Singapore's election to the ISO Council is expected to garner greater participation from local industries to develop international standards that are relevant to the country's industries and enterprises

MEETING STANDARDS

AS OF January this year, Singapore has been elected into the International Organisation for Standardisation (ISO) Council for the 2015-2017 term. Currently, Singapore participates in some 80 ISO standards development committees, covering areas such as quality management, energy management and occupational health and safety management systems that help enhance quality, resource efficiency and safety.

"With a seat in the ISO Council, Singapore can now play a greater role in influencing the development of policies that will help build up the global standards community. Since 80 per cent of the commodity trade is impacted by standards, these policies are critical in developing international standards which address global and local needs," says Choy Sauw Kook, assistant chief executive (Quality & Excellence), Spring Singapore.

"Singapore seeks to strengthen some of the existing ISO policies to take Asia-Pacific needs into consideration and improve the capabilities of more Asia-Pacific members so that they can participate in ISO work."

Being in the Council will put Singapore in a better position in ensuring that ISO strategies continue to support international trade and capacity building in the region. It will also help to champion development of new ISO standards such as infrastructure-related and management systems-related standards that will support Singapore's enterprises. This push is expected to garner greater participation from our own industries to develop international standards that are relevant to Singapore's industries and enterprises, particularly SMEs, says Ms Choy.

"This will shape the future direction of our local industries to become even more relevant and resilient in today's evolving business landscape and ensure they are competitively positioned to access existing and new export markets and growth opportunities."

CREATING A SOLID FOUNDATION
Infrastructure development is one of the top priorities in many countries – particularly developing economies – today given that infrastructure provides the basic services and facilities needed by an economy, such as homes, commercial buildings, plants, roads, bridges, water supply, sewers, electrical grids and telecommunications. It is thus imperative to ensure that relevant standards are in place.

While there are existing standards that support infrastructure development, urbanisation is accelerating at an unprecedented pace, and new infrastructure standards are required to better integrate emerging infrastructure technologies and systems, notes Ms Choy.

Innovative technologies, processes and systems, supported by research and development, need to be developed to address the complex and multi-disciplinary challenges in the infrastructure sector.

To this effect, Spring Singapore recently collaborated with the ISO Regional Office in Singapore to organise an Infrastructure Forum here, bringing in global and local experts to discuss and develop a road map of international standards for the infrastructure sector. This road map will include standards in emerging areas such as Smart Cities, Building Information Modelling (BIM) and the Internet of Things (IoT).

Singapore can contribute experts to help develop new standards, taking into consideration its leadership in some of these infrastructure development areas as well as incorporating the needs of the Asia-Pacific region, says Ms Choy.

"Leading companies, industry players and relevant government agencies can also contribute in the development of these new standards. By participating, companies will benefit from directly influencing the standard, gaining access to information that could shape global markets in the future, and facilitate their planning of future designs and production methods to enable wider access for their products and services in export markets."

For example, Singapore has participated in two ISO technical committees which have worked on and since published two standards: The ISO/TS 12720:2014 Sustainability in buildings and civil engineering works – Guidelines on the application of the general principles in ISO 15392; as well as ISO/TR 37150:2014 Smart community infrastructures – Review of existing activities relevant to metrics.

The first framework measures the environmental performance of buildings and sustainability indicators for civil engineering works, while the second framework looks at smart community infrastructure metrics, including quality of life indicators. It is compelling that this surge in infrastructure development comes at a time when there are many global challenges such as the scarcity of resources, climate change, quality of living, ageing population and environmental protection.

A PricewaterhouseCoopers report, *Capital Project and Infrastructure Spending: Outlook to 2025*, in 2014 highlighted that Asia-Pacific will lead the way in infrastructure spending. This spending is expected to grow by 7-8 per cent a year over the next decade, approaching some US$5 trillion annually by 2025, and representing 60 per cent of the world's total spending, notes Ms Choy.

"To address all the considerations and challenges, tomorrow's infrastructure needs to be more sustainable and resilient, and designed to withstand greater variations in operating conditions."

PIONEERING STANDARDS
It is not just in the area of infrastructure standards that Singapore is leading the way. Indeed, Singapore has developed a number of key national standards which were subsequently adopted internationally.

For instance, Singapore was the first country to develop and implement bunkering standards. "In the early 1990s, there was no universally accepted procedure and method for a bunker delivery operation that provided a fair transaction of bunker fuel. Recognising the need for standards in bunkering, Singapore was the first in the world to develop and implement bunkering standards covering documentation, equipment, procedures, management of bunker supply chain, quality and quantity of bunker fuel," notes a Maritime Port Authority (MPA) spokesperson.

"As the regulator and promoter of the bunkering industry, the MPA actively works in close partnership with the industry and partners to enhance Singapore's bunkering standards and services so that they remain relevant to the industry practice, and to safeguard the integrity of the bunker supply chain in Singapore." The initiatives undertaken include:

- **Accreditation Scheme for Bunker Suppliers:** Developed by MPA and the Singapore Shipping Association in 2003, the scheme serves to recognise good bunker suppliers, and to safeguard the integrity of the bunkering services in Singapore.
- **Singapore Standard SS600: 2014 Code of Practice for Bunkering (SS600):** The predecessor of the SS600 was the CP 60 (Code of Practice for Bunkering by bunker tankers) that was introduced in 1993. In 2008, Spring Singapore and MPA launched SS600 to further enhance consistency in practices in the delivery of bunkers for ships calling at Singapore's port.

  In October 2014, Spring Singapore launched the latest editions of the Singapore Standards SS600:2014 Code of Practice for Bunkering. The revised SS600 includes better safeguards to provide greater transparency in the bunkering transaction, thereby strengthening customers' confidence in Singapore's bunkering industry.
- **Singapore Standard SS524 Specification for Quality Management for Bunker Supply Chain (QMBS):** The SS524 complements SS600 by focusing on the management of the entire bunker supply chain, with clearly specified procedural requirements from product procurement to bunker delivery. This provides a system to monitor and check on marine fuel quality at every step of the bunker supply chain. The latest edition was also launched in October 2014.
- **Mandatory use of mass flow meters (MFM) for bunkering:** In 2014, MPA announced that Singapore was the first in the world to mandate the use of mass flow meters for bunkering. The use of MFM system for bunkering in the Port of Singapore will not only enhance transparency in the bunkering process, but also improve operational efficiency and increase the productivity of the entire industry

Points out Ms Choy: "This impacts several industry players in the bunkering industry, including bunker suppliers, bunker craft operators, surveyors, shipping agents and ship owners, many of which are SMEs."

MPA reported bunker sales volume of 42 million tonnes in 2013, making Singapore the world's biggest and busiest bunkering port with more than 139,000 vessels arriving that year.

"The improved standards help to provide greater transparency and assurance in the bunkering transaction, thereby strengthening customers' confidence in Singapore's bunkering industry. Beyond national adoption, the revised Singapore Standard on the Code of Practice for Bunkering (SS 600:2014) is expected to be used in the subsequent review of the ISO standard on petroleum products – procedures for transfer of bunkers to vessels (ISO 13739:2010)," adds Ms Choy.

She concludes: "Quality and standards is a critical enabler to economic growth and competitiveness. Through implementing standards, businesses can produce safer and higher quality goods and services at greater efficiency and lower costs. Across companies, quality and standards can also build more effective supply chains. On a global scale, meeting the technical specifications of relevant standards will ensure that businesses meet international customers' and export requirements and support entry into wider markets." ∎

STRENGTHENING OPERATING CAPABILITIES

Dawn Shipping embarked on its ISO journey to ensure that it could cope with the demands of operating an international business

◀ **GOING FORWARD**
Focusing on supply chain security also ties in with Dawn Shipping's long-term target to operate as a lead logistics provider, says Mr Tan (second from right)

DAWN Shipping embarked on its ISO journey back in 1997 but it was not until it launched its strategy of regional expansion that it looked at adopting other standards, confronted with the recognition that it would have to strengthen its operating capabilities to ensure that the company could cope with the demands of operating an international business.

"One of the first things we identified was the need to increase our robustness in the area of business resilience and risk management – the ability to recover faster in times of crisis," says Nicholas Tan, group corporate manager, corporate services division, at Dawn Shipping & Transport.

"To handle this aspect, we realised it was no longer sufficient to rely solely on Quality Management standards. We had to go beyond ISO 9001, and this was when we identified Business Continuity Management (BCM) as a possible solution."

Dawn Shipping had previously attained certification to ISO 9002:1994 in April 1997, following the global adoption of ISO 9000 standards which focused on Quality Management systems back in the 1990s.

"Adoption of BCM was also complementary to our corporate branding efforts, as good crisis management enhances companies' reputation as a reliable partner," notes Mr Tan. "Therefore, we approached the Singapore Business Federation in early 2012 to discuss how we could tap Spring Singapore's Capability Development Grant (CDG) – and we have not looked back since."

A CHOPPY JOURNEY
"Right from the beginning, we knew that adoption of BCM will prove challenging to a SME (small and medium-sized enterprise) operating in the transport and logistics sector. Being in the shipping business means dealing with numerous overseas agents who were all operating in different time zones. Moreover, the concept of BCM was also alien not only to our staff, but also to most of our senior management," says Mr Tan.

The group hence decided to embark on a three-phase approach. "The first phase was to work with our BCM consultants to develop a solution which was scalable, as well as focusing on key processes in shipping, freight forwarding and logistics which were similar in all countries," says Mr Tan.

"The next phase was to create a sharing platform in Singapore from which our branch offices and overseas agents could learn, take back and implement BCM-related best practices in their own countries. We have plans underway to conduct an internal BCM workshop in Singapore this year for all our country managers and interested overseas agents."

"The third and final phase is to send our in-house 'BCM implementers' to our overseas branch offices and assist them to apply for the BCM certification. This will be done once we evaluate against a list of KPIs (key performance indicators), that the respective branch office is ready to undergo the certification process."

REAPING THE REWARDS
"After attaining BCM (ISO 22301) certification in August 2013, we decided to proceed in the very same year to push ahead with ISO 28000 certification, which covers Security Management Systems for the Supply Chain. This was a logical next step as security management is linked to many other aspects of business management, including BCM. Focusing on supply chain security also ties in with Dawn Shipping's long-term target to operate as a lead logistics provider for our multinational clients. We successfully attained ISO 28000 certification in July 2014," says Mr Tan.

Obtaining ISO 22301 certification has been a key differentiator for Dawn Shipping, especially in the logistics sector where most players are still certified to only ISO 9001.

"We were recently pre-qualified to participate in an intra-Asia logistics tender for an American multinational. During our tender presentation in Hong Kong, their regional supply chain team was pleasantly surprised to learn that Dawn Shipping Group, an SME from Singapore, was certified to a number of niche ISO standards, including ISO 22301, and remarked that even some of the global heavyweights participating in the same tender did not possess such certification," says Mr Tan.

"Our next target is ISO 27001 certification, which covers Information Security Management Systems. Although shipping is a centuries-old trade, most of the business processes in shipping and logistics today are performed electronically on increasingly complex IT (information technology) platforms, from the preparation of shipping documents to customs clearance to remote tracking of a container laden with cargo.

"The ISO 27001 structure mirrors that of BCM closely, and will help us improve our IT security and resilience from different perspectives. Overall, we believe the benefits brought about by adopting these three ISO standards will stand Dawn Shipping Group in good stead for our future growth." ∎

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