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The theme of “Change” is apt as we review our journey over the past five years. With the challenges brought on by Singapore’s changing work landscape, the Workplace Safety and Health (WSH) Council is at the forefront as we strive to steer all towards better WSH standards and performance. 2013 marks the mid-point from 2008 to the 2018 WSH Vision, and it is timely that we reflect, take stock and re-energise ourselves for the journey ahead.

Looking back to 2008, the WSH Council was formed against a backdrop of several serious high-profile industrial accidents. These accidents revealed shortcomings in our WSH system and sent a strong signal of the need for change. Employers, workers and government have to work collaboratively and relook at how we manage WSH both individually and on the national front. Legislation was amended to advance an outcome-based and risk management approach to encourage industry to be more involved in their workers’ safety and health. This change allows employers the space and creativity to make sensible changes to better WSH outcomes, taking into account what would not only be safer but also make the most sense for operational effectiveness, efficiency and productivity.

The premise of the Council’s formation is to lead industry through these changes. We strive to analyse, understand, plan, motivate and work with industry. We charted our path by strengthening stakeholders’ involvement and capabilities.

Engagement and training formed a significant part of our work over the past five years. The WSH Council launched and enhanced more than 50 courses, which trained over a million workers in the past five years. There are now 15,000 trained WSH professionals as of March 2013, as compared to training only 300 in 2008. We have close to 15,000 bizSAFE companies as compared to just 2,200 in 2008.

Our national education efforts have also undergone a transformation. Previously, we mainly worked with the traditional sectors. We have now expanded to work with all sectors, striving to reach every employee. Using social media, we created “WSH Nation” to enlarge our reach. In 2012, for the first time in our public education efforts, we attempted to send a stronger message – Stop the Assumptions. Stop Work Accidents. Our TV Commercial, “Assumptions”, struck a chord with the public and their votes won us a Bronze award at The Laurels.

We have come a long way since our formation. In five years, we have put WSH firmly on the national agenda, better equipped more workplaces to implement risk assessment and put good WSH measures in place. This has helped to reduce the fatality rate from 2.9 per 100,000 workers in 2007 to 2.1 in 2012.

While we have some pieces of the puzzle identified, our work is far from done. As long as there is one worker who does not make it home safe, we must continue to improve the way companies operate to adopt safer WSH practices. The Council will provide more guidance materials in areas where employers and employees need help. We also aim to develop programmes and checklists to make it easier for employers to implement safety practices, so as to ensure the safety of their workers.

The most difficult change to effect is that of mindset. Both employers and employees’ mindsets about WSH must change to re-prioritise and make WSH their default modus operandi. The Council has the framework to help organisations and employees start their WSH journey, but the challenge lies in how we can convince each and every one to accept that WSH is important, and to educate them on how they can work safely in their line of work. Our journey towards a progressive and pervasive WSH culture is just beginning.

Some people regard “change” with anxiety because of the uncertainty it brings. Some are excited and inspired to meet it head-on. This is especially true for safety and health. While many feel strongly about it, taking on personal responsibility and making constant adjustments to improve safety outcomes is never easy. I encourage all to see this journey of change positively and join the WSH Council to bring about workplaces that constantly change for the better safety and health of everyone at work.

Mr Lee Tzu Yang
Chairman
Workplace Safety and Health Council

MR LEE TZU YANG
Chairman
Workplace Safety and Health Council
The Workplace Safety and Health (WSH) Institute was set up in April 2011 by the Ministry of Manpower (MOM) as part of Singapore's WSH 2018 Strategy to strengthen Singapore's capabilities in safeguarding the safety and health of persons at work.

The WSH Institute came under the purview of the WSH Council in April 2012. A nine-member Governing Board was then formed to provide governance and strategic guidance to the Institute. The Governing Board comprises members from industry, the labour movement, government and institutions of higher learning.

The Institute focuses on three key areas:

1) Informing WSH policies and strategies
The Institute will review and ensure that policies and programmes for WSH continue to stay relevant and effective.

At the 3rd meeting of the International Advisory Panel (IAP) for WSH in November 2011, the IAP recommended that Singapore build up its capabilities to proactively identify emerging areas of concern in WSH and to improve the timelines and effectiveness of preventive measures. The Institute had launched the Observatory for WSH Landscape for this purpose.

2) Creating WSH solutions for businesses
Businesses in Singapore can look to the Institute to research strategies and solutions to help them address WSH issues.

Since the launch of the WSH National Research Agenda for WSH in late 2011, eight research projects covering areas from WSH risks and solutions to business and organisational aspects of WSH had been commissioned. The Institute will continue to collaborate with the local and international research communities to expand research into other areas.

The Institute had developed its first mobile application tool called ergo@WSH to raise public awareness of good postures at work. Within six months, the application attracted almost 10,000 downloads. We hope more users will benefit from this app as we continue to enhance it with more features in 2013.

3) Nurturing capabilities of leaders and senior management
The Institute will work closely with the WSH Council to equip business leaders and WSH professionals with the competencies to better manage safety and health at their workplaces.

Leaders and senior management are key agents in raising WSH capabilities within their companies. It is imperative that they have the skills and information to recognise the importance of WSH and how they can pursue WSH to the advantage of their businesses.

The WSH Institute had commissioned a research study to better understand the motivations and challenges facing business leaders and senior management in managing WSH matters. These insights, together with selected articles authored by prominent experts, have been compiled into a practical guide for leaders and senior management.

The Institute will seek to broaden its capabilities by strengthening its collaboration on WSH research and knowledge with other institutes and existing partners.

\[Signature\]
MR KHOO CHIN HEAN
Chairman
Workplace Safety and Health Institute Governing Board
WSH COUNCIL MEMBERS

Mr Lee Tzu Yang
Chairman
Chairman, Shell Companies in Singapore

Mr Heng Chiang Gnee
Deputy Chairman
Executive Director, Maritime Sustainability Pte Ltd

Mr Mohamed Abdul Akbar Bin Mohamed Abdul Kader
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Chairman, WSH Institute Governing Board
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Chief Development Officer,
AXA Insurance Singapore Pte Ltd

Mr Wong Weng Sun
Member
President and Chief Executive Officer,
Sembcorp Marine Ltd

Mr Jackson Yap Kit Siong
Member
Group Managing Director and Chief
Executive Officer,
United Engineers Ltd

Mr Yeo Guat Kwang
Member
Director, Administration and Research
Unit, National Trades Union Congress

Mr Eugene Yong Kon Yoon
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Chief Executive Officer,
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Mr Allen Law Ching Hung
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WSH Institute Governing Board

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National University of Singapore

Ms K. Thanaletchimi  
Member  
President,  
Healthcare Services Employees’ Union
CALENDAR OF EVENTS FY2012/13

**APRIL 2012**
- 16 April
  ProBE Plus Forum 2012 on Work at Heights
- 26 April
  National WSH Campaign

**MAY 2012**
- 22 May
  Seminar on Safe Use of Lorry Cranes

**JUNE 2012**
- 11 June
  Ratification of International Labour Organization Promotional Framework for Occupational Safety and Health Convention, C187
- 15 June
  Design for Safety Awareness Talk
- 26 April
  National WSH Campaign
- 29 June
  WSH Forum: Roof Works Safety

**JULY 2012**
- 6 July
  Dialogue Session on Mobile Elevated Work Platforms
- 13 July
  WSH Forum for Accredited Training Providers
- 17 July
  WSH Awards 2012
- 20 July
  ProBE Forum: Work at Heights Workshop for Formwork Industry
- 25 July
  WSH Forum: Pre-Employment Training
- 27 July
  Seminar on Management of Noise and Chemicals at the Workplace
- 31 July
  WSH Institute Forum: From Evidence to Action – What Works?

**AUGUST 2012**
- 1 September
  WSH Unconference for Landscape Sector
- 12 – 13 September
  Singapore WSH Conference 2012
- 18 September
  WSH T³ Workshop: Managing Work at Heights
- 23 August
  WSH Forum for Vector Control Industry
- 24 September
  Crane Safety Symposium

**SEPTEMBER 2012**
OCTOBER 2012

30 October
WSH Forum: Safe Working at Heights for Logistics and Manufacturing Sectors

NOVEMBER 2012

30 November
WSH T³ Workshop: Managing Chemicals and Hazardous Substances

DECEMBER 2012

5 December
WSH Forum: Safe Working at Heights for Landscape Industry

13 December
Launch of Festive Campaign

27 – 28 December
WSH T³ Workshop: Managing Confined Space Work

FEBRUARY 2013

22 February
bizSAFE Convention 2013

MARCH 2013

January
Start of “Safety Starts with Me Competition”

March
Start of Request for Proposal Call for WSH Research Projects, 2013

26 January
WSH Forum: Developments in Workplace Health

1 March
Dialogue Session on Competencies for Manhole and Confined Space Safety Assessors

30 January
WSH Institute Forum: Maximising Returns through WSH Innovations

22 March
WSH T³ Forum: Risk Management Training

WSH Council events

WSH Institute events
SETTING WSH STANDARDS

TO EQUIP THE WORKFORCE WITH THE KNOW-HOW TO PERFORM SPECIFIC JOBS WELL, THE WSH COUNCIL DEVELOPS A GUIDANCE FRAMEWORK THROUGH SETTING STANDARDS AND SHARING OF BEST PRACTICES.
Approved Codes of Practice
The issuance of Approved Codes of Practice (ACOPs) aims to educate and provide industry-guidance on safe work-practices. The WSH Council updated the list of ACOPs by issuing 17 new ACOPs in November 2012, bringing the list to 56.

The 17 new ACOPS include:

a) SS 569: 2011 Code of Practice for manual handling (Formerly CP92)
b) SS514: 2005 Code of Practice for office ergonomics
c) SS 528: 2006 Specification for personal fall-arrest systems - Part 1: Full-body harnesses
d) SS 528: 2006 Specification for personal fall-arrest systems - Part 2: Lanyards and energy absorbers
e) SS 528: 2006 Specification for personal fall-arrest systems - Part 3: Self-retracting lifelines
f) SS 528: 2006 Specification for personal fall-arrest systems - Part 4: Vertical rails and vertical lifelines incorporating a sliding-type fall arrester
g) SS 528: 2006 Specification for personal fall-arrest systems - Part 5: Connectors with self-closing and self-locking gates
h) SS 528: 2006 Specification for personal fall-arrest systems - Part 6: System performance tests

Process Safety Performance Indicator Guidelines
The Process Safety Performance Indicator Guidelines were developed by the WSH Council in consultation with the Chemical Industries Committee. Launched in September 2012, the Guidelines help the middle-to-senior management and WSH personnel in the industry to identify possible hazards arising from their work processes and take steps to rectify them.

WSH Guidelines – Managing Safety and Health for Small- and Medium-Sized Enterprises (SMEs) in the Metalworking Industry
Introduced in October 2012, these Guidelines were developed to assist companies in the metalworking industry, especially SMEs, to build and enhance their capabilities in managing WSH at the workplace. They provide information and guidance to business owners, senior management and key stakeholders to ensure that safety and health are managed as integral parts of the business.

WSH Guidelines – Working Safely During Modernisation, Installation or Dismantling of Electric Passenger and Goods Lifts
Introduced in June 2012, this set of Guidelines provides information and guidance in all workplaces where modernisation, installation or dismantling (MID) of permanently-installed electric passenger and goods lift are required. It serves to equip stakeholders in the industry with useful practical knowledge and good practices on MID.

WSH Guidelines – Anchorage, Lifelines and Temporary Edge Protection Systems
Published in September 2012, this set of Guidelines was developed to assist employers and workers who are involved in work at heights (WAH) to better understand the application of anchorage, lifelines and temporary edge protection as a means of fall prevention. It is relevant for WAH activities and contains salient points on the proper application of temporary edge protection to prevent falls, and the deployment of correct anchorages and lifelines to arrest a fall during an accident.

WSH Guidelines – Personal Protective Equipment for Work At Heights
The Guidelines were developed to assist contractors and workers in the application of personal protective equipment (PPE) such as full-body harnesses, energy absorbers, connectors and lanyards while working at heights. Introduced in November 2012, they contain salient points on proper usage and application of PPE to provide additional protection prevents falls.
WSH Guidelines – Landscape and Horticulture Management

These easy-to-follow Guidelines provide information and guidance on common workplace hazards which workers involved in landscaping and garden maintenance activities may face, and the relevant preventative measures. Using photographs and graphics, the hazards are clearly grouped in accordance with various operations such as tree management and horticulture management.

WSH Guidelines – Safe Operation of Forklift Trucks

To raise industry awareness on the safe operation of light- and heavy-duty counterbalance forklifts, this set of Guidelines was developed to provide practical guidance on the management, safe operation and maintenance of forklift trucks or forklifts at workplaces. Published in May 2012, it includes the hazards associated with the use of forklifts and the corresponding control measures to be implemented.
Step-by-Step Risk Management Guide for Logistics and Transport (L&T) Sector

This Guide provides WSH stakeholders information and guidance in implementing risk management at L&T workplaces. The step-by-step methodology for risk management helps stakeholders identify potential hazards in their work processes and put in place effective risk-control measures.

Activity-Based Checklists

These checklists were developed to assist supervisors in identifying WSH risks related to specific work activities at the workplace. The checklists help to identify unsafe conditions and practices that are likely to cause injuries. Supervisors will be able to know what causes harm and what subsequent remedial actions can be taken to ensure no worker is at risk.

Contribution of WSH Articles

To drive the adoption of best practices, the WSH Council has embarked on a new initiative to contribute WSH articles to various newsletters and magazines for industry associations such as the Singapore Manufacturing Federation and the Singapore Furniture Industries Council. These articles serve to communicate and share WSH best practices with diverse stakeholders in the different sectors.

The WSH Council had also published an article in March 2013 on “Chemicals in the Workplace” for Occupational Safety Asia, the region’s only English-language journal that discusses timely safety and health issues for the industry.

Singapore WSH Conference 2012

The second biennial Singapore WSH Conference positioned Singapore as a leading platform in Asia for key stakeholders to discuss the latest trends and challenges, and discover solutions in WSH.

The Conference theme “Changing Landscapes, Shaping a Progressive WSH Culture” highlighted Singapore’s emphasis on WSH with the development of sustainable WSH strategies in a challenging economic climate.

Deputy Prime Minister Mr Tharman Shanmugaratnam shared key global challenges, such as the rise of an ageing workforce and global economic slowdown, and emphasised the importance of WSH as a competitive advantage for businesses in the current climate.

Held on 12 and 13 September 2012, the Conference welcomed more than 700 participants from over 30 countries with a common goal of creating safe and healthy workplaces. WSH professionals, business leaders and government officials benefitted from the critical insights and extensive discussions shared during the Conference. Networking opportunities were also forged as the delegates exchanged best practices with other thought-leaders in the field of WSH.

10 satellite events covering topics from construction safety to WAH were also organised and these added to the diversity of the WSH-focused event.

Building on the success of the WSH Conference 2012, the next Conference in 2014 is expected to bring greater collaboration and participation, and enhance Singapore’s position as a global hub for WSH solutions.
Leadership Dialogue with United Kingdom Health and Wellness Expert

In September 2012, the WSH Council, in collaboration with Jurong Health Services, organised a dialogue on Workplace Health and Wellbeing with Prof. Dame Carol Black, Expert Adviser, Health and Work, Department of Health, United Kingdom. At the informative session, Dame Carol shared her recent work on sickness absence and the relationship between workplace health and wellbeing, and employee-engagement with attendees from the healthcare community.

Study Trip to Hong Kong – Safe Communities

As outlined in the WSH 2018 masterplan, developing a progressive and pervasive WSH culture is pivotal to raising WSH standards in Singapore. To propel Singapore to the next stage of the WSH journey, developing a culture in which all Singaporeans prioritise safety and health at work is essential. The approach is modeled after the World Health Organization’s (WHO) Safe Communities initiative where communities are created based on multi-agency collaboration—with both government and private sector stakeholders—to promote safety in all aspects of life involving all ages, environments and situations.

To better understand how Singapore can develop a safe and healthy culture through community-driven efforts, MOM, the WSH Council and WSH Institute went on a trip led by Mr Hawazi Daipi, Senior Parliamentary Secretary for Education and Manpower, to Hong Kong from 11 to 14 March 2012 to learn from its experience with safe communities. Hong Kong was chosen as nine of its districts have been designated as safe communities by the WHO. The Occupational Safety and Health Council in Hong Kong had also been appointed by WHO as an Affiliate Safe Community Support Centre and an International Safe Community Certifying Centre.

An informal workgroup was formed by representatives from the delegation and they would be working on a pilot programme with one of the identified communities on several initiatives to develop a safe community. If the pilot programme is successful and yields positive results, the workgroup would then explore with other government stakeholders on how the model could be replicated in Singapore.

Construction WSH Study

The Construction WSH Study was conducted in early 2012 under the guidance of the WSH Council (Construction and Landscape) Committee. Released in June 2012, the Study focused on understanding WSH concerns amongst SMEs within the construction sector so as to suggest areas of improvement.

The Study involved a series of focus group discussions and face-to-face interviews with over 100 developers, SME subcontractors, professionals, associations and professional bodies. Surveys were also conducted with over 1,000 workers and supervisors from neighbouring countries.

The recommendations from the study underwent public consultation in November 2011, with feedback received from 220 industry stakeholders before they were finalised. The recommendations include:

- For developers to require main contractors to specify safety costs in their tender price,
- For clients to develop incentive and recognition schemes for SMEs to enable them take the lead in promoting and adopting good safety behaviour,
- For all stakeholders, including developers, consultants, main contractors and sub-contractors to be jointly accountable for safety,
- To promote awareness and adoption of DfS so that risks identified from the design stage and during construction are recorded and transparent to all relevant parties involved in the project,
- To expand trade-specific tests overseas to ensure workers meet minimum skills requirements for their trade,
- To enhance CSOC with trade-specific safety training,
- To develop accredited trade-specific WSH training curriculum for the construction sector to further enhance skills and competencies, and
- For companies to attain a minimum of bizSAFE Level 3 to qualify for construction tenders.

The proposed recommendations, with the corresponding action plans, will serve to complement the strategies highlighted in the construction WSH sectoral roadmap and drive WSH in the construction sector.
Expansion of WSH Council (Metalworking and Manufacturing) Committee’s Coverage

In addressing challenges faced by the food, beverages and tobacco products, wood products and furniture sectors, the WSH Council (Metalworking and Manufacturing) Committee had expanded its coverage to be more inclusive since the 2nd quarter of 2012. With the expansion, the WSH Council has stepped up on its effort to engage industry stakeholders via trade associations such as Singapore Food Manufacturers Association and the Singapore Furniture Industries Council.

Collaborations with Trade Associations

Improving WSH standards and developing a vibrant WSH culture are not things that the WSH Council can achieve on its own. Thus, the WSH Council is working closely with trade associations, such as Singapore Manufacturing Federation, Singapore Food Manufacturers Association and the Singapore Furniture Industries Council, Singapore Chemical Industries Council, Industrial Gas Association Singapore and Container Depot Association Singapore, to better achieve WSH strategic outcomes. These collaborations focus on key areas such as the inter-industry sharing of best practices, safety and health outreach, the building of WSH capabilities and efforts to integrate WSH into business.

Visit to Public Utilities Board

In order to better understand the challenges a company faces in having an aging workforce, the WSH Council (Workplace Health) Committee visited the Public Utilities Board (PUB), an American Association of Retired Persons (AARP) International Innovative Employer Awards winner in 2010, in April 2012. During the visit, the WSH Council learnt about the strategies PUB employed to address its unique challenges:

• Maintenance and improvement of health leading to an ownership of one’s own health,
• Training for employability,
• Transfer of knowledge and experience to new staff, and
• Management partnership with Union.
BUILDING WSH CAPABILITIES

FROM EDUCATIONAL FORUMS TO ASSISTANCE FUNDS, THE WSH COUNCIL ROLLED OUT CAPABILITY BUILDING INITIATIVES TO ENSURE THE WORKFORCE IS TRAINED AND COMPETENT IN WSH.
CultureSAFE Programme
Developed by the WSH Council, the CultureSAFE programme was launched during the Singapore WSH Conference on 12 September 2012. The programme was built on the WSH culture model developed in 2011 by the WSH Council to provide a national framework on which an organisation’s WSH culture can be based.

Through a five-step cycle, CultureSAFE helps organisations embark on a WSH journey beyond infrastructure and competency, focusing on inculcating a safety mindset in every employee. It allows companies to grow from a reactive culture to a proactive and exemplary one where all workers believe in and advocate safe working behaviour through positive action.

To support the implementation of CultureSAFE, several initiatives were also mooted:

i) **The WSH Culture Fund (WCF)**
Recognising that smaller companies may require additional financial resources to start their WSH culture-building journey, a $8 million WSH Culture Fund was launched to help SMEs defray the associated costs to embark on the CultureSAFE programme.

ii) **CultureSAFE Consultancy Organisation/CultureSAFE Consultants October to November 2012**
A total of 28 consultants from six consultancy organisations were approved by the WSH Council as CultureSAFE Consultants (CSCs) to help organisations, especially SMEs, apply for the WSH Culture Fund and participate in CultureSAFE. The roles as the CSCs include:

- Engaging top management on how to align with and manage expectations of the CultureSAFE programme,
- Facilitating the completion of the five-step CultureSAFE cycle, and
- Updating and reporting the project-status and outcomes for each of the defined milestones.

iii) **Online diagnostic (e-tool) development**
The CultureSAFE online diagnostic tool consists of toolkits for conducting WSH perception-based surveys and evidence-based assessment. It was launched on the iWSH Portal for companies to determine their safety culture via the WSH culture model and WSH Culture Index developed by the WSH Council. Companies can use the e-tool to report diagnostic results of their WSH culture, document identified strengths and weaknesses, and address safety gaps in workplaces.

Training Matrix for Industry-specific Sectors
The WSH Council developed an industry-specific training matrix to enable employers to identify appropriate WSH training courses that are relevant to their industries.

The matrix, available online, will help raise an industry’s WSH capabilities as more employees are appropriately trained to better comprehend, control and manage WSH risks at their workplaces.

Enhanced Construction Safety Orientation Course
To raise safety standards in the construction industry, the WSH Council revamped the training curriculum for the Construction Safety Orientation Course (CSOC). Key enhancements include extending the one-day course to two days, practical training and assessment to familiarise workers with practical skills on fire safety, WAH and work in confined spaces.

The CSOC will also be offered at Overseas Testing Centres administered by the Building and Construction Authority (BCA). With training carried out at source-countries, employers will be able to deploy their workers immediately upon arrival in Singapore. The CSOC was launched in the 1st quarter of 2013.

WSQ Operator Lorry Crane
The WSH Council has developed a Curriculum Development Advisory to assist MOM’s Accredited Training Providers in conducting the lorry crane operator course. The new training requirement is also stipulated under the Workplace Safety and Health (Operation of Cranes) Regulations 2011 which require all lorry crane operators to be trained and certified.

As of September 2012, 1,684 lorry crane operators have been trained. With effect from 1 October 2012, the lorry crane operator training course was migrated to the nationally-accredited Workforce Skills Qualification (WSQ) system to further enhance the skills competency of lorry crane operators.
Migration of ATP’s Courses to WSQ Framework

As part of continuing efforts to enhance workforce skills and competencies, the WSH Council, together with MOM and the Workforce Development Agency (WDA), worked on migrating several MOM ATP courses to WDA’s WSQ system.

With effect from 1 January 2013, bizSAFE Levels 2 and 4 courses will be aligned to the WSQ framework to make bizSAFE training programmes more accessible to businesses and workers. Employees can benefit from greater funding-availability and the national recognition granted to all WSQ training under Singapore’s CET system.

Accredited Training Provider and Risk Management Assistance Fund Entity Audits

A total of 25 ATP audits were carried out throughout 2012. Some of the common findings include the failure to provide proper documented evidence to account for the examinations and test-papers, and the conducting of courses at unapproved locations. Consequently, four ATPs were suspended for periods between two to four weeks, whilst five other ATPs were issued warning letters.

57 Risk Management Assistance Fund (RMAF) audits were also carried out in 2012. Significant shortfalls of the Approved Risk Consultants (ARCs) include training carried out by non-approved ARCs and the failure to advise on relevant safe work procedures. Some MOM-approved auditors were also found to have failed to detect irrelevant safe work vis-a-vis the projects undertaken. Underperforming ARCs and auditors were subjected to interviews and issued warning letters when warranted.

WSH Assist Scheme

WSH Assist is a financial assistance scheme that provides co-funding for SMEs to engage WSH consultants to provide initial WSH assistance. WSH Assist consultants will help SMEs assess their workplaces, develop an action plan to close their WSH gaps, and identify and assist SMEs to apply for and tap on the appropriate WSH 2018 funds.

WSH Assist was launched on March 2013 to offer assistance to SMEs in building their WSH capabilities, with ST Electronics consultants kick-starting the scheme.

Risk Management Assistance Fund

With effect from January 2011, the RMAF deliverables have been enhanced to ensure that recipients meet the requirements of bizSAFE Level 3. With the enhanced scope, the audit fee claimable under RMAF has been increased from $400 to $600 and all successful recipients will be granted bizSAFE Level 3 status automatically.

The RMAF has also been topped-up with an additional $11 million, making a total of $24 million that is to be disbursed until 2014. By the end of 2012, $18.5 million have been disbursed.

Risk Management Audit

Risk Management Audit – Guidelines for MOM-Approved WSH Auditors

The RM Audit Guidelines were developed based on the WSH (Risk Management) Regulations and the Approved Code of Practice on RM. Launched on 29 March 2012, the Guidelines set out the RM Audit requirements and serve as a guide for auditors when they carry out RM Audits. For instance, WSH Auditors are expected to verify that a company’s WSH policy is endorsed by top management.

Supplementary Guidelines for WSH Auditors Conducting RM Audits under RMAF

These supplementary guidelines are aligned with the RM Audit Guidelines for MOM-approved WSH Auditors and enhanced with the additional scope of work of WSH Auditors for the purpose of the RMAF. It aims to ensure that the applicant-company has achieved satisfactory safety outcomes and guides the auditor in verifying that the proposed risk-control measures have been put in place.
E-learning bizSAFE Level 1 Pilot Project

As part of the enhancement and outreach of the bizSAFE programme, the WSH Council rolled out a pilot-run of an e-learning courseware for bizSAFE Level 1 Chief Executive Officer (CEO)/Top Management Workshop through collaboration with two e-Learning providers from 1 April 2012 to 31 December 2012. This course has been designed to be delivered completely online so as to offer flexible and self-paced modules for CEOs/top management with the aim of providing an additional channel for top management to be trained.

This pilot project is open to the following industry sectors: Construction, landscape, healthcare, chemical, logistics and transport, hospitality, entertainment, and phase 3 sectors.

WSH Forum on Safe Working at Heights

To educate stakeholders on working safely at heights, a WSH Forum “Safe Working at Heights” was held on 30 October 2012. Well-attended by close to 450 industry stakeholders, the event featured case studies and best practices on preventative approaches, and scaffold and leader-safety which included a live demonstration on safe access and harness usage while working at heights. The WSH Council also shared updates made to the draft Work at Heights Regulations.

Accredited Training Provider Forums

As part of the continuing efforts to engage ATPs in an informal setting, an ATP Forum was conducted in July 2012 of which there were 125 participants. Highlights include sessions on the findings from past ATP audits, WSH Institute’s findings on ATP trainers’ profiles, and the latest development for WAH-related matters by the WAH Special Unit.

Pre-Employment Training for Institutes of Higher Learning (IHLs)

The awareness of WSH is important to students from IHLs particularly before they enter the workforce as management staff. The WSH Council has been working closely with IHLs to inculcate safety values into the hearts and minds of young future leaders.

On 25 July 2012, 40 senior management officers from various IHLs attended the 2nd Pre-Employment Training (PET) Forum for IHLs to share their success stories and challenges faced in their PET journey. The Guest-of-Honour for the occasion was Mr Eugene Yong Kon Yoon, Chairman of the Industry Capability Building Committee, WSH Council.

Moving forward, the WSH Council will continue to engage other IHLs. Under Phase II of the PET journey, the WSH Council will be collaborating with the Ministry of Education to reach out to students of primary and secondary schools, and junior colleges.

Workshops on Management of Hazardous Chemicals

Following the successful launch of Management of Hazardous Chemicals programme in 2011, the Singapore Chemical Industry Council, together with MOM and the WSH Council, developed a 13-topic workshop to help plant managers and supervisors understand and establish an effective hazardous chemicals management programme in their workplaces. This popular workshop had already seen three runs by the end of 2012.

WSH Forum for Vector Control Industry

To help the vector control industry better understand their roles and responsibilities under the WSH Act, the WSH Council, in collaboration with MOM, National Environment Agency (NEA) and Singapore Pest Management Association, organised a seminar on 23 August 2012 for the vector-control operators and companies. Participants were updated on the changes in legislation and learnt about the advantages of a risk-management approach, systematic management of chemical hazards and the importance of medical surveillance. Industry speakers also shared their best practices in protecting workers’ health.
Seminar on Management of Noise and Chemicals at Workplaces

To raise the awareness of workplace hazards like excessive noise exposure and hazardous chemicals, the WSH Council, together with MOM, organised a seminar on managing these hazards on 27 July 2012.

500 participants were introduced to the Noise-Induced-Deafness Prevention Programme and Management of Hazardous Chemicals Programme. Participants were updated on outcomes of MOM’s recent checks on workplaces to ensure compliance to these programmes. Industry representatives also shared on how they have implemented these programmes at their workplaces.

Concept-Development of Total WSH

Singapore is facing an aging workforce and increase in chronic diseases that threaten to weaken the ability of employees. WSH systems that approach safety and health in an integrated and comprehensive manner help to support work ability and mitigate the effects of aging and chronic diseases. The WSH Council, together with MOM, Ministry of Health (MOH) and the Health Promotion Board, developed the concept of Total WSH – a comprehensive and integrated approach to managing workplace safety and health. The purpose of Total WSH is to provide and maintain a safe and healthy working environment for all employees. It identifies and addresses WSH risks in a proactive and integrated way with the active participation of employees.

Stakeholder Dialogues on Total WSH

The concept of Total WSH, while not new to developed European countries, was an exceptionally different approach to the management of WSH in Singapore. To seek buy-in and further refine the concept of Total WSH, dialogues with various associations, such as the Singapore Institutions of Safety Officers, were conducted. Input from international experts, such as Dame Carol Black from United Kingdom and Prof. Harri Vainio from the Finnish Institute of Occupational Health (FIOH), were also sought. Dialogues were also held with companies with exemplary workplace health promotional efforts, and safety and health performance. A total of 13 such dialogues were conducted and more are being planned in 2013 to share the ideals of Total WSH and garner feedback.

Engaging Healthcare Stakeholders through Healthcare Quality Conference 2012

Tapping on the MOH Healthcare Quality Improvement Conference in November 2012, the WSH Council reached out to over 1,000 healthcare stakeholders with a plenary session on Raising Workplace Safety and Health Standards in the Healthcare Sector. In addition, healthcare leaders and managers learnt about the management of safety and health at their workplaces through the bizSAFE Level 1 workshop.

A success story of a nursing home from Adopt-a-Nursing-Home initiative was also shared to encourage participants embark on the bizSAFE programme. The WSH Council booth set up at the Conference was well-received. Many requested for healthcare assistance materials such as the WSH Guidelines for Healthcare. New exhibits, featuring common hazards in the healthcare sector and success stories of nursing homes, were also displayed throughout the Conference.

Reaching out to Veterinarians on WSH

The WSH Council took the opportunity to reach out to the veterinary sector through the Singapore Veterinary Conference held in November 2012. At the Conference, about 200 veterinarians learnt more about the WSH Act and its subsidiary legislations. The participants were also informed about WSH assistance programmes and the availability of materials relevant to the veterinary industry, such as the WSH Checklist for Vets.

Reaching out to the Chemical Industries

Recognising the need to reach out to companies which are involved in gas-related hotwork, the WSH Council has embarked on efforts such as supporting the Industrial Gases Safety Seminar held in September 2012.

Sectoral WSH plans for chemical industries were developed and have been publicised on the WSH Council website since September 2011. These were also publicised in the Chemical Cluster Directory of Singapore, 11th Edition. This reaches out to more companies within the chemical industries and introduces initiatives that promote WSH improvements.

ProBE Priority Areas 2012

On 16 April 2012, the WSH Council and MOM announced the focus on raising standards in four critical areas of WAH safety: roof works, work on ladders, work on structures, and work on scaffolds and mobile elevated work platforms. Falls accounted for 26 fatalities, or about 40%, of all work fatalities in 2011. The four identified areas are the main contributors of WAH incidents. Over 800 participants attended the forum to hear from the WSH Council, MOM and industry speakers on latest WAH initiatives and how they can better address WSH concerns to protect workers from falls at work.
WSH Awards 2012

The annual WSH Awards are presented to companies and individuals who have demonstrated their commitment to WSH and have set exemplary standards. Through the prestigious national awards, the WSH Council aims to raise the importance of WSH and encourage businesses to improve safety and health at the workplace.

Held on 17 July 2012, this year’s awards had a total of 228 companies and projects which did not have any reportable incidents; this is better than last year’s total of 178 companies and projects. The winners include 185 companies and projects that have performed exceedingly well in the WSH Performance Awards, innovative teams who have derived safer and better working conditions, as well as supervisors who have kept their workplaces safe.

The WSH Developer Award was also given to first-time winners CapitaLand Residential Singapore and Keppel Land which have exhibited excellent management of contractors and projects.

In addition to those recognised by the awards, another 55 companies and projects also received certificates of commendation for having achieved zero injuries over at least 1.5 million manhours.

bizSAFE Convention 2013

The bizSAFE Convention 2013 was held on 22 February 2013 at Grand Copthorne Waterfront Hotel. The Convention’s focus was on SMEs from the low-risk sectors and public agencies. The theme was “Invest in Safety for Business Success”.

The Convention began with a session for all participants in the morning, followed by three different tracks that were offered after lunch. The tracks targeted the following groups:

- Four English bizSAFE Level 1 workshops for CEOs/top management, with two workshops targeting the hospitality and entertainment companies, and public agencies,
- Capability-Building and Awareness Dialogue, and
- Two workplace visits to i) United Engineers Limited, and ii) United Microelectronics Corporation.

The Guest-of-Honour was Mr. Tan Chuan-Jin, Acting Minister for Manpower and Senior Minister of State, Ministry of National Development. The event was well-attended with close to 800 participants, of which more than 50% were non bizSAFE members. The positive response showed the industry’s continuous commitment to workplace safety and health, as well as companies in the new sectors getting more involved in WSH.

100 registered attendees also participated in the complimentary bizSAFE Level 1 workshops and 76 attendees joined the workplace visits.

The complimentary bizSAFE Level 1 workshops were sponsored by ATPs. Both the site-visit locations—United Engineers Limited and United Microelectronics Corporation—were excellent hosts as they received numerous positive feedback from the participants.

Jurong Gateway Safety Group Construction Seminar 2013

The Jurong Gateway Safety Group, in collaboration with the WSH Council, organised its inaugural Construction Seminar on 13 March 2013 at the Singapore Science Centre. The Seminar was attended by more than 140 construction stakeholders, 70% of whom were involved in construction projects around Jurong Gateway.

Mr Tan Boon Yew, Senior Team Lead from the Occupational Safety and Health (OSH) Inspectorate Department of MOM opened by updating participants on the latest construction WSH statistics and accident case studies. Dr Leong Chee Lai, Executive Manager of the Construction Productivity Centre, BCA next shared on incentive schemes under BCA’s Construction Productivity and Capability funds, including recent enhancements. He also highlighted several technologies which enhance both safety and productivity.

Two of the Jurong Gateway Safety Group members—Lend Lease Singapore and Shimizu Corporation—took to the stage to share their approach to WSH and practical steps to improving onsite safety from the developer’s and main contractor’s perspectives. Mr Gordon Little, Senior Environment, Health and Safety Manager from Lend Lease Singapore, touched on the holistic approach needed for WSH to be promulgated amongst the various stakeholders in the construction value-chain, while Mr Goh Kim Seng, Safety Manager at Shimizu Corporation, shared on the practical WSH measures that were applied to their Westgate and other projects, and how they could be implemented at other construction sites as well.

Participants were forthcoming during the Question-&-Answer session. Questions included MOM inspection outcomes, ways to manage difficult clients, as well as incentives schemes to support incorporation of safety provisions.
To engage employers and employees from various sectors, the WSH Council organised a slew of WSH-related events and embarked on several outreach initiatives.
National Workplace Safety and Health Campaign
The National WSH Campaign 2012 was held on 26 April 2012. It kicked off a year-long effort to raise WSH awareness and improve WSH practices in Singapore's workplaces. Themed “Stop the Assumptions. Stop Work Accidents”, the message highlights the need for everyone to take personal responsibility towards WSH and not make assumptions that all safety considerations have been addressed or that others would take care of them.

To showcase the message, the WSH Council rolled out a new TV commercial “Assumptions” that focused on how all levels in the company have a role to play in taking responsibility towards safety, and the consequences that may result if assumptions are made. The commercial reached out to the general workforce through its broadcast on both national and cable TV.

Mr Tan Chuan-Jin, then Minister of State for Manpower and National Development, emphasised the importance of the campaign’s efforts to raise awareness and competencies, address unsafe work practices and cultivate safety mindsets to continue improving Singapore’s safety performance.

Go-to Engagement
On top of raising awareness, the WSH Council also enhanced its industry-engagement approach by adopting a new “Go-to” approach to assist small- and medium-sized enterprises (SMEs) to better implement risk management. The convenience of having WSH briefings and roadshows conducted at SME-premises allowed SMEs to learn how they can better manage WSH.

WSH Messengers
The WSH Messengers brought WSH messages to employers and employees at their workplaces. Through skits, catchy beat-box raps, guidebooks and flyers, employers and employees learnt how the WSH Act would affect them, and how they could play a part in ensuring a safe and healthy workplace for all. The WSH Messengers also pointed out potential hazards in the workplace and distributed educational collaterals.

WSH outreach and promotion campaign
The WSH outreach and promotion campaign in 2012 focused on common workplace hazards and what employers and employees could do to prevent accidents. These WSH messages appeared on MRT platform screen doors, streetlamp banners, buses, newspapers and radio.

From December 2012 to February 2013, the WSH Council launched a festive season campaign to remind everyone the importance of keeping safety as a top priority at all times. With the message “The best gift is returning home safely from work every day”, the campaign was timed to coincide with the festive season when people were considering getting gifts for family and friends.

Strong support from the public for WSH
On 22 March 2013, the WSH Council’s “Assumptions” TV commercial was awarded Bronze in Mediacorp’s “The Laurels”. This was an indication of the strong support from the WSH community and public in helping the WSH Council win the honours of having the third-most popular locally-produced commercial.

Foreign Workers Roadshows
As part of the WSH Council’s continual efforts to educate and reach out to foreign workers, roadshows were organised at foreign workers’ dormitories and public areas where they congregated. Through games, skits and quizzes, WSH messages were relayed in a fun and relaxed manner. In 2012, the WSH Council reached out to more than 50,000 workers with 13 roadshows.

Roving Exhibits
The mobile safety exhibits that the WSH Council had produced have been travelling to companies and organisations for safety events and campaigns. Featuring interactive stations and games on WSH issues that affect employees, these exhibits aimed to highlight what workers needed to do to protect themselves at work. In 2012, these exhibits travelled to 146 workplaces and schools, and reached out to 80,000 people.
“Safety Starts With Me” Competition 2013
The “Safety Starts With Me” competition is an avenue to transmit, in a variety of creative ways, the simple but important message of ensuring personal safety in the workplace. The theme for 2013’s competition is “Stop the Assumptions. Stop Work Accidents”. Into its fifth year, the competition saw 41 winners emerge from close to 1500 entries. The winning entries were showcased during the National WSH Campaign 2013.

iWSH Newsletter
The iWSH newsletter was created by the WSH Council to reach out to workers to educate them on how to keep themselves safe. Each issue comes in an easy-to-read format in English, Chinese, Tamil and Bengali. It highlights safety tips and the importance of WSH through interviews with workers, case studies and quizzes. The newsletters are distributed to Accredited Training Providers (ATPs), foreign workers’ dormitories, shipyards, construction sites and other public venues.

SHINE Newsletter
The WSH Council’s corporate newsletter, SHINE, is packed with WSH human-interest stories, business-driven articles, case files and best practices. The newsletter also features information on what is current on Singapore’s WSH landscape, latest statistics, and new publications and resources. It is an important publication for the entire value-chain of stakeholders from CEOs to workers.

Design for Safety Awareness Series, Design for Safety Focus Group Discussion
The WSH Council rolled out the Design for Safety (DfS) Awareness series in 2012 to raise awareness on DfS amongst key construction stakeholder groups. The series consists of two components:

- Joint DfS seminars with associations and agencies (such as BCA Academy, Singapore Contractors Association Limited and National University of Singapore [NUS]), and
- As major construction clients and consultants play key roles in kick-starting and sustaining the DfS process, engagements with these stakeholder groups were initiated, with small teams visiting them to provide an overview of DfS so to gain buy-in.

The DfS Awareness series will continue in 2013.

Formation of the Jurong Gateway Safety Group
The WSH Council facilitated the formation of the Jurong Gateway Safety Group (JGSG) in March 2012 to promote collaborations amongst construction projects in the Jurong Gateway area and effect collective improvement in WSH performance. Chaired by Mr Peter Wilding, Managing Director of Lend Lease Asia Holdings, JGSG comprises developers and contractors, including JEMS, Westgate, Jurong Hospital and CET Campus (West). Some of the initiatives JGSG embarked on include inter-site visits to observe and share best practices, technical seminars for professionals and managers, as well as workers-engagement sessions.

JGSG forms part of the WSH Council’s overall strategy to promote industry ownership and self-regulation. It continues from the Marina Bay Sub-Committee formed between 2008 and 2011, which saw industry-players from developments in the Marina Bay area banding together to work towards better WSH outcomes. The initiative saw positive results such as heightened awareness amongst the workforce in the area, with developers and contractors initiating sharing sessions and propagating good practices. The platform also proved to be useful for members in resolving non-WSH matters (e.g. traffic) that required coordination.

Formation of the WSH Council (Hospitality and Entertainment Industries) Committee
Under the recommendations of the WSH Council (Hospitality and Facilities Management) Pro Tem Committee, the WSH Council (Hospitality and Entertainment Industries) Committee was formed in June 2012 to address the increasing number of accidents in the sector. The Committee comprises top management from the hotel, food and beverage (F&B), meetings, incentives, conferences, and exhibitions (MICE), as well as arts, entertainment and recreation industries. Various associations and unions were also roped in to ensure that there was adequate outreach and representation from the different sectors.

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The Committee will focus its efforts on three key areas, namely, raising awareness, building WSH capabilities, as well as strengthening stakeholders’ involvement. The Committee will also be embarking on several projects in the coming year such as revising the existing Hotel and F&B Guidelines to include the MICE industry, collaborating with other agencies to produce a Kitchen Safety Pack and outreach programmes involving new sectors.

**Engagement with CEOs/Top Management**

Top-management engagement was identified as a key focus area in improving WSH performance in the healthcare sector. The WSH Council publishes quarterly bulletins for CEOs with updates on recent initiatives by the WSH Council and Healthcare Committee. Apart from e-communication, various top-management engagement activities were organised for different healthcare stakeholders. Among those were the top management from community hospitals, public and private hospitals, and veterinarian clinics. During a meeting with the CEOs from all community hospitals in July 2012, the WSH Council discussed the development of WSH in Singapore, as well as key initiatives by the Committee.

**WSH Engagement for the Hospitality and Entertainment Industries**

Two engagement sessions were held in conjunction with the formation of the WSH Council (Hospitality & Entertainment) Industries. A WSH Forum was organised with Singapore Sports Hub in August 2012 to brief their contractors, suppliers, vendors and tenants on new developments on WSH Act and its subsidiary legislations. Another engagement involving the Singapore Association of Convention & Exhibition Organisers & Suppliers was held in September 2012 focusing on the WSH Act and bizSAFE Programme.

**Cross-sharing cum Visits in the Logistics and Transport Sector**

L&T sector has embarked on a cross-sharing cum visits programme under the Safety & Health Active Review Programme. Started in 2012, four visits have been made to-date. The first in April 2012 was made to Poh Tiong Choon Logistics Ltd focusing on working safely at heights. The second visit in July 2012 to PSA International Pte Ltd focused on traffic management. The third visit to SATS Pte Ltd’s maintenance centre in September 2012 focused on workplace health, while the fourth visit to Jurong Port Pte Ltd in December 2012 focused on forklift operations. Through these visits, participants learnt about the good practices of other organisations.

**Marine Industries CEO Roundtable**

The second Marine Industries CEO Roundtable 2012, themed “Vision Zero”, was held on 4 April 2012 at Suntec Singapore International Convention & Exhibition Centre. Companies in the marine Industries that had pledged commitment to “Pledge for Zero” revisited the concept of “Vision Zero”. At the session, the pledging companies shared their challenges in improving safety and health at work. At the end of the session, the pledging companies developed concrete plans for “Vision Zero” for their companies.

**WSH Council Annual Lunch**

The WSH Council Annual Lunch was held on 28 August 2012 at Goodwood Park Hotel. This was organised to welcome the newly-appointed WSH Council members and to show appreciation for those who have stepped down. The Guest-of-Honour was Mr. Tan Chuan-Jin, Acting Minister for Manpower and Senior Minister of State, Ministry of National Development, who presented tokens of appreciation to the WSH Council alumni as well as the members of the WSH Institute’s ex-Steering Committee who had provided guidance to the Institute in the initial set-up phase. Mr Tan also reaffirmed the importance of strong industry leadership and WSH Council’s work.

**WSH Council Alumni**

1. Prof. Low Teck Seng
2. Mr Chia Ngiang Hong

**WSH Institute ex-Steering Committee members**

1. Mr Khoo Chin Hean (Council Member)
2. Prof. Chia Kee Seng (Council Member)
3. Mr Wong Weng Sun (Council Member)
4. Prof. Low Teck Seng (Council Alumni)
5. Mr Chia Ngiang Hong (Council Alumni)
6. Prof. Michael Khor

**WSH Council – Former National Crane Safety Taskforce Chairman**

1. Mr Tan Wee Seng

**Breakfast Dialogue on WSH Culture and Leadership**

More than 30 senior management officers, each representing one company, attended a half-day breakfast dialogue on WSH Culture and Leadership held on 12 March 2013 at the Concorde Hotel. Mr. Murray Dundas, Managing Director of McConnell Dowell, was the Guest Speaker and he shared a case study of his company’s WSH Culture Building programme and WSH leadership. Mr Chan Yew Kwong, Director, ICB and Mr Jukka Takala, ED, WSH Institute also presented on CultureSAFE programme and WSH Leadership respectively.
ENHANCING WSH THROUGH KNOWLEDGE AND INNOVATIONS

THE FORMATION OF THE WSH INSTITUTE HELPS DEEPEN STAKEHOLDERS’ UNDERSTANDING OF WSH PROCESSES, ENVIRONMENTS AND TRENDS, WITH THE AIM OF PUTTING SINGAPORE’S WSH PERFORMANCE ON PAR WITH LEADING COUNTRIES.
Train-the-Trainers Programme

In trying to ensure that WSH trainers are well-equipped with technical and soft-skills to effectively deliver up-to-date WSH knowledge to the workforce, the WSH Institute, in collaboration with key stakeholders including Ngee Ann Polytechnic, initiated a CET programme known as the WSH Train-the-Trainers (T3) Programme. The Programme is targeted at WSH training-providers, trainers and curriculum developers. In 2012, close to 430 participants from around 240 companies participated in the Programme’s seminars and workshops that covered the following topics:

a. Managing WAH,
b. Managing confined-space work,
c. Managing chemicals and hazardous substances, and
d. Fall-prevention plan for WAH.

A Train-the-Trainer Advisory Committee was also appointed by the WSH Institute in July 2012. The Committee comprises key stakeholders who represent WSH training-providers, WSH trainers, professional bodies and organisations that include the WDA, Institute for Adult Learning, and the WSH Council.

WSH Train-the-Trainer Risk Management Training Forum

The WSH Institute organised a half-day WSH T3 Forum on Risk Management Training on 22 March 2013. The Forum was targeted at WSH trainers who conduct training on risk management. More than 180 participants from various industries attended. The Forum was well-received and the participants indicated that they looked forward to more of such meetings.

WSH Institute Forums and Engagements

The WSH Institute continually engages stakeholders, particularly the local research community, through forums and dialogue sessions. In July 2012, the WSH Institute organised a forum “From evidence to action: What works?” featuring guest speaker Prof. Harri Vainio, current Director General of FIOH. Prof. Vainio presented on both the importance as well as limitations of scientific evidence used in OSH policies, initiatives and outcomes.

In the same month, the WSH Institute hosted Prof. Scott Clark, Professor Emeritus at the University of Cincinnati, for a dialogue session involving stakeholders from NUS, WDA, Singapore Polytechnic, Ngee Ann Polytechnic and the Occupational and Environmental Health Society. Prof. Clark shared his experience in the development of postgraduate programmes in occupational hygiene.

WSH Institute Forum on “Maximising Returns through WSH Innovations”

The WSH Institute organised a forum “Maximising Returns through WSH Innovations” at the NTU@One North Campus on 30 January 2013. The 200 participants who attended were updated on WSH innovations.

Mr Richard Webster, an international expert from Safe Work Australia, presented on the cost of work-related injuries and illnesses, which amounts to 4.8% of the Australian GDP. Ms Heidi Tan from Tan Tock Seng Hospital shared on the importance of an ergonomics program within an organisation, as well as some tips on maintaining good postures at work. Other highlights included a presentation on the use of the mobile application SNAP@MOM developed by MOM and an engaging live demonstration of the Institute’s first ergonomics mobile application ergo@WSH (previously called ergo@work).
Enhancement to National WSH Statistics

Consultation of WSH Leadership Framework
As part of the WSH Institute's efforts in raising WSH leadership in Singapore, it initiated a consultation process with top business leaders and line-management to gather their feedback on a proposed WSH leadership framework. Through the process, the WSH Institute was also able to gain insights on current and potential future challenges faced by business leaders in managing WSH issues as well as the gaps in existing WSH leadership programs and initiatives.

Development of WSH Leadership Guide
Based on the findings from the Consultation of WSH Leadership Framework, the WSH Institute compiled a WSH leadership guide for business leaders and senior executives. “Towards Vision Zero: A Guide for Business Leaders towards a Safer and Healthier Workplace” was published in September 2012. It encourages business leaders to take the lead in striving towards zero work injury, ill health, disability and death in their workplaces. Developed to be a key reference on effective leadership in safety and health at the workplace, the Guide features a four-step Plan-Do-Check-Action process for leaders to demonstrate their commitment towards WSH.

Case Studies Documentation of Exemplary WSH leadership
To encourage business leaders to share their personal journeys in WSH leadership and inspire greater commitment among their contemporaries, the WSH Institute compiled a series of six case studies detailing business leaders who led their companies towards WSH excellence. The case studies also showcased innovative programmes and initiatives that had been successfully implemented to achieve better WSH outcomes.

WSH Mobile Apps
Launched at the 2nd Singapore WSH Conference on 12 September 2012, ergo@WSH is the first mobile application developed by the Institute for iOS and Android smart phones and tablets. ergo@WSH is meant for both WSH professionals and the general public. WSH professionals can use it to identify, evaluate and monitor ergonomic hazards in the workplace, and provide recommendations to prevent musculoskeletal complaints. Due to its interactive design, more than 10,000 downloads had been registered since it was launched. It was also awarded the CIO* 100 Honoree 2013 of CIO Asia’s annual index of Asia’s top performing enterprise users of IT. The WSH Institute will continue to enhance ergo@WSH while also exploring the development of other mobile apps.

*CIO Asia magazine’s annual CIO 100 index highlights top 100 regional enterprises and organisations that have excelled through creative and innovative IT projects in the past year. Companies that achieve CIO 100 listing have broken new ground by using IT systems, initiatives and projects to provide added value to their customers.
WSH Collection
In collaboration with the National Library Board, the WSH Institute had set up a WSH Collection at public libraries to promote greater WSH awareness and broader outreach. It allows easy access to a variety of safety and health-related resources for a wide range of stakeholders, including employees, employers, WSH professionals as well as members of the public. The Collection includes technical WSH books, case studies on major accidents, WSH management books and ergonomic-related books. For children, there are also books with safety messages to inculcate a safety-mindset from young.

OWLinks – Knowledge and Innovations in WSH
The WSH Institute’s monthly e-Newsletter “OWLinks - Knowledge and Innovations in WSH” was launched on 8 August 2012.

The e-newsletter, presented on a single online platform for easy reference, reviews and recommends articles on safety and health issues from around the world, with coverage that goes beyond what is featured in the local media. Through these articles, readers can gather insights on new WSH ideas and solutions, emerging issues, and potential changes in the future.

Implementing the National WSH Research Agenda
The National WSH Research Agenda 2011-2016, finalised after extensive consultation with industry stakeholders and WSH experts, serves to provide researchers a guided and focused approach to develop solutions that address local WSH needs. To implement the research agenda as well as to build up WSH research capabilities locally, the WSH Institute had invited interested researchers/consultants to submit relevant research proposals. The call for proposals received positive responses from researchers and consultants, with two projects being awarded funds:

a. Study on root causes and human factors for Falls from Heights; and
b. Fatigue Risk Management System for Marine and L&T workers which investigates the impact of fatigue on the situational awareness of workers and assesses the effectiveness of the System in reducing fatigue amongst workers.

Research Projects
Research Project on Truck-mounted Refuse Bins
In a concluded research project which was co-funded by various stakeholders, including NEA, MOM and waste management companies, the WSH Institute examined the hazards of truck-mounted refuse bins dropping from the trucks when discharging refuse at incinerators. The project was carried out in collaboration with the Health and Safety Laboratory, United Kingdom. Based on the findings, the WSH Institute engaged and worked with stakeholders to successfully implement the recommendations. The WSH Institute’s Research-to-Practice approach that engages all stakeholders right from the inception of the project contributed significantly to the project’s success.

Study on WSH trainers
The WSH Institute concluded a study on WSH Trainers in August 2012 to not only profile those engaged by ATPs but also understand their training needs and motivations towards continuous learning and development. The study also gathered useful feedback on the WSH Institute’s Train-the-Trainers Programme. Findings and recommendations were shared with representatives from MOM, WDA and the WSH Institute’s Train-the-Trainers advisory committee. The study provided useful input for new initiatives to augment the skills, knowledge and competency of WSH trainers.

Research Publications
Some of the papers published by the WSH Institute include:


The article detailed the development of Singapore’s 1st national WSH research priorities agenda by the Institute. A modified Delphi method was utilised to distil the large amount of stakeholder opinions into a list of focused research priorities.


The article highlights the need to establish the economic importance of good WSH and compares the economic models adopted by various countries. It also briefly describes Singapore’s effort in developing an appropriate model to estimate the economic costs of work-related injuries and ill health for various stakeholders.
Memorandum of Understanding
On 24 February 2012, the WSH Institute signed a Memorandum of Understanding (MOU) with the National Institute for Occupational Safety and Health (NIOSH), United States of America. NIOSH is an internationally-renowned agency that conducts research and makes recommendations for preventing work-related injuries and illnesses. Under the MOU, both organisations will cooperate in common areas of interest, including sharing and exchanging of WSH related information, exploring scientific activities such as research into WSH topics, and identifying opportunities for transferring and promoting of WSH knowledge.

Participation in overseas Occupational Safety and Health conferences and workshops
4th Asian Conference of Occupational Safety and Health Research Institutions (AOSHRI)
On 5 September 2012, Dr. Gan Siok Lin (Deputy ED, WSH Institute) represented Singapore to attend the 4th AOSHRI in Kuala Lumpur, Malaysia which brought together 29 participants from 10 countries. The conference provided the platform to facilitate regional cooperation to solve OSH issues, encourage exchange of information and create research synergy through the regional network of research institutions.

15th Conference and Exhibition on Occupational Safety and Health (COSH)
Dr. Gan Siok Lin (Deputy ED, WSH Institute) presented a plenary paper on “Promoting Safety and Health in a Green Economy” to 1,300 delegates of the 15th COSH. Held from 2 to 4 September 2012, COSH is an annual conference cum exhibition organised by NIOSH Malaysia.

ASEAN-OSHNET Plus Three Workshop on Development of Scorecard and Information Strategies for Occupational Safety and Health
Dr. Jukka Takala, ED of WSH Institute and Dr. Lee Hock Siang, Director of OSH Specialists represented Singapore at the ASEAN-OSHNET Plus Three Workshop on Development of Scorecard and Information Strategies for Occupational Safety and Health held in Bangkok from 22 to 23 January 2013. 26 delegates from 10 ASEAN-OSHNET Plus Three countries attended. At the workshop, Dr. Takala introduced delegates to the proposed ASEAN Scorecard. The Scorecard would be used to score OSH positions of each ASEAN-OSHNET Member State and is for member states to identify possible development plans and measures.
Sharing of Expertise from International Visitors

13 July 2012
Prof. Dr. Gerard I.J.M. Zwetsloot from TNO* (Holland) visited the Institute and shared on corporate social responsibility for promoting WSH. He emphasised that “Vision Zero” was not a ‘risk control’ strategy but a ‘safety commitment’ strategy, signifying a company that does not tolerate accidents/incidents.

*TNO refers to Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek or Dutch Organization for Applied Scientific Research.

17 July 2012
MOM and the WSH Institute hosted delegates from the Korean Occupational Safety and Health Agency and shared with them the OSH system and policy in Singapore, as well as research activities from WSH Institute.

19 July 2012
The WSH Institute hosted Prof. Scott Clark, Professor Emeritus at the University of Cincinnati, for a dialogue session involving stakeholders from NUS, WDA, Singapore Polytechnic, Ngee Ann Polytechnic and the Occupational and Environmental Health Society. During the session, Prof. Clark shared his experience in the development of postgraduate programmes in occupational hygiene.

31 July 2012
Prof. Harri Vainio, Director General of FIOH visited the WSH Institute and shared his experience in the development of research centres and research priorities. Prof. Vainio had also presented at the “From evidence to action: what works?” Forum in the same afternoon, discussing both the importance as well as limitations of scientific evidence used in OSH policies, initiatives and outcomes.

10 Oct 2012
The WSH Institute hosted Dr. Robert Aitken (Managing Director, Institute of Occupational Medicine (IOM) Singapore) and Dr. Alastair Robertson (Director of Occupational Hygiene, IOM) for a discussion on recent international research interests and possible areas of collaborations between the two organisations.

29 to 31 January 2013
Mr Richard Webster, Assistant Director of Data and Analysis for Safe Work Australia who developed the study-methodology for the Australian economic cost study, was invited by the Institute to share the methodology. Mr Webster discussed how the economic cost of work-related injuries and ill health for Australia is estimated.

11 March 2013
Dr. Ian Noy and Mr David Melton from the Liberty Mutual Research Institute for Safety (LMRIS), United States of America, visited the Institute. They presented on topics related to the role of insurance companies in enhancing WSH and how the work of LMRIS translates into business-relevant knowledge.

22 March 2013
Dr. Morales (Project Director) and Mr Julio Franzani (Manager) from Mutual de Seguridad* (Safety Mutual), Chile, visited the WSH Institute. They shared an overview of Chile’s WSH performance with particular focus on the construction sector. They were impressed by Singapore’s WSH achievements and the various initiatives and researches led by the Institute.

*Mutual de Seguridad (Safety Mutual) is part of the Chilean Chamber of Construction and is a non-profit organisation.

Appointment of Honorary Fellows and Researchers
The WSH Institute appointed four eminent WSH proponents to be its Honorary Fellows and Honorary Researchers. These appointees will participate in the research work of the Institute, encourage and nurture WSH research among the students and graduates of the IHLs, and also provide expert knowledge on various specialised fields.

Honorary Fellows:
A/Prof Leong Kah Fai (Nanyang Technological University)
A/Prof David Chua (NUS)

Honorary Researchers:
Mr Tan Kia Tang (MOM)
Dr. Kenneth Choy (MOM)

Designing for Safety
The WSH Institute made a proposal to the Department of Architecture, NUS for their undergraduate students to develop new, safe tent-designs. The collaboration saw interesting designs that are being considered by the industry. The students benefited from a greater awareness of safety considerations when designing building structures.
WSH COUNCIL’S COMMITTEE, TASKFORCE AND WORKGROUP MEMBERS

INDUSTRY COMMITTEES

Chemical Industries Committee (CI)

Mr Karthikeyan s/o R. Krishnamurthy (Chairman)
General Secretary, United Workers of Petroleum Industry

Mr Chiew Nguang Yong (Deputy Chairman from Dec 2012)
Chairman, Singapore Chemical Industry Council

Dr Tay Kin Bee (Deputy Chairman from 31 Mar 2012 to 31 Nov 2012)
Chairman, Singapore Chemical Industry Council

Mr Tan Quee Hong
Director, Pollution Control Department, National Environmental Agency

Mr James Er Chong Tea
General Manager & Chief Executive Officer, Singapore Refining Company Pte Ltd

Mr Lakshmanan Rama Subramanian (LRS Mani)
General Manager, Eastman Chemical Singapore Pte Ltd

Mr Lim Hock Heng
Vice President & Managing Director, Global Manufacturing & Supply Singapore Glaxo Wellcome Manufacturing Pte Ltd

Mr Andrew Lim Choon Ann
Plant Manager, Pride-Chem Industries Pte Ltd

Mr Ang Boon Tian
Vice President, Occupational and Environmental Health Society

Mr James Goh Heng Chew
Immediate Past President, Association of Process Industry

Mr Tay Cheng Pheng
President, Society of Loss Prevention in the Process Industries

Mr Niranjan Masurekar
Executive Committee Member, Singapore Institution of Safety Officers

Mr Terence Koh Lee Wang
Executive Director, Singapore Chemical Industry Council

Mr G Rajendran
President, Chemical Industries Employees Union

COL Francis Ng
Director, Hazardous Materials (HazMat) Department, Singapore Civil Defence Force

Mr Simon Li Suet Man
Vice President, Singapore Manufacturers’ Federation

Mr Go Heng Huat
Deputy Director, Occupational Safety and Health Division, Ministry of Manpower

Mr Christophe Chalier
Managing Director, Singapore Oxygen Air Liquide Pte Ltd

Mr Jerome Baco
Chairman, Waste Management and Recycling Association of Singapore

Construction and Landscape Committee (CN&L)

Mr Jackson Chevalier Yap Kit Siong (Chairman)
Group Managing Director and Chief Executive Director, United Engineers Ltd

Mr Cheang Kok Kheong (Deputy Chairman)
Chief Executive Officer, Development & Property, Frasers Centrepoint Limited

Mr Pek Lian Guan (Deputy Chairman)
Executive Director and Chief Executive Officer, Tiong Seng Holdings Limited

Dr Ho Nyok Yong
President, Singapore Contractors Association Limited

Dr Ting Seng Kiong
Council Member, Society of Project Managers

Er Koh Boon Liang
President, Association of Consulting Engineers Singapore

Er Ng Yew Song
Director (Building Safety & Resources), Building & Infrastructure Group, Housing & Development Board

Mr Darren Benger
Council Member, Singapore Institute of Architects

Mr David Lim
Assistant Executive Secretary, Building Construction & Timber Industries Employees Union

Mr Eugene Yong Kon Yoon
Director, Woh Hup Pte Ltd

Mr Goh Ngan Hong
Immediate Past President, QS Divisional Council, Singapore Institute of Surveyors and Valuers

Mr Kevin Teoh Keng Hin
Director (OSH Inspectorate), Occupational Safety and Health Division, Ministry of Manpower

Mr Koh Beng Thong
Council Member, The Institution of Engineers Singapore

Mr Koh Hoon Lye
Director, Samwoh Corporation Pte Ltd
Mr Lee Hay Keong  
Vice President,  
CapitaLand Commercial Limited

Mr Liu Png Hock  
Director, Safety & Programme Planning,  
Land Transport Authority

Mr Nelson Tee  
President,  
Specialists Trade Alliance of Singapore

Mr Neo Choon Keong  
Director, Manpower & Strategic Policy Division,  
Building & Construction Authority

Mr P Teva Raj  
Director, Industry Division,  
National Parks Board

Mr Reggie Lim  
Head of Environment, Health & Safety, Asia,  
Lend Lease Asia

Mr Soh Hong Kuan Bernard  
Vice President,  
Singapore Institution of Safety Officers

Mr Tan Swee Yiow  
Management Committee Member,  
Real Estate Developers Association of Singapore

Mr John Tan Chee Hian  
Chairman,  
Landscape Industry Association (Singapore)

Healthcare Committee (HC)

Mr Foo Hee Jug (Chairman)  
Chief Executive Officer,  
Jurong Health Services

Ms Soh Kit Chew (Deputy Chairman)  
Director, Projects Division, Singapore,  
Singapore General Hospital  
SingHealth

Mr Lee Sze Yong  
Deputy Manager, Common Support,  
Singapore Medical Association

Dr Lee Lay Tin  
Honorary Treasurer,  
Occupational & Environmental Health Society

Dr Kelvin Chye  
Vice President,  
Singapore Dental Association

Mr Simon Ong Teck Leong  
General Treasurer,  
Healthcare Services Employees’ Union

Mr Joshua Lee  
Assistant Director (Operations and Facility Planning),  
Ren Ci Hospital and Medicare Centre

Dr Michael Wong  
Director and Head of Department, Health  
For Life Centre, Khoo Teck Puat Hospital,  
Alexandra Health

Ms Kartini Sameejan  
Senior Manager, Quality Management,  
Raffles Hospital,  
Raffles Medical

Dr Wee Shiou Liang  
Head, Research, Health Information Management and Evaluation Department,  
Knowledge Management Division,  
Agency for Integrated Care

Mr Joel Tan  
Director, Operation Support Services,  
Jurong Health Services

Mr Koh Yong Lee  
Senior Assistant Director, Operational Support Services,  
National University Health System

Dr Shane Ryan  
President,  
Singapore Veterinary Association

Ms Wong Lee Ling  
Council Member,  
Singapore Chinese Physicians’ Association

Mr Peter Lee  
Deputy Director,  
(Licensing, Inspection & Audit),  
Regulatory Compliance and Enforcement Division,  
Health Regulation Group,  
Ministry of Health

AP Lim Swee Hia  
President,  
Singapore Nurses Association

Ms Helena Tan  
Director, Support Operations,  
Eastern Health Alliance

Dr Lucy Leong  
Senior Specialist (Occupational Medicine),  
OSH Specialist Division,  
Occupational Safety and Health Division,  
Ministry of Manpower

Ms Grace Chiang  
Chief Operating Officer,  
National Healthcare Group Polyclinics

Ms Joycelyn Ling  
Chief Operating Officer,  
Mount Elizabeth Hospital

Hospitality & Entertainment Industries Committee (HEI)

Mr Allen Law (Chairman)  
Chief Executive Officer,  
Park Hotel Group

Mr Alan Goh Keng Chian (Deputy Chairman)  
Management Committee Member,  
Restaurants Association of Singapore

Mr Chow Keng Hai  
Vice President, Rooms,  
Resorts World at Sentosa Pte Ltd

Mr Dennis Foo  
Chief Executive Officer,  
St James Holdings Ltd

Mr Tang Teck Wah  
Facilities Director,  
The American Club Singapore

Ms Margaret Heng Chee Bee  
Executive Director,  
Singapore Hotel Association

Mr Philip Lim Chern Tjunn  
Senior Vice President Designate,  
Singapore Food Industries

Ms Pamela Dua  
Group HR Director,  
PICO Art International Pte Ltd

Mr Abdul Subhan  
President,  
Food, Drinks & Allied Workers’ Union

Mr Tai Ji Choong  
Director (Environmental Health),  
National Environmental Agency

Ms Lim Suu Kuan  
Executive Committee Member,  
Association of Singapore Attractions
Mr Benyamin Zin
Executive Committee Vice President (Suppliers),
Singapore Association of Convention & Exhibition Organisers & Suppliers

Mr Lai Chin Kwang
Director,
Select Group Limited

Mr Woon Cheng Peng
Deputy Director, Occupational Safety and Health Division,
Ministry of Manpower

Logistics & Transport Committee (L&T)

Mr Quek Keng Liang (Chairman)
Chairman,
Singapore Logistics Association

Mr Tan Puay Hin (Deputy Chairman)
Regional Chief Executive Officer, Southeast Asia,
PSA International Pte Ltd

Mr Lim Ah Kiat
General Secretary,
Singapore Stevedores Union

Mr Fang Chin Poh
General Secretary,
National Transport Workers’ Union

Mr Steven Lee Joo Kang
Chairman,
Singapore Aircargo Agents Association

Mr Yeo Tiong Joo
Director, Terminal Business, South & South East Asia,
Cargotec CHS Asia Pacific Pte Ltd

Mr Poh Key Boon
Executive Director,
Poh Tiong Choon Logistics Ltd

Mr Colin P Fordham
General Manager,
SEAsia P&I Services Pte Ltd

Mr Yeo Teck Guan
Group Director, Vehicle & Transit Licensing,
Land Transport Authority

Mr Mohamad Japa Bin Rusdi
Executive Committee Member,
Singapore Institution of Safety Officers

Mr Peter Wee
Director, Human Resource & Corporate Services,
Civil Aviation Authority of Singapore

Mr Eugene Seah Ewe Jin
Vice President, Operations,
Jurong Port Pte Ltd

Mr Desmond Tan
Honorary Treasurer,
Singapore Transport Association

Capt Ram Krishna Kumar
Controller (Marine Environment and Safety),
Maritime and Port Authority of Singapore

Mr John Leong
Assistant Vice President, Risk Management,
SATS Ltd

Mr Lim Kian Chin
Vice President,
Container Depot Association (Singapore)

Mr Winston Yew
Deputy Director (Operations),
OSH Inspectorate Department,
Occupational Safety and Health Division,
Ministry of Manpower

Mr Arasu Duraisamy
Second Deputy General Secretary,
Singapore Port Workers’ Union

Mr Yap Chee Sing
General Manager, Chairman’s Office,
SH Cogent Logistics Pte Ltd

Marine Industries Committee (MI)

Prof Poo Aun Neow (Chairman)
Professor, Mechanical Engineering,
National University of Singapore

Mr Wong Weng Sun (Deputy Chairman)
President,
Association of Singapore Marine Industries

Mr Freddie Woo
Vice President,
Association of Singapore Marine Industries

Ms Winnie Low
Executive Director,
Association of Singapore Marine Industries

Mr Seah Liang Bing
Hon Treasurer,
Singapore Institution of Safety Officers

Mr Chor How Jat
Managing Director,
Keppel Shipyard Limited

Mr Ong Poh Kwee
Managing Director,
Sembawang Shipyard Pte Ltd

Ms Goh Sor Imm
Deputy Executive Secretary,
Shipbuilding and Marine Engineering Employees’ Union

Mr Philip Yeo Hock Beng
Senior Port Chemist,
Maritime and Port Authority Singapore

Mr Ng Sing Chan
Council Member,
The Institution of Engineers Singapore

Mr Wong Kok Seng
Managing Director,
Keppel FELS Limited

Capt Sameer Bhatnagar
Research and Strategic Planning Department,
Singapore Shipping Association

Mr Simon Cheong
Chief Operating Officer,
DDW -PaxOcean Asia Pte Ltd

Mr Milind Joshi
Engineering Superintendent,
BP Shipping, BP Singapore Pte Ltd

Prof Choo Yoo Sang
President,
Society of Naval Architects and Marine Engineers Singapore

Mr Darren Brunton
Managing Director,
International Marine Contractors Association

Mr Han Yew Kwang
Executive Vice President, Shipbuilding,
Singapore Technologies Marine Ltd

Mr Chan Yew Kwong
Director, Industry Capability Building,
Workplace Safety and Health Council
Mr Yong Chee Min  
General Manager (HSE),  
Association of Singapore Marine Industries

Capt P. Maheswar  
HSE Superintendent (Asia),  
Chevron Shipping Company LLC

Mr Bernard Kwok  
Senior Assistant Director (General Workplaces),  
Occupational Safety and Health Division,  
Ministry of Manpower

Ms Theresa Liew  
Principal Specialist,  
Occupational Safety and Health Division,  
Ministry of Manpower

Mr Steven Tan Boon Poh  
Chairman,  
Bedok Safety Group

Mr Steven Tong  
Group Manager, Forming Technology,  
Singapore Institute of Manufacturing Technology (SIMTech)

Mr Mark Yong  
Honorary Secretary,  
Singapore Furniture Industries Council

Ms Kala Anandarajah (Chairperson)  
Partner,  
Rajah & Tann LLP

Mr Colin Fordham  
General Manager,  
SEAsia P&I Services Pte Ltd

Ms Soh Guat Hiong  
Director, Global EHS Operations,  
Motorola Mobility

Mr Eugene Yong Kon Yoon (Chairman)  
Director,  
Woh Hup Pte Ltd

Mr Seet Choh San (Deputy Chairman)  
President,  
Singapore Institution of Safety Officers

Ms Margaret Heng  
Executive Director,  
Singapore Hotel Association

Mr Lim Jit Heng  
Council Member,  
Singapore Contractors Association Limited

Ms Winnie Low  
Executive Director,  
Association of Singapore Marine Industries

Ms Emilda Zakaria  
Manager (Workplace Health),  
Health Promotion Board

Mr John Hirst  
Assistant Director, Industry & International Affairs,  
Singapore Retailers Association

Ms Soh Guat Hiong  
Director, Global EHS Operations,  
Motorola Mobility

Mr James Lee Han Min  
Council Member,  
Singapore Manufacturers’ Federation

Ms Margarita Loh  
Deputy Director, Community Partnership (Central),  
Land Transport Authority

Mr Tommy Goh  
Member,  
National Trades Union Congress

INDUSTRY CAPABILITY BUILDING COMMITTEE (ICB)

Mr Eugene Yong Kon Yoon (Chairman)  
Director,  
Woh Hup Pte Ltd

Mr Arasu s/o Duraisamy  
Second Deputy General Secretary,  
Singapore Port Workers Union

Dr Ting Seng Kiong  
Deputy President (Academic),  
Singapore Institute of Technology

Mr Loh Yeow Leng  
General Manager,  
Singapore Contractors Association Limited
Mr Lim Sui Soon
Director of HSSE, APME & ACR,
Cameron (Singapore) Pte. Ltd.

Mr Chua San Lye
Senior General Manager (Human Resource), Jurong Shipyard Pte Ltd, Association of Singapore Marine Industries

Dr Hee Soo Yin
Director, Generic Skills Development Division, Singapore Workforce Development Agency

Mr Lee Seng Soon
HSES Manager,
Eastman Chemical Singapore Pte. Ltd.

Workplace Health Committee (WH)

Prof Chia Kee Seng (Chairman)
Dean,
Saw Hock School of Public Health,
National University of Singapore

Dr Lee Hock Siang (Deputy Chairman)
Director,
OSH Specialist Department,
Occupational Safety and Health Division
Ministry of Manpower

Dr Annie Ling
Director,
Adult Health Division,
Health Promotion Board

Dr Lyn James
Director,
Epidemiology & Disease Control Division,
Ministry of Health

Mr Loh Yeow Leng
General Manager,
SC2 Pte Ltd,
Singapore Contractors Association Limited

Mr Bernard Leong
Chairman,
Process and Engineering Committee,
Singapore Chemical Industry Council

Dr Gregory Chan
President,
Occupational and Environmental Health Society

Mr Teo Woon Hun
Council Member,
Singapore Logistics Association

Dr Lee Chay Hoon
Honorary Secretary, ASMI Council,
Deputy Chairman, ASMI Manpower Committee,
Association of Singapore Marine Industries (ASMI)

Mr Andrew HS Tan
Honorary Secretary,
Singapore Institution of Safety Officers

Ms Brenda Goh
Council Member,
Singapore Human Resources Institute

Dr Richard Tan
Chief Executive Officer,
Singapore Aeromedical Centre,
ST Medical Services Pte Ltd

Dr Anbumalar D/O Ramiah
Assistant Director,
Health for Life Centre,
Khoo Teck Puat Hospital

Dr Wee Wei Keong
Director,
Health Promotion and Preventive Care,
National Healthcare Group Polyclinics

Mr Ang Chee Yong
Member,
General Insurance Association

Ms Anna Fok
Chairman, Industrial Relations Panel
(Group P - Healthcare & Business Services),
Singapore National Employers Federation

Mr Jerry Seah
Manager,
Workplace Health Unit,
Singapore National Employers Federation

Ms Nancy Gan
President,
Singapore Society of Occupational Health Nurses

Mr Ong Sin Tiong
Lead Consultant,
NTUC Industrial Relations Department
National Trades Union Congress

Dr Gan Siok Lin
Deputy Executive Director,
Workplace Safety and Health Institute

Ms Tan Lay Twan
President,
Building and Construction Authority

Mr Mohamed Abdul Akbar Bin Mohamed Abdul Kader (Chairman)
Managing Director,
Nan Guan Construction Pte Ltd

Mr Tan Wee Seng (Chairman from 31 Mar 2012 to 31 Jul 2012)
Managing Director,
Lend Lease Pte Ltd

Mr Scott Story
Chief Executive Officer,
Arcomet Asia Pte Ltd

Mr Jimmy Chua
Group General Manager,
Huationg (Asia) Pte Ltd

Mr Teo Yew Boon
Managing Director,
Liebherr Singapore Pte Ltd

Mr John Stewart
Senior Vice President, Sales & Marketing,
Manitowoc Crane Group Asia Pte Ltd

Mr Foong Kah-Choong
General Manager,
MHE-Demag (S) Pte Ltd

Mr Michael Ang Guan Hwa
Chief Operating Officer,
Tiong Woon Crane Pte Ltd

Mr Yeo Kim Hock
Member,
Singapore Contractor Association Ltd

Mr Mohammad Zahid Bin Wagiman
Member,
Association of Singapore Marine Industries

Mr Frankie Tan
Honorary Secretary,
Singapore Crane Association

Er Leslie Tay
Senior Member,
Institute of Engineers Singapore

Ms Tan Lay Twan
Director, Manpower Development Dept,
Building and Construction Authority
Mr Er Goh Keng Cheong  
Deputy Director, Construction Safety Management Section, Housing Development Board

Mr Alvin Soong  
Deputy Director, Safety, Land Transport Authority

Mr Alex Ng Chey-Heng  
Construction Section Manager and Construction Safety Advisor, ExxonMobil Manufacturing Engineering Singapore

Er Mohd Ismadi  
Deputy Director, OSH Specialists, Occupational Safety and Health Division, Ministry of Manpower

Mr Wilfred Tan  
Managing Director, Tiong Woon Crane & Transport Pte Ltd  
(Member from 31 Mar 2012 to 31 Jul 2012)

Mr Neo Choon Keong  
Director, Manpower and Strategic Policy Division, Building & Construction Authority  
(Member from 31 Mar 2012 to 31 Jul 2012)

Mr Chan Yew Kwong  
Director, Industry Capability Building, Workplace Safety and Health Council  
(Member from 31 Mar 2012 to 31 Jul 2012)

National Work at Heights (WAH) Taskforce

Mr Mrong Weng Sun (Chairman)  
President and Chief Executive Officer, Sembcorp Marine Ltd

Mr Howard How  
Member, Singapore Contractor Association Ltd

Mr Simon Low  
Director, PRESCO Scaffolding & Services Pte Ltd

Mr Ronnie Tan  
Director, QMT Industrial and Safety Pte Ltd

Mr Reggi Lim  
Head (Regional EH&S), Lend Lease

Mr Jonathan Wan  
President, Access and Scaffold Industry Association

Mr Yong Chee Min  
General Manager (Projects), General Manager (HSE), KOM Keppel Fels Limited / Keppel Offshore & Marine (KOM)

Mr Jean Christophe Thiault  
Managing Director, Capital Safety Group Asia

Mr Suresh Navaratnam  
Director, Policy, Information & Corporate Services, Occupational Safety and Health Division, Ministry of Manpower

Ms Soh Guat Hiong  
Director, Global EHS Operations, Motorola Mobility S Pte Ltd

Mr Joseph Yong  
Chief Operating Officer, NatSteel Holdings Pte Ltd

Mr Yeo Tiong Joo  
General Manager, OCWS Logistics Pte Ltd

Facilities Management Workgroup

Mr Kenneth Foo (Chairman)  
Director, Facilities Management, Raffles Quay Asset Management Pte Ltd

Ms Faith Wong May Fern  
Director, Human Capital Development, ISS Facility Services Pte Ltd

Mr Shaikh Ali Bin Hassan Alkhatab  
Deputy General Manager, CPG Facilities Management

Mr Daniel Teo  
Deputy Director, UGL Services Premas Operations Limited

Mr Bryan Quek  
Director, Trade Campus NTUC Learning Hub

Mr Jimmie Ling Bin Onn  
Chief Executive Officer, Association of Management Corporation in Singapore

Mr Milton Ng Poh Keen  
President, Environmental Management Association of Singapore

Ms Charlotte Wong Yoke Yee  
Assistant Executive Secretary, Building Construction And Timber Industries Employees’ Union

Mr Chan Cheow Hong  
Senior Vice President, United Engineers Limited

Mr Lim Chong Yong  
Director, Building Management Dept, Building Construction Authority

Mr Chong Weng Yong  
Secretary (Town Council), Housing & Development Board

Mr Yem Kai Cheong  
Assistant Director (Schools Estate), Ministry Of Education

Mr Ho Thim Seng  
Director (Estates & Facilities Management), Temasek Polytechnic

Mr James Koh  
Director (Operations), National Environment Agency

Mr Goh Chin Keong  
Senior Assistant Director, OSH Inspectorate, Ministry of Manpower

Mr Ng Say Kiat  
Vice President, Singapore Pest Management Association

Mr Eric Chan  
Council Member, Association of Property and Facility Managers

WSH Insurance Workgroup

Mr Terence Tan Kiat Swee  
Chief Development Officer, AXA Insurance Singapore Pte Ltd

Mr A.K. Cher  
Chief Executive Officer & Managing Director, Tokio Marine Insurance Singapore Ltd
Mr Bob Neo
Managing Director,
McLarensYoung International

Mr Ronnie Low
SVP, Underwriting (Commercial Lines)/
Reinsurance Marine,
MSIG Insurance (Singapore) Pte Ltd

Ms Lisa Marbon
Head of Commercial Lines,
AXA Insurance Singapore Pte Ltd

Mr Colin P Fordham
General Manager,
SEAAsia P&I Services Pte Ltd

Ms Winnie Low
Executive Director,
Association of Singapore Marine Industries

Mr Kevin Bates
Head of Risk-Asia,
Lend Lease Asia Holdings Pte Ltd

Mr Joseph Yong
Chief Operating Officer,
NatSteel Holdings Pte Ltd

Dr Kenneth Choy
Deputy Director (Occupational Medicine),
OSH Specialists Dept,
Ministry of Manpower

Mr Woon Cheng Peng
Deputy Director (Work Injury Compensation Department),
Ministry of Manpower

Mr Joseph Seo
Vice President,
Marsh Singapore

Mr Steven Lim Ah Lay
Managing Director,
Lian Yick Metal Tent Pte Ltd

Mr Goh Beng Koon
Director,
Goh Seng Lai Co Pte Ltd

Mr Jason Boo Chong Liang
Sales Manager,
Hup Chung Tentage System

Mr Roland Wu Roon Kwee
Partner,
Star Service

Mr Simon Low Hon Chung
Operations Director,
Presco Scaffolding & Services Pte Ltd

Mr Rezal Bin Hamzah
Operations Manager,
Transvert Scaffold & Engineering Pte Ltd

Tentage Workgroup

Mr Samuel Vedanaigam (Chairman)
Chief Executive Officer,
The Shelter Company

Mr Don Ho Khee (Co-Chairman)
Business Development Director,
Nanyang Inc

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>FY2012/13 ($)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>EXPENDITURE ON MANPOWER (EOM)</td>
<td>$7,233,828</td>
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<tr>
<td>2</td>
<td>OTHER OPERATING EXPENDITURE (OOE)</td>
<td>$4,086,774</td>
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<tr>
<td>2.1</td>
<td>Sector-specific Initiatives</td>
<td>$515,165</td>
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<td>2.2</td>
<td>Engagement and Outreach Efforts</td>
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<td>2.3</td>
<td>Capability Building Initiatives</td>
<td>$1,400,266</td>
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<td>2.4</td>
<td>Others</td>
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<td>3</td>
<td>CORPORATE SUPPORT</td>
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<td>3.1</td>
<td>Supplies and Services</td>
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<td>3.2</td>
<td>Manpower Development</td>
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<td>4</td>
<td>TRANSFERS</td>
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<td>4.1</td>
<td>Risk Management Assistance Fund</td>
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<td>4.2</td>
<td>WSH Culture Fund</td>
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<td>5</td>
<td>TOTAL EXPENDITURE</td>
<td>$17,364,633</td>
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</tbody>
</table>
### WSH INSTITUTE: FINANCIAL REPORT FY2012/13

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>FY2012/13 ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EXPENDITURE ON MANPOWER (EOM)</td>
<td>$2,736,490.62</td>
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<tr>
<td>2</td>
<td>OTHER OPERATING EXPENDITURE (OOE)</td>
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<td>2.1</td>
<td>Evidence Based Research</td>
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<td>Corporate Support</td>
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<td></td>
<td>Supplies and Services</td>
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<td>Manpower Development</td>
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<td>3</td>
<td>TOTAL EXPENDITURE</td>
<td>$3,327,412.74</td>
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</table>