

Riding the Megatrend of Sustainability



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Why Sustainability



accenture
High performance. Delivered.

 **United Nations** Global Compact

A New Era of Sustainability
UN Global Compact-Accenture CEO Study 2010

CEO opinion: by the numbers

93%
93% of CEOs believe that sustainability issues will be critical to the future success of their business.

72%
72% of CEOs cite "brand, trust and reputation" as one of the top three factors driving them to take action on sustainability issues. Revenue growth and cost reduction is second with 44%.

72%
72% of CEOs see education as the global development issue most critical to address for the future success of their business. Climate change is second with 66%.

58%
58% of CEOs identify consumers as the most important stakeholder group that will impact the way they manage societal expectations. Employees were second with 45%.

91%
91% of CEOs report that their company will employ new technologies (e.g., renewable energy, energy efficiency, information and communication technologies) to address sustainability issues over the next five years.

12

The “Sustainability Megatrend”



Megatrend: “A fundamental shift in the competitive landscape that creates inescapable threats and game-changing opportunities ... profoundly affects companies’ competitiveness and even their survival.”

Over the last 10 years,
the sustainability imperative has emerged.
Environmental issues have steadily encroached on
businesses’ capacity to create value for customers,
shareholders, and other stakeholders ...
magnified by escalating public and governmental concern
about climate change, industrial pollution, food safety,
and natural resource depletion, among other issues.”

David A. Lubin and Daniel C. Esty , “The Sustainability Imperative,” HBR May 2010

Climate-Related Business is Booming

Global revenues from climate-related sectors
could top \$2 trillion by 2020,
Was \$530B in 2008 -- 75% growth over 2007

4 major areas of climate-related revenues

1. Low-carbon energy production
2. Energy efficiency
3. Control of water, waste and pollution
4. Climate finance

Plus could create 10M new jobs in 2020

Generate additional economic growth worth as much as the green
stimulus packages recently adopted by major governments

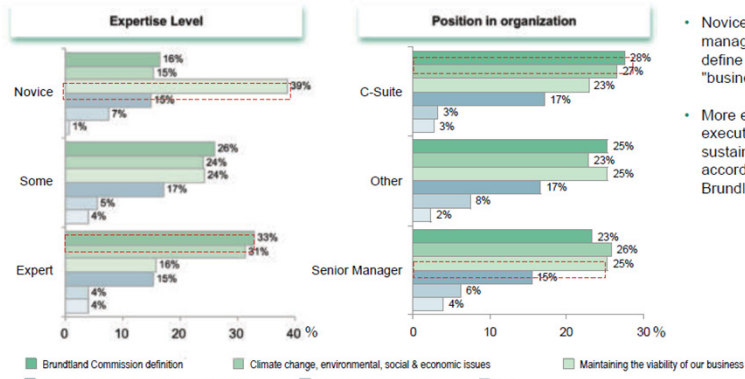
HSBC Global Research report, Sept. 2009



Defining Sustainability

Q1. Which of the following statements best describes the way in which your organization defines sustainability?

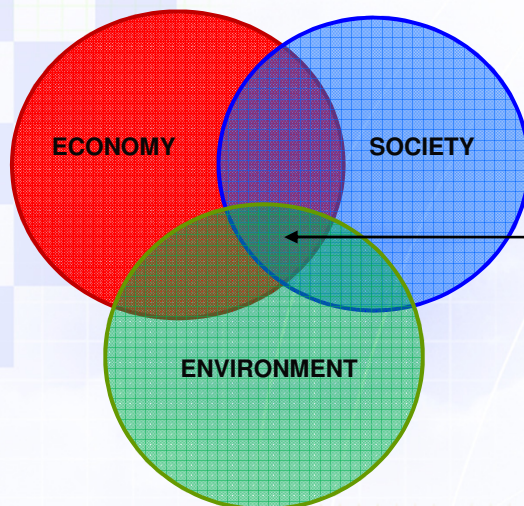
Research highlights



1. Brundtland Commission definition: Sustainability refers to meeting the needs of the current generation without compromising the ability of future generations to meet their needs.

The Sustainability Initiative 2009 Survey, BCG & MIT Sloan Management Review

Triple Bottom Line Model of Sustainability

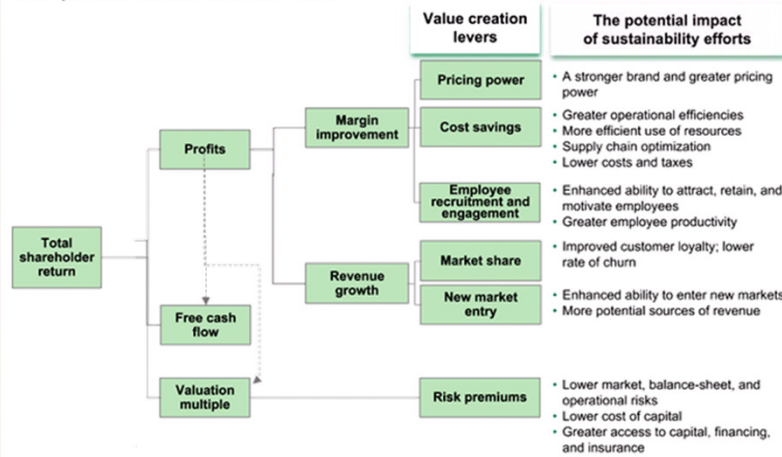


Sustainability lives here

SBF Targets Sustainability as a Business Imperative

Sustainability Value Chain

Exhibit 5. Sustainability Efforts Could Influence All the Levers That Companies Use to Create Value



Strategic Framework – Encapsulating best practice of Sustainable Business Enterprise



Strategic Framework – Participating Large and Small & Medium Enterprises

Manufacturing <ul style="list-style-type: none"> Caterpillar REC Solar Robert Bosch Sony Electronics SPN Global 	Transport/Logistics/Supply Chain <ul style="list-style-type: none"> DHL Greenpac Microwave Packaging Tetrapak 	Cleantech <ul style="list-style-type: none"> EnergyCorp Global Hooray Energy REC Solar Solargy 	Energy & Utilities <ul style="list-style-type: none"> Senoko Energy Singapore Power 	Environmental Svcs/Water <ul style="list-style-type: none"> EcoLab Origin Exterminator Rhodia AP Veolia ES
Green Building <ul style="list-style-type: none"> Boustead CDL Davis Langdon & Seah Jurong Consultants Koon Construction 	Banking & Finance <ul style="list-style-type: none"> ReEx Capital Asia State Street Bank 	IT/High Tech/Telco <ul style="list-style-type: none"> 1-Net AsiaSoft eBus Media Network Singtel ST Electronics 	Hospitality/Travel <ul style="list-style-type: none"> Fairmont Mandarin Orchard Siloso Beach Resort Resorts World Sentosa 	Agriculture/Waste Mgmt & Recycling <ul style="list-style-type: none"> Agro Genesis Alpha Biofuel Camfill Farr Van der Horst Biofuel Winrigo
Engineering Svcs <ul style="list-style-type: none"> Natsteel Sembcorp Trane Distribution 	Business Svcs <ul style="list-style-type: none"> G-Energy Paperlinx 	Wholesale/Retail /Trading <ul style="list-style-type: none"> Jebsen & Jessen 	Govt Agencies <ul style="list-style-type: none"> JTC KTP Hospital Land Transport Authority National Library Board 	Academic Inst. <ul style="list-style-type: none"> Nanyang Technological University Republic Poly Singapore Poly

Scaling The Peak Of Sustainability Excellence

The Singapore Sustainability Awards (SSA) is an initiative of the Singapore Business Federation and comprises the Sustainable Business Awards (SBA) and the Green IT Awards (GIT). Inaugurated in 2010, the awards recognise companies that adopt best-practice innovative and sustainable business practices.

The Awards serve as a yardstick for enterprises to benchmark against leading companies' sustainable business practices. It is a prestigious epitome that Singapore businesses strive to attain sustainability excellence and a winning edge.

Sustainability Excellence

"Given the current state of environmental degradation and resource depletion, a paradigm shift in our economic model is critically called for, in order to safeguard long-term competitiveness. Sustainability can no longer be viewed as a prerogative, but as a responsibility, and this is where forward-looking companies can capitalize on the opportunity to become leaders in the field"

- Mr. Tony Chew, Chairman Singapore Business Federation

"Sustainability at Sembcorp is about striving for excellence and continuous improvement in identifying, understanding and responding to evolving environmental, social and governance challenges facing our businesses today. In line with this, our sustainable or 'green' business lines have become a growing part of our business, delivering an additional competitive edge for Sembcorp and at the same time, creating mutual benefit for our customers, suppliers, partners and the communities wherever we operate."

- Mr. Tang Kin Fai, Group President & CEO, Sembcorp Industries

"ST Electronics innovates eco-enabling ICT solutions that help our customers reduce their carbon footprints. In our operations, we believe in being a responsible corporate citizen and a keen Green practitioner. The alignment of the two strengthens our commitment towards sustainable development."

Singapore is a living showcase of urban solutions that make our city-state Clean, Efficient and Safe. With our proven international track record and contributions to Singapore's economic development, companies such as ST Electronics can convincingly advocate integrated ICT solutions that effectively deliver both business and sustainability benefits. This Award will certainly help advance Singapore companies' advocacy of green solutions and practices."

- Mr. Lee Fook Sun, President of ST Electronics

"For a company that lists sustainability as one of our brand values, Rigel's achievement of the Sustainable Business Award is certainly a booster for us to strive for more watershed innovations in green automation and realise our vision of creating a sustainable future driven by efficient water management."

In fact, this concept of resource efficiency will benefit all companies in the green economy. Intelligent buildings best reflect how resource optimization can make everyday operations more streamlined and cost-efficient. With more and more buildings going green, it is time to enhance sustainability by greening up the most understated social enclave – the restroom."

- Mr. Christopher Ng, Managing Director

Singapore Sustainability Awards 2011

Sustainable Business Awards
Top Honour:
DHL
Sembcorp Industries Ltd
JTC Corporation
Chengannur Pte Ltd
Rigel Technologies Pte Ltd
Siloso Beach Resort Pte Ltd

Achievement of Excellence:
Sony Electronics Asia Pacific Pte Ltd
Veolia ES Singapore Pte Ltd

Green IT Awards
Top Honour:
eBus Media Networks Pte Ltd
Tea System Integration Pte Ltd
National Library Board

Achievement of Excellence:
GreenPass
Nanyang Technological University
Rigil World at Sentosa Pte Ltd
Singapore Technologies Electronics Limited

**Congratulations To All Top Honour & Excellence Achievers
Singapore Sustainability Awards 2011**

SBA Winners 2011 (from left): DHL, SembCorp, JTC Corporation...
GIT Awards Winners 2011 (from left): eBus, Tak System, National Library Board...

For more information, please visit <http://www.sustainabilityawards.sg>

Strategic Partners: NUS, SPRING Singapore, IBM, iTeq, Singapore Environment Council, Singapore Green Building Council, Singapore Green Alliance, Singapore Green Mark Council, Singapore Green Building Council, Singapore Green Alliance, Singapore Green Mark Council.

Knowledge Partner: KPMG, Frost & Sullivan

Outstanding Singapore Sustainable Enterprise

SONY



"It is essential for companies in Singapore to incorporate sustainability practices into their operations, in order to meet the increasing expectations of customers and changing business environment."

- Narihiko Uemura, Managing Director, Sony Electronics Asia Pacific and Sony Electronics (Singapore)

VEOLIA
ENVIRONMENTAL
SERVICES



"By encouraging people to recycle more through user-friendly, educational and incentive-based recycling mechanisms, we are turning waste into a resource"

- Mr. Jerome Baco, Country Manager, Veolia Environmental Services

Resorts World
SINGAPORE



"Resorts World Sentosa is working towards being a leading name in family holiday destinations, we are also innovatively engaging in business practices and solutions to achieve sustainable business growth."

- Mr. Yap Chee Yuen, Senior Vice President Head, Innovation and Technology, and Operations Services, Resorts World at Sentosa Pte Ltd

Outstanding Singapore Sustainable Enterprise



City Developments Ltd



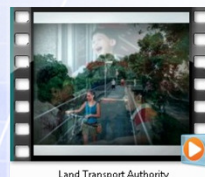
Senoko Energy



Inland Revenue Authority of Singapore



Samwoh Corporation



Land Transport Authority



Tetrapak Jurong Ltd



Trusted Hub

Best Practice – Riding the Megatrend of Sustainability

Highlights:

- Featuring case studies of outstanding SSA award winners detailing their route towards outstanding sustainability
- A joint publication with National University of Singapore Business School under its MBA Consulting Practicum and used as teaching case studies
- Featuring strategic framework for Sustainable Business Enterprise jointly developed with knowledge partner KPMG
- Help promote sustainability excellence and sharing of best practices amongst Singapore organizations across businesses and companies, government agencies and academic institutions so that more organizations are inspired to adopt similar practices or develop their own.



Vision: Developing Singapore into a leading regional hub in sustainability solutions and adoption of sustainable business practices, with robust capabilities across clean energy, environment & water, built environment, urban mobility and urban planning

Hosted by



Founding Members



Singapore Sustainability Alliance

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graph TD; IA[Industry Associations] -.-> GA[Govt Agencies]; GA -.-> BC[Business Community]; BC -.-> IHL[IHLs, RICs & Think tanks]; IHL -.-> IA;
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Industry Associations

- Singapore Compact for CSR
- Singapore Environment Council (SEC)
- Singapore Green Building Council (SGBC)
- Singapore Infocomm Technology Federation (SiTF)
- Singapore Manufacturers Federation (SMA)
- Singapore Water Association (SWA)
- Sustainable Energy Association of Singapore (SEAS)
- Waste Management & Recycling Association of Singapore (WMRAS)

Govt Agencies

Building and Construction Authority, EDB SINGAPORE, Energy Research Institute, National Environment Agency, PUB, SPRING Singapore

Business Community

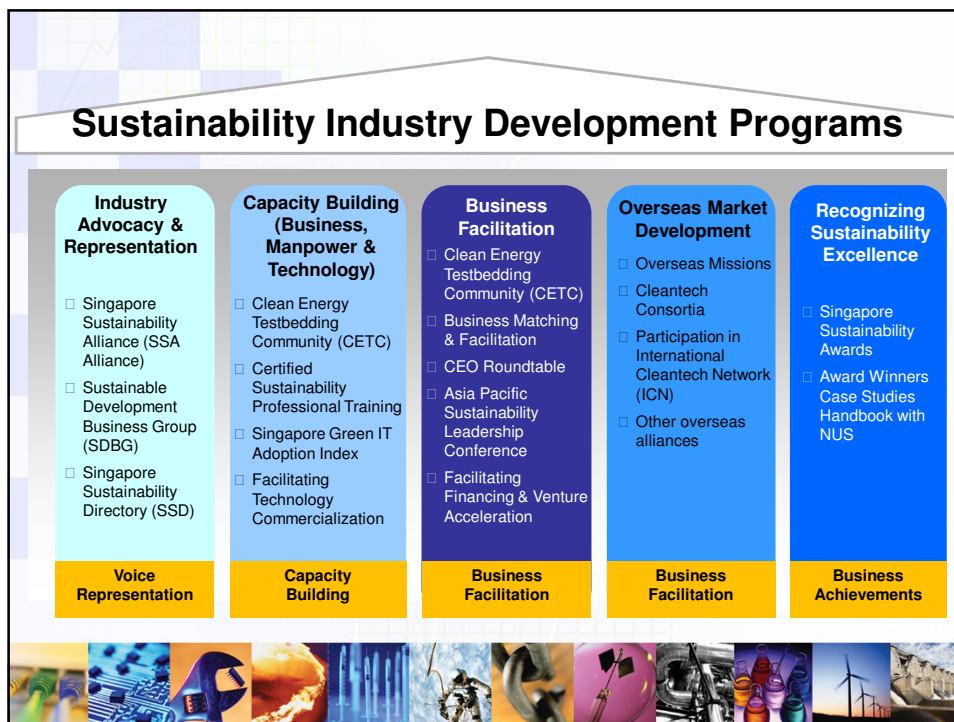
550+ Foreign & Local Companies in Sustainability Sector

IHLs, RICs & Think tanks

- Agency for Science & Technology Research (A*Star)
- Energy Studies Institute (ESI)
- Exploit Technologies
- Fuel Cell Community
- The Logistic Institute Asia Pacific
- Ngee Ann Polytechnic
- National University of Singapore
- Republic Polytechnic
- Singapore Institute of Manufacturing Technology
- Sustainable Supply Chain Centre of Asia Pacific
- Singapore Polytechnic
- Temasek Polytechnic

Companies Within Sustainability Community

Clean Energy (Solar, wind, fuel cell, etc.)	Engineering/Energy Efficiency	Chemical/Oil/Petrochemical/Utilities	Bioenergy (Biofuels & Biomass)	Environmental Mgmt/Waste-to-Energy
Water & Waste Water Treatment	Green IT/Computing	Green Manufacturing & Logistics	Green Building & Facilities Mgmt	Consultancy + Project Devt + Accreditation
Carbon Trading + Exchanges	Investment, Funding + Financial Svcs	Legal, Audit, Risk Mgmt, Insurance	Government Agencies	R&D + IHLs



Sustainability Industry Development Programs

Capacity Building

- ☐ Sustainable Business Enterprise Framework
- ☐ Singapore Green IT Adoption Index
- ☐ Certified Sustainability Professional Training

**Sustainable
Business
Enterprise
Framework**



Singapore Green IT Adoption Index

Jointly developed by SBF and KPMG, the Sustainable Business Enterprise Framework provides a strategic framework by which business enterprises can be assessed according to their level of adoption of sustainable business practices and allow for performance benchmarking and improvement.

Jointly developed by SBF, IBM and Frost & Sullivan, the Singapore Green IT Adoption Index provides a strategic framework by which business enterprises can be assessed according to their level of adoption of green IT for energy savings and allow for performance benchmarking and improvement.

**Certified
Sustainability
Professional
Training**

Aimed at senior and middle management corporate executives, the objective of this training program is to nurture a pool of sustainability professionals for the challenges and opportunities in the emerging low-carbon economy.



Sustainability Industry Development Programs

Business Facilitation

- Clean Energy Testbedding Community (CETC)
- International Cleantech Network



- This is a joint initiative with Temasek Polytechnic (TP)'s Clean Energy Centre supported by EDB and IE Singapore. Through CETC, companies can gain access to business and technical support in their clean energy and sustainability project test-bedding and implementation /commercialization. For more details, please refer <http://cetc.sbf.org.sg>.



- The Singapore Sustainability Alliance is plugged into the International Cleantech Network – a network between the world's leading cleantech cluster organizations across Europe, North America and Asia. For more details pls refer <http://internationalcleantechnetwork.net/>.



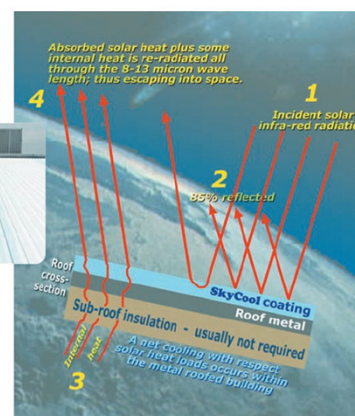
Internationalization



Projects Facilitated Through SBF/SDBG

Energy Efficiency Roof Coating for Becton Dickison Yishun Facilities

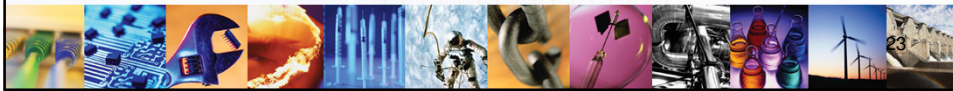
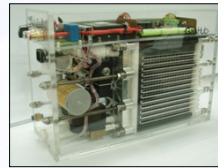
- Through the Clean Energy Testbedding Community (CETC), SkyCool secured its first project in Singapore with Becton Dickinson (BD), a manufacturer of medical equipment that operates 2 plants in Singapore, one of which is in Yishun.
- Mr. Chan Chee Seng, BD's Director of Facilities, was actively looking for ways to enable his plant to reduce their air conditioning energy usage.
- SkyCool's cool roof coating, by substantially reducing the roof temperature of BD's plant, has enabled a noticeable improvement in their operations.



Projects Facilitated Through SBF/SDBG

Fuel Cell Projects by Gashub Technology

- With the setting up of Clean Energy Testbedding Community (CETC), Gashub has secured 2 projects from the Maritime and Port Authority of Singapore (MPA), namely an "Undersea Fuel Cell Powered Automated Sediment Trap System" together with DHI Water & Environment (S) Pte Ltd and Temasek Polytechnic funded by MPA.
- The second project was a "Fuel Cell Powered Boat" with Nanyang Technological University also funded by MPA.



Projects Facilitated Through SBF/SDBG

Collaboration between Singapore and Israeli Companies

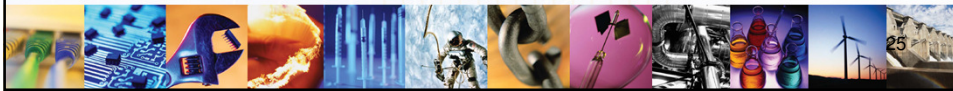
- SBF led a business mission to Israel from 27 Jun – 1 Jul 2010 together with Israel Embassy with a team of 15 participants targeting at energy and environment sector.
- Highlights included
 - SEIT Pte Ltd signed an agreement with Israeli's Universal Environmental Technology (UET) on the last day of CLEANTECH 2010 in Israel.
 - Phoenix Solar and JP Asia Capital Partners estimated sales of \$120 mil and 2mil respectively based on IMAP feedback.
 - Ngee Ann Poly Centre of Innovation for Environment and Water Technologies also reported the following gains:-
 - A workshop was organised and Israel's bSolar was invited to present their technology to local SMEs. Several SMEs indicated interest in pursuing discussions with bSolar which deals with bifacial solar cells.
 - A project submission was made with Ben-Gurion University of the Negev as collaborator to PUB following the mission.
 - Israel's Rotem and Zenith Solar were also contacted to explore R&D project collaborations



Projects Facilitated Through SBF/SDBG

Hangzhou-Singapore Eco-park by Cleantech Partners

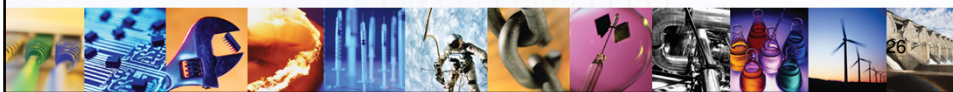
- SBF led a business mission to Hangzhou, Qianjiang from 23 – 26 Nov2009, as a follow-up to our successful earlier effort targeting the clean and green sector in China where we led a team of 18 companies covering Beijing, Baoding, Tianjin, Wuxi and Hangzhou from 14 – 19 Sep.
- Highlights included
 - MOU Signing of Hangzhou-Singapore Eco-Park (HSEP) between Hangzhou Qianjiang Economic Development Zone (HQEDZ) Management Committee and CleanTech Partners (CTP) from Singapore
 - MOU Signing on Green ICT Adoption Initiative & Joint Collaboration between Hangzhou Qianjiang Economic Development



Projects Facilitated Through SBF/SDBG

Singapore Companies participation in Sino-Singapore Tianjin Eco-city

- SSTECH has also highlighted the following companies who are either SBF members or non-members introduced by SDBG which are now in various stages of engagements with them in Tianjin Eco-city:-
 - MOUs signed: STSE Engineering Services, ST Kinetics, ST Electronics, Tiong Seng, Philips, PV World, Ascendas
 - Engaged: Dow Corning (China), Sembcorp Park Mgmt, PSA Corp, KPMG Advisory Services, MWH Consultants, Zeco Scooters, Du Pont Company (HK), GE Pacific, SolarWorld Asia Pacific, Aconex Singapore, Engro Corporation
 - Services Partners: Jurong Consultants, Surbana, CPG Green / CPG



Asia Pacific Sustainability Leadership Conference



- **Theme: "Riding the Megatrend of Sustainability"**
- Date: 17 Oct Venue: Resorts World Sentosa
- Supported by World Business Council for Sustainable Development (WBCSD)
- Highlights:-
 - In conjunction with Global Entrepolis@Singapore (GES) Business Summit
 - Launch of Singapore Sustainability Awards (SSA) 2012
- Key Speakers:
 - Mr. Bjorn Stigson, President, WBCSD
 - Mr. Benjamin Taube, Chairman and Co-founder, Global Cleantech Cluster Association (GCCA)
 - Mr. Constant van Aerschot, Director, Construction Trends, Lafarge; Co-chair of Energy Efficiency in Buildings project at WBCSD
 - Mr. Masayuki Shimura, Director and Head of Asia Pacific Division, Sumitomo Mitsui Bank Corporation (SMBC)
 - Mr. Ling Poon Lim, Senior Vice President and Head, Business Development, Sembcorp Industries Ltd



SDBG Online (<http://sdbg.sbf.org.sg>)



About Sustainable Development Business Group (SDBG)

The convergence of high oil prices, climate change concerns and energy security interests has fostered a surge of interest in clean energy and sustainable development. Singapore has identified several sectors for focused development, including solar, fuel cell, biofuels, energy efficiency, and other green urban and eco-city solutions. Hence, opportunities are tremendous for companies venturing into this fast emerging industry. **VIEW MORE**





Thank You

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