's health, corporate governance, and the code of conduct.

As the Gen X moved into management positions in recent years - coupled with outspread subcultures of hipsters, greens, and tree huggers - companies have to rethink their strategy as consumer choices are often based on the firm's intangible reputation. It even extends to the company being considered a partner of choice, or even for it to qualify to enter into a transaction.

The screening process these days goes beyond just commercial benefits. It is no longer about the savings or profits earned from a transaction, rather it is about seeing through the lens of public image. It is about public perception, historical behaviour and future potential of the intended partner. Scrutiny is applied to a potential partner's reputation as a "clean corporate citizen" and its association with good moral values, before even being considered for any commercial offerings.

Companies with well-established environmental and social management system (ESMS), developed in line with IFC Performance Standards, Asian Development Bank Safeguard Policy Statement, or the UN Global Compact, and 2030 UN Sustainability Development Goals (SDGs) are considered as far more attractive to foreign investors who are looking to enter new market economies. They are seen as a plausible basis to measure the potential partner's business conduct.

From a regulatory perspective, governments and other authorities have progressively introduced and implemented guidelines and requirements on environmental, social and governance factors. Companies can expect further changes to be made by regulators in the forms of incentives and penalties as well as prohibitions and exemptions on various industries and new practices in support of the SDGs.

Integration: Business strategy and execution

There are many areas that Singapore companies need to catch up in terms of sustainability especially on how to embed the SDGs into their business strategies. Companies need to be forward thinking and ensure their long-term strategies are in line with potential policies that regulators will be imposing to support the achievement of these goals.

Considerations should be given on how to better manage the risk of ongoing commercial sustainability, and the potential impact of SDGs. Identified risks must be incorporated into the corporate strategy and execution plan. These should be closely monitored and stay within the risk management framework.

Companies need to look beyond the face value of opportunities, and think outside the box on how they can amalgamate the SDGs into both their current and future situations. It is important that business strategies and plans provide enough flexibility to accommodate fluctuations in market conditions, changes in political environment and global trends and advancements in technology without losing sight of the commercial sustainability.

Business strategies must inspire, and scale the esoteric goal and turn it into a meaningful commercial venture. This needs to be supported by the best execution tools, and technologies that are available. It is imperative that the challenges are overcome through inspiration and connecting the dots where it needed to while driving synergies form existing relationships.

Thought leadership: Challenges and benefits

One of the salient challenges is finding the right balance between being able to carry on in today's environment and being prepared for the changes ahead. This requires the ability to anticipate the upcoming trend, and put in place cutting edge strategy, with military style execution plan and the capability to deliver the results.

It is imperative not to lose sight and focus on what is important through intelligent insight and an informed thought process. Often, first movers with advanced insights find themselves isolated from the rest of the crowd. This is because it would take time for their visions to be understood, to be able to inspire, before gaining wide acceptance.

With the support of a forward-thinking board and management team, companies can slowly morph into sustainable commercial ventures incorporating the SDGs. This transition may bring direct and indirect benefits ranging from contribution to the bottom line through tax heavens, exemptions, grace periods, and grants as well as receiving opportunities to the granting of special permits for the new government initiatives which support the development goals. The companies will be seen as the "new breed" in town and will gain recognition in the media as well as be invited to share their knowledge at various conferences and forums abroad.

As we move into the new era, sustainable companies will be viewed as role models, consumers' choice, and attractive business partners. However, the greatest satisfaction would come from being a part of the agents of transformation.

Let us hope to live long enough to tell the tale of the sustainability journey we each and all are embarking on, to be able to look back and proudly say "we did it". •

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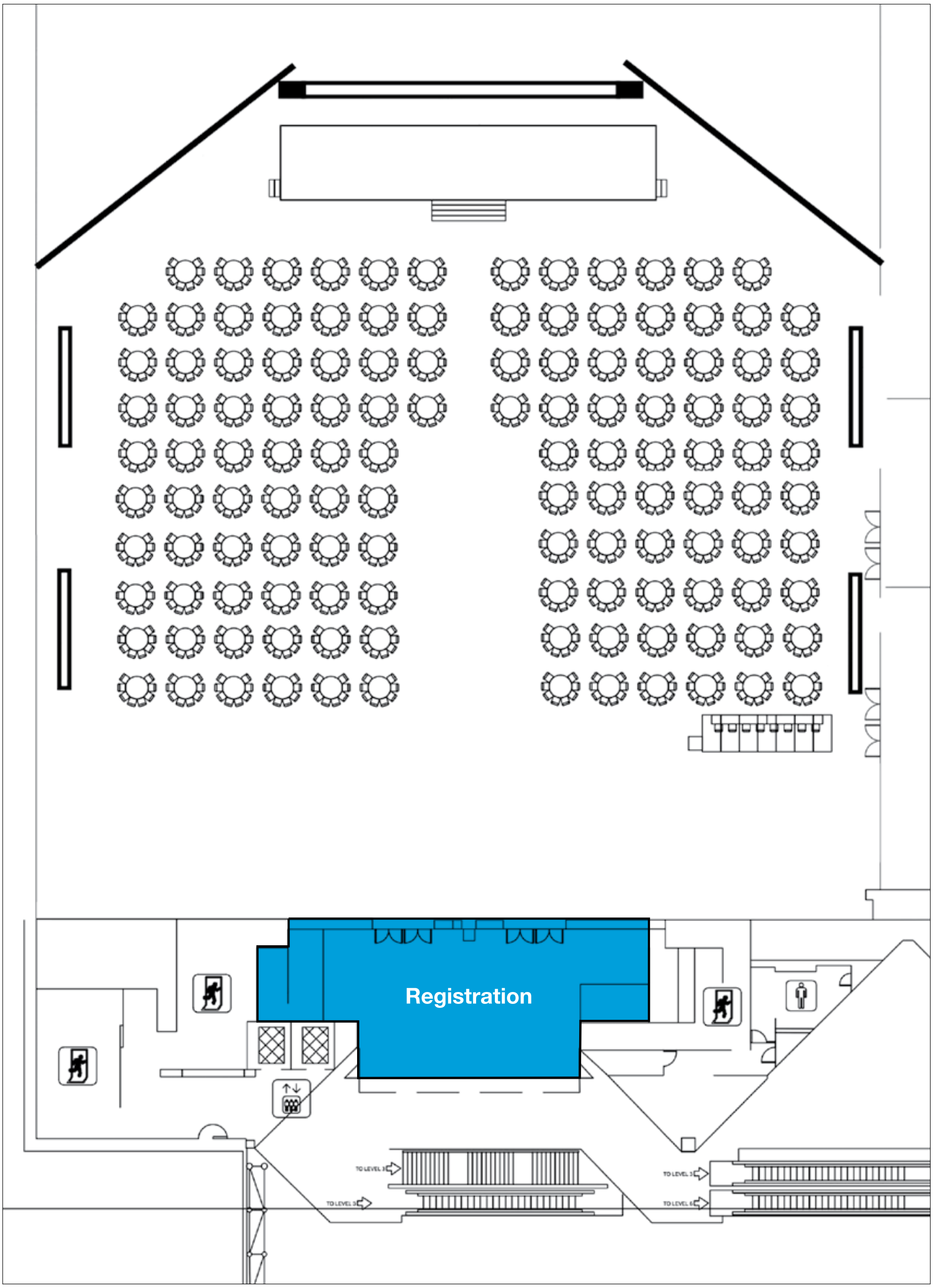
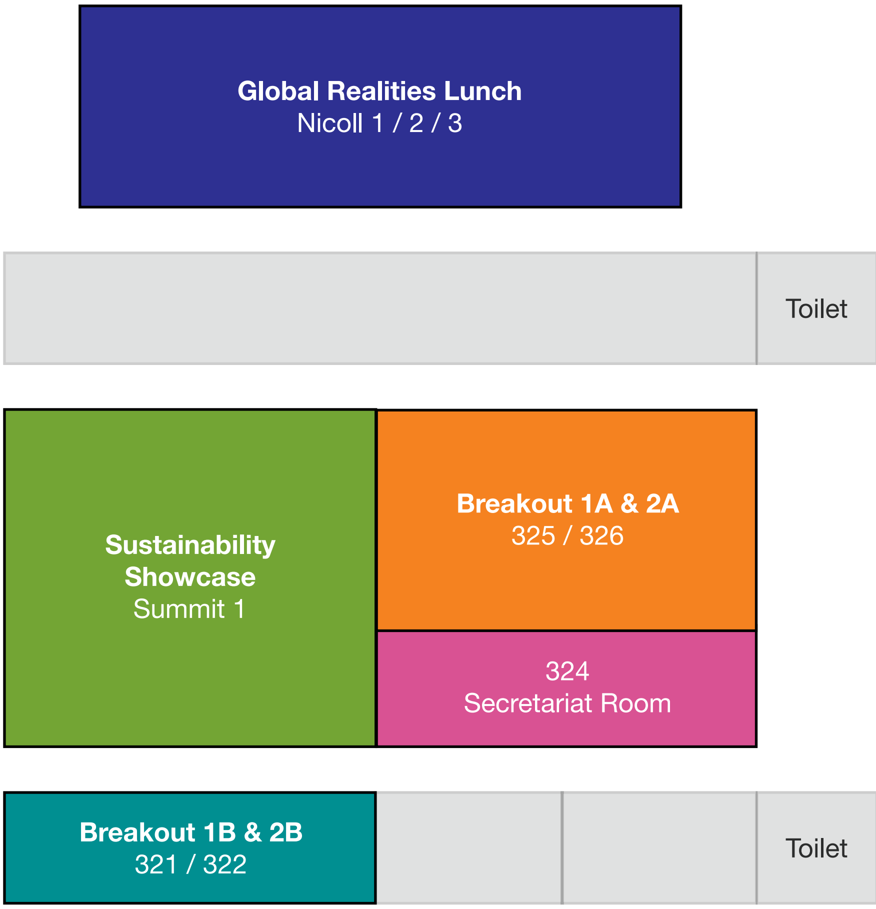
SECTION 7

Conference Maps & Sustainability Showcase

Map of Conference Plenary Hall on Level 4



Map of Global Realities Lunch, Breakout Rooms and Sustainability Showcase on Level 3



Breakout Sessions

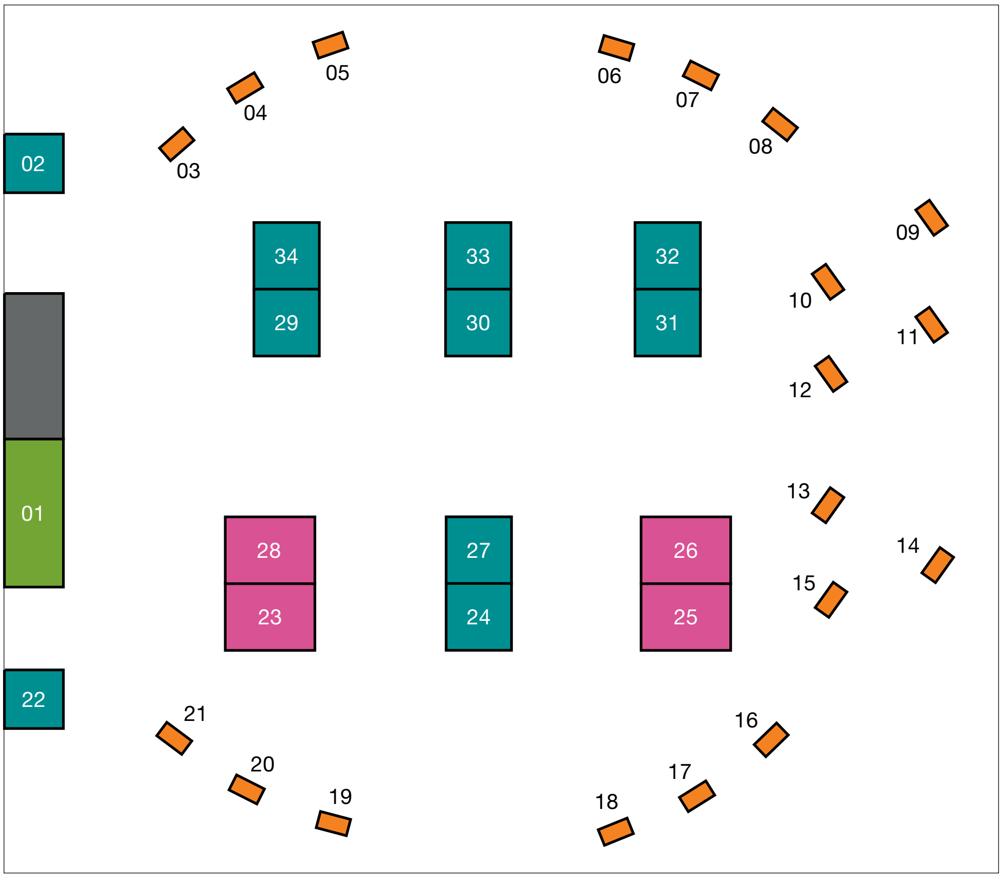
Track 1A Environment: Is there a change in climate towards saving the earth?

Track 1B Social: Serving or leveraging the community?

Track 2A Governance: How is it connected to sustainability?

Track 2B Hybrid Organisations: What makes them tick?

Map of Sustainability Showcase Booths in Summit 1 on Level 3



01 StarHub
02 KPMG
03 Actxplorer
04 Agape Connecting People Pte Ltd
05 AffordAble Abodes
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Presented by

More than 30 mainstream commercial companies, clean tech solution providers, social enterprises, and NGOs will share and exhibit their sustainability initiatives and innovations.

Actxplorer

BOOTH 03

Actxplorer is a travel-based social enterprise that aims to fight poverty by creating an inclusive and sustainable environment for local communities and social organisations to benefit from tourism.

Actxplorer originates from two passions – acts of doing good and a love for exploring. Its mission is to create opportunities for travellers and locals to engage in authentic and meaningful experiences, as well as collaborate in any social-related projects that impact the community.

Its presence on the ground enables it to identify and highlight the needs of the land, in order to develop strategies to work together for sustainable impact.

www.actxplorer.com

AffordAble Abodes

BOOTH 05

AffordAble Abodes is a developer of affordable housing for the marginalised communities. It develops careers for the poorer communities in agrotechnology, manufacturing, and construction of environmentally sustainable low-cost housing. Its founding director has been involved in the development of sustainable construction materials technology business for over 25 years.

Affordable Abodes seeks to achieve a mix of economic, environmental and social objectives:

- Incorporate Fund for Social Housing development (US$5-20M).
- Incorporate low-cost housing developments targeted at communities slipping through the cracks in society.
- Engage poor farmers with additional source of income.
- Engage existing developers-builders and low-cost housing organisations (NPO, NGO, public housing).
- Provide biotechnology to convert renewable bio-mass based materials into building components. (Kenaf, bamboo, hemp, oil palm, rice husk, etc).
- Reduce deforestation, and the burning of forests, and rehabilitate waste land, trash dumps, deforested areas.
- Employ the marginalised (Orang Aslis, Dusuns, Ibans, Dayak, Khmer, ex-offenders, etc.)
- Set up vocational education in farming, processing, production, construction.

www.afford-able.com

Agape Connecting People Pte Ltd

AGAPE Connecting People Pte Ltd

BOOTH 04

Agape Connecting People Pte Ltd is a leading 24/7 call centre with 130 seats that provides effective communications solutions to its customers. Its services are meticulously coordinated by a team of dedicated professionals who are trained to ensure high standards of service fulfilment with every customer contact.

As a communications specialist, Agape aims to be the regional industry leader in contact centre services through a dynamic and innovative multi-channel platform that incorporates cutting-edge telephony systems. Its clients come from diverse industries such as telecommunications, government sectors, MNCs and SMEs.

Agape thrives on the vision of its founder who strongly believes that regardless of background, everyone with the desire and talent should be given an equal opportunity to succeed, thus transforming their lives and those around them.

www.agape-cp.com

B Corps

Brought to you by the community of

Certified B Corporations®

BOOTH 12

B Corp is to business what Fair Trade certification is to coffee. B Corps are for-profit companies certified by the nonprofit, B Lab, to meet rigorous standards of social and environmental performance, accountability, and transparency. Its vision is simple yet ambitious: people using business as a force for good.

Today, there is a growing community of more than 2,100 Certified B Corps from 50 countries and over 130 industries working together toward one unifying goal: to redefine success in business. Companies of all shapes and sizes, multinationals like Ben & Jerry's and Danone to smaller companies like Singapore's Bettr Barista, are all part of a growing global movement creating a new model for business, that impact and serve more than just shareholders but have an equal responsibility to the community and to the planet. Any company can measure and manage their social and environmental performance.

www.bimpactassessment.net

BloomBack

BloomBack

BOOTH 07

BloomBack is a one-stop floral social enterprise that offers a complete suite of floral products and services promoting a sustainable lifestyle and conscious consumerism. To uphold the philosophy of doing good while saving Mother Earth, BloomBack developed two approaches to encourage the public to give back to society in a sustainable manner.

The first approach maximises the value of flowers to spread joy to the marginalised community. The marginalised women whom BloomBack supports, repurpose used flowers from events and donates them to hospice patients.

Another of BloomBack's unique approach is the offering of eco-friendly flowers. These are real flowers that have been preserved to last years without the need for sunlight and water. With the evolution of technology, consumers stand to benefit from significant cost savings while conserving the environment.

www.bloomback.org

Boardroom Limited

BOOTH 06

Strongly driven by customer value, it has grown to become one of Asia-Pacific's leading providers of corporate secretarial, share registry, accounting, tax and payroll services to over 5,500 public-listed and privately owned companies.

Headquartered in Singapore, Boardroom is listed on the SGX and ranked amongst Forbes Asia's Top 200 Companies under a Billion.

With almost 50 years of track records and an established network of offices and partners in Asia-Pacific, Europe and USA, it is a partner of choice to many Fortune 500 multinationals and Asian enterprises.

Its full suite of services will keep companies agile, so that they are free to focus on their core business.

www.boardroomlimited.com

Castles Can Fly

BOOTH 19

Castles Can Fly programme is part of Castle Beach, the social enterprise, which promotes the social cause by sharing the joy of building and learning life's lessons in the sandcastle building process. Castle Beach started out with seed funds from MCYS in 2005 and has since grown from strength to strength.

It is now an iconic outdoor experiential learning centre at East Coast Park, Singapore with several international licensing partners – Hong Kong, Mauritius, Brunei and Penang. One of its main missions is to encourage families with children to experience outdoor, back to nature.

Building Minds' educational core message is that throughout people's lives, they are continuously building something e.g. building knowledge, building achievements, building trust, building credibility, building sustainability. There are endless deep learning pointers that have continuously touched many people, young and old.

www.castlescanfly.com

Changi Airport Group (Singapore) Pte Ltd

BOOTH 26

Changi Airport Group (Singapore) Pte Ltd (CAG) was formed on 16 June 2009 and the corporatisation of Singapore Changi Airport followed on 1 July 2009. As the company managing Changi Airport, CAG undertakes key functions focusing on airport operations and management, air hub development, commercial activities, engineering and airport emergency services.

With more than 540 awards and accolades, Changi has come a long way since its humble beginnings in 1981, when Terminal 1 first opened. CAG will soon be welcoming the opening of Terminal 4.

As a key contributor to Singapore's economy, CAG is committed to carry out activities in an environmentally responsible manner and seeks to improve our environmental performance. These include engagement of the broader airport community on various environmental initiatives, food waste recycling, promoting the usage of electric vehicles on the airside and assessments of the feasibility of alternative energy sources.

www.changiairport.com

City Developments Limited

CITY DEVELOPMENTS LIMITED

BOOTH 33

Since 1995, City Developments Limited (CDL) has built on its ethos of "Conserving as We Construct" to fulfil its role as a developer of living spaces, lives and communities.

CDL introduced the "CDL Future Value 2030" sustainability blueprint to future-proof and create enduring value for its business, stakeholders, community and the environment. This plan sets out clear Environmental, Social and Governance goals and targets towards 2030 and is in line with CDL's corporate vision of "Building Value for Tomorrow, Today", the Sustainable Singapore Blueprint and the United Nations Sustainable Development Goals.

Building on its track record of over 50 years, the Company has been leveraging on its stable of prime assets and developing its funds management platform, amounting over S$3.5 billion in funds under management.

www.cdlsustainability.com

Crossings Café

crossings CAFE

BOOTH 31

Crossings Café is a unique café that serves delicious yet simple comfort food at affordable prices while nourishing warmth and connections with the community.

The café is set up as a social enterprise. All profits will be channelled to charitable causes. In addition, the café seeks to provide employment opportunities and personal development for the disadvantaged. Crossings Café is currently collaborating with Assumption Pathway School, a Catholic vocational institute, to take on interns and graduates from the school to work at the café.

Located near the junction of Bras Basah Road and Waterloo Street, the café offers primarily western delights with a choice selection of local favourites.

www.crossingscafe.com.sg

DBS

DBS

BOOTH 30

DBS is a leading financial services group in Asia, with over 280 branches across 18 markets. Headquartered and listed in Singapore, DBS has a growing presence in the three key Asian axes of growth: Greater China, Southeast Asia and South Asia. The bank's "AA-" and "Aa1" credit ratings, is among the highest in the world.

DBS provides a full range of services in consumer, SME and corporate banking. As a bank born and bred in Asia, DBS understands the intricacies of doing business in the region's most dynamic markets. DBS is committed to creating long-term value for stakeholders in a sustainable way, which aligns to its corporate value of being purpose-driven and its desire to make a difference beyond banking to touch real people, real businesses and real lives. It has also established a SGD 50 million foundation to strengthen its corporate social responsibility efforts in Singapore and across Asia.

www.dbs.com

Diligent

BOOTH 25

Diligent is a leading provider of secure corporate governance and collaboration solutions for boards and senior executives. Over 4,700 customers in more than 75 countries and on all seven continents rely on Diligent to provide secure, intuitive access to their most time-sensitive and confidential information, ultimately helping them make better decisions.

The Diligent Boards (formerly Diligent Boardbooks) solution speeds and simplifies how board materials are produced, delivered and collaborated on via any device, removing the security concerns of doing this by courier, email and file sharing.

www.diligent.com

ECOSOFTT

ECO SOLUTIONS FOR TOMORROW—TODAY

BOOTH 34

ECOSOFTT specialises in decentralised management of water, wastewater and environmental services. Its technology-based solutions create measurable change and lasting impact in the developed and developing world.

Its Water SMART Homes and Communities platform reduces water wastage by half, enables its customers to recycle up to 80 per cent of wastewater for non-potable reuse. It can be deployed by itself or in conjunction with existing water systems, empowers users to take charge of their own needs, and can be implemented in a timely and cost-effective manner.

ECOSOFTT designs and implements solutions for the communities it serves. Its social business model is to retain 65 per cent of the profits for social projects. It operates its product innovation from its headquarters in Singapore while its projects and social impact activities are carried out in India.

www.ecosoftt.org

EY

Building a better working world

BOOTH 22

Governments and organisations around the world are increasingly focusing on the environmental, social and economic impacts of climate change and the drive for sustainability.

Businesses may face new regulatory requirements and rising stakeholder concerns. There may be opportunities for cost reduction and revenue generation. Embedding a sustainable approach into core business activities could be a complex transformation to create long-term shareholder value.

The industry and countries in which businesses operate as well as their extended business relationships introduce specific challenges, responsibilities and opportunities. EY's global, multidisciplinary team combines experience in assurance, tax, transactions and advisory services with climate change and sustainability knowledge and experience in any industry.

www.ey.com/sg

FOCUS Adventure

BOOTH 20

FOCUS Adventure firmly believes in giving back to the society and actively supports underprivileged children and youths from voluntary welfare organisations (VWOs). By conducting pro-bono programmes for the beneficiaries, FOCUS engages and connects with them through the Adventure Learning methodology. At the same time, participants with leadership and positive attitudes, are offered employment opportunities through internship programme and scholarships to develop and hone their skills.

In line with its Social Mission – To Facilitate Corporate Social Responsibility Programmes and Resources between Corporate and VWOs, FOCUS Adventure aims to tap on its current clientele base and its expertise in facilitating Adventure Learning programmes, while incorporating Corporate Social Responsibility elements to add a meaningful paradigm shift to conventional teambuilding programmes. It is a member of Singapore Centre for Social Enterprise, raiSE.

www.FOCUSAdventure.com

FytoSol Limited

BOOTH 10

FytoSol Limited has formulated highly water absorbent, non-toxic nanogel particles that are combined with soil conditioning capabilities. This product – 'RetentSol' has the potential to mitigate climate change issues when used in horticulture, agriculture, anti-desertification and soil remediation applications.

Soil exposed to repeated wetting and drying in tropical regions are prone to develop hydrophobic coatings on the soil particles that result in water repellence. This condition limits the rate and capacity of water absorption leading to poor water infiltration and retention in soil. The 2-in-1 RetentSol formulation applied to soil acts as a mini "water reservoir", drastically reducing the chances of plant dehydration as it is capable of storing a substantial amount of water during irrigation, hence "locking" the water to minimise evaporation and releasing water in times of need.

Results have conclusively shown that RetentSol has proven to be effective in a wide range of plant species and soil types.

Global Compact Network Singapore

BOOTH 32

Global Compact Network Singapore (GCNS) is the national lead agency promoting Corporate Sustainability, providing a one-stop concierge service for businesses to begin, deepen and broaden their sustainability journey. As the local chapter of the United Nations Global Compact (UNGC), GCNS encourages companies to align their operations and strategies with UNGC's 10 universally accepted principles in the areas of human rights, labour, environment and anti-corruption.

Through various platforms for multi-stakeholder engagement and collective action, GCNS advances the stewardship of sustainable business practices, supporting Singapore's national agenda of becoming a regional sustainable business hub. Since its inception in 2005, GCNS (then the Singapore Compact for Corporate Social Responsibility) has raised the level of awareness, and adoption, of Corporate Sustainability in businesses through collaboration between relevant stakeholders and practitioners in businesses, government and civil society.

www.unglobalcompact.sg

Greenology

BOOTH 24

Greenology is the region's go-to specialist for urban greening. Its mission is to transform everyday spaces into living, thriving habitats and ecosystems! Using the technologically-advanced and proprietary Greenology Vertical Greenery (GVG) system, LED Greenology Grow Lights and integrated Urban Farming systems, it has recreated the natural growing environments that allow more than 600 plant species to thrive.

With extensive backgrounds in botany, horticulture, landscape design, architecture, engineering and eco/environment technology, the Greenology crew brings living, breathing works of art into the outdoors and interiors of both commercial and residential spaces.

www.greenology.sg

Income

BOOTH 23

Income was established in 1970 to provide affordable insurance for workers in Singapore. Today, two million people in Singapore look to Income for trusted advice and solutions when making their most important financial decisions. The wide network of advisers and partners provide life, health and general insurance products and services to serve the protection, savings and investment needs of customers across all segments of society.

As a social enterprise, Income was made different. Its social purpose is to make insurance accessible, affordable and sustainable for all. Putting people before profits, it strives to create and maximise value for customers.

In 2016, Income had over $32.9 billion in assets under management. Its financial strength is reflected by strong credit ratings. Income's corporate social responsibility initiative, OrangeAid, focuses on children and youth, especially the disadvantaged.

www.income.com.sg

Junior Achievement Singapore

BOOTH 21

Junior Achievement (JA) Singapore is a non-profit organisation dedicated to inspiring, equipping and empowering young people to succeed in a global economy through life skills courses on entrepreneurship, work-readiness, and financial literacy. These life skills courses are activity-based and taught by volunteers from the business world. Thus, in partnership with businesses and educators, JA brings the real world to students, opening their minds to their potential. It seeks to train the next generation of leaders that can support sustainability.

Through regular six-hour courses and business plan competitions, students are taught the entrepreneurial mindset. Their awareness of social issues is accentuated. The Social Innovation Relay, in particular, challenges students to develop an innovative business concept that addresses a social need. Team Chaleur from St Joseph's Institution topped the global Social Innovation Relay in 2017.

www.ja.org.sg

KPMG

BOOTH 02

KPMG in Singapore is part of a global network of professional services firms providing Audit, Tax and Advisory services. With 189,000 outstanding professionals at independent member firms in 152 countries worldwide, it offers a globally-consistent standard of service based on professional capabilities, industry insight and local knowledge.

In the ASEAN region, KPMG member firms operate across all 10 countries. Its professionals work closely with clients to mitigate risks and grasp opportunities in their pursuit of business growth, enhanced performance, governance, and compliance objectives.

www.kpmg.com.sg

Nasdaq Corporate Solutions

BOOTH 27

Nasdaq Corporate Solutions offers an integrated suite of market intelligence, analytics, communications, and collaboration solutions that support investor relations, communications and corporate governance professionals. Nasdaq Corporate Solutions is a unit of Nasdaq, Inc. and serves nearly 18,000 clients.

Nasdaq Corporate Solutions' board portal platforms – Boardvantage MeetX and Directors Desk – help streamline meeting processes, accelerate decision-making and strengthen governance. Used by public, private and non-profit organisations worldwide, including over half of the Fortune 500, its meeting collaboration solutions combine functionality with security features, ease-of-use and mobility.

www.business.nasdaq.com/boardportal

Packet Greens

BOOTH 18

Packet Greens strives to achieve green sustainability as an indoor vertical farm. It harnesses clean renewable energy from solar and recycled water using closed loop system from a reservoir, to grow fresh produce within a controlled clean environment. It examines and plans for ways to reduce waste by recycling in its daily operations.

Growing a wide range of cool climate produce farmed without pesticide, its mission is to achieve economy of scale with gradual expansion so that premium vegetables can be enjoyed by everyone. It ensures vegetables stay fresh by harvesting within the day for delivery and as vegetables are harvested with roots, they stay fresh longer. Customers enjoy freshest produce from farm to table by only harvesting what they need at mealtime.

The heart of Packet Greens farm is passionate growers who care about families and the environment. Sustainability is its mission, defined by practices to achieve zero waste in its operations.

www.packetgreens.com

raiSE Singapore

raiSE Singapore was set up in 2015 to develop the social enterprise (SE) sector in Singapore. raiSE supports over 400 SE members in their social enterprise journeys, from set-up to growth and expansion, resourcing them with advisory services, knowledge, skills, networks and funds where needed to create the impact that they wish to. raiSE also works with stakeholders in the social enterprise sector to identify emerging social needs, and facilitate collaborations with partner organisations where it is relevant and useful to the SEs.

Ultimately, raiSE brings together the larger community of SEs, aspiring social entrepreneurs, supportive organisations and individuals through its various programmes, initiatives and events to help build a vibrant SE ecosystem. Through its work within its social enterprise family and its growing networks, its goal is for the local SE sector to be an active part of a more caring and inclusive society in Singapore.

www.raise.sg

raiSE SINGAPORE
Centre for Social Enterprise

BOOTH 29

SG Serve

SG Serve is a charity staffed by full-time community leader volunteers to care for the poor, the needy and the disadvantaged. It collaborates with corporations and community partners to organise events to support and interact directly with the disadvantaged.

SG Serve seeks to empower society and country to grow in a more caring and sustainable way, preserving the "Gotong Royong" spirit of old.

Into its second year, SG Serve assists approximtely 3,000 seniors and needy persons, and 50 families through these projects: Elderly Care@ Little India, Food Pack Distribution at Toa Payoh and Novena, Ten Hot Meals@Toa Payoh Novena, Project Serve@Henderson and Food Pack, Hot Meal and Karaoke@Bukit Batok. New projects include Happy Happy Saturday@Bukit Batok, Durian Party@Henderson, National Day Celebration and Free Eye Screening@Little India.

www.sgserve.org

SG SERVE

BOOTH 17

SQL View Pte Ltd

SQL View Pte Ltd is a leading enterprise software solution provider, with IT solutions serving the needs of sectors such as real estate, healthcare, government in Singapore and in other countries. Its flagship product KRIS (Knowledge Repository Information System) is an enterprise solution meeting today's e-records demands. It is designed to ensure important corporate records are captured, managed and retained, while maintaining integrity and longevity.

In 2009, SQL View acquired Buildfolio Technologies; and it has successfully grown into a leading Facility Management solution widely adopted by the big companies in the property scene.

SQL View understands the importance of retaining corporate memory and recording of critical decisions in meeting minutes. In 2017, SQL View brought its expertise to create an efficient, secured and paperless meeting solution, Meetnits.

www.sqlview.com

SQL VIEW

BOOTH 16

StarHub

BOOTH 01

StarHub is a fully integrated info-communications company that operates multiple advanced networks, providing mobile, pay TV (High-Definition TV, on-demand services and Internet TV), broadband and fixed services for both consumer and corporate markets in Singapore. Over Singapore's NBN, StarHub offers a range of home and business broadband plans as well as commercial and residential IPTV services. StarHub is the pioneer in "hubbing" – the ability to deliver unique integrated and converged services to all its customers, across all platforms.

Launched in 2000, StarHub has become one of Singapore's most innovative info-communications providers, and the pioneer in 'hubbing' - the ability to deliver unique integrated and converged services to all its customers. StarHub, listed on the main board of the Singapore Exchange since October 2004, is a component stock of the Straits Times Index, the MSCI Singapore Free Index, the SGX Sustainability Leaders Index and the SGX Sustainability Leaders Enhanced Index.

www.starhub.com

Straits Interactive

BOOTH 11

Straits Interactive delivers end-to-end governance, risk and compliance solutions that enable trusted business and responsible marketing, especially in the area of data privacy and protection. It helps businesses achieve operational compliance and manage risks through a combination of cloud technology and professional services.

Straits Interactive adopts a lifecycle approach to operational compliance and risk management so that organisations are able to:

- Assess risks and compliance status.
- Protect against these risks and implement policies/practices.
- Sustain compliance efforts through audits, training and ongoing monitoring.
- Respond to queries or incidents.

Software-as-a-service include the SpiderGate Do-Not-Call Management System, Data Protection Management System, Governance, Risk and Compliance System, all of which are supported by professional services that include advisory services, audits, and training.

www.straitsinteractive.com

Sun Electric

BOOTH 15

The Sun Electric® Group, a global pioneer of solar energy solutions, is Singapore's first fully licensed solar energy generation company. Sun Electric is transforming how people consume energy by connecting rooftop owners with clean energy consumers through its proprietary SolarSpace™ platform that successfully embeds solar energy into a city's energy mix. It allows individual solar energy producers to track their energy contributions and customers to monitor their usage seamlessly and in real time.

The company bridges the gap between property owners who provide rooftop spaces for solar energy generation to the city and electricity users who consume clean solar electricity by implementing the first real blended supply of PV power worldwide. Sun Electric's innovative solutions empower cities globally to produce and consume solar electricity.

www.sunelectric.com.sg

Sustain Ability Showcase Asia

Sustain Ability Showcase Asia

BOOTH 14

Sustain Ability Showcase Asia (SASA) was established in Singapore to both represent and promote foreign and local businesses in the sustainability sector – clean energy, energy efficiency, green buildings, water/waste management – as well as provide strategic advisory and communication services for public and private sector clients and projects.

SASA and its associated businesses have acted for a number of Government agencies in Singapore, promoting energy efficiency through NEA and providing sustainability management support for URA's "i Light Marina Bay" since 2012.

SASA has encouraged and supported companies embarking on sustainability reporting, and also publishes ABC Carbon Express, an online magazine which is now in its tenth year.

www.sustain-ability-showcase.com

Trusted Source Pte Ltd

BOOTH 28

Trusted Source Pte Ltd, a wholly owned subsidiary of Temasek Management Services (TMS), specialises in technology and end-to-end digital business services to help companies perform to their utmost potential. Over the past 32 years, TMS together with its subsidiaries including Trusted Source, Trusted Services and Trusted Board have collectively acquired solid and trustworthy experience in providing Technology, HR, Finance and Board shared services.

Today, Trusted Source, Trusted Services and Trusted Board have merged to form an integrated company under the Trusted Source brand. Our combined strengths and abilities to provide "one stop" business and technology services – including digital Board, HR and Finance solutions – to our clients make us unique, and differentiates us from our peers. Trusted Source currently has a team of approximately 400 people based in Singapore, serving a comprehensive client network spanning multiple key industries.

www.trustedsource.com.sg

Virtus Assure Pte Ltd

AN INDEPENDENT ASSURANCE SERVICES CONSULTANCY

BOOTH 09

Virtus Assure Pte Ltd is an independent assurance services consultancy focused on providing corporate governance, risk management, internal audit and more recently sustainability reporting services for exchange-listed companies.

The recent introduction of SGX listing rules requiring listed companies to prepare and issue an annual sustainability report (SR) adopting globally-recognised frameworks and disclosure practices provide companies with both opportunities and challenges on this front.

Virtus Assure assists clients to address the challenges of preparing their SR in-house, by having its certified sustainability expert navigate them through the Global Reporting Initiative (GRI) framework and to help them draft the SR. This allows its clients to focus on their businesses and let them do what they are best at. It believes that its customised-approach offers a cost-effective solution to building clients' SR framework and meeting the SGX listing requirements.

www.virtusassure.com

WateROAM

BOOTH 08

Around the world, more than a billion people lack access to clean water every day. While solutions exist, current water filters and pipeline infrastructure are typically too complex and expensive. In light of these issues, WateROAM develops the most simple, portable, durable and affordable water filtration systems that can be quickly deployed to provide clean water within minutes to disaster affected sites and rural communities.

Over the past two years, WateROAM has worked closely with NGOs and relief organisations to build better water filtration systems for disaster relief and rural communities. Since 2015, WateROAM has provided clean water to more than 24,000 people in disaster stricken areas including the Malaysia floods, Vanuatu cyclone, Nepal earthquake and Myanmar floods.

Going forward, WateROAM aims to establish stronger partnerships with these organisations and bring clean water to more people around the region through technology and innovation.

www.wateroam.com

Wrestling Federation of Singapore

BOOTH 13

Beat the Streets (BTS) Singapore is a community outreach programme by the Wrestling Federation of Singapore. Using Olympic Wrestling as a platform to inspire at-risk children and teenagers, it provides them with life-skills, and the athletic and academic support required for success in life. President's Challenge 2017 supports BTS.

Imparting resilience, discipline, commitment, leadership and sportsmanship, the demanding sport of wrestling exemplifies the hope born in the struggle against seemingly insurmountable odds, and serves as a model on how to overcome adversity in challenging situations. The programme also equips youths with life-skills such as financial literacy.

BTS Singapore runs free after-school wrestling programmes for children and teenagers. With the help of partners, donors and volunteers, it has plans to extend its offerings with other value-added programmes.

www.singaporewrestling.com

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SECTION 8

Conference Sponsors

Conference Sponsors

PLATINUM

accenture
Singtel
UOB

GOLD

City Developments Limited
China Aviation Oil 中国航油(新加坡)股份公司
Deloitte.
EY Building a better working world
Far East Organization INSPIRE BETTER LIVES
KPMG
Delfi LIMITED
pwc
Keppel Corporation
RSM
SGX
FRASERS CENTREPOINT

SILVER

Allen&Gledhill
ARA
ascendas SINGBRIDGE
BBR Holdings (S) Ltd
BDO
certis
CSE global
DBS
Diligent
EFG Private Banking
GLP
Nexia TS Listening, Thinking, Growing, Asia.
income made different
OCBC Bank
protiviti
全民 Q&M
RAJAH & TANN ASIA LAWYERS WHO KNOW ASIA
SING INVESTMENTS & FINANCE LIMITED
sph
Willis Towers Watson
WONG PARTNERSHIP
YOMA

Powering a sustainable future.

Enjoy a lower carbon and environmental footprint with Singtel DC West, which is built to the highest level of environmental friendliness and energy efficiency, as recognised by our BCA Green Mark Platinum award. This state-of-the-art facility also offers above-class security and multi-layer access controls to protect critical data, so you can grow your business while achieving your corporate sustainability objectives.

Our key green features include:

- Chilling equipment that surpasses BCA's new SS530 standard
- Building Envelope Thermal Transfer Value (ETTV) that is below BCA's limit by 20%
- Cooling system that uses recycled water
- Advanced diesel rotary uninterruptible power supply (DRUPS)
- Thermal analysis for identification of over- or under-cooled areas

Singtel

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INSTITUTE OF
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SID Directors Conference 2018

INTERNATIONALISM

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